

KINGDOM OF CAMBODIA

Cambodia Trade Integration Strategy 2014-2018

Full Report

Phnom Penh, January 2014

Special Thanks

Special thanks to H.E. SUN Chanthol, Senior Minister, Minister of Commerce, for his strong commitment to the completion of this work and to H.E. CHAM Prasidh, Senior Minister, Minister of Industry and Handicrafts, who oversaw the early stages of the preparation of the study. Special thanks also to H.E. PAN Sorasak, Secretary of State, Ministry of Commerce, Chair of the *Inter-Ministerial Committee for Updating the Cambodia Trade Integration Strategy 2014-2018* and former EIF Focal Point for Cambodia,H.E. TEKRETH Kamrang, Secretary of State, Ministry of Commerce and EIF Focal Point for Cambodia,H.E. SOK Sopheak, Director General for International Trade, Ministry of Commerce, Mr. SIM Sokheng, Acting Director, Department of International Cooperation, Ministry of Commerce as well as to the Members of the *Inter-Ministerial Committee for Updating the Cambodia Trade Integration Strategy 2013-2018* for support to the team throughout the preparation of the strategy.Finally, a special thanks to Mr. SUON Prasith, Ms. NORNG Ratana, and Mr. LY Proyuth for their unwavering logistical support during the entire process.

CTIS 2013-2018 Inter-Ministerial Committee (Task Force)

H.E. PAN Sorasak, Secretary of State, MoC, Chairman of the Inter-Ministerial Committee
H.E. HANG Chuon Naron, Minister of Education, Youth and Sports (formerly, Secretary of State, MEF, and Vice Chair of the Inter-Ministerial Committee)
H.E. TEKRETH Samrach, Secretary of State, CoM, Vice Chairof the Inter-Ministerial Committee
H.E. CHOU Yin Sim, Secretary of State, MoH
H.E. KOUSOUM Saroeuth, Secretary of State, MoT
H.E. OUK Prachea, Under Secretary of State, MoP
H.E. TEKRETH Kamrang, Secretary of State, MoC
H.E. SOK Sopheak, Director General for International Trade, MoC
H.E. MENG Saktheara, Director General, MIH
H.E. CHEA Vuthy, Deputy Secretary General, CDC
H.E. CHHIV Yiseang, Academic and Practical Training Director, RSA
Mr. SEN Sovann, Deputy Secretary General, MAFF
Mr. LY Savuth, Deputy Director of Administration, MRD
Mr. THE Chhunhak, Deputy Director, MoWA
Mr. TY Sereirith, Deputy Director General, MoLVT
Mr. SIM Sokheng, Acting Director, Department of International Cooperation, MoC
Mr. RATH Saravuth, Deputy Director, Department of International Cooperation, MoC, Secretary

CTIS Team

Fabio Artuso, World Bank Consultant
Denis Audet, Asian Development Bank Consultant
Nick Blong, DEVadvisory and UNDP Consultant
Peter Brimble, Asian Development Bank – Cambodia, Senior Economist and Deputy Director
Sven Callebaut, Ministry of Commerce, Senior Aid for Trade Advisor
Julian Clarke, World Bank – Cambodia, Senior Economist
Sandra D'Amico, HR Inc. Cambodia, Managing Director and UNDP Consultant
Fabrice Gregoire, UNDP Consultant
Stefano Inamo, UNCTAD Secretariat
Pisey Khin, Asian Development Bank Consultant
Roger Lawrence, Ministry of Commerce, Senior Trade Advisor
Sara Núñez Évora, Consultant
Gordon Peters, Managing Partner, Emerging Market Consulting and ADB Consultant
Sam Vichet, RULE Researcher and UNDP Consultant
Srun Sopheak, RULE Researcher and UNDP Consultant
Sok Cheyrotha, RULE Researcher and UNDP Consultant
Kees Van Der Meer, Asian Development Bank Consultant
Matt Van Roosmalen, Senior Consultant, Emerging Market Consulting
Victor Van Spengler, UNDP Consultant
Mr. Va Sothy, BDLINK (Cambodia) Co., Ltd
and
Thierry Noyelle, UNDP Consultant and Team Leader

Table of Contents

Acronyms		7
Background		11
Introduction	Export Competitiveness and Human Development	13
Chapter 1	Market Access and Changes in the Composition and Destination of Cambodian Exports	25
Chapter 2	Trade Facilitation	53
Chapter 3	Trade Logistics	71
Chapter 4	Sanitary and Phytosanitary Measures and Technical Standards	95
Chapter 5	Investment and Investment Environment in Cambodia	131
Chapter 6	Intellectual Property Rights	161
Chapter 7	Garments	183
Chapter 8	Footwear	205
Chapter 9	Light Manufacturing Assembly and SEZs	225
Chapter 10	Processed Food	263
Chapter 11	Fisheries	279
Chapter 12	Milled Rice	297
Chapter 13	Cassava	317
Chapter 14	Rubber	335
Chapter 15	Tourism	353
Chapter 16	High Value Silk Products	369
Chapter 17	Skills for Exports	383
Chapter 18	Trade Mainstreaming, Aid-for-Trade, and Trade SWAp	425

Acronyms

ACCSQ	ASEAN Consultative Committee on Standards and Quality
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AFAFGIT	ASEAN Framework Agreement on Goods in Transit
AFAIT	ASEAN Framework Agreement on Inter-state Transport
AFAMT	ASEAN Framework Agreement on Multimodal Transport
AFD	Agence Française de Developpement
AfT	Aid for Trade
AFF	Agriculture, Food, and Forestry
ATIGA	ASEAN Trade in Goods Agreement
AFTA	ASEAN Free Trade Agreement
AFSIS	ASEAN Food Security Information System
AFTEX	ASEAN Federation of Textile Industries
AIDSP	Agro-Industry Development Strategic Plan
AMS	ASEAN Member State
AQSIQ	Administration of Quality Supervision, Inspection, and Quarantine (China)
ARASFF	ASEAN Rapid Alert System for Food and Feed
ARDC	Association for Rubber Development of Cambodia
ASEAN	Association of South East Asian Nations
AUSAID	Australian Agency for International Development
BFC	Better Factories Cambodia
CAMFEBA	Cambodian Federation of Employers and Business Associations
CAMFFA	Cambodia Freight Forwarder Association
CAMTA	Cambodian Trucking Association
CARDI	Cambodia Agriculture Research & Development Institute
CBD	UN Convention on Bio-Diversity
CCIC	China Certificate and Inspection Group, Cambodia
CDC	Council for the Development of Cambodia
CDRI	Cambodia Development Research Institute
CEDEP	Cambodia Export Development and Expansion Program
CIB	Cambodia Investment Board
CIS	Confederation of Independent States
CLV	Cambodia Laos Vietnam
CMT	Cut-Make-Trim
CO	Certificate of Origin
CoM	Council of Ministers
CSF	Classical swine fever
CTIS	Cambodia Trade Integration Strategy
DAC	Development Assistance Committee
DAHP	Department of Animal Health and Protection (MAFF)
DFQF	Duty-Free Quota-Free
DICO	Department of International Cooperation
DP	Development Partner
DTIS	Diagnostic Trade Integration Study
EBA	Everything-but-Arms
EDC	Electricité du Cambodge
EIC	Economic Institute of Cambodia

EIF	Enhanced Integrated Framework
ELC	Economic Land Concession
EPO	European Patent Office
ERIA	Economic Research Institute for ASEAN and East Asia
EU	European Union
FAO	Food and Agriculture Organization
FCRE	Federation of Cambodian Rice Exporters
FDI	Foreign Direct Investment
FEU	Forty-foot Equivalent Unit
FiA	Fisheries Administration
FIATA	Fédération Internationale des Associations de Transitaires et Assimilés
FMD	Foot and mouth disease
FOCC	Footwear & Garment Order Center of Cambodia
FSCC	Food Safety System Certification
FTA	Free Trade Agreement
GAP	Good Agricultural Practice
GCC	Gulf Countries Council
GDA	General Directorate of Agriculture (MAFF)
GDCE	General Department of Customs and Excise (MEF)
GDI	General Department of Industry (MIH)
GDP	Gross Domestic Product
GDR	General Directorate of Rubber (MAFF)
GHP	Good Health Practice
GI	Geographical Indication
GLP	Good Laboratory Practice
GMAC	Garment Manufacturers Association of Cambodia
GMO	Genetically Modified Organism
GMP	Good Manufacturing Practice
GMS	Greater Mekong Sub-Region
G-PSF	Government-Private Sector Forum
Ha or ha	hectare
HACCP	Hazard Analysis and Critical Control Points
IA	Implementation Agency
IC	Integrated Circuit
IC (Trade SWAp)	Trade SWAp Implementation Committee
ICA	Investment Climate Assessment
ID	Industrial Design
IFC	International Finance Corporation
IFReDI	Inland Fisheries Research Development Institute
ILO	International Labor Organization
INFOSAN	International Food Safety Authorities Network
IP	Intellectual Property
IPIC	Intellectual Property in respect of Integrated Circuits
IPPC	International Plant Protection Convention
IPM	Integrated Pest Management
IPR	Intellectual Property Right
IRRI	International Rice Research Institute
ISC	Institute of Standards Cambodia
ISERCO	International Sericulture Commission

ISO	International Standards Organization
ITC UNCTAD/WTO	International Trade Center
ITU	International Telecommunication Union
JICA	Japan International Cooperation Agency
Km	Kilometer
KWH or Kwh	Kilowatt hour
LDC	Least Developed Country
MAFF	Ministry of Agriculture, Forestry and Fisheries
MDG	Millennium Development Goals
MDTF	Multi Donor Trust Fund
M&E	Monitoring and Evaluation
MEF	Ministry of Economy and Finance
MFN	Most Favored Nation
MICE	Meetings, Incentives, Conventions & Exhibitions
MIH	Ministry of Industry and Handicrafts
MoC	Ministry of Commerce
MoCFA	Ministry of Culture & Fine Arts
MoE	Ministry of the Environment
MoEYS	Ministry of Education, Youth and Sports
MoFA	Ministry of Foreign Affairs
MoH	Ministry of Health
MoI	Ministry of the Interior
MoPWT	Ministry of Public Works and Transport
MoT	Ministry of Tourism
MoU	Memorandum of Understanding
MoWA	Ministry of Women Affairs
MRA	Mutual Recognition Agreement
MRD	Ministry of Rural Development
MRL	Maximum Residue Level
MT	Metric Ton
NCIPR	National Committee on Intellectual Property Rights
NEA	National Employment Agency
NGO	Non-Governmental Organization
NIS	National Institute of Statistics
NMC	National Metrology Center
NORAD	Norwegian Agency for Development
NSDP	National Strategic Development Program
NSW	National Single Window
NTM	Non-Tariff Measure
NZAID	New Zealand Agency for International Development
ODI	Overseas Development Institute
OECD	Organization for Economic Cooperation and Development
OIE	Office International de l'Epizootie
PAS	Port Authority of Sihanoukville
PIP	Public Investment Program
PPAP	Port Authority of Phnom Penh
PPP	Public-Private Partnership
PPSEZ	Phnom Penh Special Economic Zone
PRC	People's Republic of China

PRRS	Porcine reproductive and respiratory syndrome
PSD	Private Sector Development
QIP	Qualified Investment Project
RACA	Royal Academy of Culinary Arts
RCEP	Regional Comprehensive Economic Partnership
RDB	Rural Development Bank
RGC	Royal Government of Cambodia
RO	Rules of Origin
RoI	Return on Investment
RRIC	Rubber Research Institute of Cambodia
RSA	Royal School of Administration
RUA	Royal University of Agriculture
SEZ	Special Economic Zone
SMEs	Small and Medium Size Enterprises
SNEC	Supreme National Economic Council
SPS	Sanitary and Phytosanitary
STDF	Standards and Trade Development Facility
STIC	Standard International Trade Classification
S-SC	Sub-Steering Committee
TA	Technical Assistance
TBT	Technical Barrier to Trade
TCA	Transport Corridor Assessment
TDSP	Trade Development Support Program
Trade SWAp	Trade Sector-Wide Approach
TEU	Twenty-Foot Equivalent Unit
TPR	Trade Policy Review
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TRTA	Trade Related Technical Assistance
TTFA	Transport and Trade Facilitation Assessment
TTRI	Trade Training and Research Institute
TVET	Technical Vocational Education and Training
TWG	Technical Working Group
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UNWTO	United Nations World Tourism Organization
UPOV	International Union for the Protection of New Varieties of Plants
USAID	US Agency for International Development
VAT	Value Added Tax
WB	World Bank
WCO	World Customs Organization
WG	Working Group
WIPO	World Intellectual Property Organization
WTO	World Trade Organization
WTTC	World Travel and Tourism Center

BACKGROUND

In November 2001, Cambodia validated its first *Diagnostic Trade Integration Strategy* (DTIS.) DTIS 2001 was prepared with funding support from the *Integrated Framework* program (IF.) Cambodia had been selected by the IF as one of three pilot countries for this innovative program launched by six multilateral agencies – the International Monetary Fund (IMF), the International Trade Center (ITC), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Development Program (UNDP), the World Bank (WB), and the World Trade Organization (WTO.)

In December 2007, Cambodia's Prime Minister launched the country's second DTIS, *Cambodia Trade Integration Strategy 2007* (CTIS 2007.) CTIS 2007 benefited from combined funding support from the original IF program and the UNDP as well as technical contributions from the EU, GIZ, IFC, the IMF, ITC, UNCTAD, and the World Bank. Back then, Cambodia was the first country to update its initial DTIS under the *Enhanced Integrated Framework* (EIF), the successor to the IF program.

Cambodia Trade Integration Strategy 2014-2018 (CTIS 2014-2018) is the country's third generation DTIS. Once again, Cambodia's leadership among EIF countries is in display. Cambodia is the first EIF country to update its original DTIS for a second time. CTIS 2014-2018 has benefited from funding support from the EIF, the Asian Development Bank (ADB), the UNDP, and the WB.

Since the first DTIS in 2001, leadership of the DTIS formulation process in Cambodia has changed significantly. This reflects Cambodia's growing capacity to manage its Aid-for-Trade process. The first DTIS was largely agency-driven, with the WB leading a team of experts under IF funding. CTIS 2007 was carried out under the joint leadership of the Ministry of Commerce and the UNDP. CTIS 2014-2018 is a fully Government-led and Government-owned process.

Under the leadership and guidance from the current and previous Senior Ministers, Ministers of Commerce, and with strong operational support from and management by key senior officials in theMinistry, the team assembled to prepare CTIS 2014-2018 benefited also from the technical inputs from the *Inter-Ministerial Committee for Updating the Cambodia Trade Integration Strategy 2013-2018.* The Inter-Ministerial Committee was established through a Prakas and includes senior officials from the Ministries of Commerce, Economy and Finance, Health, Tourism, Planning, Industry and Handicraft, Mines and Energy, Agriculture, Forestry and Fisheries, Rural Development, Women Affairs, Labor and Vocational Training, Public Works and Transport, Education, Youth and Sports, as well as the Council of Ministers, the Council for the Development of Cambodia, and the Royal School of Administration. Members of the Inter-Ministerial Committee provided DTIS team members with access to officials in their respective ministries, reviewed drafts, and met with the team to provide comments, feedback and other inputs on various documents.

This *Full Report* and itsaccompanying *Trade SWAp Roadmap 2014-2018* benefited from extensive comments received from Cambodian Government officials, Private Sector stakeholders, Development

Partners, as well as members of the EIF Board and EIF Executive Secretariat on earlier drafts. In addition, the draft Report and Roadmap went through an intensive validation process in November 2013 spanning a period of ten days. The validation process included(1) a meeting of the *Inter-Ministerial Committee for Updating the Cambodia Trade Integration Strategy 2013-2018* on November 5, 2013 chaired by H.E. SUN Chanthol, Senior Minister, Minister of Commerce, followed by (2) ten Focus Group meetings during which Government officials, private sector representatives, and development partners with an in-depth knowledge of selected issues and/or sectors were invited to review, comment, and propose clarifications or modifications in the draft Roadmap. Typically, each Focus Group meeting discussed Actions proposed inbetween one to three Outcomes of the Roadmap, based on theiraffinity.

This final *Full Report* and the *Trade SWAp Roadmap 2014-2018* were endorsed by the Sub-Steering Committee on Trade and Trade Related Investment chaired by the Senior Minister in January 2014. The *Executive Summary* and the *20 Strategic Outcomes* used to organize the study were endorsed by the Sub-Steering Committee on Trade and Trade-Related Investment earlier in May 2013. Thereafter, the Ministry of Commerce worked closely with the Ministry of Planning and SNEC to ensure those 20 outcomes would be mainstreamed in the new NSDP-IV and Rectangular Strategy-III of the new Government.

Introduction

EXPORT COMPETITIVENESS AND HUMAN DEVELOPMENT

Cambodia has been quite successful heretofore in integrating the global economy through trade and investment. Progress since the mid-2000s is significant. But world markets are ever changing with new competitors continuously emerging to challenge Cambodia's export sectors. The challenge for the country and its leading export sectors is to respond to change by strengthening the competitiveness of established sectors while nurturing new ones.

Trade sector competitiveness is critical to growth, and, in turn, to the creation of new and better jobs as well as income which are requirements for poverty-reduction. Yet, connecting trade expansion to poverty-reduction, gender equality, and greater inclusiveness remains a challenge. With rapid growth in export-oriented agricultural sectors in rural areas and emerging diversification in the number of tourism destinations, Cambodia has made important progress in tackling poverty through employment and income creation on a more geographically-widespread basis. However, working and living conditions associated with many export-related jobs need improvement. The potential negative impact of some export production on the physical environment needs greater attention. And, possibly, raising skills of the work force will be the country's greatest challenges going forward if it is to succeed in using trade expansion as a means to create better jobs, with higher skills that generate greater income.

Export Competitiveness

Trade sector competitiveness is the result of interaction among a number of factors, which, in the context of Cambodia can be grouped into four subsets:

- Improved market access
- Strengthened domestic business environment
- Rising total factor and labor productivity
- Increasing domestic value added

Cambodia's market access has evolved significantly in recent years. Favorable changes in the rules of origin governing the EU's EBA program, the benefits from a number of Duty-Free Quota-Free (DFQF) programs, together with the implementation of free trade agreements with ASEAN Dialogue Partners, have triggered sharp increases in Cambodia's exports—including, but not exclusively, in its exports of garments. Together with a relatively favorable business environment and low labor costs, this improved market access is one of the primary forces driving the significant expansion of investment in manufacturing. Market access is also beginning to evolve as regards agricultural products. Reliance on neighboring countries as markets and as intermediaries for export of unprocessed, informal agricultural products is starting to give way to direct, formal exports to final markets where, generally, Cambodia enjoys duty-free access. This process is still at a very early stage and its continuation will depend, among other things, on Cambodia's being able to meet the SPS and technical standards of importing countries.

For both manufactured and agricultural goods, the rapidly growing economies of Asia and "emerging" markets hold great promise in the years ahead.

- Exports of goods and services – recorded and informal – are estimated to have increased 65 percent between 2007-2011, from $4.945 billion to $8.155 billion
- US share of Cambodian exports declined from 55 to 35 percent during the period, as EU, ASEAN Dialogue Partners, Thailand, Vietnam, and other destinations became more important
- Eighty percent of Cambodia's growth in recorded goods exports since 2007 has been targeted to markets offering preferential access
- The share of exports other than garments and tourism during the period grew from 18 to 29 percent. Chief among those are bicycles, electronic and electrical components, footwear, natural rubber, milled and paddy rice, cassava, corn, and soybeans.

A strong business environment for trade has a number of attributes. A legal and regulatory framework that is predictable and based on international norms is a central element. A favorable investment environment as well as trade facilitation and logistics are other key determinants of competitiveness. Trade facilitation and trade logistics will be particularly important for the development of exports such as high-end garments or intermediate inputs into a production chain, where "turn-around" or delivery deadlines are critical. Much work has been done in Cambodia in many of these areas over the past ten years, but more remains to be done.

- Trade facilitation costs for exports and imports are 136 percent the ASEAN-6 average. Average release time of cargo is 24 days compared to 16 days for ASEAN-6 average.
- Cambodia plans completion of the establishment of a National Single Window by 2018 which should help lower those two key metrics
- Notwithstanding significant improvements in road infrastructure since the late 2000s, much remains to be done to improve the effectiveness of transport logistics in Cambodia as well as within the sub-region, both in term of investment in physical infrastructure and in term of reducing non-tariff measures, again with the view of reducing those important costs of doing business

Total factor productivity and labor productivity are also important determinants of competitiveness. Increases in productivity allow higher wages and improved competitiveness to go hand in hand. Productivity increases primarily through investment in equipment that contains more advanced technology. The use of such equipment, in turn, requires higher skill levels. There is a concern that weak mid-level and higher skills required for more sophisticated production processes in Cambodiais holding back productivity gains and investment that could lead to higher value added. There is also mounting concern that, without sufficient increases in productivity, the pressure for higher wages may erode competitiveness. Increased skills that allow Cambodians to perform tasks presently performed by foreign personnel will reduce the costs to enterprises and enhance their competitiveness. For these reasons, it is important to address the gap between skills presently available in the work force and the skills necessary for the present and prospective work place.

- Cambodia lacks a robust TVET system that works closely with the private sector, including export sectors, to ensure skill needs are met
- Many young people graduate from primary, secondary, or even tertiary education with weak "foundation" soft skills (e.g. literacy and numeracy, communications, problem solving, team work, etc.) Foundation soft skills are critical to life-long-learning and future retraining in the work place

- Cambodia's higher education institutions have grown quite rapidly over the past ten years or so leading to a rapid rise in university graduates. However, university curriculums remain quite disconnected from skills needed in the market place and quality of education is often weak
- Cambodia lacks a transparent labor market information system to help educators and labor market entrants understand where the demand is, what the skill requirements are, and how to assist employers in identifying where potential new workers can be found

Cambodia's main manufacturingexports —garments, shoes, and bicycles—operate almost exclusively within global value chains by assembling imported materials and parts into finished products that are then exported. Cambodia's agricultural exports mainly take the form of unprocessed agricultural products. In both cases the value added in Cambodia is usually a small fraction of the value of the finished consumer product. In both cases, Cambodia needs to exploit the possibilities for adding additional value in Cambodia. In the case of agriculture, this entails undertaking processing of farm-gate output – as is already underway in the case of rice. In the case of garments, shoes, and bicycles attention needs to be given to the production, in Cambodia, of inputs presently imported.

- Creating supply linkages between Cambodian SMEs and export firms is important and should be fostered. Foreign direct investment in the production of domestic inputs also needs to be encouraged. Export industries should become hubs around which a network of domestic production develops. What is true of manufacturing exports is also true of the tourism sector where opportunities for stronger linkages to domestic suppliers should also be encouraged.
- Cambodian exporters can and should seek to move into products requiring higher value operations in Cambodiabut this will be conditioned in no small part by the capacity of exporting sectors and educational and TVET institutions to find ways to remedy the current skill gap
- Efforts to attract new investors should include targeting areas where favorable rules of origin offer a unique advantage for Cambodia to strengthen its foothold in global value chains
- Consistent quality is critical to long term competitiveness of firms. Uneven quality of inputs or uneven quality in the production process will undermine a value chain's competitiveness. For example, rice millers/exporters are finding it challenging to ensure sustained quality of their export product. Producers of high value silk products must learn how to better control the quality of imported yarn.
- In SPS-sensitive sectors (rice, cassava, corn, soy beans, hospitality sector, processed food, fisheries) there is a need for producers to bring their facilities up to standards that meet international requirements. Government must also play its part by putting in place the surveillance and enforcement systems required to control plant pests and animal diseases, monitor the use of pesticides, or control safety food and products in consumer markets.
- Financial backstopping of export-oriented investors through dedicated programs or specialized financial institutions is an area that has received attention from the Government, including in the context of the July 2010 *Policy Paper on the Promotion of Paddy Production and Rice Export.* Nevertheless, additional attention will be required in the coming years.
- The positive experience of the *Policy Paper on the Promotion of Paddy Production and Rice Export*should be replicated to other sectors (agricultural, manufacturing, or otherwise) that would benefit from explicit policy guidance

Sustainable Human Development and Export Growth

While critical in determining Cambodia's future success in graduating from an LDC to a middle-income economy, export competitiveness cannot be viewed alone. Export competitiveness must also be reviewed against improvement in Cambodians' standard of living and sustainable human development. Table 0.1 summarizes a number of sustainable human development measures collected during the preparation of the individual sector chapters and the skill chapter presented in the report. While the very limited availability of hard data in Cambodia makes it somewhat difficult to fully assess results and progress in this area, the measures presented in the table, even if impressionistic at times, do allow to point to areas of progress since 2007 as well as remaining challenges, especially in term of:

- Employment growth opportunities
- Quality of jobs, working and living conditions
- Geographical diffusion of the benefits of growth
- Environmental impacts

Employment Growth Opportunities

In the face of 300,000 to 400,000 youths projected to enter the labor market each year over the next decade, Cambodia's biggest human development challenge, by far, is job creation. Indeed, this has become a major, if not the top priority of the Government. With the possible exception of Silk, all nine other sectors have solid potential for continued robust, if not even rapid employment growth in the coming five years. Together they should be adding new jobs in the tens of thousands each year, hence contribute greatly to addressing the job creation challenge.[1]

In manufacturing sectors – garments, footwear, and light manufacturing assembly – as well as in tourism, significant new job creation is likely to occur mainly directly in the sector itself though service providers to those sectors will benefit from a multiplier effect through increased demand. As argued in the report, strong domestic supplier clusters should emerge to provide specific inputs to a few of those sectors provided the right policies and incentives are in place.

In agricultural commodity semi-processing or processing sectors – such as milled rice, semi-processed cassava, fisheries products, processed food, or rubber – the most significant job impact will continue to be overwhelmingly on those who produce the raw inputs: the rice and cassava farmers, the fisher-men and – women, the rubber plantation workers, etc. Still,as these sectors take off, the modern processed food or fish processing factories, for instance, could be adding a significant number of new jobs in and of themselves.

The intrinsic value of the silk sector is somewhat different, of course. Its value may not be so much in how many jobs it may create as much as its contribution to the "cultural image" of Cambodia, a hard-to-measure asset but nevertheless critical to the promotion of tourism and Cambodia's global image.

[1]Growth rates, of course, are a function of the initial baseline in each sector and will be slower in larger, established sectors such as garments and tourism even though large numbers of jobs will be created in those.

Quality of Jobs, Working and Living Conditions

As pointed out in Chapter 17, young Cambodians do not want simply any job. They want good jobs and well-paying jobs. So quality of jobs, broadly defined, is the key. The quality of jobs and access to good working and living conditions is the result of interactions among many different variables, influenced, in no small part, but not exclusively, by Government policy, the availability of "public goods", as well as access to good income.

This report does not analyze the broader societal impact of recent growth on the livelihood of Cambodians. This is a topic better left to the analytical work associated with the NSDP. Still the latest World Economic Forum report does show that, on a ppp-basis (purchasing power parity), average per capita income of Cambodians grew from approximately $1,000 in 2000 to $2,500 in 2012 – a very significant progress indeed.[2] Of course, since this measure is simply an average, it says little about income distribution.

The focus in this report is more narrow and limited to the ten sectors. As shown in chapter 5 focusing on the investment environment as well as several of the individual sector chapters, one key factor that has attracted a new surge in foreign direct and domestic investment is the relative low labor cost in Cambodia. Still, as shown in chapter 17, the minimum monthly wage that prevails in much of the Cambodian manufacturing sector tends to be high when compared to neighboring and direct competitor countries.

With the possible exception of the garment sector where employers are concerned that wage increases might be running ahead of productivity – an unsustainable situation over the long run – in general it appears that rising wages in manufacturing have been accompanied also by productivity gains. Clearly in some of the agricultural commodity driven sectors identified in this study, there is often evidence of strong productivity increases in recent years at the production level as measured by yield-per-hectare. In general, monthly income in sectors others than garments tend to be lower and/or pegged against the garment sector minimum wage. In the medium and longer term, the concern will be whether growth in productivity will be able to keep up with demand for higher wages if the skill gap and skill shortages cannot be bridged.

International monitoring of many manufacturers under the Better Factories Cambodia (BFC) program remains a significant competitive advantage for Cambodia-based exporters in garments and footwear. Nevertheless, there is some recent evidence that further improvements might be needed in the safety of manufacturing facilities and production line (including building safety) and in the cleanliness of factories. This is an important issue that deserves Cambodia's attention, especially in light of negative developments over the past couple of years in such countries as Bangladesh or China.

General quality of living conditions is often a function of where one works. In general, the data tends to show that living conditions (good shelter, good access to clean latrines, and access to potable water) tends to deteriorate for many rural workers moving to large urban centers where good living conditions are harder to come by and more expensive. However, this does not always apply to workers taking employment in SEZs where employers might provide their own, reasonably good shelter conditions.

[2]World Economic Forum, *The Global Competitiveness Report 2013-2014*, Davos: WEF, 2013, p.144

Quality of jobs is also about the ability of the individual to build human capital through training and opportunities to move up the career ladder. This is an area where Cambodia is facing a major challenge across all ten sectors studied here. Weaknesses in primary and secondary schooling, weaknesses in university education, as well as a nearly absent, solid TVET system means that most workers take on employment with a deficit (gap) in both hard (occupational) skills and foundation soft skills. This deficit or "gap" is in addition to employers facing a labor shortage (inability to find enough workers to apply for specific jobs) as analyzed in detail in chapter 17. These human capital shortages and gaps present a serious challenge to Cambodia's continued competitiveness. Whereas this challenge may have been less of an issue in the past when the focus of export growth was based on a purely low-skill-low-wage factor combination, it must now be addressed head-on by Government and the private sector if Cambodia is to remain an attractive location for new investment and succeed in moving up the value chain in a number of export sectors.

Lastly, an interesting finding is that, while export growth in agricultural sectors may tend to favor male employment, women are the ones that have benefited most from growth in manufacturing exports and tourism. Some of this balance may or may not change if Cambodia is able to move up the value chain and develop higher-skilled sectors.

Geographical Diffusion of Export Growth

Compared to 2007, there is evidence that economic activity associated with export growth has begun to diffuse away from Cambodia's initial three growth poles – Phnom Penh, Siem Reap, and Sihanoukville. In manufacturing, SEZs are beginning to attract factories close to the Thai and Vietnamese borders where none were there before. If anything that development is likely to expand.

In tourism, development of beach-oriented tourism is beginning to spread away from Sihanoukvilleinto the surrounding coastal provinces. Eco-tourism is getting a foothold in the country's North-West and Cardamom Mountains. These and other developments are pulling growth of the hospitality sector into new provinces and regions. In agriculture-oriented sectors, the growing focus on export of semi-processed agricultural commodities or processed food is bringing new, modern processing activities into newer areas.

In addition, with many workers employed in processing facilities located in or near urban centers coming originally from rural areas, less developed provinces are benefiting from a significant amount of remittances from those workers.

Together, these trends mean a more geographically diffused distribution of the benefits of export growth throughout the country, through a more geographically widespread location of export-oriented facilities, through income re-distribution via remittances, and through multiplier effects.

Environmental Impact

Most of the fast growing export sectors, including nearly all of the ten sectors analyzed in this study, are heavily dependent on electricity to power modern equipment. The cost of electricity in Cambodia is high and reliability, low when compared to neighbors. This is an area where the country is clearly at a competitive disadvantage. Interestingly enough, Cambodia is in a unique position to address many of those needs through sustainable energy production solutions. These run from solar passive heating panels to produce hot water in hotels and restaurants (a major source of electrical demand in those establishments), bio-fuel gasification to power rice mills and other processing sectors, photo-voltaic panels to produce electricity in many different applications, or other sustainable technologies as well. So far, Cambodia has been very timid in pushing for widespread implementation of these economically profitable solutions. The fact that, for now, Electricité du Cambodge (EDC) does not purchase surplus electricity from small producers is preempting the development of bio-fuel gasification generating projects in sectors such as rice milling or cassava processing. The trend towards SEZs locating near the Vietnamese or Thai borders so they can tap into those countries cheaper electrical grids is a pragmatic solution, but a limited one at best. It does address the problems confronted by other key development areas where much of the nation's economic activity is taking place.

Weak proper waste and water management are areas that also need attention in no small part as a means to mitigate early on the possible negative impacts of some of the activities associated with various export sectors. Fisheries processing, processed food, footwear and other sectors do need to focus on those issues. Some operators point to the lack of clear environmental regulations as a negative factor on further investment as investors are unable to assess fully the financial risks associated with new projects.

In sum, the analyses presented in several chapters and summarized here suggest that human development progress that have been achieved as a result of rapid export growth since the last DTIS have also been accompanied by new challenges that must be tackled by Government and Cambodian trade sector stakeholders.

A Short Note on Data

Trade-related research in Cambodia remains somewhat constrained by limited detailed data. Chapter 1 analysis is based on data available from the General Department of Customs and Excise (GDCE), the Ministry of Commerce (based on Certificates of Origin), and the National Bank of Cambodia (balance of payments data.) The sector-specific chapters tend to use a mix of data including mirror trade data available from Comtrade and TradeMap, selected data available from Line Ministries, business associations, or other international sources such as the ASEAN Food Security Information System (AFSIS.) The reader can safely assume that just about every source has its own strengths and weaknesses. All efforts were made in this study to minimize inconsistencies across sources.

Table 0.1: Sustainable Human Development Impact in Ten Export Sectors

	Garments	Footwear	Light Manuf./SEZs	Processed Food
Employment Creation				
• sector employment (2012)	370,000	64,200	Possibly as many as 10,000	93,700
• future sector growth	10% or more	15%- 20% yearly based on recent trend	Very fast yearly growth: 20% to 25% or higher possible	Significant growth possible
• main indirect impact	Remittances to provinces	Remittances to provinces	Remittances to provinces	Impact on demand in Ag. sectors
Gender Equality	80%-90% women; under-aged labor an issue.	90% + women; under-aged labor an issue. Growing share of men	Not known	Majority women in SMEs. Not known in large facilities.
Wages and Working Hours	Minimum $100 monthly up to $180. 48 hours+OT/week.	Wages slightly higher than garments. 48 hours+OT/week.	Wages slightly higher than garments.48 hours+OT/week.	Wages and shift work in large plants similar to garments
Working Conditions				
• labor representation	Mostly unionized	Mostly unionized	Some unions	None
• sector monitoring	Monitored under BFC	Monitored under BFC	None	None, except few factories meeting int'l SPS standards
• cleanliness and safety	Recent issues with building safety	Accidents an issue; exposure to hazardous chemicals an issue	Safety issues limited	Challenge is poor hygiene and abeyance to SPS standards
Skills Development				
• training ops	OTJ. No TVET. GMAC planning TVET center	Significant OTJ. No TVET	OTJ. Also off-site training incl. abroad. Limited TVET	OTJ in a few large establishments. No TVET
• career ops	Including for line workers	Including for line workers	Significant, including for line workers	Very limited except in a few large establishments
Living Conditions				
• access to shelter	Quality can be poor in urban environment	Quality can be poor in urban environment	Some SEZ employers provide good shelter in factories. Else, access to good shelter varies	Rural living: Good access to shelter
• sanitation (water/latrines)	Quality can be poor in urban environment	Quality can be poor in urban environment	Usually good	Good access to latrines. Water: variable
Regional Impact				
• Primary	Phnom Penh, Kandal	Phnom Penh, Kampong Speu, Kandal	Phnom Penh, Sihanoukville, Svay Rieng (Bavet), Koh Kong	Phnom Penh, Kampong Cham, Battambang, Siem Reap, Kandal
• Secondary	Svay Rieng, Sihanoukville	Possible expansion along VN border	Possible expansion along VN border	Many rural areas
Environment Impact				
• energy	High use of electricity	High use of electricity	High use of electricity	Limited except large firms
• water	High use for washing and ironing	Tanning and dyes	Relative good water treatment in SEZs	Extensive use. Limited management of water waste
• soil	None known	Possible negative impact from poor mngt of waste water	None known	Waste could be used as compost or fertilizer
• waste	Fabrics and chemicals	Fabrics, rubber, chemicals	Yes. Varies with manufacturing	Limited waste management

	Fisheries	Milled Rice	Cassava
Employment Creation			
• sector employment (2012)	450,000	A few thousands in rice mills	Employment in semi-processing limited
• future sector growth	Slow growth unless aquaculture and processing take off	Fast growth	Global demand and prices unstable. Hard to predict
• main indirect impact	Some multiplier effect. Great impact on main protein source for Cambodians	Millions of farmers grow rice	Hundreds of thousands of farmers grow cassava
Gender Equality	Balanced	Majority men	Balanced
Wages and Working Hours	Around minimum wage. Vary with season. Work hours vary with season.	Around minimum wage. Vary with season. Work hours vary with season	Around minimum wage. Vary with season. Work hours vary with season
Working Conditions			
• labor representation	None	none	none
• sector monitoring	None except for very few factories meeting int'l SPS standards	None – but modern rice mills soon must meet int'l SPS standards	Pressure on processors to meet int'l SPS standards
• cleanliness and safety	Mostly very poor SPS except large plants	See above. Modern export-oriented mills relatively clean	See above
Skills Development			
• training ops	Limited OTJ in large establishments. Mostly informal. No TVET	Limited OTJ in large establishments. Mostly informal. No TVET. Some RUA training	Limited OTJ in large establishments. Mostly informal. No TVET
• career ops	Very limited except in a few large establishments	Very limited except in a few large mills	Very limited except in a few large establishments
Living Conditions			
• access to shelter	Rural living: Good access shelter	Mills provide shelter. Quality limited	Rural living: Good access shelter
• sanitation (water/latrines)	Quality of latrines and water: variable	Quality of latrines and water: variable	Quality of latrines and water: variable
Regional Impact			
• Primary	Coastal provinces, waterway provinces	Prey Veng, Takeo, Kampong Cham, Battambang, Banteay Meanchey, Siem Reap, Kampong Thom	Battambang, Banteay Meanchey, Pailin, Kampong Cham
• Secondary		Most provinces	Most provinces
Environment Impact			
• energy	Limited except large firms	Electricity dependent. Could use sustainable energy solutions	Semi processing needs little electricity
• water	Extensive use. Limited management of water waste	None known	None known
• soil	Solid waste can have negative impact on soil if not managed properly	None known	Cassava cultivation has negative impact on soil unless mitigated
• waste	Limited management of waste	Could use husk for bio-fuel	Waste can be used for bio-fuel or fertilizer

	Natural Rubber	Tourism	High Value Silk
Employment Creation			
• sector employment (2012)	About 60,000 in plantation and small holders. Few thousands in processing.	Approximately 620,000	20,000+ weavers; 1000 breeders
• future sector growth	Likely very high. Could double or triple over next 5 years.	3% or more - 20,000 new jobs or more - yearly	slow
• main indirect impact	Families living on plantations	Remittances to provinces	Contributes to "cultural image" of Cambodia
Gender Equality	Mostly men	40% to 60% women	90 to 95% women
Wages and Working Hours	Cash income based on harvesting. Work hours varies.	No minimum wage. Starting monthly salaries $45-$60. Long hours in SMEs. Shift work based on 24 hours.	Long hours. Wage slightly above garments but varies with orders
Working Conditions			
• labor representation	None	Some establishments unionized	None
• sector monitoring	Quality monitoring about to become an issue	none	None
• cleanliness and safety	Processing facility often unclean	Varies. Hygiene and sanitation key sector development issue.	Home work environment. Usually safe
Skills Development			
• training ops	OJT. No TVET	Mostly OTJ. Lack TVET	Tradition-based OTJ. Risk of loss of skill if sector declines
• career ops	Very limited unless modern processing is developed	Significant	Limited except for higher skills (design and marketing)
Living Conditions			
• access to shelter	Processors provide good shelter	Quality can be poor in urban envirnmt	Rural living: Good access shelter
• sanitation (water/latrines)	Good sanitation linked to good shelter	Quality can be poor in urban envirnmt	Good access to latrines. Water: variable
Regional Impact			
• Primary	Kampong Cham, Kratie, Pailin, Ratanakiri, Stung Treng	Siem Reap, Phnom Penh, Sihanoukville	**Weaving:** Siem Reap, Takeo, Prey Veng, Banteay Meanchey, Kampong Cham, Kampong Thom, Kandal, Phnom Penh, and Stung Treng; **Breeding:**Banteay Meanchey
• Secondary	Mondolkiri	North West, Coastal areas, Waterways provinces	none
Environment Impact			
• energy	Intensive for processing	High use of electricity and fuel for hot water	Low use of electricity
• water	Some for processing. Chemicals used	High use of water, especially kitchen; waste water treatment limited	Use of dyes. Phasing out use of synthetic dyes.
• soil	Negative impact if not mitigated	None known. Limited composting.	None known
• waste	Little waste	Limited recycling. Plastic bottles.	None known

Cambodia Trade SWAp's Roadmap 2014-2018: 20 Strategic Outcomes

To address issues at the core of trade sector competitiveness, job and income creation, and sustainable human developmentin the coming five years,Cambodia's next Trade SWAp Roadmap will focus on 20 strategic outcomes. These address specific challenges at the market access and business environment level, at the value chain level, at the labor market and skill level, as well as in the management and deployment of technical assistance resources and focus on areas where reforms and institutional development are needed.

Progress against those 20 strategic outcomes will be measured in part by their beneficial impact in assisting Cambodia to meet its larger socio-economic development goals, including, of course its goal of enhancing trade sector competitiveness, creating new and better jobs, growing income, and reducing poverty. Those broader impacts are captured under five Development Goals.

The five Development Goals are not fundamentally different from the Goals defined in the first Trade SWAp Roadmap derived from CTIS 2007. The 20 Outcomes include a number of "carry-overs" from the earlier Roadmap that have been updated to account for progress accomplished since 2007 and to address further needs. The list also includes some new Outcomes that reflect new priorities that have emerged in recent years. The following table (Table 0.2) lists the five Goals and 20 Outcomes foreseen for 2014-2018. They are organized along the lines of the three Pillars of the Government's Trade SWAp.

This final *Full Report* and the *Trade SWAp Roadmap 2014-2018* were endorsed by the Sub-Steering Committee on Trade and Trade Related Investment chaired by the Senior Minister in January 2014. The *Executive Summary* and the *20 Strategic Outcomes* used to organize the study were endorsed by the Sub-Steering Committee on Trade and Trade-Related Investment earlier in May 2013. Thereafter, the Ministry of Commerce worked closely with the Ministry of Planning and SNEC to ensure those 20 outcomes would be mainstreamed in the new NSDP-IV and Rectangular Strategy-III of the new Government.

Table 0.2: Development Impacts and Strategic Outcomes Trade SWAp 2014-2018	
Development Impacts/Goals	
Impact/Goal 1	Improved competitiveness contributes to reduce poverty through better and new job
Impact/Goal 2	Significant increase in the contribution of the trade sector to GDP and deepening diversification of Cambodia's export base
Impact/Goal 3	Strengthened capacity of RGC to formulate and implement trade policies and strategies
Impact/Goal 4	Responsiveness of RGC to private sector needs increases as a result of better dialogue
Impact/Goal 5	Improved planning, implementation, and monitoring capacity of RGC through implementing Trade SWAp
Strategic Outcomes	
Pillar One	
Outcome 1	**Trade Policy Reform and Trade Negotiations**: Cambodia meets its trade legal reform obligations under WTO and ASEAN; strengthens its access to markets through trade negotiations; enhances the transparency of its trade rules and laws
Outcome 2	**Trade Facilitation:**Cambodia increases its competitiveness through reduced import/export costs
Outcome 3	**Trade Logistics:** Cambodia increases its competitiveness through improved trade logistics
Outcome 4	**Technical Standards and SPS Requirements:**The capacity of Cambodian exporters to meet technical and SPS requirements standards set by importers and importing countries increases
Outcome 5	**Investment Environment for Exports:** The environment for investment in the ten DTIS 2013 focus export sectors is strengthened
Outcome 6	**Intellectual Property Rights:** A modern, trade-supportive intellectual property rights framework is established, implemented, and enforced
Pillar Two	
Outcome 7	**Garment:** Cambodia continues to grow and diversify its garment export sector through targeting new markets, increasing domestic inputs, and expanding in higher value products
Outcome 8	**Footwear:** Cambodia continues to grow and diversify its footwear export sector through targeting new marketsand developing new market segments
Outcome 9	**9A: SEZs:** Cambodian SEZs increase their competitiveness and attract additional manufacturing investment
	9B: Light Manufacturing Assembly: Cambodia emerges as a node in regional production networks
Outcome 10	**Processed Food**: Cambodia continues to grow and diversify its processed food sector through new export markets, moving to higher value products, and expanding domestic inputs
Outcome 11	**Fisheries Products:** A sustainable fisheries sector sees Cambodian exports increase as a result of improved quality, growing production volumes, and strengthened access to markets.
Outcome 12	**Milled Rice:** Cambodia achieves the target set out under the RGC 2010 Rice Policy for export of milled rice
Outcome 13	**Cassava:** Cambodia consolidates its exports of Cassava through direct exports to such countries as China and Republic of Korea and lessens its dependency on exports of unprocessed tubers to Thailand and Vietnam
Outcome 14	**Rubber:** Cambodia progresses towards becoming a key producer and exporter of rubber
Outcome 15	**Tourism:** Cambodia progresses towards RGC's 2020 target set for Tourism: 8 million foreign visitors
Outcome 16	**High Value Silk Products:** A small but growing number of Cambodian producers are able to design and export high-value silk products
Pillar Three	
Outcome 17	**Skill Gap for Exports:** RGC and Cambodian exporters meet the skill gap through the formal education sector and increased public-private partnership to develop vocational/technical education.
Outcome 18	**Mainstreaming Trade:** Trade development objectives are fully mainstreamed in national development strategy and in product and service sector strategies
Outcome 19	**Monitoring and Mobilizing Aid for Trade:** RGC's ability to M&E Results of Trade SWAp is strengthened, leading to stronger mobilization of AfT inside and outside SWAp
Outcome 20	**Enhancing Private Sector Participation in AfT:** A better structured dialogue between private sector and Government contributes to efficient public-private partnerships for trade development based on AfT resources

Chapter 1

MARKET ACCESS AND CHANGES IN THE COMPOSITION AND DESTINATION OF CAMBODIAN EXPORTS

Introduction

It is well known that Cambodia relies heavily on exports of garments and tourist services for its external earnings. It is also well known that, since the late 1990s, its exports of garments have been directed mainly at the United States.

Diversification of export products and export destinations has been a policy objective for a number of years however. As may be seen in Table 1.1, which is drawn from available Cambodian statistics, there was a significant movement in diversification of recorded exports during the period 2007-2011.

Table 1.1: Composition of Cambodian Recorded Exports, 2007 and 2011

	2007		2011	
	$ millions	% Share	$ millions	% Share
Total Recorded Exports (goods + services)	4,509	100	7,335	100
Composition of Total				
Garments	2,653	59	3,978	54
Tourism	1,398	31	1,907	26
Other Recorded Exports	458	10	1,450	20

Source:GDCE for Goods; National Bank of Cambodia,*Balance of Payment*, for "services" under "Total Recorded Exports"; Ministry of Tourism estimate for "Tourism"

In 2007, garments and tourism together made up 90 percent of Cambodia's recorded exports of goods and services. By 2011 that figure had dropped to 80 percent, a share that is still very high, but which reflects significant movement. As will be explained further below, the change is even more pronounced if account is taken of informal exports of Cambodia's major agricultural products. And, as shown further below, the importance of the United States as destination for Cambodia's export of goods and services has diminished noticeably over the period, falling from 45 percent in 2007 to 30 percent in 2011. Again, these shares are lower if account is taken of Cambodia's informal exports.

This chapter explores in more detail the changes that have occurred in Cambodia's export products and destinations and describes some of the factors that have shaped those changes.

Services Exports

For many years services have been an important component of Cambodia's export earnings. Services exports declined in 2009, the year of international recession and crisis. All other years during the period 2007-2011 services exports showed strong growth. By 2011, service exports had reached $2.2 billion (See table 1.2).

Table 1.2: Cambodia's Services Exports, 2007 and 2011 ($ millions)

	2007		2011	
	$ millions	% Share	$ millions	% Share
Total Services	$1,548	100	$2,213	100
Travel	$1,130	73	$1,612	73

Source: National Bank of Cambodia, *Balance of Payments Statistics Bulletin*, various issues

The most important component of services exports is Travel, which accounts for almost three quarters of total services exports. Air transport also made a modest contribution to export earnings. All other individual items of services exports were negligible. Services exports are thus largely synonymous with tourism.

Tourism has been an established industry and significant foreign exchange earner for more than a decade. International tourist arrivals passed the one million mark in 2004, and, with the exception of the crisis years 2008-2009, have shown robust growth ever since. By 2007 tourist arrivals had reached more than two million, and in 2011 stood at almost 2.9 million.[3] (See table 1.3).

Countries in the Asia-Pacific region accounted for over 60 percent of tourist arrivals in 2007, with South Korea being the single largest source of visitors. The share of Asia-Pacific rose to over 70 percent in 2011, driven by the more than three-fold increase between 2007 and 2011 in visitors from Vietnam. Indeed, Vietnam alone accounted for 56 percent of the total increase in visitors between 2007 and 2011, and Cambodia's threeneighbors, Lao PDR, Thailand, and Vietnam provided 69 percent of the total growth in tourist arrivals during that period. In 2011 the three countries accounted for 30 percent of all tourist arrivals. This outcome was achieved despite the very modest rise in arrivals from Thailand, reflecting political tensions and border difficulties between Cambodia and Thailand during part of the period. Data for 2012 show continued strong growth, with total international tourist arrivals growing by 24 percent to reach 3.58 million. Arrivals from Lao PDR and Thailand rose sharply, and Cambodia's three neighboring countries accounted for one third of total tourist arrivals.

[3] An international tourist is defined by the Ministry of Tourism as "any foreign visitor to Cambodia who stays at least one night for leisure, recreation, business or other legal tourism purposes, not related to permanent residence or remunerated activities.

The surge in tourist arrivals from neighboring countries reflects a number of factors, including the lightening of visa requirements, the creation of additional land border crossings, the establishment of casinos at some of these border crossings, the upgrading of roads, in particular Route 1, and enhanced marketing efforts. The rise in incomes in neighboring countries is also an important factor.

Table 1.3: Number and Origin of Tourist Arrivals, 2007 and 2011

	2007	**2011**
Total	2,015,128	2,881,862
Origin of Visitors as Percent of Total		
Asia and Pacific	62	73
of which		
Vietnam	6	21
South Korea	16	12
China	6	9
Japan	8	6
Lao PDR	1	4
Thailand	5	4
Australia	4	4
Malaysia	4	4
Other Asia and Pacific	12	10
Europe, Americas, Africa and Mid-East	38	27
of which		
United States	7	5
France	4	4
United Kingdom	4	4
Other	22	14

Source: Ministry of Tourism, *Tourism Statistics: Annual Report 2007* and "*Tourism Statistics: Annual Report 2011*
Note: All countries providing 100,000 or more visitors in 2011 appear individually in the table.

The sharp shift toward arrivals from neighboring countries has been accompanied by some weakening in average expenditure per tourist, reflecting in part the increase in relatively inexpensive bus tours. Although the average length of stay was unchanged during 2007-2011, the average expenditure by an individual tourist declined by about $100 and the average expenditure of group tours dropped by $200 over the period. The effect of these changes on earnings was more than offset by the increase in tourist arrivals. The Ministry of Tourism estimates that tourism receipts rose from $1.4 billion in 2007 to $1.9 billion in 2011.[4]

[4]Source: Ministry of Tourism, *Tourism Statistics: Annual Report*, Phnom Penh:MOT,2011

Recorded Goods Exports: the Evolution of Cambodia's Export Destinations[5]

Overview

Cambodia's goods exports are highly dependent on the U.S. market, and are therefore vulnerable to shifts in that market. This vulnerability was evident in 2009 and 2010, when garment exports to the United States declined because of the recession in that country.[6]Reducing reliance on the U.S. market, and more generally diversifying export destinations, has been an important policy goal. A specific focus of that goal is to develop export markets in Asian countries, which are seen as more dynamic markets than those in North America and Europe.

Cambodia's customs data show that the share of exports directed to the U.S. declined significantly between 2007 and 2011, reaching about 40 percent in the latter year (See table 1.4). This change reflects relatively weak growth in exports to the U.S. (exports in 2011 stood only 12 percent above their level in 2007), coupled with rapid growth in most other markets. Export growth to the EU was exceptionally strong. Exports to the EU surged by more than $500 million between 2010 and 2011 alone, and the EU's share of Cambodian exports rose from 23 percent in 2007 to 30 percent in 2011. Other destinations were also dynamic. The shares of exports to Canada, Japan, China and South Korea increased – in the latter three countries from a low base. Small markets around the "periphery" of Cambodia's normal export destinations, such as Mexico and Russia, also registered very rapid export growth. The share of ASEAN member countries in Cambodia's exports also increased, but this was solely the result of the rapid advance of exports to two of Cambodia's neighbors – Thailand and Vietnam. Other ASEAN countries were not a significant source of export expansion, accounting for a mere 2 percent of Cambodia's exports in both 2007 and 2011.

[5] This and the next main section of this chapter make use of a data analysis by Denis Audet, *Cambodia's Tariff Policy Stance and Trade Performance*, Phnom Penh: ADB, 2011, as well asadditional data analysis prepared by Mr. Audet specifically for this study.

[6] See RGC,*Report by Cambodia*, (WT/TPR/G/253) Geneva: WTO, 2011. Presented to the WTO Trade Policy Review held November 2011 in Geneva.

Table 1.4: Cambodia's Recorded Goods Export Destinations, 2007 and 2011		
	2007	2011
Total Goods Exports ($ millions)	$2,962	$5,122
Destination as Percent of Total		
United States	64	41
European Union	23	30
ASEAN	5	8
(of which: Thailand and Vietnam)	(3)	(6)
Canada	5	8
Japan	1	3
China	*	3
Korea	*	1
Other Asia and Pacific	*	*
All other	3	6

Source: General Directorate of Customs and Excise (GDCE)
Note: "All Other" are mainly shipments to non-EU Europe and Latin America. A star (*) indicates less than 1 percent.

The Role of Trade Preferences

Tariff preferences have played an important role in determining the growth of Cambodia's exports during the period under review. Cambodian exports enjoy duty-free market access under a variety of duty-free quota-free programs that developed and some developing countries have put in place for Least Developed Countries. In addition, they enjoy duty-free (or highly preferential) access within ASEAN and benefit from the free trade agreements concluded with ASEAN dialogue partners.

The advantage that Cambodia enjoys because of duty free access depends on the height of MFN (i.e. non-preferential) import duties in the importing country. For those products for which MFN duties are high, the duty-free access provided by these preferential trading arrangements improves dramatically Cambodia's competitive position. In the E.U., for example, the average MFN duty on clothes is 12 percent, while the MFN duties on bicycles and shoes are 15 and 17 percent, respectively. These magnitudes are large when compared to profit margins, and will increase significantly – in some cases doubling – the profitability of producing for export in Cambodia, as compared with producing the same goods for export in a country that does not enjoy duty-free privileges.[7] This, in turn, provides an important incentive to invest and expand exports in those sectors.

Other preferential markets – for example Canada, China, Japan – also have relatively high MFN tariffs on Cambodia's main export products and, thus, provide a significant competitive advantage to Cambodia.

This section looks at the way trade flows have responded to these incentives during the period 2007-2011.

The United States:The largest of Cambodia's export markets, the United States, does not provide preferences for garments, Cambodia's main export product. Consequently, almost all of Cambodia's exports to the U.S. pay the normal U.S. tariff rate.

[7] Cambodia still needs to compete head on, however, with other countries enjoying duty free access to the preferential markets.

Cambodia's garment exports to the U.S. were severely impacted by the international financial crisis and recession in 2008-2010. Exports to the U.S. stagnated and then declined in 2008-2009, and did not recover to their 2007 level until 2011, when they stood 12 percent higher. In all, goods exports to the U.S. accounted for only 10 percent of the overall growth in Cambodian recorded goods exports between the two years. Data for 2012 show a decline in the absolute value of Cambodia's garment exports to the U.S., and, in December 2012, garment exports to the EU were, for the first time, larger than exports to the U.S. Thus, a further reduction in the U.S. share is underway, propelled by stagnation or even decline in the U.S. market.

The European Union:The EU offers duty-free entry to all Cambodian exports that meet the E.U origin criteria. Moreover, in January 2011 the EU liberalized these criteria, so that a much larger range of goods that could be produced in Cambodia became eligible for duty-free treatment.

The result was rapid growth in Cambodia's exports to the EUas shown in Table 1.5.

Table 1.5:Cambodia's Recorded Goods Exports to the European Union, 2007 and 2011

	2007	2011
Total Goods Exports ($ millions)	$664	$1,503
Of which: EBA (% share)	72	92
Garment Exports ($ millions)	$559	$1,156
Of which: EBA (% share)	75	93
Source: GDCE and Ministry of Commerce, Bilateral Trade Department		

As may be seen from the table, roughly three quarters of Cambodia's exports to the EU benefitted from duty-free entry in 2007. In the following years exports grew modestly during the crisis years, and then jumped dramatically by more than $500 million in 2011, when the new rules of origin took effect. This rapid growth was the direct result of EBA and the change in its rules of origin. By 2011, more than 90 percent of Cambodia's exports to the EU were under EBA. As shown in the table, the main growth was in garments, but exports of bicycles and footwear under EBA also advanced rapidly during the period.

Most of the growth in export earnings was the result of increased export volumes. However, the new rules of origin also created incentives to move production of more expensive items to Cambodia. The effect of duty-free access on profit margins is greater, the higher the price of the exported item, and, in the case of bicycles, higher end models that could not qualify under the old rules of origin became eligible for duty-free access under the new rules.

Canada:Goods exports to Canada more than doubled between 2007 and 2011. More than 80 percent of this growth was accounted for by products entering Canada duty-free under its DFQF program. In 2011,

more than 95 percent of the exports benefitting from duty-free entry were garments, the remainder being textiles, footwear, and bicycles.

Selected Dialogue Partners:Goods exports to China, Japan, and South Korea combined made up only 1.5 percent of Cambodia's recorded exports in 2007. Between 2007 and 2011, shipments to these destinations grew rapidly, and accounted for 7 percent of Cambodia's recorded goods exports in 2011.

In each of the three countries Cambodia has three different possible avenues for preferential market access: GSP programs, DFQF programs, and the free trade agreement it has with each of the countries. For Cambodia, the GSP programs were the least advantageous, and, in practice, no use was made of them. The choice of DFQF or FTA market access and the role that access played in expanding exports differed from country to country. See below, a detailed analysis of the way in which rules of origin shaped these outcomes.

In the case of China, Cambodia's duty-free exports were particularly dynamic, with their share rising from 4 to almost 30 percent of total Cambodian recorded goods exports to China over the period 2008-2011 (See Table 1.6). China's DFQF program for LDCs was the main avenue for preferential access in 2008 and 2009, but the value of exports under this program was small, and showed no growth pattern. On the other hand, exports under the free trade agreement grew rapidly in 2010 and 2011, and accounted for almost all of the growth of preferential trade during the period 2008-2011. Estimates for 2012 indicate a further sharp jump in Cambodia's exports under the FTA.

Table 1.6: Cambodia's Recorded Goods Exports to Selected Dialogue Partners, 2008 and 2011

	2008	2011
China		
Total ($ millions)	$14	$154
Of which: DFQF and FTA(% share)	4	29
South Korea		
Total ($ millions)	$7	$46
Of which: DFQF and FTA(% share)	7	7
Japan		
Total ($ millions)	$31	$154
Of which: DFQF and FTA(% share)	93	76

Source: GDCE and Ministry of Commerce, Multilateral Trade Department
Note: Data on preferential trade is not available for 2007

In the case of South Korea, the share of Cambodia's exports under DFQF and FTA in total Cambodian recorded goods exports remained unchanged, at about 7 percent. Duty-free exports were dynamic, but no more so than dutiable exports. Until 2011, almost no use was made of Korea's DFQF scheme. Beginning in 2009, there was rapid and steady growth in exports under the free trade agreement. There was further rapid growth in such exports in 2012.

In the case of Japan, Cambodian exports enjoying preferential access accounted for more than 90 percent of total Cambodian recorded goods exports to Japan in 2008. By 2011, however, their share had fallen to around 75 percent. Thus, Cambodia's non-preferential exports to Japan were even more dynamic than exports enjoying preferences. Unlike in China and Korea, most preferential exports to Japan took place under Japan's DFQF program. Exports under the FTA started to advance in 2010, but from a very low base.

Cambodia's preferential goods exports to the three countries consisted mostly of garments and footwear. In the case of China, in 2011 these two products accounted for about 75 percent of total exports enjoying preferential access. In the case of both South Korea and Japan, the comparable share was more than 95 percent. The rapid rise of duty-free exports to China, South Korea, and Japan is thus part of the story of the diversification of markets for garments and footwear (more on this below.) Data for 2012 show further rapid advances in preferential exports and mark the appearance of new products – natural rubber, manioc chips, and tapioca starch – in the list of products imported by China from Cambodia under the FTA.

ASEAN: Preferential access under AFTA played a modest role in expanding Cambodia's exports between 2008 and 2011 as shown in Table 1.7. The major part of the increase in Cambodia's goods exports under AFTA was to its neighbors – Thailand and Vietnam. The composition of preferential goods exports to ASEAN was radically different from what was observed in other preferential markets. Garments and footwear made up a small proportion of preferential exports, while most were agricultural products.

Table 1.7: Cambodia's Recorded Exports to ASEAN Member Countries, 2008 and 2011

	2008	**2011**
Total Exports to ASEAN ($ millions)	$248	$419
Of which:Thailand and Vietnam ($ millions)	$184	$338
Of which, to Thailand and Vietnam under AFTA (% share)	15	42
Of which: All Others ($ millions)	$64	$81
Of which, to All Others under AFTA (% share)	*	10

Source: GDCE and MoC Multilateral Trade Department
Note: Data on preferential trade are not available for 2007. The star (*) indicates less than 1 percent

.

As regards Thailand, the top export products in 2011 were soybeans, cassavachips, dried chili, cassava root bulbs, and corn. For Vietnam, the top export products were cassavachips, corn, cassava root bulbs, and crude palm oil. Of particular note is the low level and relatively slow growth of exports to ASEAN

members other than Thailand and Vietnam, and the very low utilization of preferential access to those markets.

The results of the analysis of exports to the markets examined above are summarized in Table 1.8, which aggregates the data for the seven markets. As may be seen from that table, preferential exports to the seven markets grew by more than 200 percent between 2007 and 2011, while non-preferential exports to the seven markets grew by about 16 percent. Roughly 80 percent of the overall growth in exports to these markets was accounted for by preferential trade.

Table 1.8: Cambodia's Exports to Seven Markets, 2007 and 2011, $ millions

	2007	2011	Percent change
Preferential access	676	2,096	210
Non-preferential access	2,302	2,681	16

Source: GDCE and MoC Multilateral Trade Department
Note: The markets are: the United States, the European Union, Canada, China, South Korea, Japan, and ASEAN

Recorded Goods Exports: the Evolution of Cambodia's Product Mix

In 2007, garments made up 90 percent of Cambodia's recorded exports(see Table 1.9.) By 2011, their share had declined to 78 percent, despite growth that averaged about 10 percent per annum during the period. This outcome was the result of vigorous growth in other export products.

Footwear exports grew at an average annual rate of 36 percent over the period and accounted for 5 percent of Cambodia's exports in 2011. Shipments to the EU recorded rapid growth and accounted for 56 percent of footwear exports by 2011. Japan, the U.S., and various Latin American countries were also important markets. A notable feature of Cambodia's footwear exports is the wide range of markets being served. GDCE data for 2011 record shipments to 75 different importing countries. Most of these shipments were small.

Table 1.9: Cambodia's Recorded Goods Export Mix, 2007 and 2011		
	2007	**2011**
Total Exports($ dollars)	$2,962	$5,122
of which (%share of total)		
Garments	90	78
Vehicles	2	6
Footwear	3	5
Natural Rubber	1	4
Corn	*	*
Rice (mainly milled rice)	*	2
Cassava	*	*
Other	3	4

Source: GDCE
Note:"Vehicles" covers motor-cars, motor-bikes, and bicycles including exports of second-hand vehicles. The star (*) indicates less than 1 percent

The "vehicles" heading includes all types of wheeled vehicles for the transport of people or goods. In 2011, Cambodia recorded exports of the following: tractors, go-karts, motor cars, ambulances, trucks, crane trucks, motor bikes, bicycles, trailers and semi-trailers. Of these products, bicycles and ambulances are produced in Cambodia. The remaining items, with a few small exceptions, are re-exports of products previously imported.

Bicycle exports, the most important of the export products produced in Cambodia, moved erratically during the early part of the period, and then surged by more than 50 percent per annum in both 2010 and 2011, reaching a total of almost $110 million. Data for 2012 show further strong growth. Exports were directed mainly at the EU, under the EBA program, but the U.S., Canada and Switzerland were also significant markets.

Exports of natural rubber declined in 2007 and 2008 and, then, grew at an average annual rate of 85 percent during the remainder of the period. In 2008, 84 percent of Cambodia's exports went to Vietnam, with the rest going to Malaysia and Singapore. By 2011, Vietnam's share in total rubber exports had fallen to 58 percent, and China had become the second most important destination, accounting for 21 percent of total rubber exports. Malaysia and Singapore remained important destinations and relatively small shipments were made to South Korea, Taiwan, India, and Spain.

Cambodia's Informal Agricultural Export: The Importance of Thailand and Vietnam and Impact on Volume, Mix, and Destination of Total Exports

Any assessment of changes in export volume, product mix, and destinations obviously needs to take account of all of Cambodia's exports. However, for a number of agricultural products – paddy rice, corn, soybeans, cassava, cashews – most exports are informal, crossing the border into Thailand or Vietnam without being recorded, and are thus not included in the statistics collected by Customs. These exports occur mainly because Cambodia is unable to process the products in question to a stage at which they may be consumed. The processing takes place therefore in Thailand or Vietnamand a proportion of the product is then exported by these countries to third countries. In the case of cassava, a large share of Cambodia's exports to Thailand and Vietnam is simply shipped on to third countries without being processed.

The distribution of informal shipments as between the two countries is, of course, also not recorded. With regard to paddy rice, a rule of thumb used in the past is that one third is directed toward Thailand (mostly aromatic varieties) and two thirds toward Vietnam (mainly IRRI varieties.) This pattern may have been disrupted by recent Thai policy actions (See paragraph below.) Until recently, formal exports of corn were directed toward Thailand and informal shipments probably followed the same pattern. Cassava is shipped to both countries in roughly equal amounts.

Formal and informal agricultural exports to Thailand have been seriously disrupted in recent years because of Thai policy actions to protect their agricultural producers. Seasonal tariff rate quotas on corn imports have reduced dramatically Cambodia's recorded exports of that product to Thailand. While it was possible to redirect some of these exports to Taiwan, South Korea, and Vietnam, the overall impact of these measures, which contravene Thailand's market access commitments under ATIGA, was a sharp reduction in total formal corn exports. Recently the Government of Thailand has lengthened the period during which it allows corn imports and has increased the size of the tariff rate quota assigned to Cambodia. But these measures still fall far short of the free access that Thailand has committed to under ATIGA. Formal and informal trade in paddy rice has also been affected by Thailand's Rice Mortgage Program, which is designed to support prices to Thai farmers. In order to prevent Cambodian rice from being imported and then sold to the Thai government at the Thai support price, various ad hoc impediments, including temporary border closures, have been put in place by the Thai authorities, thereby disrupting Cambodia's exports. Disruption in the formal and informal export of cassava has also taken place, for similar reasons. Recent measures include the imposition of a "quality certificate", guaranteeing minimum moisture and sand content; a requirement of obtaining a transportation permit for the trucking of Cambodian cassava from the border; and, various measures to make it difficult for a third party to purchase Cambodian cassava and ship it through a Thai port. Cambodian authorities attempt to overcome these difficulties through almost continuous dialogue with their Thai counterparts, using the Cambodian-Thai Joint Trade Committee, which meets periodically at the Ministerial level and more frequently at the working level. The meeting of the Joint Trade Committee at the ministerial level in April 2013 made some progress in identifying steps to ease Thailand's constraints on Cambodian exports of corn and

cassava.Nonetheless, the negative trend continues. According to Government officials, Cambodia's cassava exports to Thailand in the first six months of 2013 were less than half the value of exports in the first six months of 2012.[8]

There is a general consensus that informal exports of agricultural products are very large relative to recorded exports of the same products. There have been attempts to make estimates of the value of informal exports of the more important agricultural products. These usually involve the use of mirror statistics (i.e. import data of Thailand and Vietnam) or the calculation of an exportable surplus. The first approach increases the information available, but falls short of an adequate assessment of the full extent of informal exports. The second approach is more widely used, but also has severe shortcomings.

The first step in calculating the value of an exportable surplus is to establish the volume of product available for export.In the case of paddy rice, for example, the calculation begins by estimating total production, and then subtracting amounts for wastage, seed, animal feed, own consumption by the producer, and amounts milled domestically. The residual that is left when these subtractions have been made is the exportable surplus. This calculated surplus is highly sensitive to errors in any of the steps in the calculation. A 10 percent overestimation of total production, for example, can easily produce an error in the calculated surplus that is two or three times as large, and errors in the estimation of the magnitudes of the items being subtracted can magnify further the mis-estimation of the exportable surplus. In general, the smaller the exportable surplus relative to total production the greater will be the effect of errors in estimating output on the estimate of the surplus. A procedure that magnifies in this way relatively small estimation errors needs to be used with great caution. This issue is particularly important for estimates for paddy rice; it is present but less relevant for the other products.

The Ministry of Agriculture, Forestry and Fisheries has made estimates in metric tons of the exportable surplus for paddy rice, cassava, corn, and soybeans. These estimates were used in the exercise described below.[9]

The second step is to establish the export value of the exportable surplus.For the present exercise, price data were developed by calculating the export unit values of formal exports of paddy rice, cassava, corn and soybeans. The unit values were derived from GDCE data and from data available from CAMCONTROL. Unit values were also calculated from other estimates of informal export values, most notably those of ASEAN Food Security Information.[10]Various ad hoc studies were consulted, and, for cassava, Bangkok price quotations and quotations by international traders were consulted.

The result of this survey was a wide range of prices for each product for each of the years examined, with different sources providing values that sometimes converged on an order of magnitude, but usually differed, sometimes by as much as 100 percent.

8 Phnom Penh Post, *Thai Policy Hits Cambodian Cassava Exports*, September 4, 2013

[9] This information can be obtained from the ASEAN Food Security Information Systems – AFSIS – which collects and publishes comparable annual data for major agricultural commodities from all ASEAN members. See http://www.afsisnc.org/

[10] Ibid

As may be seen from this discussion, attempts to make a judgment about the value of Cambodia's informal exports must contend with the fact that estimates of both the quantities and prices involved are subject to very wide margins of uncertainty and possible error. It therefore seemed best to try to establish a range of values within which it could be said with some confidence that the actual values are located.

The lower boundary of this range of values was calculated by assuming that the estimated quantities of exportable surpluses are overstated by 25 percent. Adjusting for this and applying the lowest figure in the range of estimates for the export price of each commodity produced an estimate of $575 million for the four commodities combined. The upper boundary of the range was calculated by accepting the MAFF estimates of quantities of exportable surplus and applying the highest figure in the range of estimates for the export price of each commodity. This produced an estimate of $1,200 million, and is the upper boundary.

Even at the lower end of this range, it is clear that the inclusion of informal exports in the export statistics – were it possible – would alter significantly the magnitude of total exports, their rate of growth, product composition, and main destinations.

To illustrate the implications of informal trade on perceptions of the relative importance of export markets and products, two illustrative tables have been prepared, each of which combines customs data with assumed magnitudes of informal trade. These assumed values are not estimates, in the usual sense of the word. They reflect simply a "hunch" as to where to locate, within the range of $575 - $1,200 million, a single figure that might not be too far off the mark. The "Hunch" consists of accepting the MAFF estimates of the quantities of exportable surplus and applying to those quantities the lowest of the various options regarding price. This produces an aggregate value for informal export the four commodities of $435 million in 2007 and $820 million in 2011. The figures for individual commodities are shown in Table 1.10.

Table 1.10: Composition of Recorded and Estimated Informal Cambodia Exports, 2007 and 2011				
	2007		2011	
	$ million	% Share	$ million	% Share
Total Recorded Exports (goods + services)	4,509		7,335	
Total Recorded and Informal Exports (goods + services)	4,945	100	8,155	100
Composition of TotalRecorded and Estimated Informal Exports				
Garments	2,653	54	3,978	48
Tourism	1,398	28	1,907	23
Other sectors (including informal exports)	894	18	2,418	29
Composition of Other Sectors				
Vehicles, mostly bicycles (recorded)	49	1	298	4
Footwear (recorded)	79	2	267	3
Rubber (recorded)	43	1	192	2
Milled Rice (recorded)	2	*	106	1
Corn + Soybean (recorded)	6	*	4	*
Cassava (recorded)	*	*	2	*
Paddy rice (informal - estimated)	356	7	581	7
Cassava (informal - estimated)	37	1	161	2
Corn + Soybean (informal - estimated)	42	1	78	1
Other recorded sectors (goods + services)	280	5	729	9

Source: GDCE for recorded goods exports; Balance of Payment for"services" included in "total recorded exports;"Ministry of Tourism for "tourism" estimate; and, see text for estimates of assumed values of informal goods trade

Note:"Vehicles" includes motor-cars, motor-bikes, and bicycles. The figures include exports of second-hand vehicles. The star (*) indicates less than 1 percent.

The inclusion of the estimates of informal agricultural exports indicates that the export concentration on garments and tourism is even less than was suggested in Table 1.1 by looking at recorded trade alone, with the share of other exports growing from18 to 29 percent during 2007-2011. Bicycles, footwear, rubber, and milled rice are emerging as fast growing recorded exports; paddy rice, cassava, corn and soybeans as fast growing informal exports.

Table 1.11: Cambodia Goods Export Destination		
	2007	**2011**
Recorded Exports ($ millions)	2,962	5,122
Destination (% share)		
United States	64	41
European Union	23	30
ASEAN	5	8
All others	8	22
Recorded and Informal Exports ($ millions)	3,397	5,942
Destination (% share)		
United States	55	35
European Union	20	26
ASEAN	17	21
Of which: Thailand and Vietnam	(17)	(20)
Japan	1	3
China	*	3
South Korea	*	*
Canada	4	6
All others	3	6
Source: GDCE for recorded goods exports; assumed values of informal goods trade (see Table 1.10). A star (*) indicates less than 1percent		

As regards export destinations, the inclusion of the assumed values of informal trade leads to some important observations. Exports to the United States as a share of total exports are declining to an even lower level than suggested by the data for recorded exports only. For recorded and informal exports, the share declined from 55 to 35 percent between 2007 and 2011. In contrast, exports to ASEAN + 3 markets (ASEAN, China, Japan, South Korea)grew from 18 to 27 percent during that period and the share of Vietnam and Thailand in total exports to that region is dominant. These two markets, taken together, become more than twice the size of all other export markets in Asia taken together.

Two broad conclusions emerge from this exercise, both of which hold even if informal exports turn out to be significantly different from the values assumed in tables 1.10 and 1.11. The first is that trade relations with Thailand and Vietnam have an important bearing on Cambodia's overall exportsand are the dominant elements influencing its exports of agricultural products. The trading rules that apply to informal trade, to the extent that they exist, are not well understood and are subject to frequent changes. Bilateral consultations between governments are the only way to address difficulties that arise, with WTO and ASEAN rules providing at best a weak framework for the consultations. Cambodia is unavoidably in a difficult position in such consultations, since there are usually no practicable alternative market outlets. Given the agricultural support policies of the present Thai government, difficulties are likely to continue, and the management of trade relations with Thailand, and to a lesser extent Vietnam, will be a significant preoccupation of future Cambodian governments.

Secondly, it is obvious that Cambodia is a large and competitive producer of agricultural products, well able to maintain past rates of output growth for several years into the future and expand further its exports. Thailand and Vietnam hold a near monopoly on Cambodia's agricultural export trade. Cambodia cannot expect to derive the fullbenefits of its agricultural productivity until it acquires the capacity to export directly to consuming countries and to engage in an appropriate degree of processing. This requires developing Cambodia's internal logistics and capacities for agricultural processing, with supporting policies in areas such as trade finance, trade facilitation, SPS compliance, and agricultural extension services. This is a big agenda, but until significant progress has been made in these areas Cambodia's second largest export sector will not be contributing its full potential to Cambodia's growth and development.

The Central Role of Rules of Origin

The duty-free access that Cambodia enjoys in certain of its export markets under various trade preference arrangements is the key element explaining the rapid growth and changing destinations of Cambodia's manufactured exports. This access will be the key determinant of export performance in the period ahead.

A key feature of all preferential schemes is their rules of origin; i.e. the set of rules that must be followed to determine whether or not a product produced in Cambodia is eligible for preferential access into the importing country. This section will examine how rules of origin have shaped, and are likely to shape in the future, Cambodia's export products and export destinations. It also discusses how the rules of origin governing Cambodia's free trade agreements could be reshaped to better serve Cambodia.

Rules of Origin and Cambodia's Recent Trade Performance

The dominant feature of Cambodia's recent export performance has been the rapid expansion of garment and bicycle exports to the EU and of garment exports to China, Japan and Korea as discussed earlier. This section focuses on garment exports.

The European Union:Before 2011, EU rules of origin for garmentsrequired an originating product to undergo "double transformation." [11] This meant that in order to gain duty-free access to the EU a garment had to be assembled in Cambodia from fabric woven or knitted in Cambodia. Cambodia produces practically no fabric, so strict adherence to the rules of origin would have prevented Cambodia from benefitting from preferential access to the EU market. However, the EU granted Cambodia derogation from the rules, allowing Cambodian producers to use fabric originating in ASEAN countries. The exports benefitting from this derogation were subject to quantitative limitations. Under this regime, Cambodia's exports to the EU averaged between $400 and $500 million during 2007-2010.

[11] Throughout this section "garments" means articles of clothing falling under HS Chapters 61 and 62.

In 2011 the EU introduced new rules of origin for its EBA program. The new rules allowed duty-free entry of a garment that was sewn from two or more pieces using fabric produced anywhere. This meant that, for the first time, garments produced in Cambodia from fabric manufactured in China could secure duty-free access to the EU.This change produced an immediate reaction: Garment exports to the EU under EBA doubled in 2011, and there was a surge of Chinese garment producers (and other producers using Chinese fabric) setting up factories in Cambodia.

China:China's duty-free quota-free program (DFQF) covers most garment products. The rules of origin governing this program stipulate that a qualifying garment must be produced from inputs classified in any HS code other than the 4-digit code of the finished product. Alternatively, the garment would qualify if its domestic content were not less than 40 percent of the FOB value. Cambodia exported successfully under this regime in 2008 and 2009, but the amounts exported were small and showed no growth trend.

In 2009 Cambodia began trading under its free trade agreement (FTA) with China. The rules of origin governing garments in the FTA stipulate that duty-free access will be granted any garment manufactured through the process of cutting and assembly of fabric into a complete article. These much simpler rules of origin attracted the attention of Cambodia's exporters. As reported above, garment exports to China under the FTA began in earnest in 2010, then rose four-fold in 2011 and doubled in 2012.

South Korea:Cambodia began exporting to South Korea under both the duty-free quota-free program (DFQF) and the FTA in 2009. The rules of origin in the FTA governing garments require a single transformation i.e. garments qualify if they are cut and sewn in Cambodia from non-originating fabric. Alternatively, they qualify if their regional content is not less than 40 percent of their FOB value. These simple rules have given rise to rapid and steady growth of garment exports to Korea.

Korea's DFQF program covers only selected garment items, and its rules of origin are more restrictive. They state that "products which are finally manufactured or processed in the exporting country by using products, as inputs, which originate from countries other than the exporting country….shall be eligible for preferential tariffs if the value of the inputs does not exceed 50 percent of the FOB price of the final product."

While the DFQF rules of origin have the 50 percent restriction, a number of Cambodian producers are able to meet that criterion. Exports under Korea's DFQF program, though small, have grown modestly in every year since 2008. It is the FTA, however, with its wider product coverage and its simple and liberal rules of origin,that has been the preferred channel for exporting garments to Korea. Exports of garments under the FTA grew at an average annual rate of 125 percent during the three years 2010-2012.

Japan:The rules of origin governing garments in Japan's DFQF program draw a distinction between garments made from knitted fabric (HS Chapter 61) and woven fabric (HS Chapter 62.) In the case of garments made from knitted fabric, the use of fabric produced outside Cambodia is not allowed. The rules of origin governing garments made from woven fabric, on the other hand, allow fabric from any source to be used.

The rules of origin governing garments in the FTA allow duty-free entry to garments assembled in Cambodia from fabric originating in any ASEAN country. There is no distinction between garments made from knitted and woven fabric.

As regards garments made from knitted fabric, the rules of origin in the FTA are more liberal than those of the DFQF. As regards garments made from woven fabric, the rules of origin of the DFQF program are more liberal than those in the FTA.

As reported in Section II.B, above, Cambodian producers of garments made from woven fabric have made good use of the liberal rules of the DFQF program, and this can be expected to continue. Use of the FTA rules of origin by producers of garments from knitted fabric has begun to grow, and this trend too can be expected to continue.

Prospective Changes in the GSP Programs of the EU and Canada

Both the EU and Canada have begun a process of revising their GSP programs with an eye to "graduating" more advanced developing countries from their GSP programs. In both cases the graduation is scheduled for 2014. These moves will affect Cambodia by changing the way it can use the EU and Canadian rules of origin.

The rules of origin of both countries allow for "cumulation", a procedure that allows inputs from a country other than Cambodia to be counted as originating in Cambodia for purposes of meeting rules of origin criteria.

In the case of the EU, Cambodia is allowed to cumulate inputs from any other ASEAN country. The example of bicycles can illustrate how this works. The EU rules of origin state that a bicycle is Cambodian if the value of all materials used in its manufacture that do not originate in Cambodia does not exceed 70 percent of the ex-factory price. In this case, cumulation means that the value of bicycle parts imported from Singapore or Malaysia for use in making bicycles is counted as originating in Cambodia and not as part of the 70 percent. This is highly favorable to Cambodia and allows a wide range of bicycle models to be exported to the EU duty free.

The EU now proposes to graduate Malaysia from its GSP program, and to disallow cumulation of inputs originating in any country that is not included in its GSP program. As regards bicycles, this means that inputs from Singapore and Malaysia, both of which are important producers of bicycle parts, will need to be counted as part of the 70 percent. This will make it more difficult for many bicycle models to meet the rules of origin, and will impair Cambodia's preferential access to the EU market.

The graduation of countries from Canada's GSP program may also adversely affect Cambodia's garment exports to Canada.

Canada's rules of origin applicable to Cambodia require that garments should be cut and sewn in Cambodia of fabric produced in Cambodia or in any other of Canada's GSP recipients (or in Canada itself). Canada now proposes to graduate China, Hong Kong, Malaysia, Singapore, and Thailand from its

list of GSP recipients. This means that fabric from those countries can no longer be used to produce garments eligible for duty-free entry into Canada. Yet those countries are, in varying degrees, precisely the countries from which Cambodia sources fabric. Cambodia's garment exports of $300 million per year are put under threat by this development.[12]

The EU's Free Trade Agreements with ASEAN Members

Three ASEAN Members – Malaysia, Thailand, and Vietnam – are in the process of negotiating free trade agreements with the EU.When their agreements are concluded, these three countries will become direct competitors with Cambodia for investors seeking duty-free access to the European market.

The impact that this will have on Cambodia depends entirely on rules of origin. Since the rules governing these free trade agreements are currently under negotiation, it is not possible at present to assess fully this impact. It is known, however, that EU rules of origin for their free trade agreement partners allow a free trade partner to cumulate inputs produced in other free trade partners. To take a concrete example, once these free trade agreements are in place, a Vietnamese producer of bicycles would be able to count parts imported from Malaysia as Vietnamese for purposes of determining whether a Vietnamese bicycle meets EU rules of origin. This is in sharp contrast to the situation facing Cambodia where, as described above, cumulation with Malaysia will not be possible after 2013.

The competitive position of Cambodia's bicycle producers will be affected by these differences in cumulation possibilities. The EBA rule of origin for bicycles requires that no more than 70 percent of the ex-factory price should consist of inputs that are non-originating, i.e. non-Cambodian. If the rule of origin for bicycles in the EU-Vietnam free trade agreement is the same, then a bicycle producer in Vietnam will clearly have easier rules of origin and more flexibility in sourcing inputs and Vietnam will become the preferred investment destination for bicycle manufacturers seeking duty free access to the EU market. Even if the rule of origin in the EU-Vietnam agreement is more stringent and specifies that no more than 50 percent of the ex-factory price should consist of inputs that are non-originating, Vietnam could still be the preferred investment location if inputs from Malaysia, Singapore, and other countries with free trade agreements with the EU account for more than 20 percent of the ex-factory price.

In the near term, policy must address the loss of cumulation with Malaysia and Singapore. The Government has responded to this challenge by encouraging bicycle producers to engage in a higher level of manufacture and encouraging bicycle parts manufacturers to get established in Cambodia. The Government has asked the EU for a three-year derogation from their decision on cumulation, in order to prevent injury to its bicycle industry while these policies are taking effect.

The negotiation of free trade agreements between the EU and Malaysia, Thailand, and Vietnam does not appear likely to affect the competitive position of Cambodian garment or footwear producers. The EBA rules of origin for these products are very liberal and cumulation is not an issue. Cambodia will remain a fully competitive investment destination for producers of these products.

[12]This threat has been eased by a recent statement by the Canadian authorities that they would take steps to ensure that the graduation of countries from their GSP scheme would not affect their DFQF program.

Reforming the Rules of Origin[13]

Cambodia is privileged to be eligible for preferential access to many important markets. The trading regime that results from preferences, however, is complicated and is becoming increasingly complex. Cambodia now issues twelve different certificates of origin, each one reflecting a separate and distinct set of rules of origin. This is a challenge to government officials who must administer the regime. It is also a challenge to the private sector and to potential investors, who must continuously assess the value to them of the incentives created by preferential market access and the rules of origin governing that access.

The rules of origin applicable to GSP and DFQF programs are determined unilaterally by the countries offering Cambodia those programs. Cambodia has no influence over these rules, except through moral suasion. It seeks to leverage its moral suasion by working with other LDCs in international fora to draw attention to the need to improve DFQF programs. Cambodia is in a position to provide leadership in pressing countries providing DFQF programs to adopt more lenient rules of origin for their programs.

In the case of free trade agreements, the rules of origin are determined by the parties to the agreement. Cambodia thus has a direct voice in establishing and reforming the rules of origin of the free trade agreements of which it is a member.

The original AFTA rules of origin defined origin as occurring when 40 percent or more of the FOB value of a product was accounted for by local processing and local and regional materials. It allowed both direct and indirect calculation of the 40 percent. Both methods required detailed accounting, and the requirements were particularly difficult in the case of the direct calculation. These difficulties were gradually recognized and product-specific rules of origin were later introduced, in particular on textiles and clothing.

When ASEAN began negotiating free trade agreements with its Dialogue Partners, it came up against approaches to rules of origin that were different from its own. Each Partner pressed hard to have its rules of origin reflected in the free trade agreement with ASEAN, and in most cases ASEAN and Cambodia accepted most of the features of the Partner. The results of this were two-fold. First, the rules of origin governing the free trade agreements with Dialogue Partners are different for each Partner, resulting in the need to make separate assessments of eligibility and to issue separate certificates of origin for trade with each of them. Second, various elements of the rules of origin of the free trade agreements with Dialogue Partners were introduced into AFTA rules of origin through ATIGA. AFTA rules of origin retained the original 40 percent rule, but the alternative of establishing origin through a change in tariff heading became available for an increasing number of products, and additional product-specific rules of origin were introduced.

The end result of these developments is a complex, unwieldy and confusing variety of rules of origin. Compliance with a single rule of origin is a cost for a firm. A multiplicity of rules of origin unnecessarily multiplies that cost. The present rules of origin regimes governing AFTA trade and trade with Dialogue Partners do not serve Cambodia well. Reform of these regimes through simplification, consolidation and liberalization should be an objective of Cambodia's trade policy.

[13] This Section has been prepared by the UNCTAD Secretariat

The formation of the Regional Comprehensive Economic Partnership (RCEP) presents an opportunity to bring about such reform. The RCEP is envisaged as a new free trade agreement that will include all 16 ASEAN Members and Dialogue Partners, and that will replace current free trade arrangements among them. The RCEP will have a single set of rules of origin. The negotiation of these rules of origin will begin in mid-2013 and is to be completed in 2015.

In developing its position for these negotiations, Cambodia needs to consider carefully its present and likely future trade interests within the RCEP area. Cambodia has the ambition of becoming a significant producer of intermediate inputs used in regional or international value chains. As discussed further below, this has already begun, albeit on a very small scale. A key question, then, is what are the characteristics of an RCEP set of rules of origin that would allow Cambodia to quickly insert itself into regional and international value chainsand which would facilitate more generally a rapid expansion of exports?

In addressing this question, Cambodian negotiators will need to make a determination of the degree of "leniency" in the rules of origin that would be in their interest. The discussion earlier in this section clearly shows that every time Cambodia's trading partners have moved to greater leniency in their rules of origin there has been a rapid expansion of Cambodia's exports, investment and employment. It follows that leniency in the rules of origin within the RCEP area would produce the same effect. Further, regional and international value chains are characterized by fragmentation of production, often into individual operations adding relatively little value. Here again, Cambodia's interests are best served by rules of origin that are lenient, allowing simple steps in the production process to be located in Cambodia.

The present AFTA rules on regional value added require 40 percent of the fob value of a product to originate in AFTA. This is too high. Cambodia should press for RCEP rules of origin that imply a regional value added of no more than 30 percent. This should be complemented by change of tariff classification criteria that are liberal, combined with exceptions to facilitate compliance by firms.

Cambodia's representatives in the RCEP negotiations on rules of origin should also insist that the negotiated rules of origin should reflect best international practice.

Experience with other preferential rules of origin, in particular NAFTA, has demonstrated that rules of origin involving the calculation of domestic content are overly complex and difficult to administer. The complexity mainly arises from the need to establish detailed rules defining what are allowable costs in making the domestic content calculation, and what costs must be excluded from that calculation. A "value of non-originating materials" approach is a much more simple and straightforward way to establish origin. In this approach, the rules of origin are expressed as the maximum allowable value of non-originating materials, expressed as a percentage of the value of the final product. Cambodia should press for the phasing out of domestic content rules of origin, and their replacement by value of non-originating materials calculations.

In developing its negotiating position, Cambodia should also seek to apply lessons learned from the experience of other preferential trading arrangements in areas such as the precision and accuracy of

drafting, transparency, and predictability. Such experience would also be helpful in developing positions on the way to handle cumulation, de minimis provisions, and "roll-up" (absorption.)

In addition to preparing for the RCEP rules of origin negotiations, two issues related to the rules of origin in general require special attention.

First, Cambodia needs to streamline the issuance and verification of certificates of origin. The use of information technology can play a significant role in rationalizing these two activities. A project is underway that will apply information technology to the management of certificates of origin. The execution of this project should be expedited. Cambodia also needs to have a strategy for moving toward self-certification, a procedure under which producers/exporters issue certificates of origin within a framework monitored by governments. Such a procedure can significantly reduce the costs of managing preferential trade, and will become increasingly necessary as the volume of Cambodia's preferential exports grows. The process of moving toward self-certification should be begun soon on a small scale involving only a small number of producers/exporters identified on the basis of risk assessment.

Second, the Royal Government should intensify its efforts to assist firms and potential investors to identify export opportunities resulting from trade preferences and to comply with the rules of origin of export markets. Small and medium-sized enterprises require particular attention. Modules and templates for rules of origin accounting should be developed for their use.

Legal Reform and the Environment for Export Development

As has been argued in this chapter, market access conditions, including increasingly rules of origins, have impacted critically recent changes in the volume, mix, and destination of Cambodian exports. As will be argued in the following chapters, improvements in the business environment have also played a key role in promoting export growth by creating incentives for new investment, either by foreign investors or by domestic operators that have been able to take advantage of favorable market access conditions.

One issue not discussed in the next chapters but deserving some attention is the progress made by Cambodia in improving its business environment as a result of the extensive work program for legal reform adopted by the Government in the aftermath of the country's accession to the WTO.

In 2004, the Royal Government of Cambodia adopted a Work Program focusing on some 104 reforms – including 73 legal reforms *per se* (meaning drafting and adoption of laws, issuance of Anukrets and Prakas) and 31 "institutional reforms" revolving around the implementation of those new laws or institutional changes required under the WTO.[14] The November 2011 Trade Policy Review (TPR) conducted in Geneva under the WTO auspices indicated that some 46 of the 73 legal reforms had been

[14]*Work Program of the Royal Government of Cambodia Resulting from Cambodia's Accession to the World Trade Organization,* 2004, adopted by the Council of Ministers on February 27, 2004

completed.[15]Those completed, for the most part, were among the most far-ranging ones in term of scope and impact on reforming Cambodia's economy.

Subsequent to the November 2011 TPR, the RGC adopted a follow-up Work Program focusing on some 82 further reforms.[16] Of these, 40 items focus on legal reforms *per se* (mainly legal reforms incomplete from the 2004 Work Program) and 42 items on institutional reforms mostly related to furthering the implementation of some of the legal reforms adopted.

The depth of what has been achieved already under this legal reform process cannot be underestimated. While more remains to be done, it is going a long way in creating an environment that is assisting in promoting the kind of export diversification that will be called for in the years ahead as discussed in the Conclusion of this chapter.

Conclusion

Changes in Cambodia's preferential market access are the single most important factor explaining the growth of Cambodia's exports and the diversification of its export destinations during the period under review. The changes in the EU rules of origin and the implementation of free trade areas with Dialogue Partners have shifted exports to those destinations, and brought about significant new investment to expand exports. Rising labor costs in other producing countries, a reasonably friendly investment environment, and other factorshave played a supporting role in this shift. Managing the various rules of origin regimes and assisting exporters to identify opportunities created by preferential access has become a key component of Cambodia's trade policy.

In contrast to the experience with the EU and Dialogue Partners, preferential access to ASEAN markets, although it produced some growth in exports to Thailand and Vietnam, has had relatively little effect on Cambodia's exports toother ASEAN members. All in all, preferential access to AFTA markets has not been a significant ingredient in Cambodia's recent export growth. In 2011 only 1½ percent of Cambodia's exports went to ASEAN countries other than Thailand and Vietnam.

At the aggregate level, the shift in export destinations away from the U.S. was more or less identical with shifts in the directions of garment trade. Almost all of the increase in exports to Dialogue Partners and most of the increase to the EU were garments. Overall, product diversification played a relatively small part in destination diversification. It is worth noting, however, instances in which the two were linked. The surge in bicycle exports to the EU and of automobile parts exports to Thailand are prominent examples of new products directed toward non-U.S. markets. As regards Dialogue Partners, shrimp,

[15] See, Ministry of Commerce, *Trade Sector Development and Aid for Trade in Cambodia*, Phnom Penh: July 2011, pp22-fwd; also, RGC, *Report by Cambodia*, (WT/TPR/G/253) Geneva: WTO, 2011. Presented to the WTO Trade Policy Review held in Geneva in November 2011

[16]*Work Program of the Royal Government of Cambodia on WTO Requirements and Related Issues (2012-2015),* adopted by the Council of Ministers, July 2012

natural rubber and cassava mark the emergence of new products to these new markets. The value of such transactions, however, remains very small for now.

Some recent investment in the area of manufacturing indicates that the new market/new product linkage may be more important in the future, and that the very low level and slow growth of Cambodia's exports to ASEAN may be slowly changing. It appears that some recent investment is designed to take advantage of the duty-free access that Cambodian exports have in ASEAN markets. This is particularly true of investment that places Cambodia in regional production chains. This is a new development and will introduce a new dimension to the profile of Cambodia's export products and destinations.

Export policy in the coming years will need to address two broad issues: How to enhance Cambodia's benefits from trade in its established export products? How to promote Cambodia as a destination for investment in new export products?

Deepening Trade in Established Export Products

There are two related avenues for enhancing the benefits to Cambodia of its current agricultural export products. The first consists in undertaking some degree of processing in Cambodia. The second, in increasing direct export to final markets, whatever the degree of processing. Action along these lines will be accompanied by an increased flow of agricultural exports through formal channels.

The Royal Government's Policy Paper on the *Promotion of Paddy Production and Rice Export* sets out the Government's strategy for achieving these objectives in the case of rice. This Policy Paper, and the mechanisms that have been set up to execute its strategy, provide an excellent template for similar action in the case of other agricultural products. Indeed, in so far as the rice strategy deals with general issues of producer support, logistics and export facilitation, it has already identified and begun to address some of the elements that would be included in other strategic plans. There would thus be a good deal of mutual support between the rice strategy and strategies that might be developed for other products.

Efforts should be made to identify additional agricultural products that could benefit from formal production and export plans along the lines of the rice strategy. The Government has already laid out some strategic elements in the case of rubber, including a target for total land devoted to rubber and the improvement of the quality of trees. Thought is being given also to the question of whether rubber production in the Cambodia-Laos-Vietnam Development Triangle might be sufficient to support a latex processing facility. The processing of corn into feed pellets is another possibility that could be explored. The recent decision by a Thai company to set up silo and drying facilities in Pailin province is a step in that direction. In the case of cassava, a South Korean investorhas established a bio-ethanol plant and, in late 2012, a Japanese company signed a deal with the Royal Government involving the production of 200 million liters of bio-ethanol by early 2020. Ethanol is extracted from cassava.

As may be seen from the above, there are elements already planned or in place that could serve as ingredients in production and export strategies for rubber, corn, and cassava. The Royal Government may wish to explore the possibilities of using its experience with the rice strategy to bring these elements together in a comprehensive development plan for one or more of the three products.

Rules of origin will play an important role in all efforts to enhance agricultural exports. Preferential duty-free access has been and will continue to be the main determinant of the direction of exports. In all duty-free markets, Cambodian agriculture products obtain Cambodian origin under the "wholly obtained" rule. There is no problem in meeting that rule. However, neighboring countries produce almost identical products, and these products are not eligible for duty-free access. Cambodia will thus face a big challenge when asked by importing countries to verify the eligibility of a shipment, i.e. to demonstrate that the product in question is indeed Cambodian, and not Thai or Vietnamese. Procedures for dealing with verification need to be developed.

The SPS and TBT requirements of importing countries also pose a potential impediment to successful export of agricultural products. This issue is being addressed successfully in the case of cassava exports to China. That experience should guide efforts to address SPS issues in other markets and for other products. The need is for ad hoc measures targeted at specific markets and products that can be successful even if the fuller institutional requirements of an SPS regime are not yet in place. Chapter 4 focuses on a number of those needs.

As regards established manufactured export products, significant opportunities for enhancing the gains from trade exist for both garments and bicycles. In both cases, present production consists of the assembly of finished product using imported inputs. However, for both garments and bicycles the scale of production has now reached a point at which it starts becoming viable to begin producing in Cambodia some of the inputs used in assembling the finished product.

Fabric production has begun in Cambodia, albeit on a relatively small scale. Given the size of Cambodia's present garment production, fabric production is surprisingly small. Given the scale required of most fabric production, direct export would in many cases need to accompany production for use by the domestic garment industry.

Several producers of bicycle parts have carried out initial assessments of investment in Cambodiaand it appears likely that some parts production will begin in Cambodia in the near future. Again, parts producers may need to engage in direct export, as well as supplying the domestic industry. On both counts, it is essential that the parts manufacturers meet the origin criteria of the EU and the U.S., the biggest bicycle markets. This will allow them duty free access to those markets when they export directly and will allow the parts to be counted as Cambodian for rules of origin purposes when they are used in the production of Cambodian bicycles. Chapter 5, as well as several of the product chapters in this study, reviews some issues relating to the development of clusters of domestic part and component suppliers to some of those bigger export sectors.

Promoting New Export Products

It has been widely noted that recent investment decisions indicate a trend toward the diversification of manufacturing away from garments and footwear toward activities requiring higher skill levels and paying higher wages. This process began several years ago with the sharp increase in bicycle production for export and the assembling in Cambodia of motorbikes and in the beginning of assembling of motor

vehicles for sale in the domestic market.More recent investment decisions have included the production of intermediate products that will be exported for use elsewhere in the production of a final consumer product. These include wiring harnesses for use in automobile assembly, touch screens, and vibrator motors for cell phones, and, shortly, ignition components for motorbikes and automobiles.

The evolution toward a more diversified and sophisticated manufacturing sector is an important step in the development of Cambodia's industrial sector. It is significant that this evolution includes import substitution as well as production for export. But opportunities for successful import substitution are limited, and the way forward undoubtedly lies in efforts to integrate Cambodia into the production networks of transnational corporations.

In considering how this might happen, several considerations need to be borne in mind. When viewed from the standpoint of a transnational company, Cambodia is a small economy with a limited work force. The production of a transnational company is typically on such a scale that Cambodia could usually not be the sole or even main supplier of an intermediate input. This role would have to be shared with other supplying countries. The question is whether the economies of scale in producing the input would allow Cambodia to be competitive at the scale of production that is consistent with its size. Production of the input would also need to involve levels of technical skill that are consistent with what the Cambodian work force knows or can be taught at this stage of its development.

Integration into the production of a transnational corporation also requires first-class logistics, and the ability to deliver inputs on time. Here, the role of SEZs on the border with Thailand and Vietnam is critical, since their location allows producers in the zones to quickly plug into the logistics infrastructure of those two countries. This issue is reviewed at greater length in the chapter focusing on manufacturing assembly in SEZ.

The key issue, however, is the quality of the work force. At present, manufacturers are obliged to provide training in technical production skills such as welding. This is not a viable basis for the rapid expansion of manufacturing. This issue is taken up in much greater detail in the chapter focusing on addressing the skill gap in exportsectors.

Possible actions intended to support Cambodia's continued progress towards trade development and diversification are identified in the Trade SWAP Roadmap 2014-2018 under Outcome #1.

Box 1.1: ASEAN and Growing Regional Integration

With a trade sector very much focused on exporting garments and tourism services to Northern markets, ASEAN and regional integration based on agreements with ASEAN Dialogue Partners had a limited impact on Cambodia's export economy until recently. This is changing however. Several developments explain this change.

First, as explained in this chapter and elsewhere in this report, Cambodia manufacturing sector is beginning to integrate into selected regional production networks. This is the case particularly in footwear and bicycles, but also in evidence at an early stage in electronics and electrical components. Besides advantageous labor costs and, in cases, favorable logistics, foreign investors are focusing on relocating parts of their production process to Cambodia where they can benefit from tariff and non-tariff (especially ROO) advantages under AFTA or preferential market access schemes such as those offered by EU, Canada, Japan, or even China. The very fast growth of bicycle assembly in Cambodia, based on parts imported from elsewhere within the region, destined to the EU is a case in point.

Second, the rapid growth in agricultural commodity production is opening a new window for both informal and recorded exports to new markets, including markets within the region (e.g. milled rice to Malaysia and possibly Indonesia and the Philippines, Cassava to China, etc.)

Third, even in tourism, the Cambodian market has been shifting somewhat away from visitors from developed economies towards emerging markets from Asia and ASEAN.

Together, these and other developments point to the growing importance of regional integration for future growth of Cambodian exports in the near and medium term.

Box 1.2: Changes since 2007 and Ongoing Legal and Regulatory Reforms

Cambodia Trade Integration Strategy 2007 stressed the need for Cambodia to diversify its export base. Nineteen sectors were identified as export potentials, including not only established sectors such as garment and tourism, but emerging ones such as footwear, various agricultural commodities, or even light manufacturing. While garment exports and tourism have experienced robust growth since 2007, their relative importance as a share of total exports (recorded and informal) has declined from 82 percent down to 71 percent between 2007 and 2011 as a more diversify export basket has begun to emerge. Likewise, export destinations have become more diversified. For goods alone (recorded or informal) the share of the US market has declined from 55 percent to 35 percent, while exports to the EU market grew from 20 to 26 percent and to ASEAN from 17 to 21 percent. The share of the Canadian and Chinese markets has been growing also. In sum, Cambodia is on a path towards diversification in term of both its export basket and the destination of its exports. All evidence points to a further deepening of such diversification provided it remains competitive.*Cambodia Trade Integration Strategy 2014-2018* focuses primarily on ten of the 19 sectors identified back in 2007 as there is evidence that further progress can be achieved in the coming five years in those ten sectors in particular.

To expand and diversify its export base, Cambodia needs to enhance the competitiveness of its business environment so as to attract new investment and grow new businesses and jobs. *Cambodia Trade Integration Strategy 2007* took note of the ambitious legal reform agenda adopted by the Cambodian Government in 2004, in part as a result of obligations undertaken under its accession to the WTO but also of its own as a means to improve its business environment. The *2004 Work Program of the RGC* identified 73 legal reforms, 46 of which had been completed as of its Trade Policy Review held in Geneva

in November 2011. More remains to be done and the RGC has adopted a follow-up *2012-2015 Work Program* to continue pushing forward. Nevertheless, the list of 46 reforms already completed includes a very significant number of key reformsthat have had a positive impact on export and business expansion.

Many of the reforms identified in the 2012-2015 include addressing a number of non-tariff measures that may hinder Cambodia's competitiveness (see Chapters 2, 3, and 4 for a fuller discussion of NTM issues pertinent to trade facilitation, trade logistics, SPS and Technical Standards.) In addition, in early 2013 ASEAN Economic Ministers endorsed the "Non-Tariff Measures Work-Program (National & Regional)" aimed at streamlining Non-Tariff Measures (NTMs) in order to boost intra-ASEAN trade. The work program includes actions to classify, notify, and streamline NTMs. Cambodia has taken steps to start implementing the national component of the Work Program, including draftingan Anukret (Sub-Decree)under MEF's leadership to set up a NTM Inter-Ministerial Committee mandated to classify, review, and streamline NTMs. The draft Anukret has been reviewedthrough initialinter-ministerial consultation. The draft should be submitted to the Council of Ministers soon for further review before it is submitted to the Cabinet and Prime Minister for adoption. By implementing the NTM work program, Cambodia is expected to improve its business environment and become more competitive.

Chapter 2

TRADE FACILITATION

Developments since 2004 and Current Issues

The Royal Government of Cambodia (RGC) has made significant progress in improving the country's trade facilitation performance in recent years. With significant technical support from the development community, key border management institutions, particularly the General Directorate of Customs and Excise (GDCE), have strengthened their capacity and made progress on implementing a number of international standards and good practices. Other government agencies associated with trade have also made progress and, collectively, contributed to Cambodia's ranking as the world's 8th most impressive reformer in the World Bank's *Trading across Borders* indicators.

During its 2012 ASEAN Chairmanship, the RGC acknowledged the need to review progress and upgrade the Twelve-Point Action Plan to both maintain and further support reform momentum and accelerate Cambodia's integration within the ASEAN Economic Community (AEC.) Many AEC requirements include improvementsin trade facilitation procedures and are seen as key steps in the process of increasing intra-regional trade.

The 2004 Twelve-Point Action Plan

In 2004, the RGC recognized the need to take strong action to improve its business climate and national competitiveness, based in part onthe findings from the *2004 Investment Climate Assessment (ICA.)*[17]As a result, the Prime Minister established a Special Inter-ministerial Task Force (SITF) for Investment Climate Improvement and Trade Facilitation and committed Cambodia to the implementation of a Twelve-Point Action Plan to Improve Cambodia's trade facilitation performance and investment climate.[18] The Twelve-Point Action Plan was consistent with contemporary good practice and incorporated many of Cambodia's international and regional commitments.

Following establishment of the 2004 SITF under the leadership of the Senior Minister of Commerce (MoC), a Reform Team for Trade Facilitation and Investment Climate was created in July 1, 2004.[19] The GDCE was appointed as Lead Border Management Agency although the Ministry of Commerce retains the policy mandate for WTO matters including the current Trade Facilitation negotiations proceeding as part of the Doha Development Agenda. In this regard both the MoC and the GDCE coordinate on technical and policy matters pertaining to the WTO Trade Facilitation agenda. Key agencies involved in trade facilitation include: GDCE, MoC (CamControl and selected departments under the General Directorate for International Trade), MAFF, MIH, andMoH.

[17]World Bank, *Investment Climate Assessment: Cambodia,* Phnom Penh: World Bank,2004
[18]Decision # 12-SSR/2004, March 22, 2004.
[19]Council for the Development of Cambodia, Prakas No1733/04.

Given the significant number of government agencies involved in processing cross border trade, the RGC formulated a strategy to better align the risk-management approach to ensure all key agencies employed a risk-based approach to inspections and testing. This process was managed by the GDCE and involved consolidating all agency profiles in the selectivity module included in the ASYCUDA system. Ultimately, the results have been impressive with inspection rates falling from nearly 100 percent to less than 20 percent by the end of 2012. The Risk Management and Audit Office in the General Department of Customs and Excise was created and staffed. A sub-decree establishing a list of goods thatare prohibited or require licensing or other clearances and permissions was issued in December 2007.[20]Risk selectivity criteria were developed and a profiling of traders was created.

Trade agencies agreed to develop a single administrative document (SAD) to streamline documentation requirements at the border. The number of steps in the procedure and processing of applications for a certificate of origin and an export licence at MoC was reduced from 11 to 8 steps.

In summary, the main results achieved to date include the following:

- Development and implementation of a risk management strategy in Customs;[21]
- Introduction of Customs Automation (ASYCUDA) already deployed at all major border sites and is being rolled out to all remaining border points;
- Introduction of single-stop inspection at the border;
- Establishment of the National Single Window Steering Committee (May 2008);
- Partial implementation of WCO SAFE Framework Action Plan;
- Initial simplification of transit operation (bilateral agreements with neighboring countries);
- Development of Action Plan for Accession to the Revised Kyoto Convention; and,
- Preparatory steps to implement the draft WTO Trade Facilitation Agreement that will require implementing several actions to achieve full compliance.

These reforms have resulted in improvements in the main trade facilitation indicators monitored by international organizations, reflecting an overall consolidation of Cambodia as an attractive investment destination and as a strong trading partner.However, additional efforts will be required to ensure not only full compliance with obligations originating from the ASEAN Trade Facilitation Work Program but also to continue strengthening of Cambodia's competitiveness in this critical area.

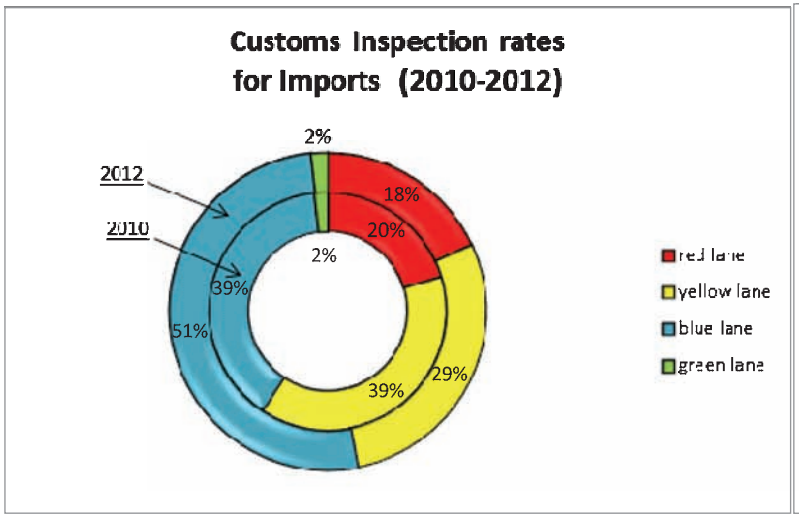
[20]Anukret 209, December 2007
[21]Anukret 21 and associated regulations (Prakas); Anukret 209.

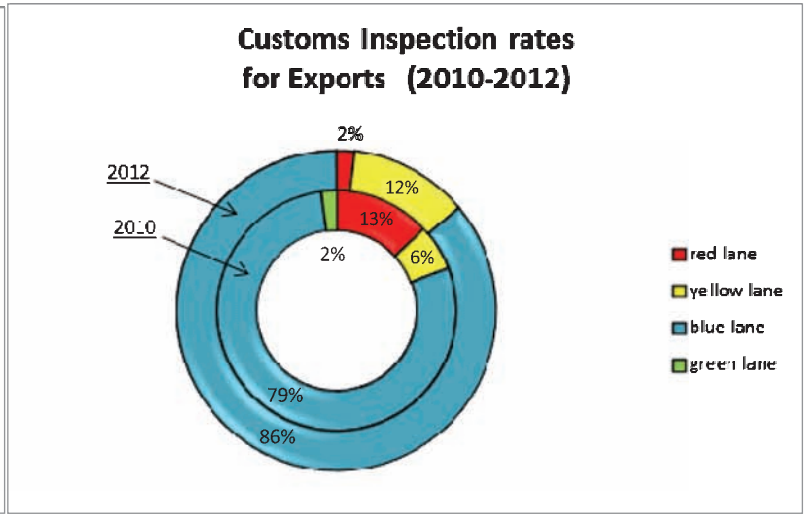
Box 2.1: The 2004 Twelve-Point Action Plan - Completed Reforms in Trade Facilitation			
#	**Agreed Actions June 2004**	**Proposed Activities June 2004**	**Implemented Activities and Status February 2011**
1.	Establish a cross-agency Trade Facilitation / Investment Climate Reform Team.	1. Team established. 2. Further work required on formalizing working arrangements, communication protocols and detailed TORs.	1. SITF team was established in 2004 (includes GDCE, MEF, MoC, MAFF, MLSW, MoI, CDC, Port Authority of Sihanoukville). 2. Meetings have been infrequent.
2.	Establish a system of Transparent Performance Measurement including private sector monitoring.	1. Commence dialogue with relevant private sector organizations. 2. Develop performance indicators and measurement methodologies. 3. WB to fund conduct of Time Release Methodology for base line data collection and periodic monitoring.	1. A cell has been established in Customs for regular meetings with private sector to review/discuss ongoing issues and updates. 2 and 3. 2005 Time Release Study and 2010 Trade Process Mapping prepared with WB funding.
3.	Review the trade facilitation process to remove overlaps and unnecessary approvals. The process will include the review and rationalization of import / export documentation and the adoption of a single form for declaring imports/exports to be used by all regulatory agencies.	1. Undertake review and evaluation of current processes and documentation. Review should be conducted with external /independent assistance. TOR for review and consultancy support required. EC indicated preparedness to provide TA pending governmental request. 2. Implement single declaration form for all import / export requirements. 3. Review and amend legal framework if required. 4. Initiate process to identify long term IT requirements to further streamline procedures and facilitate the adoption of best practice approaches.	1. A Survey conducted in February 2005 identified 45 documents required for exports. 2 and 3. Single Administrative Document (SAD) introduced + unnecessary documents eliminated to replace 45 documents. Risk-Based Inspection Strategy for Trade Facilitation adopted in March 2006 under Anukret 21. Electronic SAD piloted in 2008. 4. ASYCUDA introduced in 5 customs inspection points including Phnom Penh Int'l Airport, three dry ports in Phnom Penh, and Sihanoukville Port with initial assistance from UNCTAD technical team (completed 2009). ASYCUDA has been running without technical assistance for more than one year. Survey of IT needs conducted in remaining 17 border points in 2010 by Customs. ASYCUDA to be rolled out in remaining locations during 2011 and early 2012. New ASYCUDA modules to be introduced, including module allowing brokers to enter data directly online and module on transit trade.
4.	Introduce an overall risk management strategy to consolidate and rationalize all examination requirements of the different control agencies.	1. Conduct training in risk management and intelligence for Customs, Camcontrol and other relevant government officials. Training requires specialist skills not available within Cambodian government. AusAid indicated willingness to fund such activities through CATAF pending request from government. 2. Design and implement a risk management strategy.	1. Risk Management was developed following Anukret 21 on Risk Management (March 2006). 2. Risk Management has been introduced in 5 border inspection points where ASYCUDA has been introduced: Phnom Penh Int'l Airport, three dry ports in Phnom Penh, Sihanoukville Port. (PHN MSE-KPM Dryport is the fifth one to implement ASYCUDA effective August 2010). On average, full inspection ("red channel") in the five locations has been reduced to 20 percent of imported containers and 13 percent of exported containers. Implementation has been assisted by the reduction in the number of restricted goods from an original list of approximately 5000 goods down to 1537 (Anukret adopted 2007)

5.	Undertake a strategic review of the role and mandate of Camcontrol to ensure it most productively deploys its unique expertise on quality control.	1. Conduct comprehensive review of the role, operations and mandate of Camcontrol. To ensure independence the review should be conducted by external specialists. Terms of reference need to be prepared. 2. Government to examine recommendations and make decisions. 3. Reorganization and cross training for affected officials. 4. Evaluation and monitoring of results.	1. A Camcontrol Strategic Risk Management Plan was developed with assistance of an international consultant and adopted by MoC in 2010. A Camcontrol Risk Management Unit (RMU) was created in September 2010 2. A project proposal for capacity development of Camcontrol RMU has been prepared and approved for funding by TDSP. 3. An Inter-Ministerial Prakas on the Implementation and Institutional Arrangement for Food Safety Based on the 'Farm-to-Table' Approach has been adopted in October 2010. Prakas clarifies SPS role of various agencies at the border.
6.	Design and pilot a 'single window' process for managing trade facilitation in the port of Sihanoukville. Introduce automation (See activities under point 3 above)	1. Conduct training for border management agencies. 2. Establish appropriate physical infrastructure and facilities to allow 'single window' to operate 3. Review and amend legal framework to remove any obstacles to adoption of 'single window'. 4. Design and pilot 'single window' approach in the port of Sihanoukville.	1. ASYCUDA will be a key building block of Single Window. A Single Window Committee has been established 2. More time needed for GDCE and other line Agencies to review how best to design a Single Window for Cambodia. Using international standards and protocols. Implementation will follow ASEAN Single Window schedule. Laos, VN, Myanmar, Cambodia have until 2012 to introduce but ASEAN-6 are late.
7.	Introduce a WTO-compatible flat fee for service to rationalize the various fees currently collected.	1. Review all current fees to determine compatibility with WTO provisions. 2. Design and implement new fee system and structure. 3. Design and implement website listing fees and relevant information.	1. Estimates of the recurring costs of automated customs operations have been developed. Analysis of recurring costs for other Agencies is needed as well. More time needed.
8.	Streamline the process and reduce the cost of incorporating with the Commercial Register.	1. Conduct training for relevant officials. 2. Reduce registration fees 3. Decentralize the registration process 4. Decrease capital requirement to minimal possible 5. Introduce electronic registration system.	1. Current IT plans for MoC includes computerization of Commercial Registration and COs with TFCP and TDSP funding support. MoC is keen on progress and Senior Management has endorsed plans. 2. Minimum capital for commercial registration has been reduced from $5,000 down to $1,000. Cost of registration reduced from $630 to $105 in 2007. Registration time also reduced. 3. COs now issued in SEZs. Discussions underway on possible issuance of COs in key provinces (e.g. Battambang, Siem Reap) to assist with expansion of exports of milled rice (COs now issued in Phnom Penh)
9.	Streamline the process for notification of the Ministry of Labor to start hiring employees.	Time limitations prevented detailed consideration by Reform Team.	Some simplification of process in SEZs. Unchanged elsewhere.

11.	Implement a national award to promote good corporate citizenship and governance in the private sector.	1. Establish Assessment Committee 2. Conduct seminars and workshops 3.Implement and monitor (Note: Activities associated with this initiative are currently being undertaken by Ministry of Commerce).	
12.	Monitoring and reporting.	Time limitations prevented detailed consideration by Reform Team.	1. Some form of reporting and monitoring in context of bi-annual G-PSF 2. Customs uses five-year strategic plans to guide its progress going forward.
Source: Ministry of Commerce, Trade Sector Development and Aid for Trade in Cambodia, Phnom Penh: July 2011, pp 32-33			

Box 2.2: Import/Export Inspection Rates, 2010-12





Source: GDCE, Asycuda World Single Administrative Document Status (2010-2012)

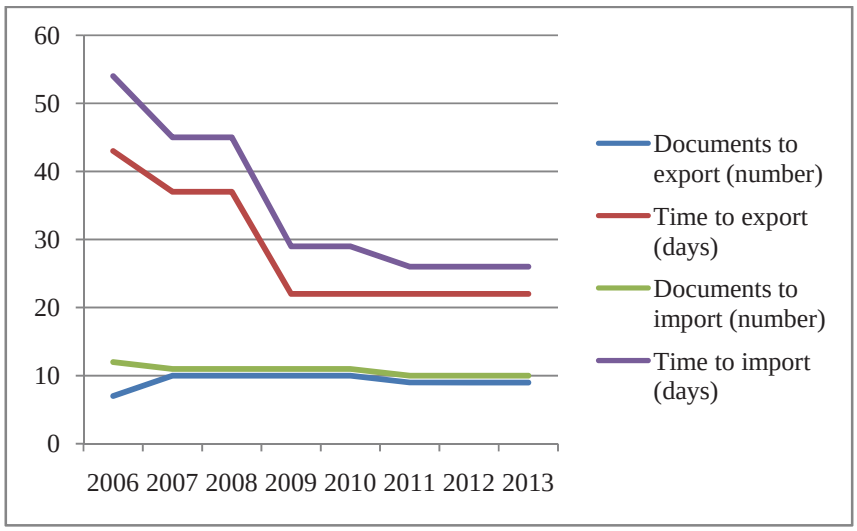
Red lane: physical inspection. Yellow lane: documentary check prior to clearance. Green lane: straight forward, immediate clearance once duties and fees are paid. Blue lane: post clearance audit.

Current Trade Facilitation Environment

The November 2011 WTO Trade Policy Reviewpointed out that Cambodia has made good progress in reforming its customs regime and streamliningits customs operations for more efficient trade facilitation. The 2007 Customs Law prepared the way for the adoption of several regulations including those intended to fulfil commitments to ASEAN, move to the Common Effective Preferential Tariff (CEPT) scheme, adhere to the 1999 Revised Kyoto Convention, and implement the WTO Agreement on Customs Valuation. In 2010 Cambodia notified the WTO that it no longer had any laws or regulations on PSI.As of January 2011, all imports complied with WTO valuation methods.

According to *Doing Business*indicators, Cambodia has achieved tremendous progress in improving trade facilitation. As noted earlier and as shown in Figure 2.1, in the past seven years, the number of documents to export has been slashed by half, with a similar reduction in time to export.

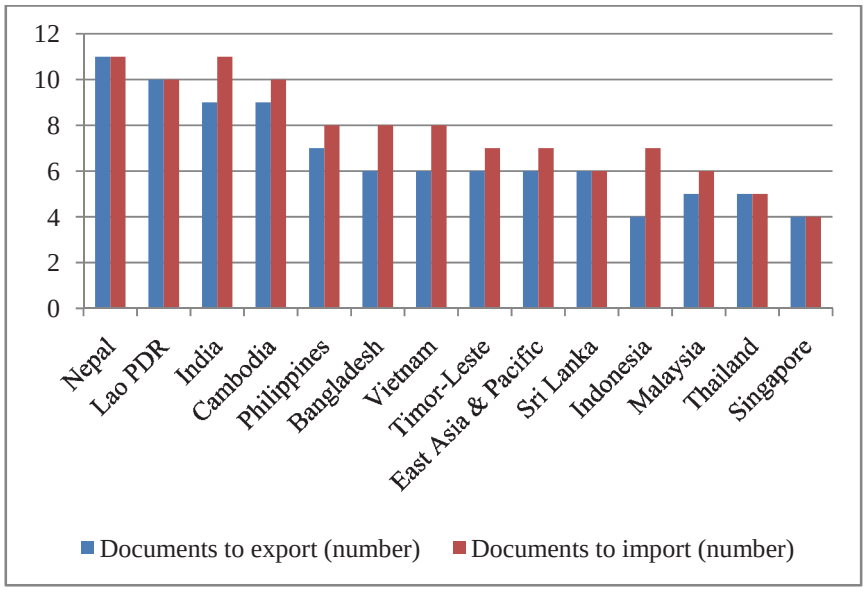
Figure 2.1: Number of Documents/Time to Import/Export



Source: World Bank and IFC, *Doing Business2013*, Washington, D.C.: 2013

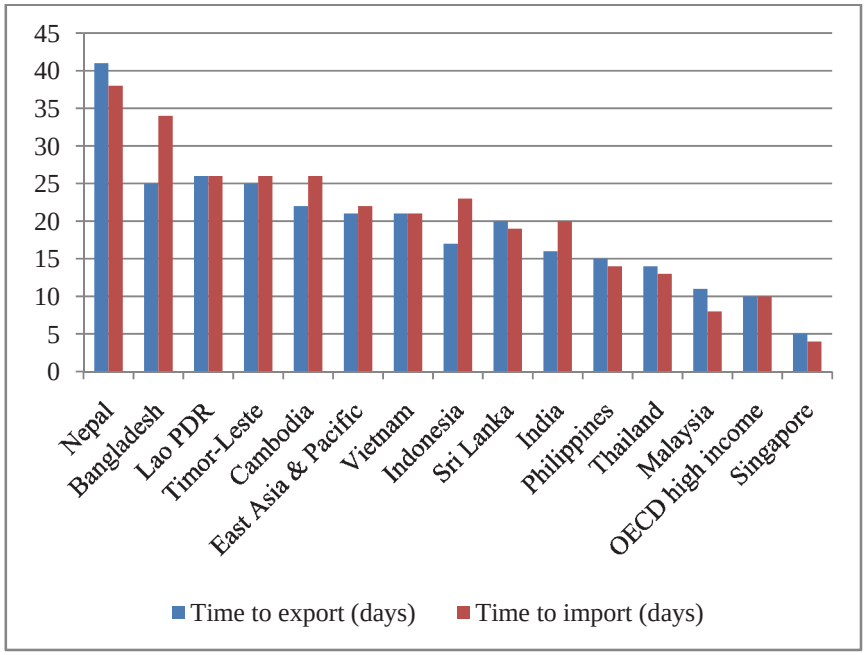
However, as shown in Figures 2.2 and 2.3, there remains significant potential for further reduction in the number of documents and time to import/export. On both indicators, Cambodia ranks above regional average. Vietnam, Bangladesh, and Sri Lanka, some of Cambodia's most direct competitors in garments, rank better in terms of number of documents. Compared with the same group of competitors, Cambodia ranks better only than Bangladesh on time to import/export.

Figure 2.2: Documents to Import/Export. Cambodia vs. Other Asian Countries, 2013



Source: *Doing Business 2013*

Figure 2.3:Time to Import/Export.Cambodia vs. Other Asian Countries, 2013

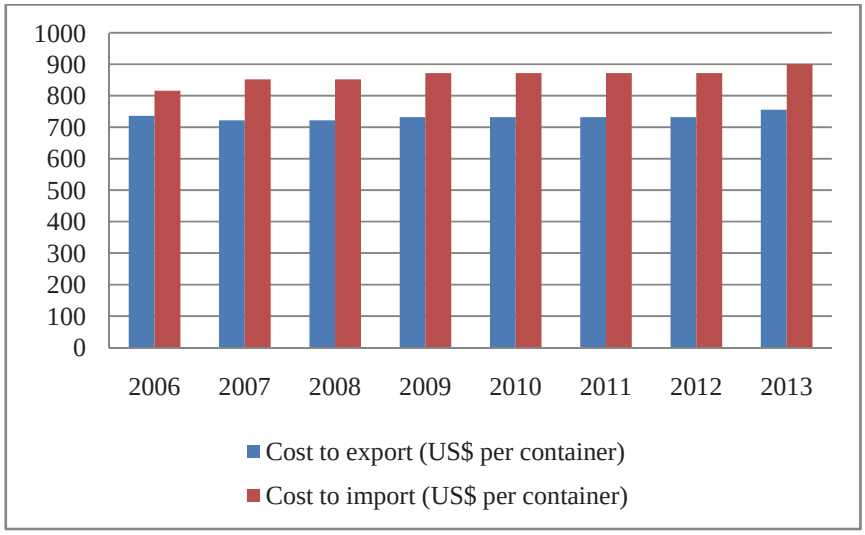


Source: *Doing Business 2013*

Figure 2.4 shows that the costs to import and to export a container have increased slightly in recent years. Transport costs from a factory (in Phnom Penh) to Sihanoukville Port are included in the figures shown in Figure 2.4 and they appear to be an area where improvements can be made. ADB calculates that logistics

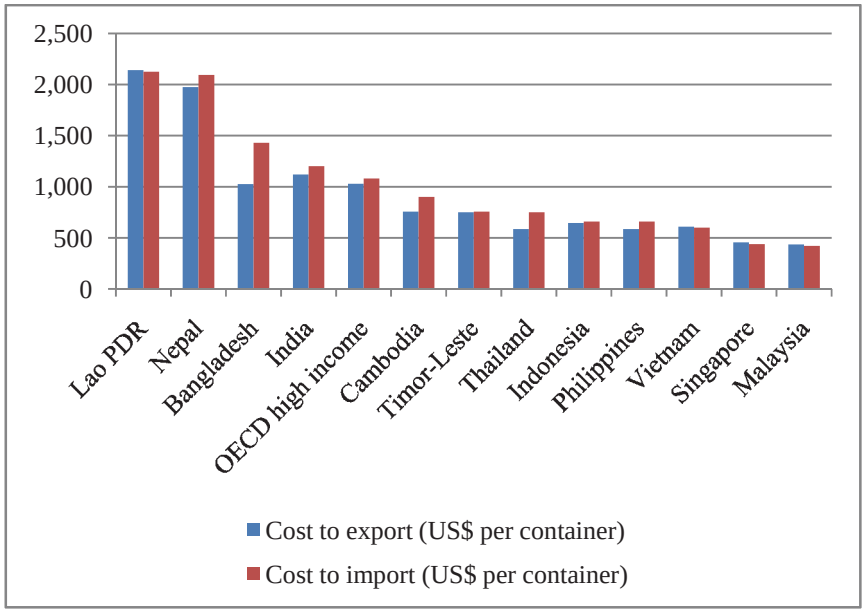
cost were $0.20 per ton-Km (more on this in Chapter 3.)[22]Compared with other countries in ASEAN, Cambodia does better than Laos PDR (and probably Myanmar, not included the *Doing Business* survey), but import/export costs are lower in all of the more developed ASEAN Member States (Figure 2.5.)

Figure 2.4: Cost of Import/Export ($ per container)



Source: *Doing Business 2013*

Figure 2.5: Cost to Export/Import.Cambodia vs. Other Asian Countries, 2013



Source: *Doing Business 2013*

[22]Asian Development Bank, *Trade and Trade Facilitation in the GMS Sub-Region –201*,Manila: ADB, 2012.

With appropriate actions and reform, within the next five years, Cambodia could reasonably lower its export costs per container to 120 percent of the ASEAN-6 average ($552/container) and reduce time necessary to export a container to the ASEAN average of 16 days.

Improvements in trade facilitation performance is due largely to the customs modernization plan implemented since 2004 which culminated in the automation of customs procedures through the introduction of ASYCUDA at all main traffic border points. Remaining, smaller border points are to be automated by the end of 2013. Despite the significant gains achieved, inefficiencies remain. For instance, customs declarations can be submitted electronically for imports but hardcopies must be submitted together with supporting documents. Moreover, a survey of traders carried out in 2012 indicated that,all too often, clearance is delayed because customs officials are unavailable for processing.[23]Further delays are caused by the time needed to obtain import licenses and permits and by the percentage of cargos still requiring physical inspection. That percentage remains high despite the introduction of a risk-assessment and -management process.

As reported in the*Transport and Trade Facilitation Assessment-2012*, the major source of delay for exports is issuance of the certificate of origin, which is issued only after shipment and can require 5-10 days.[24]This delays the transfer of documents to the buyer and payments to the exporter. The cost for reapplying for a CO is also high, about $280.

The information for clearing imported cargo is entered into the system at the customs office by the customs officer or the broker. Delays in the clearing process are caused primarily by missing supporting documents or errors in evaluation. Imports are cleared either at the point of entry, either an ICD or an inland customs facility. The fees charged for clearing cargo vary with some brokers charging by declaration and others by the quantity of goods cleared. There are significant differences in the fees charged. Large international firms have significantly higher fees than their competitors; however, the absolute amount of informal fees seems to be the same for all firms.

The *Transport and Trade Facilitation Assessment-2012* further indicates that the time to obtain an import license or a certificate of origin varies depending on the issuing agency, the firm, and the commodity (manufactured or agricultural products). For example, a large international forwarder is able to obtain these documents within one day for manufactured products, but it can take up to ten days for smaller firms. For agricultural exports it takes three and a half days. The time to clear exports depends on the gateway. The fastest clearance time is two to six hours at the airports. At the land borders, cargo is cleared in two to twelve hours. At seaports the time is half a day to two days while at ICDs it is between half a day and one day. According to the firms interviewed, it often is not clear what the exact document requirements are or what the rates for duties and taxes will be. Furthermore, there is a problem with discretionary behavior of officials, informal payments, and inconsistent enforcement of laws and regulations.

[23]World Bank, *Cambodia Transport and Trade Facilitation Assessment-2012*, Phnom Penh: World Bank, 2012
[24]World Bank, Ibid.

Current Issues

Cross Cutting Issues: From consultation with national stakeholders and based on findings from recent analytical work together with stakeholders' consultation, it is possible to identify a number of remaining issues that will need attention in the coming years to strengthen further Cambodia's competiveness.[25] These include:

1. Simplification of import, export, transit procedures and processes to decrease further clearance costs and time
2. Full automation of border procedures covering all border agencies (National Single Window), including automation of Certificates of Origin and Sanitary and Phytosanitary Certificates. On November 26, 2013, the Senior Minister, Minister of Commerce, announced a series of measures intended to achieve significant automation of COs by late 2014.[26]
3. Improvement in risk-assessment and -management procedures and processes by GDCE and other relevant agencies, including by setting up a system of Authorized Economic Operators
4. Implementation of official fees established under the Prakas issued in December 2012 and elimination of unofficial payments
5. Establishment of service level agreements to improve predictability of clearance time
6. Improvement in Customs Valuation
7. Increased transparency of customs tariffs and other trade regulations by making them available on-line and free of charge (National Trade Repository)
8. Development of a mechanism to resolve custom related issues between GDCE and the private sector
9. Improvement of cross-border procedures and processes to support full integration in the ASEAN Economic Community and benefit from linking to regional production networks and supply chains
10. Elimination of checkpoints, and related informal payments, along the main trade corridors

Current Issues for Main Export Products: Some issues for three of Cambodia's priority exports are as follows:

Milled Rice: There are no significant problems with documentation for the exports although completing required testing can be an impediment. The times for acquiring the necessary export documentation are:

- Certificate of Origin – about three days
- Phytosanitary certificate - seven days
- Fumigation certificate - one day
- Quantity certificate - four days
- Chemical testing–seven to twelve days

[25] World Bank, *Cambodia Transport and Trade Facilitation Assessment-2012* and *Cambodia Trade Corridor Performance Assessment-2012,* Phnom Penh: World Bank, 2012; Asian Development Bank, *Trade and Trade Facilitation in the GMS Sub-Region –2012*, Manila: Asian Development Bank, 2012

[26] H.E. Sun Chanthol, Sr. Minister, Minister of Commerce, *"Improving Business Environment in Cambodia",* Phnom Penh: November 26, 2013

Garments: Difficulties with submission of various shipping documents and with clearing the cargoes are among the concerns mentioned by factory managers.[27]Factories reported, among others, the following issues:

- Customs declarations can be submitted electronically for imports but hard copies must be submitted together with supporting documents
- The application for import permits should take only one day but, in practice, can require three to four days
- Delays with issuance of the certificate of origin (CO), which can only be issued after shipment and can require five to ten days

Footwear: The trade documents that present the greatest problem are import permits and technical certificates that normally require three to five days to obtain instead of one day. The headquarters arranges the shipment of exports, which are shipped on a weekly basis. The principal document required for the exports is the certificate of origin, which requires three to five days to obtain and is usually issued post shipment.

Box 2.3: Trade Facilitation from a WTO Perspective

As indicated in the November 2011Trade Policy Review, while Cambodia has put in place most of the key regulations to implement its Customs Law, several Prakas have yet to be issued:

a. Prakas on Setting of Interest Rates on Debts
b. Prakas on Procedures for Temporary Seizure of Goods, Conveyances, Documents and Other Items
c. Inter-Ministerial Prakas on Seizure (offence) Report
d. Prakas on Appeal Procedures
e. Prakas on Exemption for Travellers, Crews, and Border Crossers
f. Anukret on Authorization for customs officers to carry out duties outside the customs territory and granting of permission for foreign customs officers to carry out duties in the customs territory.

The Transaction Value Management Unit, responsible for overseeing TV implementation, and the Customs-Private Sector Partnership Mechanism (CPPM), to coordinate and improve mutual understanding between Customs and the private sector, have been established. Additional capacity building is needed in the two bodies.

Cambodia needs to develop legal text on Rules of Origin to ensure compliance with the WTO Agreement on Rules of Origin.

Box 2.4: Trade Facilitation from an ASEAN Perspective

Improvements in regional infrastructure have led to increased connectivity and deeper integration between ASEAN Members over the past decade. ASEAN has identified Twelve Priority Integration Sectors to serve as catalysts for further regional economic integration. To establish the ASEAN Economic Community by 2015, a comprehensive agenda of reform has to be implemented both at regional and national level. Among other issues, ASEAN Member States have decided to improve transparency of trade by establishing an ASEAN Trade Repository (ATR) that should provide information on tariff nomenclature and preferential tariffs; Rules of Origin; non-tariff measures; national trade and customs laws and rules; documentary requirements; and lists of authorized traders of Member

[27] World Bank, *Cambodia Transport and Trade Facilitation Assessment-2012*, Phnom Penh: World Bank, 2012.

States. The ASEAN Single Window (ASW) is also being developed with the objective of providing an integrated partnership platform among government agencies and end-users. In the area of Rules of Origin, reforms have been carried out to facilitate regional trade and a pilot Self-Certification Scheme is being implemented in several Member States for the benefit of certified economic operators which have demonstrated their capacity to understand and comply with existing rules.

Chapter 5 of ATIGA covers Trade Facilitation:

1) Art. 45 of ATIGA indicates that Member States shall implement a comprehensive ASEAN Trade Facilitation Work Program, as an integral part of ATIGA. The Work Program is very comprehensive and covers actions to be taken by Cambodia in: Customs; Trade Procedures; Standards and Conformance; Sanitary and Phytosanitary Measures; and ASEAN Single Window.
2) Art. 49 of ATIGA says that Member States should establish a National Single Window "in accordance with the Provisions of the *Agreement to Establish and Implement the ASEAN Single Window* and the *Protocol to Establish and Implement the ASEAN Single Window*".
3) Art. 47 of ATIGA lists the ASEAN guiding principles on trade facilitation, namely: transparency; communications and consultation; simplification, practicability and efficiency; non-discrimination; consistency and predictability; harmonization, standardization and recognition; modernization and use of new technology; due process and co-operation.

Chapter 6 of ATIGA fixes a comprehensive list of obligations for Member States. Commitments in this area are related to: Pre-Arrival Documentation (Article 55), Risk Management (Article 56); Customs Valuation (Article 57); Application of Information Technology (Article 58); Authorized Economic Operators (Art. 59); Repayment, Drawback and Security (art. 60); Post Clearance Audit (Art. 61); Advance Ruling (Art. 62); Temporary Admission (Art. 63); Customs Co-operation (Art. 64); Transparency (Art. 65); Enquiry Points (Art. 66); Consultation (Art. 67); Confidentiality (Art. 68); Review and Appeal (Art. 69). These obligations are complemented by those described in the "Strategic Plan for Customs Development (SPCD) 2011-2015" and the ASEAN Customs Agreement, signed in 2012.

Additional Trade Facilitation Reforms

At present, GDCE is implementing its "Strategy and Work Plan on Reform and Modernization of the General Department of Customs and Excise Department Strategic Objectives: 2009-2013." Several reforms are listed in the plan including in the following areas: increasing taxpayer awareness; developing an anti-smuggling policy; introducing an automated customs clearance system; developing and implementing the Cambodia National Single Window; introducing risk-management and post-clearance audit; implementing the WCO SAFE Framework of Standards; acceding to the revised Kyoto Convention (Cambodia signed a letter of intent but has yet to become a contracting party); and, strengthening Cambodia's enforcement capacity to combat illegal trade in arms and narcotics. Trade Facilitation reforms and actions under the updated *Trade SWAP Roadmap, 2014-2018*will need to be consistent with the Customs Modernization Plan, but also cover reforms needed in all other border agencies, beyond customs, that play a role in facilitating trade.It should be noted that targets shown in the *Trade SWAP Roadmap, 2014-2018*are achievable if sufficient financial and Technical Assistance resources are deployed.

Compliance with Obligations of the ASEAN Economic Community

Cambodia has taken on several commitments to ensure its full integration into the ASEAN Economic Community.In the next three years, the RGC is expected to implement several reforms, including the following:

1. Develop and implement a National Single Window and connect the National Single Window gradually to the ASEAN Single Window.
2. Establish a process to recognize Authorized Operators (art. 56 ATIGA).
3. Ensure compliance with Art. 62 of ATIGA on Advance Rulings. Existing informal procedures for providing advanced rulings on tariff classifications and origin could be codified into formal processes and operating procedures. A database could be developed to share information with all customs posts.
4. Ensure compliance with Art. 61 of ATIGA on Post Clearance Audit. Expand current Post Clearance Audit function to include audits at company premises.
5. Ensure compliance with Art. 57 of ATIGA on Customs Valuation. Further decentralize current practices.
6. Implement the new HS Classification (AHTN 2012: 9563 TL.)
7. Improve FTAs' preferences utilization by joining the second ASEAN pilot program on self-certification of origin.
8. Establish the legal framework to establish and maintain the National Trade Repository (NTR), which will have to be linked to the ASEAN Trade Repository.

Compliance with WTO Commitments[28]

In addition to the measures necessary to address outstanding commitments (Box 2.3 above), the RGC needs to review carefully the WTO Agreement on Trade Facilitation adopted in December 2013 as part of the "Bali Package."[29]Cambodia largely complies with several of the provisions that were already included in an earlier draft of the Agreement. Notwithstanding progress achieved so far, Cambodia might consider adopting early measures to achieve progress in the following areas:

1. **Publication.**All relevant laws, regulations, procedures, fee schedules, rules, restrictions and prohibitions, penalty provisions, appeal procedures, and administrative procedures are formally published when implemented as required by Cambodian law. However, with the exception of the GDCE, which publishes a comprehensive volume "Customs Law and Regulation" and conducts formal training programs for the trading community and customs brokers, other border agencies publish only via the Gazette or official journals but references are scattered and not easily

[28] Reforms listed in this paragraph include also good practices.
[29]WTO Ministerial Conference held in Bali in December 2013. The agreement covers some of the following issues: Publication and Availability of Information, Prior Publication and Consultation, Advance Rulings, Appeal (Review) Procedures, Disciplines on Fees and Charges, Release and Clearance of Goods, Consularization, Border Agency Cooperation, Declaration of Transshipped or in Transit Goods (Domestic Transit), Formalities Connected with Importation and Exportation, Freedom of Transit, Customs Cooperation, Mechanism for Trade Facilitation and Compliance, Institutional Arrangements, National Committee on Trade Facilitation.

accessible to traders. Preliminary steps are being taken to set up a Trade Repository (following also ASEAN commitments.)

2. **Enquiries.** The GDCE maintains a formal Public Relations Unit responsible for answering general enquires from the public and traders. Access to advice is provided via telephone, face-to-face contact, or e-mail. A similar service is provided at major Customs Houses throughout the country. The service is publicized via the GDCE website. More detailed technical answers are provided by relevant technical areas when they cannot be addressed by the Public relations Unit. The consistency of general enquiry servicesprovided by other border management agencies varies. Typically enquiries are addressed via visits to relevant officers or by telephone. These services are not formalized, however, as is the case with services provided by the GDCE.

   Consideration could be given to establishing one point of contact for all trade related information perhaps via a single Information Point. As lead border management agency, it would be logical for GDCE to coordinate and oversee the development of one or a series of Information Contact Points including all key agencies involved in the regulation of import/export and transit activities. An appropriate coordination and governance mechanism would need to be established and commitment from all relevant agencies secured. Standard operating procedures as well as an initial clearing house for enquiries would need to be established and staffed with knowledgeable officials. Agreed contact points would need to be designated in each agency and appropriate details publicized.

3. **Opportunity for Comments on New and Amended Rules.**In practice, whenever possible an opportunity is provided via various consultative fora for any significant changes to be discussed with affected parties however this is not codified in law. The process for publicizing any amendments or changes contemplated and for formal consultations with affected stakeholders should be formalized.

4. **Consultations.**In 2010, GDCE established a Customs – Private Sector Partnership mechanism which consists of a Management Board and three specific technical committees. It meets at least twice yearly and is attended by the representatives of all relevant private sector organizations and interests. The purpose is stated as "building trust and mutual understanding between customs and the private sector; promoting fiscal morality in trade facilitation in order to enhance compliance; and, ensuring all customs related issues are shared and resolved before they are brought to the Government Private Sector Forum."No similar formal mechanism exists for consultation between border management agencies and the private sector outside of Customs. Either the Customs-Private Sector Partnership could be expanded to include other agencies or one or more similar consultative mechanisms could be established to address non-Customs border management matters.

5. **Advance Rulings.**GDCE used to provide informal advice to traders on matters pertaining to classification, valuation, origin, preferences etc. At times, thismay have resulted inuneven treatment of taxpayers and might have beenmisleading since the informal advice was not legally binding. To resolve this issue, GDCE issued a *Prakas on Advance Ruling for Tariff Classification, Origin, and Customs Valuation* in January 2013establishing a legally-binding Advance Ruling System. The implementing procedure for Advance Ruling for Tariff

Classification and Customs Valuation was issued by GDCE in April 2013. The implementing procedure for Advance Ruling for Origin has yet to be issued. No exporter/importer has filed a case since the implementing procedure for Tariff Classification and Customs Valuation was approved. Some guidance support geared at the private sector isrequired to ensure that the system is used in an effective manner. In addition, technical assistance is needed to develop capacity among customs officials, establish a database, and organize information sharing amongcustoms offices throughout the country.

6. **Fees and Charges.**Technical assistance might be required to ensure all border agencies have introduced a WTO-compliant fee structure to cover adequately the direct border management costs related to their activities and services, including for the future maintenance of the National Single Window. GDCEand Camcontrol replaced their *ad-valorem* fees with fixed fees in 2012, but other border agencies need to reform their fee structures.

7. **Release and Clearance of Goods.**GDCE has implemented partially the ASYCUDA World Declaration processing system. The system provides for the advance lodgment of Customs declarations prior to arrival of the goods and the Customs Law also provides for pre arrival submission of declarations. In practice, however, such provisions are only employed on a very limited basis and typically only for goods destined for the SEZs. To date, however, the ASYCUDA World Manifest module has not been implemented. This makes automatic reconciliation of the declaration with the cargo report impossible, thus eliminates any meaningful benefit from early submission. Likewise, it is currently not possible for the manifest to be entered electronically in advance of the arrival of the goods.

8. **Publication of Average Release Times.** GDCE undertook a WCO-supported Time Release Study (TRS) in 2008 and regularly collects operational statistics on clearance times and other key parameters including the rate of red, yellow, and green channel declarations and revenue collection performance (see Box 2.2 above.) The TRS is currently being updated with support from ADB. A mechanism could be established to collect this information periodically.

9. **Authorized Economic Operators.**While GDCE employs a relatively sophisticated process for identifying and analyzing the performance of traders and the compliance risk they pose, there is no formal AEO scheme currently in place. GDCE intends to introduce such a scheme under its 2009-2013 reform and modernization plan. Technical assistance will be needed to develop an appropriate legal framework and series of administrative procedures, including opportunities for regional harmonization and mutual recognition.

10. **Expedited Shipments.**GDCE offers special facilities and procedures for the air express industry and strives to assist with the release of air cargo on an expedited basis in line with the WCO's immediate release guidelines.Presently, however, the capacity does not existfor submission of manifests by electronic means. Cambodia allows immediate release of documents but does not apply a *de minimis* limit under which no formal declaration is required.

11. **Reduction/Limitation of Formalities and Documentation Requirements.** In many cases Cambodia agencies require original copies of commercial document that have already been

submitted to another government agency. In the short term, regulations could be amended to authorized submission of notarized copies of such documents. Ultimately this problem will be solved by the implementation of the National Single Window.

12. **National Single Window.**Under ASEAN, Cambodia committed itself to the implementation of a National Single Window by 2012. While GDCE is progressing with implementing the ASYCUDA World system, automation of other key trade processes, including automation of Certificates of Origin and Sanitary and Phytosanitary Certificates, hasprogressed more slowly. However, and as noted earlier, on November 26, 2013, the Senior Minister, Minister of Commerce, announced a series of measures intended to achieve significant automation of COs by late 2014.In addition, MoC is committed to working with MEF to develop a Trade Information Repository as required under ATIGA. MAFF is studying how to automate the issuance of Phyto-Sanitary Certificates. Many other permit issuing authorities are not currently automated and there is no automated system for sharing information among agencies. GDCE is currently working with line ministries and agencies to design a functional model for the National Single Window, whose deployment should start in 2013. A revision of the current structure of the NSW Steering Committee might be necessary to ensure strong commitment at the highest level of key agencies.

13. **National Committee on Trade Facilitation.** Cambodia has established several coordination bodies associated with trade facilitation. In view of theWTO Trade Facilitation Agreement agreed upon under the December 2013 "Bali Package", Cambodia mayneed either to modify the terms of reference of an existing coordinating body or to establish a new body to oversee implementation and serve as the focal point for national coordination on Trade Facilitation. Sucha High-Level Steering and Coordinating Committee might need to be established under the Deputy Prime Minister to ensure strong inter-ministerial cooperation and oversight of trade facilitation initiatives.

A Revised Twelve-Point Action Plan for Trade Facilitation and Investment

On December 17-18, 2012, 26 officials from MoC, GDCE, CamControl, CDC, and MAFF, with support from the World Bank Trade Facilitation Team, participated in a workshop to formulate a possible new Twelve-Point Action Plan. RGC officials reviewed progress made in implementing the 2004 Action Plan, recognizing that, despite important achievement in many areas, significant additional changes and reforms are needed, including in the area of border automation and risk management.

Although cooperation across government agencies has improved considerably, inter-agency coordination have proved the most difficult to implement.Additional efforts are needed to achieve progress in the following areas, in particular:

a) Establishment of the National Single Window;
b) Development of a WTO-compatible flat fee;
c) Strengthening the implementation of the Risk Management strategy in non-Customs agencies; and,
d) Establishment of an Authorized Economic Operators system.

Participants to the workshop drafted a new Twelve-point Action Plan that encapsulates key reforms in the area of trade facilitation to be implemented by 2017 and areas where technical assistance from development partners might be required. The draft Action Plan covers comprehensively the multilateral and regional commitments described above. It also addresses most of the product-specific bottlenecks which, if reduced, would boost their competitiveness in the regional and global market. The draft Action Plan is under further review by Government officials and subject to final endorsement by the relevant Government committee.

Actions to implement key reforms identified in this chapter are identified under Outcome #2 of the Trade Swap Roadmap 2013-2015

Chapter 3

TRADE LOGISTICS

Background[30]

Global and Regional Connectivity Issues

In a shifting global environment, new growth poles are emerging and prospects for regional trade are increasing. In this context, logistics is a key ingredient for competitiveness. As a region, ASEAN logistics performance is strong as measured by the World Bank's Logistics Performance Index (LPI). There is great potential for improvement, however, particularly with respect to intra-ASEAN connectivity. With the AEC becoming reality, the ASEAN Single Market will present opportunities to increase integration through regional supply networks, but increased connectivity will be fundamental to take advantage of this opportunity. While hard infrastructure may not be the binding constraint (road-rail basic connectivity should be significantly improved by 2015), increased attention will needto be placed on soft infrastructure (regulations, procedures, expertise.)

Regional framework agreements are in place, including the ASEAN Trade in Goods Agreement (ATIGA)and the Cross border Transport Agreement (CBTA), but implementation on the ground needs to be strengthened. National Single Windows, Trade Portals or Trade Repositories, and increased automation of border processes will help improve coordination and simplify interaction between officials and traders across the region. However, national differences in logistics regulations across ASEAN complicate the intra-regional movement of goods (e.g. axel load limits in main transport corridors.) Quality of logistics services is mixed: capacity needs to be developed and professional accreditations systems put in place.

Cambodian Connectivity Issues

Currently, much trade in the South East Asian region is conducted through large-scale sea shipments among the major ports of Thailand, Vietnam, Singapore, Malaysia, China and other countries. The low volume of traffic on overland routes is in part due to theirlimited capacity and quality, as well as the high costsof road transport in comparison to sea transport routes. In addition, fast-growing middle income economies are currently constrained in their trade with less-developed countries such as Cambodia that lack capacity to handle time-sensitive goods at low risk. Trade logistics improvements will be critical to

[30] This chapter is based on the findings of the recent Transport and Trade Facilitation Assessment (TTFA) and Transport Corridor Assessment (TCA) completed by the World Bank in 2012. The TCA looks at the main routes for trucked and shipped goods into and out of Cambodia and examines them through the lens of trade efficiency and cost. The report looks at transport costs, transit time, and the impediments to transit along each of the examined corridors. The TTFA is designed as a snapshot of a country's trading environment, viewed from the perspective of four key industries. In Cambodia, the industries selected were rice, garments, footwear and silk. Additional chapter inputs are drawn from ADB's book, *Trade and Trade Facilitation in the Greater Mekong Sub-Region*, Manila: ADB, 2012, and, in particular, Chapter 3 on "Facilitating Trade along the Southern Economic Corridor."

enable Cambodia to join fullysome of the regional production networks that are developing in the South East Asia region. Trade facilitation and logistics are issues that continue to holdback Cambodia's export potential.

As noted in the previous chapter, Cambodia has introduced important reforms in Customs and is starting to implement a National Single Window as part of its ASEAN commitments. Besides the broad improvements taking place in this area, the leading export sectors of Cambodiahave specific needs that need to be identified in turn. Garment exports are part of a supply chain that requires reliability in delivery. Rice exports depend on reliable internal freight connections and adapted storage facilities. Cambodia's supply chain performance also faces the curse of size – too small to justify large investments or improve efficiency – while its main competitors (Vietnam, China, and Bangladesh) all enjoy the advantage of economies of scale.This implies that Cambodia's logistics must be even more efficient than that of its neighbors if it is to maintain international export competitiveness. Cambodia's Logistics Performance Index, while in line with that of country like Laos, is still below that of major competitors such as Vietnam.[31]Several of the supply chains are also controlled by external buyers rather than local producers. Therefore, not only is it important to improve trade facilitation at a national level, it is also critical to address the specific requirements of its key export sectors.

Cambodia's exports of rice and manufactured goods risk outstripping shortly its logistics capacity. The Royal Government of Cambodia has set ambitious targets for export growth in the coming years, including for Cambodia to becomea major exporter of milled rice and to join regional supply chains using its growing Special Economic Zones. Weak logistics will be a major constraint requiring attention. For instance, currently, most milled rice is exported in containers through Sihanoukville Port. By 2030, Cambodia is expected to produce about 7 million MT of paddy surplus, up from 4.3 million MT in 2012, thanks to better irrigation and improvement of extension services. This could lead to major growth in exported milled rice above and beyond the current 1 million MT target. Alternative routes must be identified and developed to increase efficiency and competitiveness.

There is great potential for Cambodia to leverage its lower labor costs as a way of joining regional production networks. New investors in Cambodian Special Economic Zones (SEZs) require more sophisticated and integrated logistics services than are currently available in the country. Cambodia has been promoting SEZs for the past few years. Their development is based on Anukret no. 148issued in 2005. Since then some 22SEZ licenses have been granted. For now, most SEZs are located along the border with Vietnam and Thailand (Koh Kong, Bavet, Poipet), in Phnom Penh, and at the Port of Sihanoukville. The location of theseSEZsis an indication of the high logistics costs that would be incurred elsewhere in the country. In fact, the main concerns expressed by Japanese investors are the high costs of electricity and logistics. SEZ investors seek to take advantage of the incentives offered by the zones as well as Cambodia's relatively low labor costs, while minimizing logistics costs. There is potential for Cambodia to expand the economic impact of SEZs. In order to do so, however, logistics performancemust be improved.

[31] World Bank, *Connecting to Compete, Trade Logistics in the Global Economy, Logistics Performance Index*, Washington, D.C.: World Bank, 2012

While both emerging investments in regional supply chains and growing agricultural exports will continue increasing the demand for logistics services, the demands of the two are very different: milled rice requiresbulk handling capabilities; SEZ operators tend to need seamless, fast, and cost-efficient logistics.

Cambodia's Main Trade Corridors and Clusters

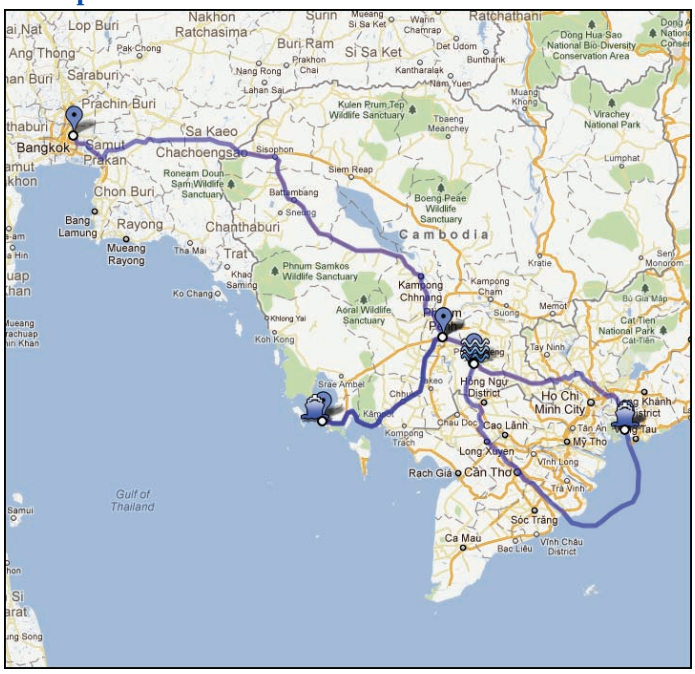
Cambodia is connected to regional and international trade markets by several domestic and international trade corridors.The main domestic corridor links Phnom Penh to the port of Sihanoukville, while the main international corridor connects Bangkok through Cambodia to Ho Chi Minh City in Vietnam. Most traffic originates in Bangkok and travels through the Poipet border post to Phnom Penh (734km) and/or between PhnomPenh and Ho Chi Minh City in Vietnam (228km.) Traffic volume is higher on the latter route and has been increasing, especially in containerized cargo. This is mainly due to shippers who prefer using Ho Chi Minh as their export gateway.

The trade corridors serving Cambodia have had a significant impact on trade. They have improved access to the port at Sihanoukville but also provided access to the more efficient ports in Vietnam thereby reducing the time and cost for international shipment. They have fostered regional trade by expediting both formal and informal trade with Vietnam and Thailand.

The four major trade corridors are:

1. Western Cambodia-Poipet-Bangkok
2. Central/Eastern Cambodia – Bavet-Ho Chi Minh
3. Phnom Penh- Sihanoukville
4. Central Cambodia- Mekong- Saigon Port to Cai Mep

Map 3.1: Cambodia's Four Main Trade Corridors



The transit time is two to three days in Sihanoukville including the time for loading and unloading and four or five days for Cai Mep. A typical container barge has a capacity of 144 TEU, length of 78 meters, and draft of 4.8 meters.

The most important corridors are those providing connections to Vietnam's deep-water facilities (# 2 and 4). For agricultural goods, these provide access to larger general cargo vessels. For containers they provide access to direct calls by vessels operating on the global corridor to the US and to Europe. Both offer savings in freight rates because of the larger traffic volumes at the Vietnamese ports. Main constraintsare the procedures for border crossing and movement of goods in transit. Another constraint is Dead Weight Tonnage (DWT) that can be transported on river routes based on seasons.

Table 3.1: Routes to China Sea

			DWT	
Sections	River	Km	Low Water	High Water
Phnom Penh - Vam Nao Pass	Mekong	154	3000-4000	5000
Vam Nao Pass - South China Sea	Mekong	194	3000-4000	3000-4000
	Bassac	188	5000	5000

In general, the performance of these corridors is improving as shipping lines become involved in providing feeder services to the ports. Additional improvements in performance should be prioritized based on the impact on the cost and time for movement over the entire length of the corridor.

Cambodian manufacturing is clustered mainly around Phnom Penh while agricultural production is clustered near the borders with Vietnam and Thailand. A large number of garment factories can be found on the border with Vietnam, in SEZs that serve as transfer points for goods moving through the port facilities near Ho Chi Minh. In addition to the Bavet Dry Port, there is only one logistics hub along the Mekong near Phnom Penh.[32]However, this is more a collection of cargo-handling facilities than a full-service hub offering a wide range of storage, transport and trade facilitation services.

Some further agglomerations of garment and footwear industries are likely to gain size at the largest zones. It is also expected that the Phnom Penh logistics hub will grow in terms of capacity and variety of services. Efforts to improve the existing clusters and develop additional clusters could focus on increasing competitiveness by providing efficient connections to the trade routes and encouraging development of domestic suppliers to serve the factories located with these clusters. This will require stronger coordination between government and the private sector in planning the development of the clusters. The development of new zones should be based on a value proposition that emphasizes efficient logistics rather than taxes and other financial incentives.

Current Issues

The TTFA and TCA have identified in some detail key issues that need to be addressed to improve the trade logistics environment in Cambodia. They include:

1. The lack or poor implementation of cross-border transport agreements is causing inefficiencies and decreasing competitiveness of Cambodian products.
2. Third party insurance covering cross-border transportis lacking.
3. Cambodia and its neighbors use different axle load limits.
4. The container market lacks “liquidity” as result of import-export flow imbalances.
5. Despite recent improvements, roads are not yet considered sufficiently safe by truck drivers.
6. A few large trucking firms dominate the road haulage sector in Cambodia, with old fleet due to low competition.
7. High fuel cost is considered to be the greatest impediment to business operations, driving up total costs.
8. Foreign companies cannot compete on most Cambodian roads so prices remain high for truck shipments.
9. Cambodia’s railway network is not connected to Thailand.
10. Port infrastructure is adequate for the current trade volume but needs strengthening to ensure sufficient capacity to support trade expansion.
11. Use of alternative waterways – particularly along the Mekong – should be encouraged as opportunity exists to use Vietnam’s port infrastructure.
12. Costs components making the final priceare opaque, with complex chain of brokers.

[32]http://www.songuongroup.com/dryport/index.php?page=bv

13. There is a high level of informal payments to clear cargo, a large proportion of which seems to be captured by shipping companies.
14. Logistics to support formal export of rice and other agricultural commoditiesis insufficient.

Cross Border Agreements

Route competitiveness is weakened by the lack of a clear cross-border agreement between Cambodia and its neighbors, Thailand and Vietnam.As a result, trans-loading of cargo is prevalent at the Poipet and Bavet borders with Thailand and Vietnam respectively**.**At present, Cambodian trucks are not allowed to operate in Thailand and a very limited number of Cambodian trucks operate in Vietnam. Similarly, Thai and Vietnamese trucks are generally restricted from operating in Cambodia, except to trans-load goods within the immediate border area, as outlined in greater detail further below. The lack of a transit agreement forces trucking companies to trans-load goods near the border leads to delays, additional costs, restricted competition, and a limit on the price and shipping options available to the general public.

Until recently there has been no exchange of traffic rights between Thailand and Cambodia apart from limited arrangement in the border areas. This is so despite the fact that a first step was taken to implement the CBTA through an MOU, signed in May 2010, providing for an initial quota of 40 trucks per country to be allowed to operate into each other's territory. However, the Thai parliament has not ratified the MOU. Presently, Thai trucks can only enter Cambodia up to an ICD in Poipet where the goods are transshipped, with one exception. The company Minebea is now permitted to drive its goods, in sealed containers, from Bangkok to Phnom Penh without transshipment at the border.

There is a bilateral agreement between Cambodia and Laos that allows trucks to cross the border. The agreement limits each side to 20 permits, though, presently, demand is so low that the permits are underutilized. Route management between the two countries is not viewed as a constraint to trade at this time.

Cambodia and Vietnam have a bilateral agreement that provides for each side to issue up to 300 permits.However, freight transport operators on both sides prefer to operate only to the border, reportedly because of the high cost of obtaining the necessary permits. Out of the quota of 300 permits each side is allowed, more than two-thirds are used for passenger services. Trucks carrying goods for the SEZ at Manhattan near Bavet, on the Vietnam border, are exempt with pre-clearance. Though inefficient, this practice seems to be widely accepted in the ASEAN region and can be seen at similar checkpoints in other countries such as the Thai-Malaysia border on the Bangkok-Kuala Lumpur-Singapore route. The cost of transshipment on the Cambodia – Vietnam route is about $80 per container.

Third Party Insurance

ASEAN does not have a functional regional third party liability insurance scheme. Goods and vehicles registered in one country require third party liability insurance in case there is damage to property or personal injury in another country. Insurance companies do not cover cargo beyond their national borders and this represents a risk to the consigner and consignee. For instance, in case of an accident in Cambodia, a truck and its cargo may be impounded and it may take months to be released, incurring high

fees and charges (shipping line container fees) in the process. Presently cross border operators must arrange independently for insurance when Thai trucks cross the border. International best practice is to introduce a regional third party liability insurance scheme. There are several well established schemes in Europe and Africa.

Axle Load Limits

One of the outstanding features of regional harmonization is axle load limits. Presently each of the countries in South East Asia has a different maximum axle load limit (Table 3.2.) Suffice to say such disparities necessitate heavy overload control infrastructure with attendant negative impacts on trade.

Table 3.2: Axle Weight Comparison among Neighboring Countries

	Lao PDR (Maximum Tonnage)	Thailand (Maximum Tonnage)	Cambodia (Maximum Tonnage)
Gross Weight Allowed 18-Wheel Truck	39	45	40

The reasons offered by trucking companies for vehicle overloading are threefold:

- **Cost competitiveness:** There is a perception that shipping overweight is needed (or is a calculated risk) in order to remain cost competitive, particularly in an environment where some large players benefit from informal relationships.
- **Availability of trucks capable of carrying heavy loads:**Foreign truck makers have been building wider and higher vehicles to reduce costs but the additional size and weight of these trucks are not suited to Cambodia's roads. National legislation has not been updated to cover their use.
- **Demand for heavy goods:** Cambodia's relatively rapid economic development is increasing the demand for movement of heavy construction materials and agricultural goods.

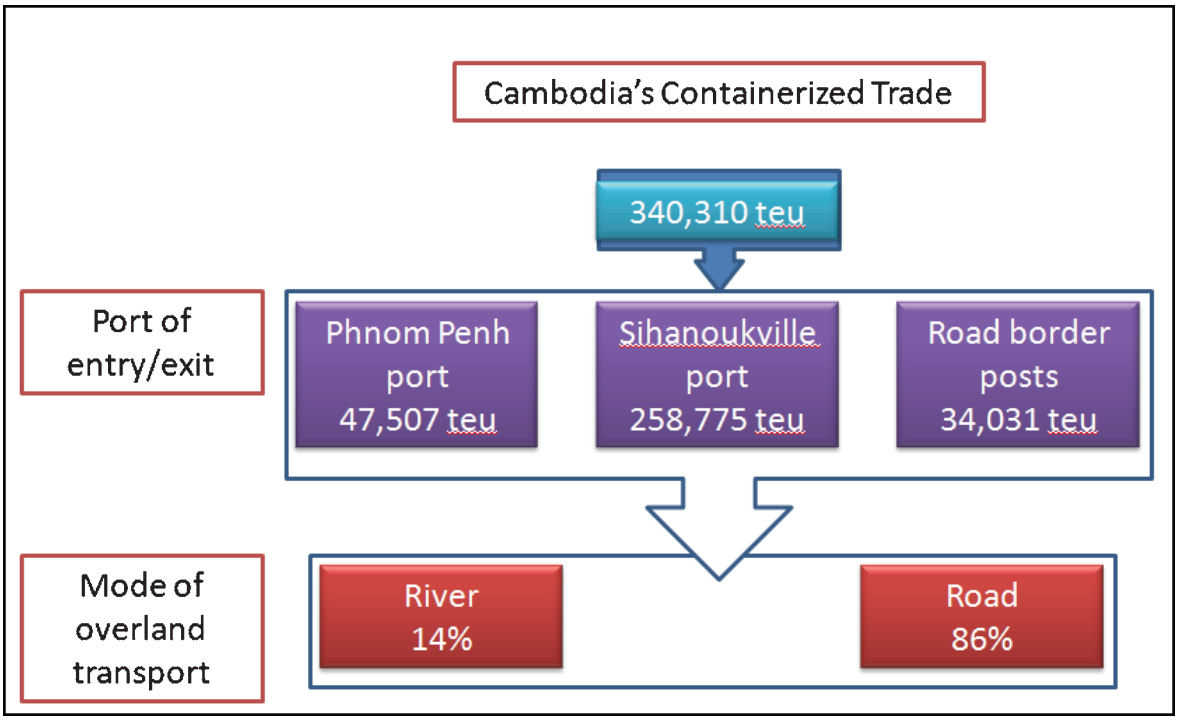
Weighbridges provide one of the major opportunities for improper practices along regional trade corridors. Vehicle overloading imposes an economic cost on the economy by increasing infrastructure maintenance costs while accruing benefits to individual operators. However, the enforcement of weight requirements also opens up opportunities for improper practices unless it is properly regulated. In some cases, the weighbridge stop is used by some operators as an opportunity to offer payments to officials so they can let overloaded trucks through. Stricter enforcement of good practices with respect to fee collection at weighbridge stations may be warranted.

Scarcity of Containers

Overall the economy presently generates around 340,000 standard containers of cargo per year, both imports and exports (Figure 3.1.) However, the demand for export containers is much less than for imports. The imbalance between import and export volumes in Cambodia results in a scarcity of containers available for shipments in key routes, due to significant number of empty containers being

shipped abroad. This contributes to a lack of 'liquidity' in the container market as containers are sometimes unavailable and incur high charges to the shipper if they are returned late to the shipping company. The majority of such empty box shipments are to Singapore and Thailand, reflecting a desire by shipping lines to position empties in these markets.

Figure 3.1: Cambodia Freight Transport Market, 2010



Source: TTFA

Shipping lines impose strict limits on the return of empty containers to the ports. Shipping companies (owners of the containers) require empty containers to be returned within seven days.[33] These limits are much more generous in Cambodia than they are in Laos, where containers have to be returned within four days. Given the distance and time performance of domestic logistics in Cambodia, trucking companies typically do not pay container storage fees. Containers are instead stored at dry ports (often owned by trucking companies) at no charge. In general, there is a collegial business relationship between shipping, freight forwarding, and trucking companies with respect to containers, although overall industry coordination could be improved as evidenced by the large number of empty containers being both imported and exported. The rationale for shipping empty containers is that large shipping companies have container leasing agreements with ports in other countries (i.e. Singapore, Hong Kong) and have to re-export the empty containers to avoid paying demurrage fees. Since containers cannot be stockpiled, the result is that empty containers of different sizes are being both imported and exported in order to meet export demand from Cambodian firms and to meet contractual requirements from leasing agreements.

33Maersk estimates that empty containers account for 10% of the 400 containers sent per week to Singapore.

Table 3.3: Number of Empty Containers Exported to Regional Countries First Half of 2011			
Country	Volume of Containers (first half 2011)		
	20ft	**40ft**	**45ft**
Other Asia	1179	1495	5
Singapore	837	902	6
Thailand	884	641	0
Hong Kong	170	283	0
Others (Not Stated)	156	161	2

Road Safety and Infrastructure

Cambodia has a road network of approximately 38,257 km including 4,757 km of national roads and 5,700 km of provincial roads that fall under the stewardship of the Ministry of Public Works and Transport as well as 27,800 km of tertiary roads for which the Ministry of Rural Development is responsible. Major roads link Phnom Penh and regional centers to all neighboring countries. The network has been much improved since the mid-1990s and is generally in fair to good condition. However, road quality in Cambodia is not always optimal, with some new roads deteriorating quickly when they have not been built to international standards. Trucking firms *perceive* the condition of roads in Cambodia not to be as wide or as well maintained as in neighboring countries. Some firms mention the need for further road infrastructure development in the future in order to keep up with regional standards, which could be harmonized together with axle load limits.

In terms of other infrastructural impediments, trucking companies point to road safety and accidents as a major problem. According to the Climate Investment Funds, "Cambodia has one of the highest incidences of road accidents in the world, with 10 fatalities per 10,000 vehicles in 2010. This is a 44 percent decrease from 2007, but still represents the highest accident rate in Southeast Asia. Thus, road safety continues to be a major sector concern, especially with the growth of traffic in provincial and rural areas."[34]

Trucking Industry

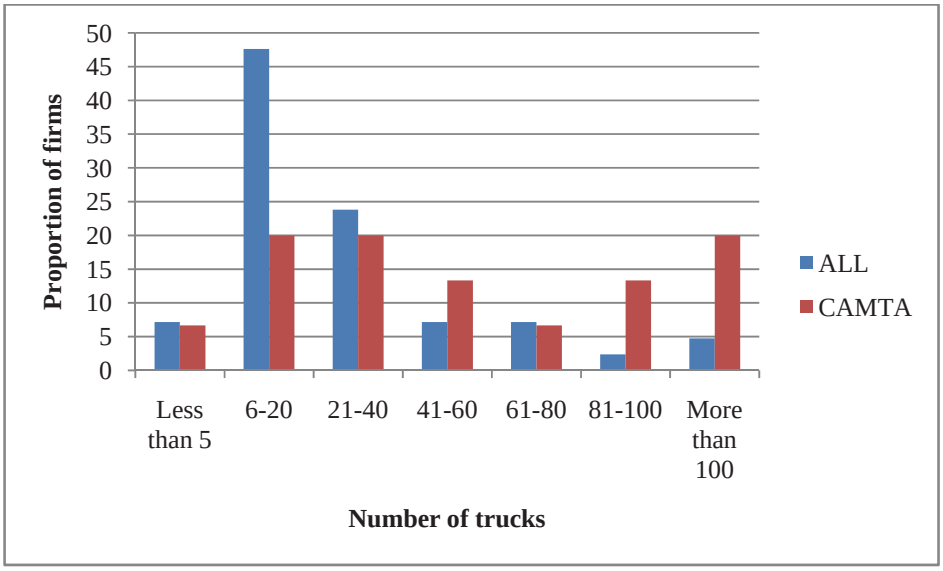
A few large trucking firms dominate road haulage in Cambodia. There are many operators with some fleets, typically operated in an informal way. The twenty largest companies have on average 20 to 30 trucks each and, together, operate more than 1,000 trucks. The largest firm has more than 200 trucks. The government is now encouraging such operators to become formalized. This is being promoted through the association of trucking firms.

The major trucking firms are organized in a formal trucking association, the Cambodia Trucking Association (CAMTA). As of September 2011, CAMTA had 15 members. Together, the firms owned a

[34] http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/PPCR%208%20Cambodia%20Project.pdf

total of 800 large trucks (majority semi-trailer.) CAMTA member companies represent more than half of the heavy vehicle fleet in the country. The membership has not changed significantly in recent years though the government is now actively encouraging all operators to join. The distribution of the fleet of CAMTA members compared to the general population is shown in Figure 3.2.

Figure 3.2: Distribution of Trucking Fleet Sizes (Phnom Penh Operators)



Source: TTFA, data from EMC and CAMTA

Most trucks operate on two routes connecting Phnom Penh to the ports of Sihanoukville and Ho Chi Minh City in Vietnam. Traffic volumes have been increasing fastest on the route to Vietnam.

Some of the key characteristics of the trucking industry are as follows:

- The fleet is generally oldand prone to frequent breakdowns.Trucks are purchased and imported second-hand, mainly from Korea, Taiwan, and the USA. There is presently no legislative limit on the age of trucks when first imported, though the average is 5-7 years.
- The cost of vehicles and access to financeare challenges for trucking companies.Operators can borrow money from the bank to purchase trucks though most prefer to finance using their own resources due to high interest rates charged by banks. This explains the use of second-hand trucks. This leads to higher maintenance costs (in addition to fuel costs) and affects prices charged by truckers and the overall efficiency of the Cambodian trucking fleet.
- Cambodia's trucks are under-utilized significantly in international terms.Trucks average 5-6 trips per month with an average annual mileage of less than 40,000 km. This is about one-third that reported in Southern Africa, for example. The low level of utilization is partly a function of lack of return loads, low frequency of truck movements, and the industry's limited geographic scope.

High Fuel Cost

Operators considerhigh fuel cost to be the greatest negative factor, driving up total costs. One trucking company reports that fuel accounts for up to 70 percent of the total transport costs. This proportion of cost of fuel to other costs is consistent with reports from Lao PDR and Thailand, where fuel cost are also reported to be a major constraint. This is a huge limitation in investment in new rather than usedtrucks by fleet owners. In other regions of the world, fuel costs typically are less than half of total costs.

Weak Competition in the Trucking Sector

Competition among trucking companies is mostly local.Foreign trucks are restricted from operating deeply into Cambodia, so international competition does not influence strongly pricing policy for trucking services.[35]Cambodia's WTO Schedule of Service Commitmentsplaces no restrictions on market access and national treatment for road freight transport under all modes of supply, except for the movement of natural persons, and places no significant limitations on horizontal commitments, except for the movement of natural persons and ownership of land by foreign individuals. Accordingly,one might assume that limited competition from foreign trucks results primarily fromother Non Tariff Measures (NTMs), including several suggested in this chapter such as thelack of third party insurance, lack of ASEAN axle load common standards, cross-border truck quotas allotted only to majority-owned Cambodian firms, etc.

The transport logistics landscape is changing, however. Selected new international players entering the market, as evidenced by Japanese logistics companies Nippon Express, Yusen Logistics and Sojitz Logistics setting up office in Cambodia. These companies have potential to strengthen the logistics environment, especially as CBTA is implemented and BRTAs between Cambodia and its neighbors are finalized.

Several trucking companies report that more than 50 percent of their sales originate from one key client – a finding that suggests market entry is predicated on having an anchor client rather than based on free competition for services. A recent survey by EMC for the World Bank's Transport Corridor Assessment (2011) found only one logistics company reporting a large number of customers (approximately 1,000), with only 11-25 percent of revenue coming from its most important one.In short, current operational practices limit contestability in Cambodia's trucking market.[36]

Railways

At this stage, given its limited availability, railway transport does not influence pricing and competition in the transport service markets. But this might be changing.

Like in Thailand,Cambodia has a one-meter gauge network. The network was concessioned to a private operator in 2009. The network consists of the Northern line linking Phnom Penh with Sisophon (338 km), the Southern Line linking Phnom Penh to Sihanoukville (264 km), and a branch line from Phnom Penh to the petroleum storage facilities at Tonle Sap River (6 km). The railway system is only partly operational and is undergoing rehabilitation. The branch line between Phnom Penh and Sihanoukville has

[35]EMC, "Transport and Logistics Corridor Assessment, Cambodia", Phnom Penh: EMC, 2011
[36]EMC, Ibid

been renovated and regular scheduled service was introduced in 2013 and will be expanding. The Northern line is under renovation. Itwill include the reconstruction of the "missing" stretch of rail from Sisophon to Poipet (48 km) on the Thailand - Cambodia border. This stretch of railway was removed during the war in the 1970s and its restoration will enable a link from Cambodia to Thailand. When it becomes operational, the railway could help overcome some of the costs incurred in transshipping cargo at the Cambodia-Thailand border. However, this will depend on the efficiency of wagon transfers on crossing the border. Finally, the Government is studying options, including financing, to build a rail link between Phnom Penh and Vietnam.

Ports and Shipping Services

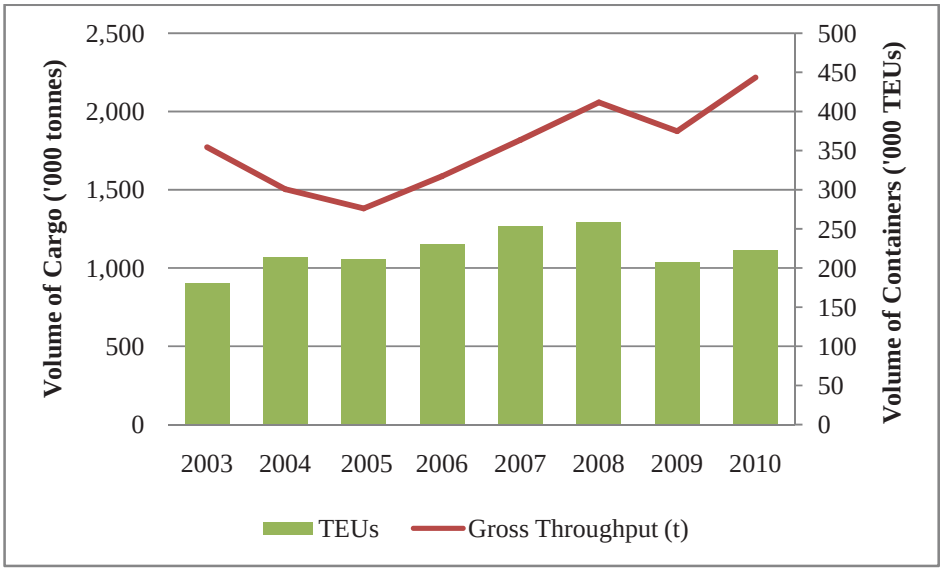
Cambodia is served by two main domestic ports – one river port in Phnom Penh and a seaport in Sihanoukville. Both ports are state-owned but autonomously operated. A third port, called the Mong Rithy Port, is private and operates under a semi-official status. Sihanoukville is operated by Port Autonomous Sihanoukville (PAS) and Phnom Penh by Phnom Penh Automous Port (PPAP) trusts. Cambodia has access by road and inland water transport to seaport trade gateways. Cargo to Sihanoukville from Phnom Penh is transported mainly by road,but, with the recent reopening of the rail connection between the two cities, scheduled freight rail service is gradually being expanded. Freight to the Vietnamese ports moves either via the Mekong River via staging points in Cambodia to the deep water port of Cai Mep (some 35 miles southeast of Ho Chi Minh City) or directly to Ho Chi Minh City (HCMC) port. The port of Cai Mep was opened in 2006 as a joint venture between the shipping line Maersk (49 percent) and the Vietnam-based Saigon Port and Vietnam National Shipping Lines - Vinalines.

The HCMC port serves as a gateway either for direct service to the US West Coast or other major Asian ports or for other international service by means of transshipment viaSingapore and Tanjung Pelepas in Malaysia. Cai Mep port is used as a gateway for direct liner services to most hub ports in the US, the Middle East, and Asia.

The Sihanoukville Port is the largest seaport in the country.The port was constructed in the 1950s and became operational in 1960. It has an old berth that can accommodate four medium sized vessels on both sides. A new quay was constructed in the 1960s which can accommodate three vessels with about seven meters draft. A container terminal opened in 2007 to handle vessels with about 10.5m draft. Current cargo volume is close to 2.5m tones per annum, more than two thirds of which is containerized.

The Port of Sihanoukville has limited draft – currently 10m deep – which restricts the sizes of vessels that can call at the portto a maximum 1,000 TEU. However, the Port Authority of Sihanoukville is building a 13.5m deep multi-purpose terminal and dredging a channel with a Japanese loan which will allow much larger ships.The small volumes of traffic and the trend in the shipping industry to rely increasingly on a hubs and spoke system (large vessels using mega ports with feeders from smaller ports) are some of the reasons why Sihanoukville is predominantly a feeder port linked to main world destinations by feeder services to Singapore and Hong Kong. In short, Sihanoukville should seek to increase its competitiveness as a feeder portthrough greater efficiency and lower costs.

Figure 3.3: PAS Cargo Throughput, 2003- 2010



Sihanoukville remains the main trade gateway for seaborne cargo entering or leaving Cambodia.Sihanoukville handles approximately three-quarters of all trade traffic by volume. In 2008 the port handled about 250,000 TEUs while the river port handled about 50,000 during the same year. Cargo volumes transiting through Vietnam have increased in recent years, due to the perceived competitiveness of both the overland and sea routes.

Vessels calling at Sihanoukville Port are small by international standards (maximum 1,000 TEU.)The Port is smaller than all other seaports in neighboring countries and is characterized by much lower international connectivity, as measured by the UNCTAD Liner Shipping Connectivity Index.[37]The biggest ports in the region through which Cambodia traffic is transshipped (Hong Kong and Singapore) are more than 100 times larger than Sihanoukville in terms of container volumes. The port is also considerably more expensive than ports in Cai Mep and Ho Chi Minh City.[38]

The port is operated by a Government agency and the private sector is advocating the adoption of measures to improve its competitiveness compared to other ports in the region. The added value of specific services, such as those provided by KAMSAB, could be reviewed and possibly streamlined. Attention might also be given to relying on private operators for the port's expansion and management.

[37]http://data.worldbank.org/indicator/IS.SHP.GCNW.XQ
[38]2.6 times more expensive per TEU, according to Maersk Lines.

Figure 3.4: Number of Vessels Calling at Cambodia Ports

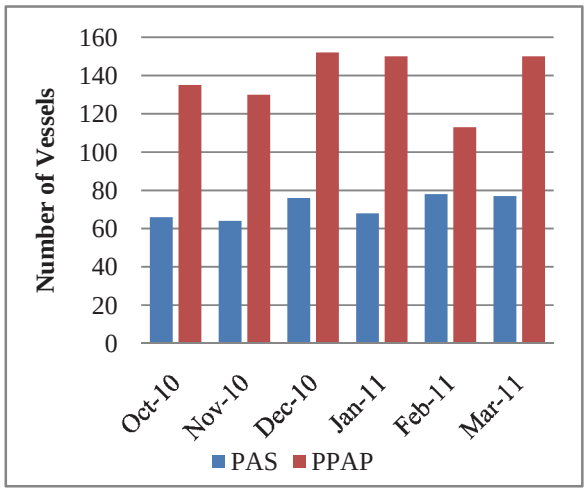
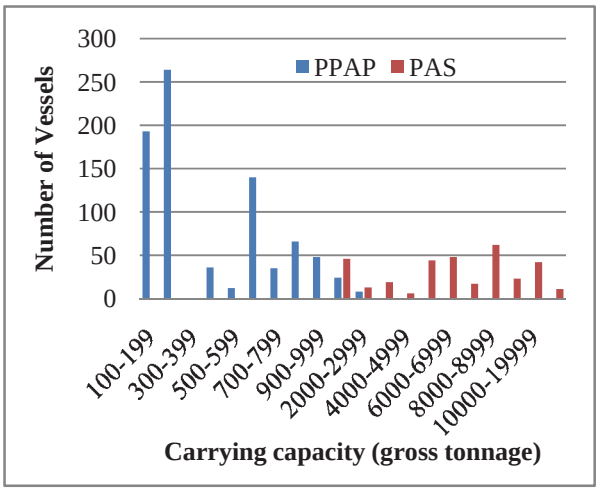
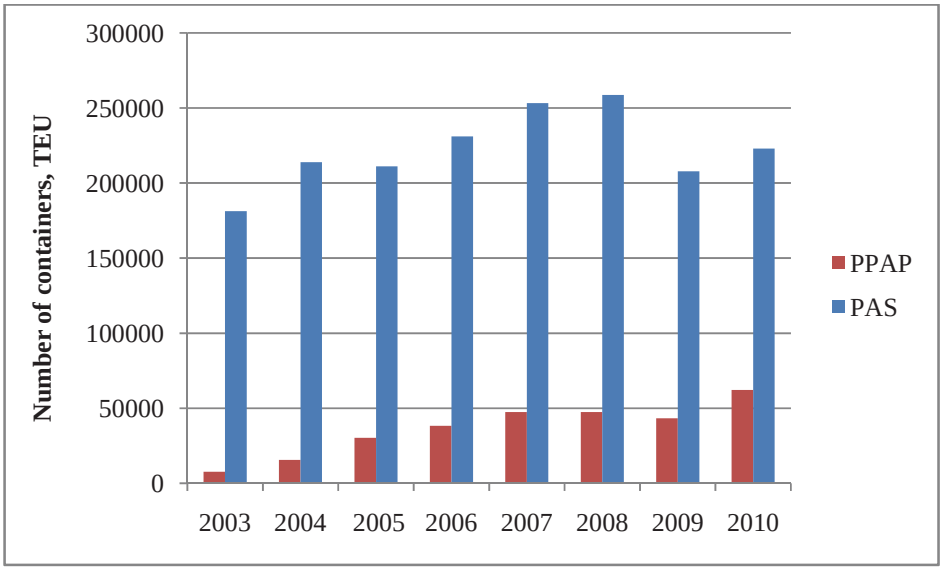


Figure 3.5: Distribution of Vessel Sizes Calling at Cambodia Ports



Source: World Bank and Containerization International2010 (http://data.worldbank.org/indicator/IS.SHP.GOOD.TU).

Figure 3.6: Container Volumes at Cambodia's Main Ports



Source: TTFA, data from PPAP and PAS

The trade traffic volume on the major trade routes out of Phnom Penh to the seaports is influenced in part by the frequency of vessel calling at the respective ports. So, while some shipping lines, such as APL, provide a regular weekly service to Sihanoukville, it is only a feeder service to Singapore. In comparison, Ho Chi Minh and Cai Mep have many direct vessel calls to numerous overseas destinations. Shippers typically make an assessment of the option that gives the shortest possible transit time within the

constraints imposed by their overseas buyers. Cambodia's ports should improve their efficiency and competitiveness as feeder ports, in line with international trends in the shipping industry which is increasingly using large vessels operating in mega ports such as Singapore and Tanjung Pelepas in Malaysia. Improvements in physical capacity including adding cranes, blasting and dredging to deepen the entrance channel would be required for direct vessel calls, especially by the larger vessels now used in international shipping.

Alternative Waterways

The most competitive route for shipping is via the Mekong River from Phnom Penh to Cai Mep port in Vietnam. Traffic through PPAP has been growing in recent years. This is mainly due to the connection to Cai Mep port in Vietnam by river barge, which is an option that offers international connectivity advantages over both Sihanoukville and Ho Chi Minh ports. Sailing down the river from Phnom Penh to Cai Mep and linking to a deep sea vessel to the United States is $200 cheaper per container and two days shorter than driving from Phnom Penh and connecting through Ho Chi Minh. The same route is also $100 cheaper and 3 days shorter than going through Sihanoukville.

Ho Chi Minh City does not offer direct service to Europe. But it is extremely competitive for intra-Asia container services, with tariff freight rate (excludingsurcharges) from Ho Chi Minh to Shanghai, for example, being around $100 compared to around$250 from Sihanoukville. A new port with an adjacent container terminal is under development in Phnom Penh, some 30km downstream from the current port, which will ultimately have a capacity of 300,000 TEU per year. This will add to the efficiency of the river transport option for shipments from Cambodia to Vietnam's deep-sea ports. However, current draft in the Mekong River is limited and only barges up to 120 TEU are allowed transit. Options to dredge the river in Cambodia and Vietnam should be explored.

Clearing and Forwarding Services

Logistics services in Cambodia are provided by numerous brokers, each contributing one activity to the final clearance of the goods. The multiplicity of actors makes it more difficult for traders to track payments.This can be illustrated by the case of textile exports, where manufacturers pass shipments to Inland Container Depot operators who work with forwarding agents and trucking companies to get a shipment to the port. For many exports, shipping lines have typically been designated in advance by the overseas buyer. In order to ensure smooth operations, the agents working with the designated shipping line tend to be preferred over independent agents, creating an informal bias in favor of one shipper that impedes competition and impacts on costs in general. As a result, while, in theory, there is competition in logistics services, in practice, shippers have to work with service providers linked to one or other of the shipping lines. The lack of clarity about the roles played by various brokers presents exporters with an opaque process and regulatory environment that is characterized by limited competition and unusually high costs for shippers. In agriculture, the practices are similar though processors and exporting companies have greater control over the farm-gate portions of their supply chains. Processors purchase from middlemen who buy directly from farmers and have to work with forwarders to export their produce. As a result, there is little in-house management of logistics services by the country's private sector.

Freight forwarders are probably the most important players in organizing logistics in Cambodia. EMC found significant overlaps among services provided by trucking and freight forwarding firms. Some trucking companies provide basic transportation services while a few also offer freight forwarding services and warehousing.[39] Some freight forwarders offer standard clearance services while others also own their own trucks. In many cases, businesses claim to provide a wide range of services but actually outsource the activities to another party. The most common overlap between trucking and freight forwarding companies is provision of customs brokering and warehousing services. In total, there are approximately 200 freight forwarders operating in the country.

The freight forwarders in Cambodia are organized in a national association, the Cambodia Freight Forwarder Association (CAMFFA). CAMFFA was established and recognized by the government in 2004. It has 21 members – 19 regular members and 2 associated members. CAMFFA and the Cambodian Trucking Association (CAMTA) are active in the same Government-Private Sector Forum (G-PSF) working group, which allows for dialogue between the private sector and government on logistics and trade related issues.

Informal Payments

A fundamental problem underlying the logistics market in Cambodia is the opacity of the costelements that determine the final price for shipments.This is one of the reasons manufacturing firms do not invest in in-house logistics capability - because they wish to avoid having to deal with some of the informal practices that are encountered along the trade corridors. Importantly, the desire to avoid informal fees – or the desire to avoid being personally involved in making informal fee payments – enhances the power of agents and brokers to increase the charges involved in transporting goods into and out of the country. The ability of agents and brokers to claim the existence of high informal fees, and use it as justification for charging high shipment prices, seems to be one of the main contributors to Cambodia's high logistics costs. Furthermore, the agents and brokers have a financial incentive to maintain the opacity of the regulatory environment so as to discourage any outside investigation of the amount that is really paid by them in informal clearance fees versus the amount that is retained by them in the form of abnormally high profits.

Generally, trucking firms consider lack of access to accurate and up-to-date information as a constraint. They perceive information regarding fees, regulations (particularly upcoming legislation changes) and procedures to be unclear at times. Problems may also arise because of poor dissemination of information by government agencies and lack of knowledge in the private sector about where to access the information provided. According to operators there is little to no advance notice regarding new regulations that have come or will come into effect. Informal fees are charged sometimes for obtaining information. The lack of transparency proves a fertile ground for informal payments, including to various border officials.

Informal payments are reported to take place at weighbridges, en-route checkpoints, and customs.Trucking firms report that informal fees are collected routinely by police at checkpoints on main

[39]EMC,2011, ibid.

roads. On the route between Phnom Penh and Poipet, for example, informal fees range between 5,000 and 20,000 riel, though fees as high as $10 have been reported. Weighbridge stations also provide an opportunity for informal fee collection due to truck axle-weight and length issues. Many truckers elect to pay an informal fee simply to avoid losing time from inspections.

Traffic police collect informal fees from truckers for "every perceived minor problem", as stated by one interviewee.[40]While this may well be justified, there is a perception of harassment and unclear and unfair application of traffic laws,for purposes of extracting informal fees. Operators on the PAS route report paying informal fees ranging from 10,000 to 50,000 riel relating to "every single mistake related to truck safety."[41]

The informal fees are also levied at border crossing and during customs clearance. Most operators are reluctant to even discuss informal fees. Unequal treatment by border officials, based on informal relationships, may also skew some responses more positively than is otherwise the case.[42]

There are also high levels of informal payments to clear cargo. Typically agents pay $180 to $210 to clear each twenty-foot container. The payments are shared between the clearing agent and border officials. Stakeholders view the border processes as the main contributor to high trade costs in the country. Exports of agriculture goods such as rice, cassava, or cornalso require payment of informal fees. In sum, the cargo clearance costs at Cambodia's ports of entry and land border crossing points are high, even by regional standards.

The informal costs are passed on to shippers, but without supporting receipts, leading to opacity about the real rate of informal payments that are truly required for clearance of each shipment and exacerbating the distrust between agents and shippers. In any event, agents add a premium on each informal payment that they make. The practices are similar at both ports and land border crossings where informal payments are common, though the clearance procedures can vary amongst the different ports and border crossings. Each crossing or port has its own rules and informal fees have to be paid in different situations to varying amounts.

Logistics Issues Related to Specific Products

Milled Rice:Milled rice is transported to Phnom Penh by road then shipped through Sihanoukville or Ho Chi Minh City. The typical size of export shipments varies from three to 15 TEU. However, small traders will ship a single TEU, especially for fragrant rice. The minimum shipment size for large traders is usually five TEU and they accept orders with multiple shipments. The time from confirmation of the order to loading on the ship is 5-14 days. The order cycle from order confirmation to delivery to the buyer's warehouse is 35-42 days for Europe but can be as little as 14 days for East Asia and less for Southeast Asia. The percentage of delayed shipments varies by trader but is generally 10 percent or less. Most delays are the result of problems in the outbound supply chain including:

[40] EMC, 2011, Ibid
[41] EMC, 2011, Ibid
42For example, major trucking companies in Poipet reported having a perfect relationship with Customs and not paying any informal fees, despite contrary information from clearance agents.

- lack of reliability in terms of domestic transport;
- lack of available 20' containers suitable for carrying food;
- inefficient handling at the loading port; and,
- lack of available customs officials.

Garments:The order cycle from confirmation of order to delivery to the export gateway averages about 90 days. For smaller orders of simple products, the average is closer to 45 days while for larger orders that require special fabrics and/or various samples to be approved prior to production the average is closer to 120 days. The delivery time for imported fabrics is three-to-eight weeks and the value of shipments is in the range of $50,000 to $75,000 per TEU. Factories receive consignments on a weekly basis with most shipments organized by the supplier on a C&F basis. Payments for imports are made a specified time after receipt of goods, typically a week or two, using an electronic transfer. For vendor factories, the parent company manages the finances and transactions. For local firms, the transactions often require a Letter of Credit and are financed by discounting the buyer's letter of credit.

Finished garments are packed and labeled for delivery to retail outlets. The garments are then shipped in ocean containers to the retailer's distribution center. Ocean transport is arranged by the buyer's designated forwarder. Containers are loaded at the factory for transport to Sihanoukville. Time for overseas shipment adds 15-35 days to the total order cycle depending on the distance to the overseas destination. Larger orders are sent in multiple consignments, usually on a weekly basis. Airfreight is used only for time-sensitive or delayed shipments, which account for 1 percent and 5 percent of shipments, respectively.

The cost for moving the container from Sihanoukville to the factory's warehouse is $700-$900 per FEU, which includes the terminal handling charge. For transport from the factory to the port, the range is from $450-$1000. Most firms give five-to-seven day advance notice when arranging truck transport to the port. The garments produced have an average value of $3-$4 per unit. The higher cost items have more trim and embroidery. The value per FEU varies from $100,000 to over $200,000. The garments are shipped FOB or FCA with payment by TT, usually 7-30 days after loading on the vessel. International freight rates vary by destination but are currently about $800 per FEU for East Asia, $1800 for North Europe and $3600 for the US East Coast.

Footwear:The principal destinations are Japan and the EU. Nearly all the exports are shipped by sea in containers that are loaded at the factory. The movements are arranged by forwarders or shipping lines.

The smallest shipments are one or two TEU per week with 3000-5000 pairs per TEU. A typical shipment however is three to 15 TEU with a value between $110,000 and $550,000. Airfreight is used for less than 10 percent of shipments. The principal trade corridors used for footwear exports link factories with the loading ports. The firms located in Manhattan SEZ near the Vietnamese border use Cai Mep while those located in or around Phnom Penh usually use Sihanoukville.

Possible Reforms to Improve the Competitiveness of Cambodian Logistics

The issues described above are critical to sustain Cambodia's trade expansion. There is a need for fruitful inter-ministerial cooperation in designing and implementing reforms in the area of trade logistics. A High Level National Task Force with the mandate of formulating a National Logistics Blueprint (NLB) could be set up with responsibility foridentifying clear tasks, objectives, and timeframes. The NLB should be developed and implemented in synergy with initiatives in support of specific supply chains and aiming at improving trade facilitation. The NLB should adopt a multi-modal logistics approach, identifying and prioritizing solutions that ensure maximum benefits. Accordingly, the Task Force and the NLB should operate within the existing Trade SWAp structure to ensure maximum coordination among ministries and agencies involved and between RGC and private sector organizations.

Box 3.1: National Logistics Plan

International best practice suggests that a National Logistics Plan should be developed through consultation among Government officials, private sector operators, and academics aiming at identifying key short- and long-term priorities and actions. It is critical to set up an effective mechanism for the various public and private sector stakeholders to co-produce a shared logistics vision and strategy for the country. Also in this area, high level Government engagement to lead and monitor implementation has proved a fundamental ingredient for success: for instance, the Prime Minister's office in Thailand or the Vice-President office in Indonesia. Experience suggests developing sector plans (air/land/water) into multi-modal, integrated plans, ideally sharing practices with ASEAN neighbors. A strong governance structure is needed with a clear delineation of responsibilities. National Logistics Plans need to be comprehensive, addressing issues related to infrastructure, regulations, competition, partnerships, etc.

When formulating the NLB, the relevant stakeholders should take a "whole-of-corridor" approach to dealing with shipping liner connectivity at the regional hub ports of Ho Chi Minh, Singapore, or Hong Kong. They should also focus on problems related to the implementation of existing bilateral agreements, including transparent allocation of quotas for trucks. The lack of transparency in quota allocation prevents more advanced foreign operators to invest in Cambodia and contributes to increased costs. The NLB would need to address comprehensively and with detailed responses the issue of informal payments which is at the root of many of inefficiencies affecting the system and high costs.

The Logistics reform actionsthat would need to be considered under the NLB can be broadly categorized in cross-cutting reforms and sector-specific reforms that are presented in the non-prioritized list that follows. Additional discussion will be necessary, possibly in the NLB Task Force, to develop a prioritized, sequenced, and resourced plan of action. It should be noted that targets identified in the attached Trade SWAp Roadmap under Outcome #3 have been identified based on what would be feasible to achieve if sufficient resources are deployed to support implementation.

Cross-cutting Logistics Reform Actions

The interventions that would benefit the overall trading competitiveness are the following:

- Negotiate with Thailand and Vietnam improved agreements for an integrated road transport market. Those agreements should include the extension of specific permission provided to large

companies operating in SEZs (i.e. Minibea) and ensuring regulatory support for cross-border shipments along the Mekong.

- Link the National Logistics Plan to existing ASEAN frameworks such as the *"Roadmap for the Integration of Logistics Services"*.
- Draw the attention of other ASEAN Member States to the need to ratify and implement existing agreements (see details in ASEAN box).
- Improve transport regulations (liabilities, axle loads limits, drivers' qualifications and conditions, safety standards, contracts, etc) including by adopting international standards to attract investment.
- Establish a regional third party liability insurance scheme and harmonizing axle load limits in main transport corridors.
- Introduce a road fleet modernizing scheme with appropriate financing and quality enforcement mechanisms.
- Remove impediments to FDI in logistics, in order to improve sector's competitiveness and lower cost of services to traders.
- In cooperation with private sector associations, developcapacity among: a) Clearing and forwarding agents, based on FIATA courses; b) Trucking firm operators on fleet management and modernization; and, c) Transport sector regulatory authorities on port, road and railway regulation and rate setting principles.
- Reconnect the Thai and Cambodian railway network prioritizing freight operations.
- Study options and financing for new rail link between Phnom Penh and Vietnam
- Liberalize port fees in order to encourage cost competition between ports and improve competitiveness of Cambodian ports compared to those of neighboring countries.
- Review the ongoing port operating model and consider giving operating licenses to international port operatorsin order to reduce needs for public investment and increase efficiency.
- Review the value added provided by KAMSAB and consider streamlining its operations.
- Consider dredging the Mekong between Phnom Penh and Ho Chi Minh City to enable access to barges larger than 120 TEU.
- Carry out a security review to identify measures to bring Sihanoukville and Phnom Penh Ports in line with international security standards and prevent recurrent problems of pilferage of containers.
- Identify options for increasing the use of out-bound empty containers, possibly through export of semi-processed and processed agricultural products (cassava, rice, corn, rubber, etc.).

Reform Actions to Improve Milled Rice Logistics

Inbound supply chains will be strengthened by the current trend towards increasing the size and efficiency of rice mills. Larger capacity mills require a more efficient system for collecting paddy to achieve economies of scale. This begins with a more efficient mechanism for aggregating paddy in order to reduce the cost of delivery to the larger mills. New facilities for storing and drying paddy need to be established near growing areas and operated by mills or third parties. The mills could purchase the paddy either from the farm or from these new storage facilities, maintaining inventoryin those and removing it just before for milling. These facilities could allow greater flexibility in locating new mills, especially at

locations that provide direct access to inland waterways. Existing mills located close to the areas of production could use these facilities to supplement their own storage.

Improvements in performance on the outbound supply chains require upgrading the trade corridors connecting the rice growing areas to the loading points for international shipments. These corridors include those used for:

- Aromatic rice transport by road from the Northwest through Poipet to Laem Chabang for container shipments and through Khlong Toey for general cargo shipments;
- Aromatic, traditional, and high yield varieties transported by barge to Saigon port for loading general cargo ships;
- Aromatic, traditional, and high yield varieties transported by truck to Sihanoukville for loading on general cargo vessels; and,
- Aromatic, traditional, and high yield varieties transported by road to Phnom Penh for transfer into containers and either loaded in Phnom Penh port or trucked to Sihanoukville for loading on container vessels.

The first two corridors require simplified procedures at the borders and the provision for movement of trucks across the border. The second requires simplified transit procedures based on the 2009 Agreement between Vietnam and Cambodia on Waterway Transportation.[43] Improvements in all four corridors would provide economies of scale for general cargo shipments and improve connectivity for container shipments. They would also provide shorter transit times, more competitive services, and lower freight rates for both container and general cargo shipments.

Although there has been considerable improvement in documentation and transport services in recent years, further improvements are required to support a significant increase in export volumes.

Reform Actions to Improve Garment Logistics

The logistics of the garment industry are complicated by the need to import inputs and to match these against exports. Manufacturers continue to report difficulties in processing duty-free inputs and delays in exports related to licensing requirements and inspections. To improve logistics specific to garment, resolving inefficiencies in trade facilitation and border procedures are critical. Margins are low in this sector and any improvement in logistics that reduce costs and increase reliability of delivery will lead to a larger benefit.

The private sector has been effective in organizing production of simple garments and expanding the volume of exports. It is quite likely that the sector will diversify in part by moving into production of higher-value garments. Depending on products, those have slightly different requirement in terms of supply chain performance.

[43] The purpose of the current Agreement is to establish a legal framework for effective implementation of freedom of navigation in the Mekong river system and to create favorable conditions for transit and cross-border trade.

Table 3.4: Selected Markets for Higher-Value Garments			
Product	*Market characteristics*	*Cycle time*	*Capabilities*
Higher quality	Quality of inputs Skill intensive	Moderate	Procurement, Quality control throughout chain, Pool of skilled labor, Specialized logistics and equipment
Fashion basics	Short order cycle Short shelf life	Short	Quick setup, Quality control for inputs and outputs Flexible production, Tight logistics
Specialty garments	Small order Special fabric and trim complex inputs	Flexible	Procurement and supply chain management Flexible production Client management
Small brand manufacturers	Small order Flexible production runs	Short to Moderate	Procurement, Quality control for inputs and outputs

Most higher-value markets would require a reduction in the order cycle times. Current cycle times vary. The time for ordering fabric varies between three and eight weeks depending on availability. The production runs are typically four weeks but depends on the size of the order. The time for delivery ranges from two to five weeks depending on the destination. The result is a total order cycle of two and a half to four months. A movement into high value products implies an increase in the order time for higher quality fabric. Any reduction in order sizes would have relatively little impact on production time because of the fixed time for setting up a new production line. The delivery time is determined by destination, which may change with the diversification into new markets.

Efforts to reduce the order cycle to two to three months would require a tightening of the inbound supply chain, primarily though improvements in the trade corridor linking Phnom Penh with the international container terminals near Ho Chi Minh City. This would include both the road linkage via Bavet and container barge connection from Phnom Penh port. Current efforts to finalize the transit agreement with Vietnam and to introduce simplified procedures for the movement of goods in transit should ensure reliable connections to scheduled container shipping services. This trade corridor provides a shorter transit time than the current route through Sihanoukville due to the combination of a larger number of scheduled services and more direct connections. Initially the savings will be relatively small because the new container terminals have yet to attract the anticipated traffic. The shipping lines have been cautious about expanding services following the global financial crisis. While these ports already offer better connectivity, it is anticipated that the time savings will increase over the next five years. For Asian trade the savings in the transit time to Asian sources of fabric and to customers in Japan, Korea, and Taiwan should be one to two weeks while for the European trade it would be two to three weeks.Additional savings in transit time should be achieved through improvements in trade facilitation that are needed to reduce the clearance time for both the imported fabrics and the exported garments (see chapter 2.)

Outcome #3 in the Trade SWAp Roadmap identifies a number of possible Actions to bring about some of the improvements and reforms identified in this chapter.

Box 3.2: ASEAN and Trade Logistics

The **ASEAN Framework Agreement for the Facilitation of Goods in Transit (AFAFGIT)**identifies a package of measures pertaining to the regulation of frontier posts, harmonization and simplification of customs procedures, traffic, transit transport services, road transport permits, technical requirements of vehicles, mutual recognition of inspection certificates, mutual recognition of driving licenses, and motor vehicle third-party insurance.

The AFAFGT offers great potential for Cambodia.It recognizes also that the benefits of improved infrastructure across South East Asia will remain unrealized unless the regulatory environment is modernized to remove regulatory bottlenecks.A main bottleneck is in the granting of transit and traffic rights. Common practices at most border posts is for trans-loading cargo from a vehicle registered in one country to another registered in the other country and for the transit procedure to be initiated at each land border crossing.

Under its**Connectivity Master Plan,** ASEAN has identifiedsix key strategies:

1. Fully operationalize three Framework Agreements on transport facilitation:
    - ASEAN Framework Agreements on the Facilitation of Goods in Transit (AFAFGIT);
    - ASEAN Framework Agreements on Inter-state Transport (AFAIT);
    - ASEAN Framework Agreements on Multimodal Transport (AFAMT).
2. Establish integrated ASEAN Highway Network:
    - Upgrade below-Class 3 sections of Transit Transport Routes (TTR), as agreed under Protocol 1 of AFAFGIT, with the highest priority to Class 3 or above[44]
    - Upgrade other "below Class 3" sections of the ASEAN Highway Network to Class 3 or above.
    - Install road signs to all designated routes, with a specific priority on TTR.
    - Upgrade "Class 2 or 3" sections with high traffic volume to Class 1 (by 2020).
3. Implementan efficient and competitive maritime transport system:
    - Accelerate the formulation of the strategy for ASEAN Single Shipping Market.
    - Enhance the capacity of 47 designated ports, with the priority set in the studies done and being done under the cooperation with Japan and Korea (under MTWG).
    - Establish efficient and reliable shipping routes (including RORO) in consistence with the related subregional initiatives such as BIMP-EAGA and IMT-GT.
    - Develop emerging and/or potentially important international routes: Penang – Belawan, Malacca – Dumai, Davao – Bitung, Zamboanga - Sandakan, Muara – nearby ports.
    - Linkages with global and regional trunk routes and domestic shipping routes.
4. Establish ASEAN Single Aviation Market:

[44] For the classification of Asian Highway Standards see table 1 (page 17) and table 4(page 21) of the Intergovernmental Agreement on Asian Highway Network: http://treaties.un.org/doc/source/RecentTexts/XI_B_34_E.pdf

- Operationalize the Multilateral Agreement on the Full Liberalization of Air Freight Services (MAFLAFS) by 2011.
- Operationalize the Multilateral Agreement on the Full Liberalization of Passenger Air Services (MAFLPAS) by 2013.
- Formulate a strategy for further upgrading (beyond 5th freedom) of ASAM after 2015, by considering the timeline proposed in CAPA report on ASAM (2008).

5. Accomplish the implementation of Singapore Kunming Rail Link and build the missing link sections:
    - Cambodia: (1) Poipet – Sisophon (48km), (2) Phnom Penh – Loc Ninh (254km)
    - Vietnam: (3) Loc Ninh – Ho Chi Minh (129km), (4) Mu Dia – Tan Ap – Vung Anh (119km)
    - Myanmar: (5) Thanbyuzayat – Three Pagoda Pass (110km)
    - Thailand: (6) Three Pagoda Pass to Nam Tok (153km)
    - Lao PDR: (7) Vientiane – Thakek – Mu Dia (466km)
    - Formulate a strategy for a seamless operation of SKRL.
6. Establish harmonized, integrated, and seamless multimodal transport system:
    - Conduct a study on potential multimodal transport corridors to empower parts of ASEAN to function as land bridges in global supply routes.
    - Complete the East West Economic Corridor (EWEC): Construct the missing link in Myanmar.
    - Develop/upgrade terminal ports: Yangon, Da Nang.
    - Promote the Mekong – India Economic Corridor (MIEC) as a land bridge.
    - Mekong bridge in Neak Loung (National road No.1 in Cambodia).
    - Dawei deep sea port (by 2013).
    - Highway between Kanchanaburi and Dawei (by 2013)

Chapter 4

SANITARY AND PHYTOSANITARY MEASURES AND TECHNICAL STANDARDS

Introduction

The Royal Government of Cambodia has identified ten priority export sectors for further strengthening and diversification of the country's export basket. The challenge in the years ahead will be to consolidate existing markets, open up new ones – including deepening penetration of fast growing Asian markets, and move up value chains by focusing on new opportunities for more in-country processing and value-addition. If anything, competition from neighboring countries will increase as a result of deepening ASEAN integration and put new pressure for Cambodia to improve its export performance. Expanding into new and traditional markets as well as moving up value chains will mean also being able to meet technical and SPS standards of importing countries.

This chapter analyzes constraints in Cambodia's ability to meet SPS measures and Technical Standards that must be resolved in order to facilitate the Government's targets forexport growth.It is organized in two thematic sections – one on SPS measures and the other on technical standards – followed by a conclusion and three summary boxes. The three summary boxesfocus on (1) the implications of ASEAN and Regional Integration for SPS Measures and Technical Standards; (2) human resources constraints in the two areas of SPS and Technical Standards; and, (3) a stock-taking of progress since 2007.

Sanitary and Phytosanitary(SPS)Measures

This thematic section is organized into three subsections. The first sub-section reviews the nature and scope of SPS measures in the context of international trade. The second sub-section looks at the growing importance of agriculture, food, and forestry (AFF) exports for Cambodia and the SPS challenges they must meet. The third section takes stock of the current state of the SPS system in Cambodia, including how it is able to address the needs of the fast growing AFF export sectors.

WTO and Protection against Trade-Related Health Hazards

The WTO agreements provide members with binding disciplines aimed at promoting global trade. The agreements allow countries to regulate trade in plants, animals, and foods to prevent the spread of diseases and other health hazards and to protect human health, provided countries follow WTO principlesand, in particular, the Subsidiary Agreement on the Application of Sanitary and Phytosanitary Measures, generally referred to as the SPS Agreement[45].

[45]The SPS Agreement is included in the Final Act of the Uruguay Round of Multilateral Trade Negotiations, signed in Marrakesh on 15 April 1994, and is available from the WTO website http://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm#fnt5

SPS measures, as defined in the SPS Agreement, encompass virtually every measure that is related to protection of consumers, animals and plants against pests, diseases, additives, contaminants, toxins and disease causing organisms in food and feed(see Box 4.1.)

Box 4.1: Definition of SPS Measures

SPS measures include:

- protecting human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food;
- protecting human life from plant- or animal-carried diseases;
- protecting animal or plant life from pests, diseases, or disease-causing organisms;
- preventing or limiting other damage to a country from the entry, establishment or spread of pests.

These measures include sanitary and phytosanitary measures taken to protect the health of fish and wild fauna, as well as of forests and wild flora.

Source:*Understanding the WTO Agreement on Sanitary and Phytosanitary Measures*, Geneva: WTO 1998. http://www.wto.org/english/tratop_e/sps_e/spsund_e.htm

The SPS Agreement contains (i)principles to which SPS measures must comply; and (ii) recommendations for harmonization with standards developed by international bodies such as Codex Alimentarius, the International Plant Protection Convention (IPPC), and the International Organization for Animal Health (OIE). However, countries are allowed to apply stricter requirements as long as these measures are based on scientific justification. Countries may also apply fewer and less stringent standards.

In general, SPS measures must comply with the following WTO principles:

1. **Non-discrimination.**Measures are applied equally to importers as well as domestic producers. All trading partners are subject to the same requirements.
2. **Transparency.** Information on SPS measures is easily accessible. There are set procedures for notification of new or amended measures to the WTO. Each country must establish an SPS Enquiry Point.
3. **Minimal trade disruption.**Measures are not more trade-disruptive than required to achieve their appropriate level of sanitary or phytosanitary protection.
4. **Equivalence.**There is mutual recognition among trading partners of different measures that achieve the same level of protection.
5. **Use of science-based measures.**Measures to protect plant, animal, and human health are based on scientific principles with sufficient scientific evidence. Generally, this requires the assessment of risks involved and the definition of the level of risk that is acceptable.
6. **Regionalization within countries.**This principle recognizes the possibility of disease- or pest-affected countries having disease- or pest-free areas or regions and allowing exports from such disease- or pest-free areas or regions.

These principles are intended to avoid that SPS measures are used for protectionist purposes and to ensure they are not unnecessarily restricting trade. In particular the principle on "minimal trade disruption" gives a legal foundation for trade facilitation measures under the SPS WTO framework.

These and other WTO principles are used by ASEAN and GMS (Greater Mekong Sub-Region) countries as the basis for harmonization and economic integration with the stated objective that countries in the region are progressively implementing similar SPS measures. The WTO SPS Agreement provides disciplines for measures that apply to imports. Implementation of those disciplines by trading partners should lead to less disguised protection and greater opportunities for trade.

Designing and implementing SPS measures are technically complicated and expensive processes. Many countries tend to give higher priority to promoting exports than to protection of health. Since their exports face SPS import requirements in other countries the preoccupation often is with SPS management capacity that can be used for gaining and maintaining market access for specific products in specific countries, so-called product-market combinations. While there is scope for targeting SPS measures linked to market access for specific product-market combinations, it is important to outline a number of critical limitations. Many resources needed for SPS import controls and for obtaining export market access are the same. Without such basic resources, imports cannot be controlled effectivelyand market access cannot be promoted. Capacity for different products, pests, and diseases has much in common,while SPS import requirements differ much between countries and products. Importantly, requirements are evolving all the time.

AFF Exports from Cambodia

The Growing Importance of AFF Exports for Cambodia:As discussed in Chapter 1, Cambodia's foreign trade statistics understate actual volume because of large unrecorded exports and imports in agriculture, food, and forestry (AFF) products, especially with Thailand and Vietnam which are the two main destinations for unrecorded trade. Chapter 1 provides an estimate for 2011 unrecorded exports of four agricultural commodities (rice, cassava, corn and soybeans) ranging between $575 million and $1.2 billion. The data in Chapter 1 are based on estimates of exportable surplus.

Mirror trade data are used often to compensate for more limited data at the country level. However, experts suggest that the boom inunrecorded exports of rice, cassava, rubber, corn, or other AFF commoditiesthat has taken place over the past five years may not be well reflected in the Thai or Vietnamese mirror trade dataas of yet.

The data shown in tables 4.1 and 4.2 are based on available mirror data for Cambodia, Lao PDR, and Myanmar. Like data available from national government bodies, mirror data have their own limitations leading possibly to either under- or over-estimation. Notwithstanding their limitations, the data are useful indicators of AFF trade flows within GMS and changes that have taken place in Cambodia over the past ten years or so.

Table 4.1 suggests that Cambodia's AFF sector is strongly interwoven with GMS countries.In 2011 nearly 70 percent of AFF export from Cambodia ($549 million out of $796 million) was destined to three

GMS countries – Thailand, Vietnam, and China – and approximately 85 percent of Cambodia's AFF imports ($840 million out of $979 million) came from three GMS countries – Thailand, Vietnam and China.

In 2011, about half of all AFF exports to other GMS countries ($ 10.2 billion) were from Thailand, nearly $ 4.5 billion from Viet Nam, and $ 3.6 billion from China.

Table 4.1: Estimates of GMS Exports and Imports of AFF Products, $millions, 2011

A. Exports of Agriculture, Food, and Forestry Products (AFF) 2011

	To	Cambodia	China	Lao PDR	Myanmar	Thailand	Vietnam	**GMS**	OECD	Others	**Total**
From											
Cambodia		-	103	-	-	52	393	**549**	157	90	**796**
China		18	-	3	59	1,586	1,936	**3,602**	29,899	19,654	**53,155**
Lao PDR		-	285	-	-	110	343	**739**	101	4	**843**
Myanmar		-	539	-	-	139	80	**757**	244	1,759	**2,760**
Thailand		637	8,071	394	390	-	714	**10,206**	19,902	13,972	**44,080**
Vietnam		185	4,025	20	3	259	-	**4,492**	9,188	7,705	**21,385**
Total GMS		**840**	**13,024**	**416**	**452**	**2,147**	**3,466**	**20,345**	**59,491**	**43,184**	**123,019**

B. Imports of Agriculture, Food, and Forestry Products (AFF) 2011

	From	Cambodia	China	Lao PDR	Myanmar	Thailand	Vietnam	**GMS**	OECD	Others	**Total**
By											
Cambodia		-	18	-	-	637	185	**840**	81	58	**979**
China		103		285	539	7,947	2,387	**11,261**	35,748	37,896	**84,905**
Lao PDR		-	3	-	-	394	20	**416**	9	2	**427**
Myanmar		-	59	-	-	390	3	**452**	97	273	**822**
Thailand		52	1,019	110	139	-	298	**1,617**	4,108	4,700	**10,425**
Vietnam		393	493	343	80	589	-	**1,898**	3,192	4,060	**9,150**
Total GMS		**549**	**1,591**	**739**	**757**	**9,957**	**2,892**	**16,485**	**43,234**	**46,988**	**106,707**

Source: ADB, *GMS SPS Project Preparation, 2009*; Project Preparatory Technical Assistance Update, 2011
Note: For Cambodia, Lao PDR, and Myanmar, data based on mirror export and import statistics from trading partners obtained through World Integrated Trade Solution (WITS) from Comtrade.

Table 4.2, also based on mirror statistics, suggests that Cambodia's AFF imports and exports have been growing rapidly.On the basis of mirror statistics, total AFF exports grew nearly ten-folded from $ 77 million in 2001 to $ 796 million in 2011. Main growth was in cereals, vegetables and fruit (includes dried cassava and cashew), oil seeds, rubber and wood and wood products. Total recorded AFF imports grew from $135 million in 2001 to $ 979 million in 2011 in response to increased income and diversified demand.

Table 4.2: Estimates of AFF Product Exports and Imports by Cambodia based on Mirror Data, $ thousand, 2001-2011

	Imports			Exports		
	2001	**2009**	**2011**	**2001**	**2009**	**2011**
Total AFF Products	**134,601**	**603,322**	**979,078**	**77,433**	**285,120**	**796,233**
Food &Live Animals	**132,201**	**601,069**	**973,339**	**23,033**	**119,631**	**375,593**
Live animals except fish	214	46,526	52,109	1,869	8,968	12,143
Meat & preparations	387	2,346	26,750	0	393	28
Dairy products & eggs	16,726	48,943	73,128	1,868	3	0
Fish/shellfish/etc.	7,716	23,555	29,071	14,186	11,623	17,410
Cereals/cereal preparation	22,403	61,714	106,353	1,175	22,660	138,478
Vegetables and fruit*	12,620	51,560	55,154	2,336	70,405	177,280
Sugar/sugar prep/honey	49,352	194,810	292,634	22	260	16,105
Coffee/tea/cocoa/spices	1,358	11,488	32,757	21	598	1,501
Animal feed ex un-milled cereals	1,501	59,287	121,400	19	1,316	12,621
Miscellaneous food products	19,924	100,838	183,984	1,537	3,405	26
Non-Food Products	**2,400**	**2,253**	**5,739**	**54,400**	**165,489**	**420,640**
Oil seeds	311	658	2,010	233	23,323	5,617
Natural rubber	1,898	968	3,572	30,112	92,544	321,147
Wood and wood products	48	601	137	23,471	49,106	93,162
Nat. gum/resin/pharm. plants etc	143	26	20	583	516	714

Source: ADB,*GMS Action Plan, 2001*; ADB,*GMS SPS Project Preparation, 2009*; Project Preparatory Technical Assistance Update, 2011
Note: Based on mirror export and import data of Cambodia's trading partners obtained through World Integrated Trade Solution (WITS) from Comtrade.
* fresh and dried cassava are classified in SITC as vegetables and fruit

Information provided elsewhere in this report suggests that, while Cambodia is making progress in exporting semi-processed and processed AFF products through official channels, much of its AFF exports continue to leave the country unprocessed and informally. The two main destinations are Thailand and Vietnam. Acceptance of informal imports in those two countries is based in part on the facts that (i) phytosanitary risks of imports from Cambodia are considered limited because of similarity in ecosystem, (ii) food safety and quality requirements for imports from Cambodia are low, (iii) processing, storage, and logistics systems are better developed, and, (iv) handling costs are generally significantly lower than in Cambodia.

Priority AFF Export Sectors: As part of its diversification efforts, RGC is seeking to promote AFF exports, especially in milled rice, semi-processed cassava, natural rubber, processed fish, and processed food.

Milled Rice: Milled rice is a much differentiated product characterized by different kinds of rice (white rice, aromatic rice, others), varieties, and qualities, by many markets with different tariffs, preferences for quality, and SPS requirements. Profitability of the many product-market combinations

varies greatly with requirements and market conditions. At present, Cambodia produces a combination of fragrant rice and non-aromatic rice with exportable surplus in both.

SPS requirements for export of aromatic rice to **Thailand** and white rice to **Vietnam** are limited. In principle, regulatory requirements, if any, can be taken care of by means of the phytosanitary certificates issued by the General Directorate for Agriculture of the Ministry of Agriculture (MAFF/GDA) and Thai and Vietnamese traders. However, requirements may differ much between low and high quality market segments within these countries.

SPS requirements for the **EU**are more stringent and include testing for pesticide residues, aflatoxin, and salmonella, assurance of absence of genetically modified organisms (GMO), fumigation (absence of storage pests,) and phytosanitary certificates. Requirements of private buyers tend to give different weight to particular parameters and GMP or HACCP[46] certification of the millers. Only GDA can issue phytosanitary certificates and provide information about the pest and disease situation for rice in the country, but private inspection companies take care of all other required testing and certification. The intensity of testing (and related cost) will depend on the risk of non-compliance. In particular testing for GMO is expensive. The cost of testing could be reduced by effective (public sector) surveillance of GMO and quality of pesticides, which reduces risk on non-compliance. Typically, testing is done in accredited laboratories in Thailand, Vietnam, or other country of choice of the private inspection company.

SPS requirements for **China** are even more demanding since they include traceability.[47]This involves indication of the rice variety, the place of production, the packing house, and storage house. Similar to the EU, China requires phytosanitary certificates, fumigation, and based on general food safety requirements testing will be necessary for pesticide residues, aflatoxin, and possibly GMO. This will require RGC to register production areas, producers, seed (varieties used), mills, storage and transport, to conduct surveillance of rice pests and diseases, and probably pesticides used in the production areas. China requires services of the private China Certification and Inspection Company (CCIC), which is related to the General Administration of Quality Supervision, Inspection, and Quarantine (AQSIQ), the Chinese public quarantine and inspection service. CCIC provides services comparable to other private inspection services but it has an exclusive gate keeper role for import into China. CCIC sends samples for testing to Bangkok, Ho Chi Minh City, Hong Kong, or China.

SPS requirements for **other countries** will generally range between those for Thailand and Vietnam, and the EU. The tasks for Government services are (i) registration and surveillanceand (ii) compliance with agreed protocols. Registration and surveillance are technically not very complicated but require good organization. Surveillance can be costly due to the need for field surveys, testing and diagnostics. Opportunities for charging farmers for surveillance seem quite limited. If anything, they might undermine the financial sustainability of the export supply chain. Export inspections and certification of milled rice are conducted by Camcontrol. They are not required by importing countries but an internal

[46] HACCP is a quality and safety management system

[47] Traceability is a general requirement of market access agreements between China and its GMS neighbors. Registration of production and storage establishments usually includes GHP/GMP thresholds. The (draft) protocol for milled rice exports between China and Cambodia dated October 2010 has no explicit requirements on food safety testing MRLs for pesticides and heavy metals as is the case for the protocol for cassava dated 13 December 2010.

requirement in MOC to obtain a certificate of origin. Since they are unlikely to have value added, they erode profitability of formal exports.

As of December 2012 reported exports of milled rice to China have been very limited (approximately 20 tons per month) whereas exports to other countries have been growing significantly. It is not clear yet whether complexity of the requirements or profitability is the main constraint for export to China.

Cassava: Cassava is easy to grow on sandy uplands. It requires little or no fertilizer and pesticides. Cassava became a major crop in Northeast Thailand from the 1960s onward in response to rapidly expanding transport infrastructure and external demand. As a result the cultivated land area grew rapidly. In recent years production has spread rapidly to Cambodia, Laos, and Vietnam in response to relatively high prices for cassava starch and the use of cassava to produce ethanol (to be mixed partly with gasoline), animal feed, or alcoholic beverage. After harvesting, roots are chipped and spread on pads for drying in the sun. After light processing, the product is ready to be sold as pellets, chips, or flour. If the product is dried on dirt pads it will get mixed with soil and create opportunities for mold contamination.

SPS requirements for export to **Thailand and Vietnam** hardly exist. In case of storage or export, traders in these countries will probably fumigate the product. SPS requirements for **China** are much more demanding and include traceability.[48] This involves registration of production areas, producers, surveillance of cassava pests and pesticides used in production areas, registration of cassava drying factories and storage plants, phytosanitary certificates, fumigation, and probably testing of residues of pesticides and heavy metals contaminants. China requires services of the same inspection company (CCIC) as for rice. By December 2012 CCIC had approved 20 companies for exports. Export volumes to China are increasing steadily, which suggests that export to China is commercially attractive and requirements not too difficult. However, the Cambodian Government services will need to spend resources to put in place the required surveillance and registration systems. SPS requirements of **other countries** are likely to be limited as in the case of Thailand and Vietnam, but fumigation and perhaps phytosanitary certificates may be required. As for milled rice, mandatory inspection and certification of exports has no added value from an SPS/TBT perspective. It only increases transaction costs and should be done away with.

Fisheries Products:Most inland fisheries products are consumed in the domestic markets. Some are exported to Thai and Vietnamese markets with low requirements for quality and safety. Aquaculture production is increasing but it is still mainly oriented towards similar low requirement markets. Large parts of the catch of marine fisheries products is probably landed in Thailand orVietnam or sold at sea to large vessels from Taiwan, Hong Kong, and a few other countries. A few large-scale Cambodian fish traders and processors export to Japan, Korea, Australia, and the USA. However, such exports remain limited and fluctuating because of the lack of a regular catch supply of suitable quality. Buyers in those countries require that exporting plants meet standards of hygiene and GMP. Market access in those countries appears to be much dependent on guidance from the importing companies. Only one company in Cambodia has HACCP in place at present. A few of the other companies reportedly come close to HACCP standards but do not want to invest in upgrading and benchmarking because the markets do not require those. If there would be interesting export opportunities they could quickly adopt HACCP.

[48]*Protocol on Phytosanitary Requirements for the Export of Tapioca from Cambodia to China*, signed 13 December 2010.

The EU requirements for market access are more demanding than for other countries. They include not only HACCP approvals of processing plants prior to export but also recognition of the country's competent authority (CA). The Fisheries Administration (FiA) is the designated CA. However, recognition as CA for export to the EU can only be obtained if the FiA has the capacity to control traceability throughout the supply chain from catch or cultivation to export. In 2002 a team of EU inspectors assessed the capacities of the FiA and identified gaps to be addressed. Laboratory capacity in the FiA and other laboratories (CamControl, ILCC, and Pasteur) includes testing microbiology, but, except for Camcontrol,does not include the expensive testing equipment for MRLs of heavy metals and antibiotics that will most likely be required by the EU.[49]FiA uses testing by Pasteur to issue health certificates because it is trusted abroad more than other laboratories.

Technically the EU requirements are clear. They are the same as for other fish exporting countries in the region, and systems, equipment, and service providers are readily available. The two main challenges for the Government are (i) to upgrade the organization and skills of the FiA and (ii) and to sustain organization and skills in part through appropriate funding to cover the significant costs of operating a CA. The main other constraint for export to demanding markets is the insufficient and erratic supply of exportable product from catch and aquaculture. A successful export strategy will depend in part on the ability of exporters to generate sufficient supply of quality product through improved supply chain organization. High regulatory costs may make supply to low demanding informal markets more competitive.

Apart from the question of access to the EU market, there will be a need to upgrade sanitary standards in Cambodian fisheries in response to increased demand for quality and safety in all market segments domestically or overseas.

Processed Food: Requirements for food processing in demanding markets are straight forward: application of HACCP-based quality management systems. Systems, equipment, and service providers are readily available in the region. Most difficulty for food processors aiming at demanding export markets is to manage safe and secure supply chains of raw materials either through large scale production or systems of contract farming. The role of Government is more to mitigate bottlenecks in the investment climate than direct intervention. It should keep the regulatory burden low, including informal payments, and it should focus on relevant public goods such as surveillance of the quality and safety of pesticides, veterinary drugs and growth enhancers in the market. Testing of residue levels and contaminants in exported food can generally be left to the food processors and their customers.

Rubber: Rubber products generally face no SPS requirements and market access problems(except for fumigation of wooden cratesused to export natural rubber.)Important for profitability of rubber export is product quality which will be discussed in the next main thematic sectionfocusing on Technical Standards. Yet, there is a role for the public sector in controlling the risk of entry and spread of pests and diseases on rubber trees. This risk management requires control on imports of planting material and pest surveillance in the field.

[49] Camcontrol hasthe appropriateequipment for testing MRLs but lacks experience. Thus far, it has not received samples for using HPLC, Graphite Furnace AAS, and GCMS.

Other AFF Export Products:Other AFF exports that could lead to significant export might include corn, soybean, fruits, vegetables, and cashew.

Corn: In recent years, corn production for grain has increased significantly in Laos and Cambodia in response to relatively high international prices and growing demand in the GMS region, mainly for animal feed production. This has happened largely through expansion of cultivated areas. Corn cultivation generally requires fertilizer and pesticides. Aflatoxin contamination can be a problem for product harvested under humid conditions, which should be mitigated by proper post-harvest practice and use of dryers. On-farm shelling can result in soil and other foreign material contamination with the product. Exports can go to neighboring Thailand or Vietnam as well as to China and other overseas markets. As in the case of milled rice and cassava, current capacity for milling, storage and production in Cambodia is limited and logistics and handling costs relatively high compared to Thailand and Vietnam.

SPS requirements for export to **Thailand and Vietnam**are limited, or moderate at most, and may include phytosanitary-certificates and, occasionally, testing of pesticides residues and aflatoxin.[50]SPS requirements of export of corn to **China** have not been included in a bilateral protocol as of yet. They will include most likely traceability requirements similar to those for milled rice and cassava, as evidenced from a comparable market access agreement for corn between China and Lao PDR. Traceability requires registration of production areas, producers, and seed varieties used, surveillance of maize pests and pesticides used in production areas, registration and GHP/GMP requirements for shelling plants, drying facilities, storage and transport, phytosanitary certificates, fumigation, and probably regular testing of pesticide residues, aflatoxin, and possible other contaminants. It is possible that drying plants will be required to prevent mold and mycotoxins. Most likely, CCIC will provide the same services as for milled rice and cassava. Cambodian Government services will be required to do the relevant surveillance of pests and diseases and quality of pesticides and will bear the cost for this, including testing of pesticides quality. SPS requirements to other overseas markets will range likely somewhere between those for Thailand and Vietnam and those for China.

Other Crops: For crops that are currently exported, priority for Government should be on collecting information on pests and diseases through conducting pest surveillanceas well as ensuring safety and quality of pesticides in the market and as used by growers through market surveillance. Compliance with food safety requirements should primarily be left to the exporters.

The SPS System in Cambodia

Since both capacity and costs of SPS management contribute to the competitiveness of formal and informal supply chains, an important question is what type of efficient SPS system could contribute to enhancing production and formal exportsin sectors targeted by RGC. RGC is also committed to comply with its WTO commitments and similar commitments under ASEAN.

[50] In years of surplus and low prices there may be political resentment to imports by farming communities in these countries as was the case with corn exports from Lao PDR to Thailand a few years ago and import constraints may be tightened. So it will be important to diversify export markets.

The scope and sophistication of an SPS system differ with the size of a country, its level of economic development, product mix, product-market combinations, and geopolitical location. Yet, crucial elements of an effective SPS system are basically the same for all countries as described in Box 4.2.

Box 4.2: An Effective SPS System

At a minimum, an effective SPS system includes the following elements:

1. A legal and regulatory framework in place, implemented, and compliant with WTO principles
2. A suitable number of SPS standards and technical regulations in place, compliant with international principles, and usable for conformity assessment and enforcement
3. Information on food safety, plant health (pest) and animal health (diseases), available to international bodies and trading partners and allows risk analysis
4. Capacity to respond to emergencies and outbreaks
5. Risk-based import controls in place
6. Systems of quality assurance and risk management adopted that can be implemented by the private sector, such as Good Agricultural Practice (GAP), Good Hygiene Practice (GHP), Good Manufacturing Practice (GMP), Hazard Analysis and Critical Control Points (HACCP)
7. Systems of conformity assessment and certification in place
8. Access to conformity testing and diagnostics that meets international requirements for recognition
9. Effective coordination across stakeholders with SPS mandates
10. Capacity to engage effectively in market access negotiations with trading partners

Notes:
a. Phytosanitary and veterinary certification can only be done by government. Most other tasks can be left to service providers. Service providers for inspection, conformity assessment, diagnostics, and certification need not be in the country, but there is a need for legal recognition of such work. Accordingly, Government should provide some oversight, which implies that its staff needs to have basic skills in performing these functions.
b. Items 2, 6, 7, and 8 include SPS and TBT issues.

Legal Framework:A robustlegal framework is the most important factor for compliance with international commitments, cost-effective implementation of SPS measures and good governance. Cambodia has made progress in developing a legal framework for guiding animal and plant health SPS management.

The main pieces of legislation are:

- Law on the Management of Pesticides and Fertilizers promulgated in 2012
- Law on Fisheries promulgated in 2006
- Draft Law on Animal Health and Production submitted for Council of Ministers considerationin 2012
- Sub-Decree on Phytosanitary Inspection promulgated in 2003
- Draft Law on Phytosanitary Measures under preparation and targeted for submission to the National Assembly in 2013.
- Draft Law on Agricultural Product Quality and Safetytargeted for 2013.

MAFF has primary mandate for implementing these laws. A remaining challenge is to prepare the many Anukret (sub-decrees) and Prakas (Regulations) needed for implementation.

The responsibility for food safety is shared among six ministries (MEF, MoC, MoH, MAFF, MIH, and MoT) and still lacks a modern legislation comparable to those adopted by other ASEAN countries. Some progress has been made by clarifying existing mandates of the respective Ministries through the Inter-Ministerial Prakas (No. UATH.BRK 868, 22 October 2010) on *The Implementation and Institutional Arrangements of Food Safety Based on the Farm to Table Approach*.[51]However, the Prakas simply clarifies the mandates of the Ministries but does not change the body of existing food safety legislation.Since its adoption, little further action has been taken to start modifying the existing legal framework and adding missing mandates. In comparison to other countries in the region, especially MOH has missing legal mandates in food safety.[52]

With support from ADB, MoH is formulating a national food safety policy and prepared Prakas 1202 (October 24, 2012)*On Modalities and Requirements for the Issuance of Mandatory Hygiene Certificate for Restaurants and Catering Establishments* as well as Prakas 1309 *On Modalities and Guidelines for the Issuance of the Voluntary Certificate of Good Hygiene Practice for Restaurants and Catering Establishments*.

The overall quality of the SPS legal framework deserves attention. Thus far, legislation has often been developed in an *ad-hoc*manner and there is a lack of a comprehensive assessment of gaps, consistency across legislations, terminology used, and compliance with WTO principles and ASEAN recommendations. Because the preparation of laws is difficult and requires much time, the tendency is to manage at the ministerial level through regulations (Prakas) that should be governed by or, at least defined in primary (law) or secondary level (sub-decree) legal texts. Conversely, whenever a law has been adopted, sub-decrees and regulations are often lacking to implementlaws.[53]The November

[51]The use of the farm-to-table approach as the basis for institutional delineation was proposed in 2006 by the MUTRAP and FAO/NZ food safety projects. See, Digby Gascoigne, *Efficient and Effective Food Safety Arrangements for Cambodia,* Phnom Penh: MUTRAP, 2006a; Digby Gascoigne, *Revitalizing and Strengthening Import and Domestic Food Inspection Programs in Cambodia,* Phnom Penh: MUTRAP, 2006b; Bourgeois, *Improving Food Safety and Management in Cambodia, Lao PDR, and Vietnam,* Phnom Penh: FAO, 2006.

[52] Missing mandates are listed in Table 1 of FAO, *An Action Plan to Improve SPS Capacity in Cambodia.* STDF Report 246, Geneva: 2010.

[53] For illustration: Developed countries may have 6-12 major laws for SPS and TBT. They will have a larger number of pieces of secondary level legislation and a much larger number of regulations for implementation. Altogether there may be hundreds. For

2011Trade Policy Review (TPR) organized by the WTO points to many outstanding issues of compliance and legal quality.[54]In response to the TPR, the Council of Minister adopted in 2012 an updated work program on complying with WTO requirements and related issues for the period 2012-2015.[55]This is a follow up to a much larger work program adopted in 2004. The 2012-2015 program contains a list of 84 actions including several in the SPS TBT area.

***Standard Setting*:** There is a backlog in standard setting for SPS measures (see also the discussion under Technical Standards further below). There are virtually no national standards for safety of food and feed. In particular national maximum residue limits (MRLs) for pesticides, veterinary drugs, and other contaminants in food are missing. This means that inspectorates and testing laboratories are operating without a proper regulatory framework for conformity assessment. Although Cambodia has agreed with ASEAN recommendations in this area, ASEAN standards have no legal recognition in Cambodia as of yet.

In the absence of national standards, MAFF has added MRLs for 42 pesticides in an Appendix to the *Ministerial Proclamation On Good Agricultural Practices for Fresh Fruit and Vegetables*(MAFF Ministerial Declaration #099 dated 10 March 2010) and MoH included Codex Standards in the Annex to the aforementioned Prakas 1309 governing voluntary GHP/GMP certification grading of restaurants. The MAFF draft *Law on Agricultural Product Quality and Safety* is also an attempt to fill the gap of missing legislation on food safety at the primary and primary processing level. This scattered adoption of standards at ministerial level is not best legal practice. The National Codex Committee is now considering a sub-decree for establishing national MRLs on food.

Information for Market Access:Under the WTO-SPS Agreement, trading partners have the right, to ask for information on animal diseases, plant pests, and the food safety situation based on international standards to support decisions on market access. The country does not have sufficient surveillance as of yet to provide such information. This also means that sanitary and phytosanitary certificates for export may be based on insufficient information. The establishment of surveillance systems is being planned. However, the scope and quality of this work will need to be strengthened by operational funding as well as adoption of MRLs and other SPS standards from Codex Alimentarius, IPPC, and OIE.

The number of phytosanitary certificates issued has increased dramatically from 640 in 2010 to 1679 in 2011 and 7000 during the first 11 months of 2012. This reflects rapid production growth and the need for certificates to export to neighboring countries. The issuance of phytosanitary certificates in Cambodia is highly centralized compared to other countries in the region. Until recently, phytosanitary certificates were issued only in Phnom Penh. A limited step has been taken to issue certificates for some products to Vietnam at the border, but a decision to start issuance of certificates in the Northwest is still pending. Still large quantities of AFF products are exported to neighboring countries without phytosanitary certificates, though this could suddenly change. For example, in 2012, imports of AFF products into

---

developing countries like Cambodia the number of laws will be about the same, and a couple of dozens of pieces of secondary and tertiary legislation.

[54]See the Secretariat and Government reports prepared for the November 2011 Trade Policy Review at https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(%20@Symbol=%20wt/tpr*%20or%20press/tprb/*%20)%20and%20(%20@Title=%20cambodia%20)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#

[55] Office of the Council of Ministers, *Work Program of the Royal Government of Cambodia on WTO Requirements and Related Issues, 2012-201*,Phnom Penh: CoM, 2012.

Vietnam through one main border post were suspended suddenly until a Government to Government agreement stipulated that those should be accompanied by phytosanitary certificates. Availability of services and cost for obtaining certificates could be much improved by introduction of e-based systems, first for requesting certificates and later also by issuance of certificates.

***Emergency and Outbreak Response*:**Several development partners are helping MAF and MoH develop capacity for emergency response in case of outbreaks of plant pests and diseases, animal diseases, and food poisoning. Stronger capacity is needed to protect the country against the introduction and spread of plant and animal pests and diseases that could damage production and cause problems of market access for exports. In order to mitigate the risk of entry of pests and diseases through seed and propagation material, post-entry quarantine (PEQ) is being planned.

***Risk-Based Import Handling and Controls*:** There are agreements between MEF and other ministries about implementing risk-based import management systems for border release procedures, but it will take much effort to develop the necessary capacity and systems. The current organization of the inspectorates based on paper-based workflows will thwart implementation of risk-based systems in the immediate future. Since risk-based inspections are largely public goods and cannot depend solely on fees, also funding issues have to be resolved.

Cambodia needs a food safety policy and strategy to protect consumers against sub-grade and unsafe food. The strategy should be implemented through risk-based annual national programs for promoting hygiene, surveillance and inspection, supported by food testing.

***Testing and Diagnostic Capacity*:** Although gradual improvement has been made, building testing and diagnostic capacity comparable to those in most other ASEAN countries and adequate to facilitate protection of health, will take sustained efforts over a long period of time.

There are five laboratories with **foodtesting**capacity: Camcontrol (MoC), ILCC (MIH), MoH laboratory for drug and food, MAFF Fisheries Administration (FiA), and Pasteur (independent). None of the food laboratories, except ILCC and Camcontrol, has adequate capacity for testing residues of pesticides, veterinary drugs and growth enhancers, heavy metals and other contaminants.[56]Camcontrol has a relatively new, well-equipped chemical testing laboratory with sophisticated equipment, young staff, and increased remunerations.[57] Most likely, MAFF will also obtain laboratories for testing quality and safety of primary plant and animal products, financed through a planned $7 million Chinese support.[58]MAFF/GDA has a well-equipped laboratory for testing quality and safety of **pesticides,** laboratories with basic capacity for diagnostics of**plant and animal pests and diseases**, but does not have laboratory capacity for testing veterinary drugs and growth enhancersas of yet.

In general, most existing laboratory capacity is still weak, despite significant donor support received in the past. One point of view is that the lack of modern equipment is the main bottleneck for upgrading

[56] ILCC and Camcontrol have begun developing capacity in pesticides.
[57]Funded through 30% of anti-fraud income.
[58] The support reportedly includes a building, equipment, and operational costs for three years. It will be built in 2013 at the Prek Leap University located 12km from Phnom Penh. The institutional arrangement for the laboratory and the funding after termination of the external support has to be decided.

laboratories. Experience from other countries suggests otherwise. Management, organization, work programs, and recurring operating funding are equally important bottlenecks that have to be solved. Likewise, the small number of samples collected for testing and diagnostics causes underutilization of equipment and staff and stifles building of expertise in testing. In addition, weak incentives for laboratory specialists and the consequent high turn-over to positions in inspectorates where incentives are betterare a serious hindrance to proper development of experienced staff.

The number of tests of food and water conducted by Camcontrol, the main inspectorate for food safety, has increased from 1240 in 2008 to 1950 in 2011. ILCC carried out about 3,500 tests in 2012, whereas the numbers of food tests by other food laboratories are much lower. Although increasing, these numbers are still nearly insignificant for a country of the size of Cambodia and given the range of equipment available.

Present Government procurement procedures for laboratory supplies and spare parts lead to great inefficiency. Supply and spare part lists must be submitted for central procurement more than a year ahead. Robust estimation of needs so far ahead is impossible which leads to either excess of supplies, or supplies running beyond expiration dates, or critical shortages that block the ability to test.

Because of their weakness, most laboratories have no international accreditation and opportunities for obtaining it seem remote. ILCC is the only food laboratory with ISO 17025 accreditation (for 11 test parameters).[59] It is generating its volume of samples for testing and major part of its funding through fees from regulatory powers. It should be noted that this is not based on private sector demand and because it is not risk-based it is not international good practice.

Private sector demand for conformity testing of product quality and safety within the country is small and should not be expected to increase dramatically in the medium term. As in many other countries, major exporters use accredited testing facilities in other countries. Cambodian exporters generally use testing facilities in Thailand, Vietnam, or the country of destination of goods. Also importers can request their suppliers to provide conformity testing certificates from other countries. Preference of many regular international traders is to use private laboratories rather than public regulatory laboratories since they work 24/7 and provide quick results. Moreover, in some market segments, foreign buyers allow only third party independent laboratories.

Cambodia, like other countries, needs a minimum number of regulatory laboratories with basic capacities for testing food, pesticides and veterinary drugs, and diagnosis of animal and plant pests and diseases.[60] Priority for all regulatory laboratories in Cambodia should be:

- Annual work programs with much larger numbers of testing samples both to make use of available capacity and to maintain technical skills of personnel;
- Gradual improvement in the quality of basic testing and diagnostic services and broadening of technical capacity;
- Improved management and adoption of Good Laboratory Practice (GLP);

[59] ILCC has received support since 2004 from UNIDO and in recent years also from ADB.
[60] Views expressed on laboratory upgrading in this report are largely in line with the laboratory section in FAO, *An Action Plan to Improve SPS Capacity in Cambodia.* STDF Report 246, Geneva: 2010.

- A gradual shift towards some financial autonomy, sufficient to help retain trained personnel and to cover the cost of laboratory supplies;
- A MEF-approved fee structure for tests carried out by Government laboratories, based on transparency and proper use of public resources; and,
- Output-based public funding based on work programs and number of regulatory tests.

Present duplication in food testing capacities is not a serious problem and not causing high inefficiency because the equipment is relatively simple.[61]With adequate operational funding for regulatory testing there should be enough basic testing work for all. Beyond that, there are no guidelines yet for making good use of advanced expensive equipment for testing, for example for pesticide residues and veterinary drugs with detection levels required in demanding markets. Duplication of such equipment should be avoided. Any procurement should be based on a clear understanding that appropriate operational funding will be available and on some agreement among agencies about joint fee-based use by all.

***Quality Assurance and Conformity Assessment*:** GAP, GHP, GMP, HACCP and other hazard preventive systems have been adopted in Prakas and ISC standards and can be implemented by private enterprises. However, the country needs a national legal framework for conformity assessment and certification of such systems that meets international recognition. For international recognition certification by accredited service providers from other countries is the only option. Fortunately, such services are readily available in neighboring countries.

Coordination: Unlike more advanced GMS and ASEAN countries, Cambodia has no effective inter-ministerial SPS coordination mechanism as of yet for discussion of cross-cutting issues, joint planning and implementation, mitigation of possible inter-agency jurisdiction overlaps, and alignment of activities. The Inter-Ministerial Committee for Coordinating Inspection of Quality and Safety of Products and Services, chaired by the Minister of Commerce, is mandated to coordinate work and activities of line ministries concerned with food safety management, but from its establishment in 2002 till mid 2010 it never met. The National Codex Committee, established in 2001 and also chaired the Minister of Commerce has been inactive as well. There have been recent efforts to activate both committees. The SPS Enquiry Point and the Notification Authority are not functioning well. Contact points and information should be available on the WTO and MoC web sites and notifications should be made. Contacts with IPPC and OIE appear to be more frequent than with Codex Alimentarius.

***Cross-Cutting SPS Issues*:**Two cross-cutting issues deserve special attention: Funding SPS Operations and SPS Governance.

Funding Operations: Building and operating an effective public SPS system requires annual public operating funding. To date there is very limited operational funding available for surveillance, inspection, testing, and diagnostics. Legal provisions for funding generally stipulate that fees for activities will be established through joint Prakas between MEF and line ministries. This is good practice for firm- or user-specific services. However, many activities and controls for food safety, plant, and animal health have a “public goods” character for which possibilities for recovering costs through fees are

[61] Some consolidation of laboratory capacity remains an option to consider.

limited or absent. Funding options are analyzed in Table 3 below. The table covers both SPS and Technical Standards tasks (Technical standards are discussed in the next major heading of this chapter).

In the current Cambodian context, the tendency is to use regulatory powers as para-fiscal instruments and for rent-seeking. Common examples are:

- More inspections are carried out than necessary. For example 100 percent inspection is applied, when a risk-based system, with differentiated inspection rates, would be good international practice;
- Many superficial inspections are carried out that do not significantly contribute to safety, such as routine document controls at the border and routine visits to establishments and market traders;
- Requirements for import licenses, permits, and certificates, and additional inspections are introduced whereas such documents or controls may not be justified by risk assessment;
- Mandatory inspections and certification for exports are introduced even though they are not required by foreign buyers or importing countries;
- Agencies set high fee rates for restricted supply of services, such as fumigation; and,
- Agencies demand the use of mandatory standards and public inspections, whereas good international practice would only require voluntary standards.

Unnecessary controls and informal payments add to the cost of doing business for the private sector, which is high when compared to Thailand and Vietnam. Since the regulatory and tax burden targets primarily the formal sector there is a high incentive for enterprises, traders, and exporters to remain informal. This has two main undesirable consequences.First, informal trade and smuggling cause higher risks to health protection. Traders of sub-grade and unsafe consumer goods, pesticides, and veterinary drugs will try to escape controls and seek to enter the country through informal channels. Effective control of transboundary animal diseases requires high control rates that are difficult to achieve on an informal trade basis. Second, by escaping most of the regulatory burden, the informal sector undermines the competitive edge of the formal sector. For example the formal rice milling sector faces a high regulatory burden and has to compete for paddy with informal traders who export paddy to millers in neighboring countries that have a lower regulatory burden.[62] In short, public funding for "public goods" is important to remove distortive and negative impacts on business competitiveness.

Governance. Quality and cost-effectiveness of SPS management require good governance. Because of their complex technical, managerial, institutional, and human-resource requirements, and their significant financial costs, SPS systems in many developing countries are often weak. This is the case forCambodia. Mandates of SPS agencies need to be strong, but combined with insufficient governance, they tend to lead to rent-seeking behavior that impacts negatively on the quality and cost-effectiveness of operations. Low public funding strengthens institutional bias toward activities that can generate fees and these activities may not be highest priority areas from a perspective of health protection.
Moreover, in a rent-seeking culture there is limited interest in reform necessary for trade facilitation. Therefore, strengthening governance is a priority for most SPS agencies. Increasing salaries as the

[62] The deleterious impact of regulatory burden on rice trade is well documented bySok Siphana and Associates, *Operationalizing the Rectangular Strategy for Growth: Towards Better Business Processes,* Presentation of Findings to the Supreme National Economic Council, Phnom Penh: SNEC, February 24, 2011and Tom Slayton and Sok Muniroth, *Turning Rice into Gold*, Phnom Penh: World Bank, unpublished study, 2012

Government has started to do is one aspect of improving governance. Other aspects include improving the regulatory framework, strengthening the rule of law and accountability, and improving transparency.

Market Access Negotiations: Capacity for market access negotiations with trading partners needs to be strengthened. This involves technical skills of staff, back-up research capacity, and provision of data required by the trading partners. Without sufficient capacity, Cambodia could be subject to unnecessary precautionary measures by trading partners.

Progress and Current Limitation: Progress has been made in capacity building for SPS, in particular in the formulation of legislation, in the development of technical capacity for pest and disease surveillance and diagnostics, and in testing of food and pesticides. However, a number of weaknesses in the Cambodian SPS system remainthat constrain access to more demanding and better paying markets and more effective protection against the risks of trade related health hazards. Weaknesses include:

- Limitations in providing adequate information about pests, diseases, and use of agrochemicals as required by importing countries due to weak surveillance systems
- Very limited adoption, thus far, of hazard prevention systems such as GAP, GHP, GMP, and HACCP in exporting firms
- Remaining gaps and deficiencies in the SPS legal framework including: (i) absence of decrees and regulations needed for implementation of laws, (ii) non-compliance to the WTO Agreements, and (iii) lack of key laws including a modern food law comparable to that of neighboring countries
- Backlog in adoption of international SPS standards at the national level, including standards and MRL recommended by ASEAN
- Weak SPS coordination including inter-ministerial cooperation and management of enquiry point and notification body
- Weaknesses in the management, organization, funding, and technical competency of regulatory SPS laboratories
- Insufficient funding for “public goods” constraining surveillance and risk-based inspection

Possible directions for resolving and mitigating weaknesses might include:

- Enhance market access of export products by implementing regular surveillance programs for pests and diseases and for the use of agrochemicals as required by importing countries
- Strengthen market access through implementation of GHP, GMP, or HACCP by exporting firms and, selectively, implementation of GAP at farm and aquaculture level
- Continue efforts to develop further a consistent and WTO compliant body of SPS legislation
- Strengthen coordination in SPS management, including, in particular,food safety management and coordination for adoption of national MRL standards
- Pursue development of further capacity in SPS laboratories
- Better define “public goods” in the areas of surveillance, inspection, diagnostics, and testing, and to improve funding modalities. This needs to be done in consultation with MEF.

Table 4.3: Public and Private Sector Roles in Key SPS and TBT Tasks

Tasks	Purpose	Public sector role	Private sector role	Funding options
Awareness raising at all levels	To alert public and private stakeholders about health and market access risks	To provide information, education, and advocacy	Private sector associations could provide some awareness-raising services within their domain. Most associations are weak.	Largely public sector
Setting legal and regulatory framework	To create a reference framework and set out transparent rules	Government mandate	Advocacy for update and changes. Participation in legal reform and drafting	Largely public sector
Setting SPS safety standards (technical regulations) for health protection of crops, livestock, consumers	Set mandatory standards for domestic markets; sometimes also for exports	Government mandate	Advocacy for update and changes. Participation in legal reform and drafting	Largely public sector
TBT technical regulations for safety protection of consumers, enterprises, environment	Set mandatory standards for domestic markets; sometimes also for exports	Government mandate	Advocacy for update and changes. Participation in legal reform and drafting	Largely public sector
Regulatory inspections, including sampling and testing for enforcement of SPS and TBT safety standards	To issue licenses, permits, and to verifycompliance with public requirements for protection of consumers, livestock and crops against health hazards	Government mandate	Some services could be subcontracted to private providers	Largely public sector; some scope for cost recovery
Standard setting for market efficiency, grading, and quality (not SPS, but TBT)	To set typically voluntary standards for transparency in markets with the goal of reducing transaction costs	Adoption/recognition of standards is mostly public role	Many commodity and industry standards have been developed by private sector organizations (ISO, commodity markets)	Largely public sector
Conformity assessment quality and safety required by private sector	To confirm compliance with quality and safety conditions in contract	Public responsibility for legal recognition, contract enforcement	Full responsibility for obtaining conformity compliance documents from public or private providers	Fully private sector
Active surveillance on transboundary animal diseases, quarantine, and non-quarantine pests, safety of food and food handling, and quality and safety of pesticides and veterinary drugs	To provide information needed: (i) to meet requests from importing countries for access to their markets; (ii) for risk analysis to manage plant and animal health, and food safety; (iii) to justify SPS restrictions to importers	Active surveillance, testing, diagnostics, maintenanceof databases, and provision of information are basically public goods and their funding is public responsibility	Private enterprises will not fund these services; however, private providers may be contracted for providing some of these services	Fully public sector

Active surveillance of safety of non-food products, processes, environment (TBT)	To carry out fact finding to generate information used by TBT regulators, for risk analysis, and by trading partners	Government mandate	Some services could be subcontracted to private providers	Fully public sector
Outbreak response	To protect consumers, animals crops; prevent spread of economic damage	Public responsibility; typical public good	Private enterprises will not fund these services, but may participate in the effort	Largely public sector
Implementation of GAP, GMP, HACCP (quality assurance systems) by producers	To assist producers in meeting process and product standards required by importing countries	Because of possible negative and positive spillover effects, the Government can use regulation, subsidy, and investment to encourage implementation by the private sector	Basically a private sector function with possible spill-over effects	Largely private sector
Issuance of phyto, animal health, and food safety certificates to confirm safety of products and/or absence of pests, diseases and specific health hazards	To meet certification requirements of trading partners based on international standards and requirements(e.g., IPPC, OIE and Codex). Mostly not required for food products	Government mandate, but since these are "toll goods" (only partially public goods) private sector can be charged a fee	Some possibilities to contract private enterprises as service providers	Fully private sector
Conformity assessment of traded goods	To meet conformity assessment requirements of many buyers as a means to ensure safety and quality of products	Basically private services, although Government may regulate certification and accreditation of service providers	Private enterprises can be charged; most services can be provided privately	Largely private sector
Operating diagnostic and testing laboratories	To assessing the safety status of products. To identify or rule out existence of pests and diseases. Limited demand by private enterprises.	Regulatory food testing as well as plant and veterinary diagnostic services for surveillance and inspection depend largely on public funding. Governments generally prefer having their own diagnostic capacityin order to support regulatory tasks and not be dependent on private providers and laboratories abroad	Private sector laboratories can perform many testing services, but usually offer a limited range of services. They play very limited roles in diagnostics for plant, animal, and human health in developing countries.	Largely public sector

Source: Edited fromADB, *Trade Facilitation: Improved Sanitary and Phytosanitary Handling in Greater Mekong Subregion Trade Project. Economic Analysis.*Manila: ADB, 2012

Technical Standards

This second thematic section is divided into three sub-sections. The first sub-sectionsummarizes the principles of the WTO-TBT Agreement. The second sub-section discusses the role of quality management as well as and standards and technical regulations with special attention to the selected priority export sectors. It is followed by a third sub-section focusing on the TBT system in Cambodia and capacity needed to support Government policy.

The WTO TBT Agreement

The WTO Agreement on Technical Barriers to Trade aims to ensure that regulations, standards, testing, and certification procedures do not create unnecessary obstacles, while also providing members with the right to implement measures to achieve legitimate policy objectives, such as the protection of human health and safety, or the environment.[63] Principles and recommendations of the TBT Agreement include:

1. **Minimal trade disruption.** Avoidance of unnecessary obstacles to trade
2. **Non-discrimination.** Non-discrimination between countries and between domestic and foreign enterprises
3. **Harmonization.** Recommended harmonization with international standards such as those prepared under the auspices of the International Standardization Organization (ISO), the International Electro-technical Commission (IEC), and the International Telecommunication Union (ITU)
4. **Equivalence.** Acceptance of equivalence
5. **Mutual recognition.** Recommendation to enter into mutual recognition agreements
6. **Transparency.** Transparency obligation through notification of technical regulations and through the operations of an Enquiry Point
7. **Code of Good Practice.** Acceptance and compliance with the Code of Good Practice for the Preparation, Adoption and Application of Standards (Annex 3 of the TBT Agreement)

Cambodian Exports: Moving up the Value Chain and Meeting Technical Standards
Quality

Standards, grading, and conformity assessment are important tools for quality management and coordination in the supply chains. For many traded products, such as for rubber and milled rice, there are international private product standards and grading scalesthat can be used in contracts and by supply-chain leaders for purposes of coordination and quality management among suppliers and buyers. Conformity assessment can be used for confirming quality. It can make use of scientific methods and laboratory testing, but also specialized graders/auditors/inspectors can perform classification and visual conformity assessment for the purpose of certification. Certification of quality provides information to traders and consumers about characteristics of products which is otherwise costly to obtain or not timely

[63] The text of the TBT Agreement is included in the Final Act of the Uruguay Round of Multilateral Trade Negotiations. It is available from the WTO website http://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm

available. Sometimes suitable grades and standards may be lacking and it may be useful for the private sector to develop them.

The public sector has a role to play in enabling quality management by the private sector through a system of metrology, accreditation, standardization, and quality (MAS-Q), adequate for the need of the country. It may also support targeted interventions in areas of private sector weakness, for example as a result of scattered supply chains, insufficient scale of enterprises, and difficulty to coordinate large numbers of small firms.

RGC is seeking to encourage expansion, value-adding, and diversification of its export base especially in such sectors as milled rice, cassava, rubber, fish, processed food, as well as tourism, silk, garment, footwear, and manufacturing assembly. Other export opportunities are not ignored, of course, and they too may need some assistance. Voluntary standards and mandatory technical regulations are tools for achieving these goals.In addition, the Government wants to ensure that Cambodia does not become a dumping ground for sub-grade, dangerous, and forbidden food and chemicals.

Generally, private sector buyers specify technical standards and grading of the product they wish to buy. In addition, Governments may also set specific quality, safety, and sometimes traceability requirements for products in their markets. Since Cambodia remains a small exporter, with no dominant exports in world markets, it is a standard-taker in international markets, not a standard-setter. Whether national technical standards are useful for export facilitation is a question that has to be considered carefully in consultation with exporters and producers. Mandatory standards for exported products are generally undesirable as they increase the regulatory burden for formal exports and do not add market value. Indeed, in countries such as Cambodia that have no accredited capacity for conformity assessment, such national requirements can only have negative impact.

In the area of chemicals, cosmetics, nutrition, construction, transport and electrical products, in particular, technical regulations can be required to ban or regulate the use of risky products for consumer protection. This kind of regulation if enforced can also be of benefit to exporters. Voluntary technical standards and grading can be desirable for market transparency. Generally national standards, technical regulations, and grading requirements, if desirable, should be harmonized with ASEAN recommendations and especially with those of Cambodia's main trading partners within ASEAN – namely, Thailand and Vietnam. The ASEAN Consultative Committee on Standards and Quality (ACCSQ) established in 1992 is the main body for promoting regional harmonization.

To date, there is very little empirical analytic information available in Cambodia from surveys of enterprises that indicates which gaps or redundancies in technical regulations and standards pose limitations to export performance and protection of buyers. However, product quality is an important factor for competitiveness. It affects directly the price that can be obtained in markets, for example for milled rice, rubber, tourism services, or garments. It is foremost the responsibility of private firms to pursue quality as demanded by buyers. However, firmswithin the same supply chain can be mutually dependent in achieving good quality final product and the weakest link in the chain can constrain the opportunities for others in the supply chain. For instance, the consistency and quality of raw materials affects the possibility and profitability of adding value in the value chain. Conversely, if producers of

final products are too weak for obtaining access to markets that demand quality and are prepared to pay for it, they cannot provide price incentives for quality to raw material producers. Therefore, coordination is necessary among producers in a given supply chain, such as paddy between rice growers and rice millers or rubber producers and rubber processors. There is usually a need for chain leaders to coordinate. These are often the producers at the end of the chain, such as the rice miller, the exporter, or sometimes even the foreign buyer, or, in case of fresh produce, the supermarket itself.

Some issues of quality and technical standards are highlighted in the following paragraphs for main exports targeted by RGC.

***Milled Rice*:**As indicated in the previous SPS section, milled rice is a much differentiated product characterized by different kinds of rice (white rice, aromatic rice, etc.), different varieties and qualities, many markets with different tariffs, different preferences for quality, and different SPS requirements. Rice mills with quality milling capacity are important for finding buyers in export markets and gaining good prices. Exporting rice mills need supply of paddy characterizedby good and consistent quality of unmixed rice varieties.

The international rice market has well-recognized systems of grading and quality. Cambodian national standards for milled rice, to the extent needed, should follow closely international standards, especially those adopted by Thailand and Vietnam which are leading international exporters. Although millers and traders should have first responsibility for choice of varieties that are most attractive for exports, the Government should facilitate their efforts through its seed policy. Increasingly, buyers in quality market segments expect rice mills to meet basic standards of milling quality and safety. Therefore, adoption of GMP and HACCP can be important and deserves to be promoted. Standards and certifiers are readily available in the region.

***Cassava*:**Concrete drying pads are essential for ensuring quality in the processing of dried cassava. Concrete pads prevent that soil and other foreign materials mix with the product. Storage should meet basic standards. Adoption of GMP-based standards such as those applied in the processing plants of quality exporters in neighboring countries should be promoted in Cambodia. Standards and certifiers are readily available in the region.

***Rubber*:** Quality of natural rubber is the determining factor in setting the price received by producers. Low quality results in low prices. Rubber quality is affected by the variety used, plantation management, harvesting, collecting, etc. However, rubber is a diversified product. According to UNCTAD, “differences in types and grades are of major commercial significance. Indeed, the natural rubber market is highly fragmented by types and, within each type, by grades, with sizeable variations in trade flows and price movements.”[64]International private standard and grading systems are generally used. By nature in this type of market, the private sector has the leading role in quality management. This is obvious for large rubber plantations. For small-holder rubber plantations, Government can assist in promoting the use of good quality rubber tree varieties.

[64]http://r0.unctad.org/infocomm/anglais/rubber/quality.htm

Grading and quality control can be done by visual inspection by specialistsand backed up by laboratory testing. Most large-scale producers in Cambodia seem to have their own quality control systems, including testing facilities. The Rubber Research Institute of Cambodia (RRIC) offers testing of quality for certification, mostly for producers and traders without testing capacity, but also for verification and for conflict resolution. Its laboratory is accredited ISO 17025 and its testing service is increasing but still small in volume. In 2012, 240 testswere conducted. To date little information is available in Cambodia about quality performance of the sector. Government could monitor quality of rubber through adequate registration of quantities and prices at export. Comparison with neighboring countries could identify weaknesses and guide efforts to promote quality especially among smallholders.

***Tourism*:**Quality is important for the competitiveness and reputation of the tourism sector. Quality is based on many factors such as service, cleanliness, décor, ambiance, taste and safety of food, environment, and others. Information about quality of a resort area or a particular hotel or restaurant is not always readily available to customers who plan to visit. Certified rating systems can provide such information. Rating systems can include a range of quality aspects, or just target a particular aspect, such as gourmet food rating.

Independent certification of food safety standards of restaurants can be of particular importance for travelers who have no local information on reputation of restaurants, since they cannot observe safety ahead of buying food. It provides also an incentive for investors who can advertise their efforts in assuring safe food. Cambodia has a basic MoH regulation on safety standards in restaurants to which all restaurants should comply. In addition a voluntary rating system with independent auditing will be implemented by MoH for restaurants aiming at higher standards. Restaurants will be able to receive a certificate with ranking (A, B, C) depending on their performance measured against a scorecard based on GHP/GMP parameters.

***Processed Food and Fish Products*:**The quality of processed food depends on raw materials used and processing. Buyers in many export markets, but increasingly also in domestic quality segment markets,tend to value GMP and HACCP standards obtainedby processing plants and, sometimes, may even require those. Therefore, promoting the adoption of GMP and HACCP is desirable. Quality of raw materials can also be a critical factor that is partly beyond the control of processors.

***Silk*:**Products are made mostly from imported yarn but if yarn quality is poorly controlled quality of final product is hard to control. The silk project under CEDEP I will focus on how to improve purchasing silk yarn and ensure most silk yarn purchased comes in with a certificate of origin (CO).

***Garment, Footwear,Light Manufacturing and Assembly Sectors*:** For garment, footwear, light manufacturing and assembly sectors etc., standards are largely set by buyers.

The TBT System in Cambodia

Box 4.3 describes Government's basic role in an effective TBT system. The achievements in the development of the TBT system will be discussed against the elements described in this Box.

Box 4.3: An Effective Technical Standards System

The basic elements of an effective Technical Standards system include:

1. A legal framework for standardization, technical regulations, metrology, legal metrology, conformity assessment, and mutual agreement that is compliant with principles of the WTO and other relevant international bodies and adopts ASEAN recommendations.
2. A market-driven system for harmonized voluntary consensus standards for products, processes, and services.
3. An established depository for standards and technical regulations.
4. Use of international standards as templates for developing technical regulations and ensuring that technical regulations promote trade by removing unnecessary barriers to trade without compromising public health and the safety of the citizens of their country.
5. Establishment of systems to maintain and disseminate the national measurement units, which must be traceable to the International System (SI) of units.
6. Development and implementation of a weight and measure program that can ensure uniformity of measurement and support quantity measurements within the legal framework of the country.
7. Mechanisms to ensure that conformity assessment bodies are competent, impartial and work with integrity and that they are accredited in accordance with international standards and best practices.
8. Adoption of mutual recognition agreements in areas of metrology, accreditation, standardization, and quality (MAS-Q) with trading partners and international accreditation bodies.
9. Adequate technical and financial resources to ensure implementation of a sound and internationally compliant MAS-Q system.

Source: Adapted from USAID, http://pdf.usaid.gov/pdf_docs/PNADP635.pdf

***Legal Framework*:** Some progress has been made in developing the legal framework for Cambodia's Technical Standards system. Basic laws and sub-decree (Anukrets) are:

- The Law on Standards, promulgated in 2007
- The Law on Metrology, promulgated in 2009
- Sub-decree No. 183, December 31, 2010, establishing the National Metrology Center (NMC)

The Law on Standards has known deficiencies that were raised already in the TBT chapter of the *Cambodia Trade Integration Strategy 2007*. Among those, the law does not make reference to the WTO TBT Agreement and definitions of standards used in the law are different from the definitions in the TBT Agreement. This has led to confusion about standards and technical regulations and, in particular, the relation between technical regulations for SPS and TBT. Because of this, questions have been raised about compliance of Cambodia's mandatory standards with the WTO TBT Agreement. Most importantly, the TBT Code of Good Practice (Annex 3 of the TBT Agreement, commonly referred to as the Code) was not adopted, despite the fact that it is mandatory and also adopted by ASEAN.

During the 2011 WTO-Trade Policy Review (TPR), RGC indicated that it would review the Law on Standards and the adopted TBT standardsin 2012.[65]It also indicated that it had notified WTO in 2010 about adoption of the Code of Good Practice. The Code requires that, at least once every six months, the standard-setting body publishes a work program listing the standards being prepared currently and the standards that have been adopted in the preceding period. So far, however, the review and legislation to adopt the Code formally are pending, and the standardization work does not comply with the Code.

A Prakas has been mentioned as the preferred legal instrument for adopting the Code, because laws and Anukret (Decrees) take a long time and much effort before they can be promulgated. However, in this case, the use of a higher level legal instrument, namely an Anukret, might be preferable because it has more legal power.

Cambodia does not yet have a legal framework for accreditation and conformity assessment needed for international recognition. This means that accreditation conducted by international accreditation bodies has no legal recognition yet under Cambodian law. Similarly, there is no legal recognition of conformity assessment conducted by an international accredited body. Countries with limited resources, such as Cambodia do not need a national Accreditation Body because it is much cheaper to use a foreignAccreditation Body. But Cambodia needs to define accreditation and procedures to be followed through legislation. There is also need for legal recognition of conformity assessment and certification bodies in Cambodia.[66]

***Standards and Technical Regulations*:**The standard formulation and adoption process is very slow and since 2007 just over 80 Cambodian national standards have been adopted, despite long-term support from NORAD/UNIDO, and more recently also from ADB and World Bank. In 2012 despite donor support, ISC could finish only 10 standards. The main reason for low output seems to be a cumbersome standardization process.[67]

Although, under the WTO/TBT system priority should be given to adopting international standards and technical regulations recommended by international standard setting bodies such as ISO, IEC, and ITU, the Institute of Standards Cambodia's (ISC) work is primarily focused ondeveloping Cambodian National Standards. ISC does not have a shortcut procedure for adoption of international standards as national standards and has to follow the full cumbersome procedure.[68]During the 2011 TPR the RCG indicated that its target is to adopt 20 national standards per year. This target is included in the RGC's most recent *Work Program*.[69]To achieve this target the standard setting process will need to be reformed.

---

[65] WTO, *Cambodia Trade Policy Review: Secretariat and Government Reports*, Geneva: WTO Publications, November 2011. https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(%20@Symbol=%20wt/tpr*%20or%20press/tprb/*%20)%20and%20(%20@Title=%20cambodia%20)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#

[66] Article 48 of the Standards Act requiresgetting permission from ISC to advertise certification from whatever source. The Articles reads "No persons or organizations shall advertise the obtaining of any system certificate even though they have been certified by any local or foreign certification body unless they have been registered and received a visa from the Institute" Up to now it seems that no persons or institutions in Cambodia have requested for a permission.

[67] ISC is responsible for extensive scientific and documentary work. It has difficulty to call meetings of review and decision making bodies since many of the members of the bodies show little ownership. ISC suffers regularly from problems of quorum.

[68] In fact ISC procedures require it to prove that international standards meet scientific principles.

[69] Office of the Council of Ministers,*Work Program of the Royal Government Of Cambodia On WTO Requirements And Related Issues (2012-2015).* Phnom Penh: CoM, 2012.

ISC considers that technical regulations for SPS (so-called SPS standards, for example Codex and ASEAN MRL standards) should also go through the ISC process. As a result of cumbersome procedures and confusion between SPS and TBT, Cambodia has hardly any national SPS standards. SPS line ministries, dissatisfied with the slow national standardization process, are now following other routes. MAFF has adopted product specific Maximum Residue Limits (MRLs) for 42 pesticides as an Annex to a Prakas for GAP. MoH has adopted MRLs as an annex to the Prakas on hygiene in restaurants, and MoC, as the chair of the National Codex Committee, is working on an Anukret to adopt Codex standards. In short, the RGC's goals to comply with WTO principles and ASEAN recommendations and to promote production for exports need a much improved enabling standard-setting process.

Metrology and Legal Metrology:The National Metrological Center (NMC) was established in 2011and is housed in new buildings with a laboratory. Work is underway to obtain ISO 17025 accreditation for the metrology laboratory for mass, temp, volume, and dimension.[70]

A legal metrology program is being extended progressively in the country. The program faces financial and technical limitations, especially in consumer protection. To fund its field work, the program is dependent on mandatory fees, which means that it can only test and calibrate among registered enterprises and not among informal enterprises and in markets. The funding for legal metrology does not allow for risk-based testing and calibration. In many areas, legal metrology still needs more trained staff and standards.

***Conformity Assessment*:** Thus far no national entities have been accredited as conformity assessment bodies in Cambodia. ISC is working to become the firstconformity assessment body. It has lead auditors for ISO 9001, 14001 and 22000, and trainers of trainers for 9001 and 14001.

Although, under international principles, standards should be voluntary as much as possible, so far ISC focuses on setting mandatory standards. ISC not only has a role in standardization; it also inspects conformity of its mandatory product standards at registered enterprises that produce the product.[71]ISC also aims to develop product certification for consumer products. The combination of standardization and conformity assessment in one organization raises questions of conflict of interest. In principle conformity assessment can be carried out as one of the activities of the standard body, provided that activities are well-separated and that impartiality of standardization is not affected. However, the implication is that in such a case the standard body cannot be involved in consultancy, accreditation and recognition.[72]With the revision of the standards law, and additional legislation on accreditation and conformity assessment, the structure and responsibilities of ISC and its compliance with international recommendations deserve careful attention as well.

[70] Supported by NORAD/UNIDO

[71] Control among informal enterprises and in markets is the responsibility of other departments in MIME and of Camcontrol. Laboratory testing, if needed, is carried out by laboratories of ILCC, Camcontrol, Pasteur or institutions abroad. For inspections, ISC charges official fees and the firms must pay for travel cost and food for the inspectors in addition.

[72] According to international standards and guidelines issued by well recognized international bodies such as ISO, IEC, IAF and ILAC, activities involving conformity assessment, accreditation, or recognition as well as that of consultancy services, should not coexist within the same organization, in order to ensure impartiality.

ISC has a register for establishments with GMP and HACCP. Enterprises are free to obtain technical and benchmarking services from service providers of their own choice.

Laboratory accreditation ISO 17025 has been obtained from abroad by ILCC for 11 testing parameters.The National Specifications Laboratory of the Cambodian Rubber Research Center has also obtained a certificate of ISO/IEC 17025:2005 from a foreign accreditor for testing quality control of rubber.

***Mutual Recognition*:** Cambodia has no agreement for mutual recognition of metrology, accreditation, standardization, and quality (MAS-Q) with trading partners and international accreditation bodies as of yet. To meet objectives of regional harmonization and trade facilitation, priority should be given to filling in this gap.

Progress and Current Limitations:Good progress has been made in building capacity for Technical Standards, in particular in metrology and legal metrology. A number of deficiencies in the Cambodian TBT system thwart further development in standardization and conformity assessment and, hence, economic integration in the region. Current limitations include:

- An inadequate standard setting process
- Non-compliance issues with the international framework for TBT regarding definitions used for standards and technical regulations as well as confusion about differences between SPS and TBT Agreements
- Gaps in the legal framework for conformity assessment and accreditation as well as missing mutual recognition agreements with international accreditation bodies
- The combination of standard setting and conformity assessment within ISC raises questions of impartiality and conflicts of interest
- A lack of sufficient funding for “public goods” in ISC and NMC causes a bias toward activities for which fees can be charged

Recommended directions for resolving and mitigating deficiencies include:

- Upgrading of the legal framework for TBT including a focus on compliance with WTO principles and ASEAN recommendations and for solving gaps. In this contextalso, the mandates and organization of ISC need to be revisited;
- Giving priority in ISC to the adoption of international TBT standards and technical regulations as Cambodian national standards and regulations to contribute to economic integration in the region;
- Simplifying the standardization process and focusing ISC’s mandate more on process, consistency, compliance with international principles, and repository of standards;
- Delegating the lead for developing SPS standards and technical regulations to the SPS agencies. ISC could, where relevant, offer a repository role for SPS standards, such as Codex MRLs, and advise about consistency within the system of standards and technical regulations; and,
- Strengthening Government funding for “public goods” in consultation with MEF (see Table 4.3 above.)

Conclusions and Recommended Actions

Since the late 2000s, Cambodia has experienced a boom in production and exports of rice, cassava, natural rubber, and selected other agricultural commodities such as corn. This boom has been facilitated by improved connectivity in the GMS region, relatively high prices, and availability of underutilized land and labor. Further growth is clearly possible.

However, this boom has also revealed weaknesses and risks that need attention in order to realize its full benefits. To date Cambodia faces significant internal bottlenecks in meeting quality and safety standards demanded by foreign markets and in adding value to raw materials. As a result, large amounts of product are traded unprocessed, at low prices, with informal markets in neighboring countries. Not only does Cambodia loses opportunities for adding value and getting better prices, but present exports depend *de facto* on waivers for SPS requirements by neighboring countries, which means such exports could be at risk if requirements were enforced. Therefore, improving relatively weak public and private capacity to ensure higher quality and safety standards is a major challenge for securing market access, for promoting market diversification, and for consolidating access to more demanding and better paying market segments.

The challenge of improving quality for the purpose of product and market diversification applies also to the silk, fisheries, processed food, or even tourism sectors. Tourism is growing rapidly but its image is vulnerable to food safety hazards. The fisheries sector can perform better if it can manage safety and quality.

With increased trade, the risk of transfer of pests and diseases by countries importing from Cambodia has increased also. This risk requires attention because it may result in loss of production and bans on Cambodian exports. Likewise, Cambodia needs to mitigate risks associated with imports of sub-grade and unsafe food, pesticides, and veterinary drugs.

Private sector firms are the first line of defense in meeting the quality and food safety requirements of buyers and importing countries. They need to build capacity for managing quality and safety at the plant and facility level. However, they need also an enabling environment and support from the public sector, especially in the area of technical standards and sanitary and phytosanitary measures.

GMP and HACCP are important tools for enterprises to improve their quality and safety management and their application is increasingly required by customers. This applies to rice millers, dried cassava processors, corn processors, processed food, and fish product processors. For quality and safety management in hotels and restaurants, GHP/GMP-based systems can be quite effective. Government can support implementation of certification systems for each of these sectors.

Firms also face challenges in obtaining sufficient raw materials of consistent quality and safety. Although this is a basic responsibility of private firms, Government can provide support in resolving bottlenecks, such as controls in the use of pesticides on crops and antibiotics in aquaculture. Good policies for seed of

crops and propagation material for rubber are important for the quality of farm products. In selected cases Government can support the adoption of GAP (good agriculture practice and good aquaculture practice).

In many countries market access for plant products such as rice, dried cassava, and corn, can only be obtained if Cambodia can provide adequate information about its pest and disease situation through regular surveillance and assuring that agreed special risk-mitigation measures are performed such as fumigation and drying. China requires registration of production areas, surveillance of pesticides used, registration of firms involved in the post-harvest export chain, and adoption of GMP standards in processing facilities. Many countries require HACCP-based certification for fisheries product exporters. Export of fisheries products to the EU requires pre-approval of processing facilities, which is further conditional to the capacity of the exporting country's Competent Authority to control product safety from catch to export. And, for each shipment of plant, animal, or fisheries products, importing countries can require that a phytosanitary or sanitary certificate be issued to assure that the products meet defined safety standards. Methods and protocols for surveillance, provision of information, risk mitigation, diagnostics, conformity assessment, and certification are mostly defined in international standards.

For successful participation in international trade necessitating SPS and Technical Standards, countries must build capacity: on the import side, to protect crops, animals, and consumers against risk of pests, diseases, and unsafe food; and, on the export side, to facilitate trade that faces safety and quality requirements from importing countries. Under the WTO, member states must comply with WTO SPS and TBT principles. A main WTO recommendation is for countries to harmonize with international standards. ASEAN uses these WTO principles and recommendations as a basis for economic integration.

Since the CTIS 2007, Cambodia has made good progress to improve compliance with WTO SPS and TBT principles and recommendations and to strengthen its capacity for enhancing its export strategy and controlling the safety of its imports. Yet, there remain bottlenecks and weaknesses that deserve being addressed. Main recommendations are:

To Strengthen Private Sector Capacity

1. Promote certification based on international standards and systems (HACCP, GMP, GAP, GHP, Codex, OIE) appropriate for safety and quality among export processors (for milled rice, dried cassava, corn, fish products, processed food) and in hotels and restaurants.
2. Promote quality in silk, natural rubber, garments, footwear, and manufacturing assembly.
3. Promote consistent quality and safety of raw material through targeting weaknesses in supply chains.

To Strengthen Public Sector Capacity[73]

1. Address WTO compliance of legislation in standardization, accreditation, and conformity assessment.

[73] Kees Van der Meer and Laura Ignacio, "Sanitary and Phytosanitary Measures and Border Management", in Gerard McLinden et al., editors, *Border Management Modernization*, Washington, D.C.: World Bank, 2011

2. Improve quality of legal texts and adopt further legislation or legal texts to address remaining gaps, ensuring their compliance with SPS and TBT norms. Support effective implementation of the major laws.
3. Establish effective surveillance systems and conduct regular surveillance of pests, diseases, and pesticides used in production areas of export crops as requested by importing countries.
4. Establish risk-based inspection systems and ensure proper risk-based inspection of imports and domestic markets to promote safety of food, pesticides, and veterinary drugs.
5. Modify procedures for formulation and approval of standards in order to solve backlog in adoption of international standards.
6. Strengthen management, administration, funding methods of regulatory laboratories for SPS.
7. Strengthen the development of trained and experienced SPS technical personnel.

Detailed actions are shown in the Trade SWAp Roadmap under Outcome #4

Box 4.4: Implications of Regional Integration

SPS Measures

ASEAN and GMS pursue regional integration through improved infrastructure and harmonization of trade policies, technical standards, and SPS measures based on WTO principles and on standards from international standard setting bodies. ASEAN members work together also to prioritize harmonization of SPS standards, such as maximum residue limits (MRL), and SPS measures. Several ASEAN Ministerial Meetings, especially the ASEAN Ministerial Meeting on Agriculture, have, under their purview, selected relevant senior officials and subsidiary bodies to undertake their functions in harmonization of SPS measures, especially (i) Maximum Residue Limits (MRLs) for pesticides, (ii) use of pesticides and veterinary drugs, and (iii) animal health and plant and animal quarantine. These officials and bodies meet periodically to discuss harmonization issues and to prepare proposals for ministerial meetings. ASEAN recognizes that countries which joined last, including Cambodia, Lao PDR, Myanmar and Vietnam, are less economically and institutionally developed and has asked the donor community to give special support for building WTO compliant SPS and TBT systems in those. Several donors are providing such support. More developed ASEAN and GMS members also provide bilateral support to less developed members.

Unlike the EU, which has a mandatory requirement for its members to adopt the full *Acquis Communautaire*, including SPS measures, ASEAN and GMS have only recommendations and commitments. In addition, unlike the EU, ASEAN and GMS have no Executive Body with enforcement power and resources. Hence, harmonization is slow. Although, in the long-run, ASEAN integration should reduce intra-ASEAN border controls and focus on main risks only, such perspective remains in a distant future. In the medium term, effective controls will first increase. Advanced ASEAN and GMS countries see the lack of effective capacity in less developed member countries as a potential risk to their agricultural systems and export. Uncontrolled cross-border pests and diseases and contaminated food from neighboring countries can affect market access to demanding and SPS sensitive markets. Increasing concerns about food safety among middle income urban consumers will likewise add to the pressure on more stringent controls on intra-GMS and -ASEAN imports.

In sum, more advanced ASEAN and GMS countries expect the less advanced ones to establish more effective control systems. At the same time there are also likely to be efforts to rationalize SPS controls and to reduce measures that are costly to trade and have little effect on health protection. The ASEAN Single Window (ASW) is an example of an ambitious plan for improved trade facilitation.

Technical Standards

The ASEAN Consultative Committee on Standards and Quality (ACCSQ) was established in 1992 and is charged with promoting harmonization. Its scope of work includes:

- Elimination of technical barriers to trade related to standards and conformity.
- Information exchange on laws, rules, and regulatory regimes on standards and conformity assessment procedures.
- Harmonization of standards, technical regulations, and conformity assessment procedures.
- Harmonization of standards for 20 priority products
- Mutual Recognition Arrangements

ACCSQ includes:

- A Working Group on Standards & MRAs
- A Working Group on Accreditation &Conformity Assessment
- A Working Group on Legal Metrology
- A Joint Sectoral Committee for ASEAN MRA for Electrical and Electronic Equipment
- An ASEAN Cosmetic Committee
- A Pharmaceutical Products Working Group
- A Prepared Foodstuff Product Working Group
- An Automotive Product Working Group
- A Rubber-based Product Working Group
- A Wood-based Product Working Group
- A Medical Device Product Working Group
- Traditional Medicine & Health Supplement Product Working Group

Typically, Cambodia adopts the ASEAN recommendations in meetings, but subsequent steps to adopt those legally, let alone to implement them, are seldom taken. As a result of its slow, complex and cumbersome process to establish standards, Cambodia has a backlog of international standards and technical regulations that need to be adopted. Without shortcutting current procedures, this backlog is near impossible to eliminate.

The TBT Code of Good Practice has also been adoptedby ASEAN as one of the principles for harmonization, with some slight modification. Cambodia has yet to adopt it legally.

Box 4.5: Human and Institutional Resources

SPS

There is a general shortage of skilled personnel in SPS agencies to perform the technically demanding functions of SPS management, especially in surveillance, testing, diagnostics, risk analysis, and SPS market access negotiations.

The SPS legal framework needs much further improvement. Special areas are (i) review of quality, consistency, compliance, and gaps in the existing legal body for SPS; (ii) improving legislation in the area of food safety (based on Inter-ministerial Prakas 868); (iii) strengthening coordination of SPS measures by further elaborating on Prakas 868; (iv) sub-decrees and Prakas for implementation of laws and sub-decrees.

Further development of regulatory laboratories for testing and diagnosis is needed. Priority should be given to introduction of Good Laboratory Practice, improved funding mechanisms, improved procurement of laboratory supplies for greater flexibility in responding to needs, and broadening the range of basic capacities. Acquisition of advanced expensive equipment in the area of food safety will be needed in the medium term, but should be preceded by an agreed plan that avoids duplication and enhances shared use of such equipment across regulatory laboratories.

Funding of operational cost is very limited and fails to account for the "public goods" nature of many SPS services. MEF's policy is to encourage user fees to recover operational costsand the inclination of SPS agencies is to use regulatory powers to fund controls. This adds to regulatory burden for the formal sector and does not provide sufficient scope for risk-based controls.

Technical Standards

Major further upgrading of the TBT legal system is needed. Special issues are (i) compliance of the Law on Standards with TBT Agreement; (ii) the legal adoption of the TBT Code of Good Practice (or the ASEAN version of it); (ii) modification of the procedures of standard setting; (iv) providing a legal framework for conformity assessment compliant with international recommendations of ISO, IEC, IAF and ILAC; and (v) clarifying difference between TBT and SPS technical regulations.

There is a need of modifying the mandate of ISC in standardization and strengthening the role of line agencies.Increasing commercialization and increased economic growth ask for more staff for expanding legal metrology programs. Funding of operational costs for TBT faces the same constraints as SPS does.

Box 4.6: Progress Since 2007		
	Topic	***Progress since Cambodia Trade Integration Strategy 2007****
SPS		
	Food safety	
	Legal framework	Responsibilities of Agencies clarified/defined under Prakas 868
	Coordination	Beyond Prakas 868, little progress
	Surveillance	Little progress
	Inspection MIH	Regulatory inspection of registered enterprises
	Restaurants	Regulations for minimum standards for restaurants introduced and a voluntary certification system for better performance designed. Not yet implemented
	Food safety policy	Work on draft strategy at MoH
	ILCC	Accreditation for microbiology parameters; increased testing
	Camcontrol laboratory	Number of tests increased from 1240 in 2008 to 1950 in 2011
	Pesticides	
	legal framework	Law on the Management of Pesticides and Fertilizers promulgated in 2012
	Quality surveillance	No implementation because of funding constraints
	Testing capacity MRL	Limited progress
	GAP	Prakas and list of MRL promulgated
	Plant quarantine	
	Legal framework	Anukret on plant quarantine. Draft Law on phytosanitary measures is under preparation, promulgation targeted for 2013
	Surveillance	limited progress
	Phyto certificates issued	Increased from 640 in 2010 to 1679 in 2011 and 7000 in the first 11 months of 2012
	Seed/propagation material	Pending post-entry quarantine
	Animal health	
	Legal framework	Draft Law on Animal Health and Production has been submitted for CoM consideration
	Surveillance TAD	Mainly focused on Avian Flu with donor funding
	Feed and veterinary drugs	
	Surveillance feed and drugs	Little to no progress
	Surveillance residues in animal product	Little to no progress
	Fisheries	
	Legal framework	Law on Fisheries promulgated in 2006; limited further progress
	GHP/GMP/HACCP	limited progress
	General SPS	
	Legal framework	Draft Law on Agricultural Product Quality and Safety, targeted for submission to COM 2013
	Funding operational cost	Funding issue yet to be addressed; very little increase in amounts provided
	Quality of inspection	little progress
	Transparency	Little to no progress
	SPS coordination	No progress

TBT		
	Standardization Legal frame work National standards	 No progress. Still not WTO compliant Limited number of new standards. Serious backlog
	Metrology Legal framework NMC Legal metrology	 Law on Metrology Established with new building Program developed and extended; staff and funding constraints
	Conformity assessment Legal framework Capacity training for certification	 Still missing Moderate progress
	General TBT Funding operational cost	 Funding issue yet to be addressed; very little increase in amounts provided
* Not including expected results from on-going capacity building projects		

Chapter 5

INVESTMENT AND INVESTMENT ENVIRONMENT IN CAMBODIA

Context

Private sector development and investment to enhance export-led, pro-poor growth is and has been a key priority of the Royal Government of Cambodia (RGC) for many years. 2012 marks a turning point led by FDI inflows of $1.5 billion, up from $900 million in 2011. The lower rate of FDI expansion during 2007-2012 compared to 2000-2007 reflects the effect of the global financial crisis. The low point in FDI was in 2009 when net inflows dropped down to $539 million. Still, FDI grew vigorously during the period 2007-2012 in all sectors, except in services.

To promote private sector investment, important private sector legal and regulatory reforms and measures have been implemented already at the national level, many under the umbrella of meeting Cambodia's WTO obligations. More reforms are underway.[74]

In addition, to enhance growth through trade diversification, the RGC is committed to the Trade Sector Wide Approach (Trade SWAp) which has been fully institutionalized. In particular, the RGC is committed to strengthening selected export value chains in part by stimulating the requisite foreign and domestic investment through investment promotion, facilitation, and improvements in the business environment.

However, the Cambodian private sector today remains characterized by many, rather small and informal SMEs, and a few large enterprises. And there remain constraints to private sector development in Cambodia both at the national and provincial levels. The traditional challenges are: weakness in infrastructure (cost of electricity, transport), weak governance, limited capacity in government agencies, and access to and cost of finance.[75] The emerging challenges include: skill shortages and mismatch, logistics and trade facilitation, technology upgrading and innovation, the need to build "fiscal space."[76] Most of these traditional and emerging challenges are addressed in the various chapters of the report.

This chapter offers an analysis of recent trends in investment and the investment environment and considers ways in which foreign investment, in particular, can be harnessed to address weaknesses in the private sector structure (in both rural and urban areas) and support economic diversification.

The Global and National Contexts

Global, regional, and national investment trends combine to create a complex backdrop against which Cambodia's attempts to stimulate growth and diversification through increasing investment will play out.

---

[74] See chapter 1

[75] World Bank, *Cambodia Investment Climate Assessment*, Phnom Penh: World Bank, 2009

[76] World Bank,*Cambodia Investment Climate Assessment*, Phnom Penh:World Bank, 2012; and recent issues of the ADB, *Asian Development Outlook*, Manila: ADB.

Global Trends and Challenges

According to the newly released UNCTAD's 2013 World Investment Report, global FDI fell by 18 percent to $1.35 trillion in 2012, with the inflows to developed countries experiencing a significant drop.[77] The European Union alone accounted for two thirds of the global FDI decline. For the first time, developing countries took the lead, attracting more FDI than developed economies. While developing regions witnessed a small overall decline in FDI inflows, the least developed countries saw a 20 percent increase in FDI flows in 2012. Cambodia, Myanmar, and Viet Nam are particularly bright spots for labor-intensive FDI.

In terms of developing countries, China remains the most popular destination, attracting 18 percent of total global FDI inflows in 2012 and 15 percent in the first quarter of 2013.[78] But a growing number of multinational corporations are pursuing the so-called "China Plus One" strategy, establishing or expanding their business operation outside China, particularly in other Asian countries.

Concerns about doing business in China include rising wages, shortages of workers and energy, a strengthening currency, changing investment policies, and even the possibility of widespread civil unrest (e.g., due to dissatisfaction among population about the government's dealing with wealth gaps and other social issues.) As a result, there are increasing pressures on foreign investors to mitigate the risks of overdependence on factories in China by looking for other investment locations.

FDI inflows to ASEAN increased by 2 percent in 2012, with multinationals from Japan and elsewhere increasing their FDI in the region. This is partly due to opportunities resulting from ongoing regional integration, including the prospect of ASEAN Economic Community (AEC), in particular in emerging frontier economies, such as Vietnam, Myanmar, Lao PDR, and Cambodia.

As foreign investors look for alternatives to China's rising labor cost, they do seek strong infrastructure and suitable business climate. Vietnam has proved itself as one of the most attractive destinations for multinationals' "China Plus One" strategy. Recent data shows the country attracted over $12 billion in FDI during the first seven months of 2013 – a 19.6 percent year-on-year increase. Processing and manufacturing industries attracted the most FDI in Vietnam, with 315 approved projects worth $10.44 billion, accounting for 87.7 percent of the total. With AEC approaching in 2015, the country is likely to face increasing competition from other Southeast Asian countries, though its location, a large and potential domestic market, the abundant size of working-age population, its low labor cost and relatively high productivity, its better infrastructure, and its political stability and pro-investment policies will likely continue to help Vietnam hold its position as a very attractive place for FDI inflows.

Since military rule came to an end in 2010, Myanmar has undergone significant political and economic reforms under the reformist civilian government led by President Thein Sein, who took office in March 2011. Myanmar's efforts to embrace reform have helped ease the decades-old economic sanctions imposed by the West. This has led to renewed interest among foreign investors and multinationals from both developed and emerging countries. Following a series of reforms and reports of rapid growth, some large multinationals such as Coca Cola have re-established their presence in the country, attracting much international media attention to the country's re-emergence as an investment destination. Myanmar released an updated foreign investment law in Jan 2013 and is in the process of reviewing and revising other related laws and regulations

[77]UNCTAD, *World Investment Report*, Geneva: UN Publications, 2013
[78]Organization for Economic Co-operation and Development, *FDI in Figures*, Paris: OECD, July 2013. Seehttp://www.oecd.org/daf/inv/investment-policy/FDIinFiguresJuly2013.pdf

Cambodia continues to attract a strong flow of foreign investment and witnessed a 73 percent gain in FDI inflows from 2011 to 2012. Preferential market access, low wages, a beneficial geographic location, an open investment and trade regime, political stability, and steady economic growth among other factors have been cited as driving these investment decisions. Frequently, the investment is also driven by "push factors" including issues these firms have encountered while operating in other countries including China and Thailand such as rising wages, labor shortages, and unanticipated events like natural disasters and political unrest.

The Macroeconomic Picture

Table 5.1: Selected Macroeconomic Indicators, 2010-2013 (projected)

	2010	2011	2012	2013p
Real GDP growth (%, constant prices)	6.0	7.1	7.3	7.2
Consumer price index (average year-on-year; % change)	4.0	5.5	2.9	3.0
Overall budget balance (% of GDP)	(8.1)	(7.5)	(5.2)	(5.0)
Merchandise trade balance (% of GDP)	(14.1)	(11.6)	(14.6)	(14.0)
Current account balance (excl. official transfers; % of GDP)	(10.4)	(8.8)	(11.6)	(11.1)
Broad Money (M2, excl. foreign currency outside banks; % change year-on-year)	20.0	21.5	20.9	n.a.
Exchange Rate (KR/$, official midpoint year average)	4,189	4,066	4,034	4,050
Interest rate (12-months deposits in $; weighted average %)	4.4	4.3	4.4	n.a.
Foreign aid, net (million $)	1,130.8	958.0	n.a.	n.a.
FDI, net (million $)	762.0	872.5	1,526.6	n.a.
Gross foreign reserves ($ billion)	2.65	3.03	3.46	3.85
Gross foreign reserves (months of imports of goods & services)	4.9	4.5	4.4	4.4

Source: National Bank of Cambodia, *Annual Supervision Report,* Phnom Penh: 2012, IMF, *Cambodia: 2012 Article IV Consultation Series: Country Report No. 13/2,* Washington: 2013 and ADB, *Asian Development Outlook database,* Manila; 1 April 2013

Notes:() = negative, n.a. = not available,FDI = foreign direct investment, GDP = Gross Domestic Product, KR = Khmer riel, M2 = broad money, ^{p} = projections.

Cambodia's economy has remained strong with real GDP growth at 7.3 percent in 2012 and projected at 7.2 percent for 2013. Growth is being driven by robust domestic demand, particularly household consumption accounting for around 85 percent of real GDP. From the supply side, growth has been led by services and industry, and supported by strong agriculture performance. While monetary and exchange rate policies broadly pursue price stability and support sound macroeconomic management, persistent high dollarization (over 90 percent of deposits at banks are in US dollars) limits the country's ability to use the monetary policy to effectively influence domestic financial conditions and mitigate external shocks. Fiscal policy remains sound, and continues to support and maintain macroeconomic stability. CPI inflation has decelerated and remains low, and good domestic harvest and relatively stable global food prices suggest that inflation in 2013 will average 3.0 percent, similar to that in 2012.

Overall, the financial system has been resilient to shocks, and generally withstood the global economic downturn. Private sector credit is adequate for the economy's size and sophistication, with private sector credit increasing from 34.1 percent of GDP in 2011 to 41.4 percent in 2012. Legal regulatory and infrastructural frameworks of Cambodia's financial sector are broadly supportive of enhancing the diversity of financial services required to meet the needs of domestic and foreign investors. Diversity of financial services has been growing fast with the following developments recently noted: (a) trading at the Cambodia Securities Exchange started in 2012; (b) three life insurance companies, in addition to general

insurance businesses, were established in the past year; and, (c) one financial leasing company opened up under the supervision of the National Bank of Cambodia.

Lastly, the RGC has been preparing actively to enhance the business environment for public–private partnerships to meet the huge financial requirements of the infrastructure needed for the country's growing economy. With development partner support, the RGC has an ambitious range of initiatives under way to strengthen the legal, regulatory, and institutional environment for public–private partnerships.

The New Industrial Crossroads: Coping with the Open Global Economy

Cambodia's economy is one of the fastest growing in the region. However, it is still narrowly based. With Cambodia's moves to deepen its integration into the world economy as a member of WTO and ASEAN, external economic shocks are likely to be more frequent and possibly more severe unless it broadens its base.

For many years, export sectors have been the main drivers of growth. Particularly important have been garment and tourism, though Cambodia's export basket is diversifying.[79] Growth of the garment sector has been highly driven by FDI, as 87 percent of garment factories are wholly foreign-owned. After an initial focus on the US under Most Favored Nation (MFN) market access, foreign investors have been taking advantage of tariff exemption schemes in big markets such as EU or Canada. These preferences led to higher profit margins and Chinese and other Asian investors responded by expanding production in Cambodia.

With FDI inflows falling sharply in 2009 due to the global financial crisis, the garment and construction sectors experienced severe downturns, causing job losses for many workers and indirectly causing hardship to many more people. A total of 70,000 jobs in the garment sector and 60,000 jobs in the construction sector were estimated to have been lost.

The Government has been aware of this challenge for quite some time and has been working on attracting foreign investment in different sectors to help diversify the economy. In fact, there is evidence of progress in recent years with noticeable development in relatively newer export sectors to contribute to greater resilience of Cambodia to external shocks. First, agriculture has started to increase levels of processing and exports have grown; second, sectors such as footwear and manufacturing assembly (bicycles, electronics in particular) geared to exports have experienced very rapid growth; third, the tourism sector is attracting increasing numbers of visitors from Asia; and fourth, the garment sector has begun to move up the value-added chain with new entrants from China, Thailand, Europe, and Vietnam producing increasingly sophisticated products. All these factors make the country less reliant on the traditional markets of the United States and the EU. In addition, diversification into new sectors such as electronics, bicycles, automotive parts, and agri-business products has been impressive, driven by significant Japanese and other Asian interests and the exploitation of the economic attractions of the Greater Mekong Sub-region Southern Economic Corridor. The arrival of Japanese corporations such as Minebea (motor manufacturing – see Box 5.1), Denso (automotive component manufacturing), Yazaki Corporation (automobile wire harnesses), and AEON (retail) has sent a strong signal about Cambodia's attractiveness to many Japanese and other investors seeking to mitigate their risks of overdependence on China.

[79] See chapter 1 and chapters 7 through 16

Box 5.1: Minebea. Taking Manufacturing beyond Garments

Minebea Co., Ltd. is a Japanese multinational corporation and a major producer of machinery components and electronics devices. The company owns 32 production plants in eleven countries, including Japan, Thailand, China, Singapore, as well as several countries in Europe and the Americas.

The decision to invest in Cambodia was driven mostly by issues encountered in China and Thailand such as foreign exchange risk, rising wages, and labor shortage. These factors have encouraged Minebea to diversify risks by expanding its production facilities to other countries. Minebea realized Cambodia would be a suitable location not only because of its low labor cost and pro-investment government supports, but also its proximity to the firm's plants in Thailand. Support from the Japanese managed Phnom Penh SEZ, and a specially brokered cross-border transport arrangement with the government also favored the decision.

Minebea was granted an operating permit by the Cambodian Government in December 2010 and started recruiting and providing training to workers thereafter. Training for technical and high level staff took place in Thailand and Malaysia. The company has resident expatriate staff from Japan, Thailand, Malaysia, and China to support and engage in transfer of experience to local staff.

The firm became the first motor manufacturer in Cambodia when it started small-scale production with its newly recruited 300 workers at a leased facility located within the PPSEZ in April 2011. Today, it employs 1,200 workers at its own production facilities built in a plot within PPSEZ. The plant focuses on assembling small- and medium-sized motors such as Micro Actuator (PM Stepping Motors), Brush DC Motors, or Vibration Motors, mainly for office-automation equipment, household electrical appliances and digital equipment. It relies largely on parts imported from plants in Thailand and the assembled finished products are exported back to Thailand.

According to the firm's expansion plan for Cambodia, Minebea plans to hire up to 5,000 workers by 2014 and will start to introduce more advanced parts production as well as some of its R&D function in the country. Workers at the plant have access to the company's staff canteen and can benefit from reading and writing classes as well as other various training programsthat are provided to strengthen their capacity. The company owns an additional 100,000 sqm plot adjacent to the current one, where it has started building new production facilities. By 2014, the plant will help build stronger capacity among Cambodians, particularly local electronics engineers.

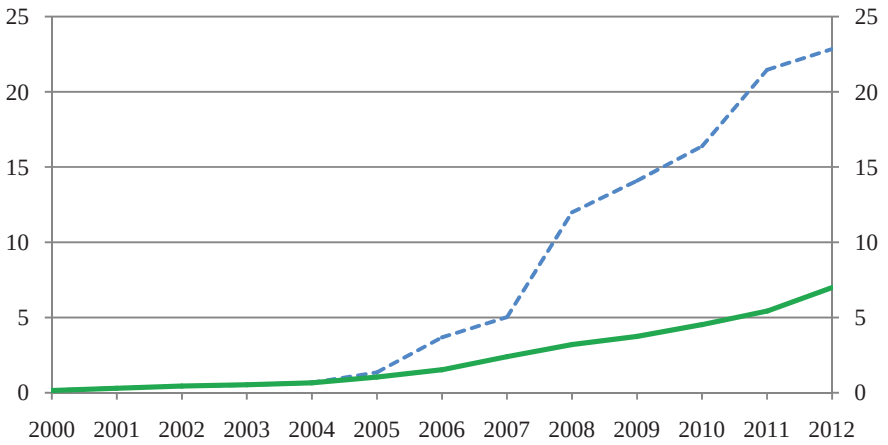
Source: Kengo Katsuki Vice President & COO Minebea (Cambodia), *"Operations of Minebea in the Kingdom of Cambodia"*, presentation at the Outbound Investment Mission of ASEAN 6 to Cambodia, March 27, 2012.

FDI Trends

Trends in FDI

FDI in Cambodia began in the mid-1990s and expanded sharply after the conclusion of a comprehensive trade agreement with the United States that granted Most Favored Nation (MFN) treatment to Cambodian exports. The introduction of the Qualified Investment Project (QIP) incentive scheme and the creation of Special Economic Zones (SEZ), underpinned by political stability and rapid economic growth, have boosted the FDI stock from an initial value of $149 million (four percent of GDP) in 2000 to $7 billion (over 50 percent of GDP) in 2012. Between 2000and 2012, 29 percent of approved FDI projects were realized. This FDI realization ratio would be much higher if mega-investment projects were excluded.

Figure 5.1: FDI in Cambodia, Cumulative from 2000, $ billions

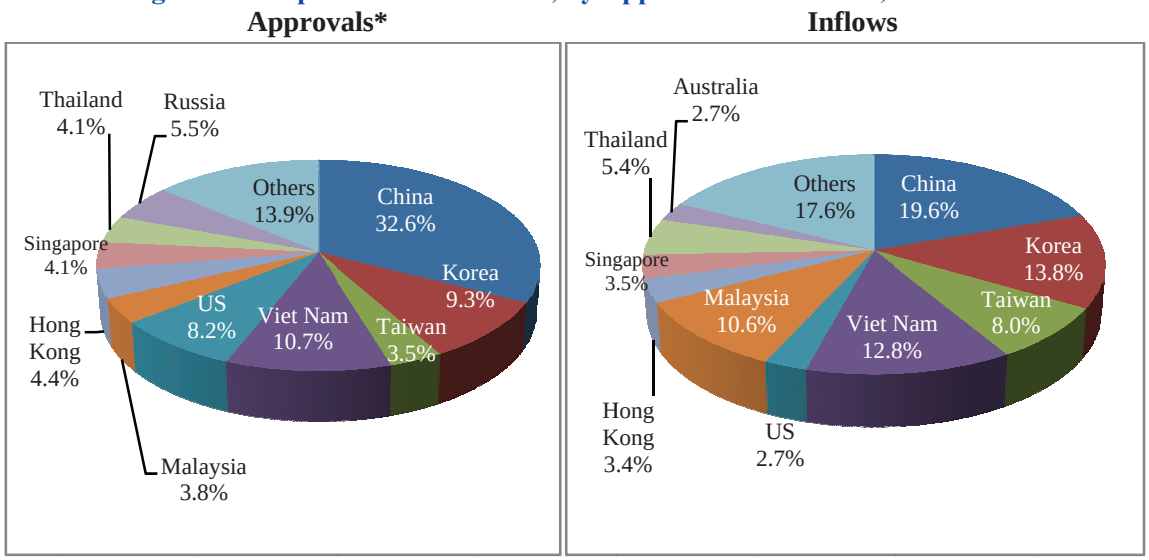


Source: Approvals from CDC, Inflows from NBC.

FDI by Country: China (excluding Macau, Hong Kong, and Taiwan), South Korea, Vietnam, Malaysia, and Taiwan are the top five countries in terms of FDI inflows in Cambodia since 2005, accounting for 65 percent of the total $6.3 billion.[80]These countries are also the top five investors in terms of FDI approvals. Given that their total FDI approvals were $11.2 billion during the same period, their realization rate of the approved FDI projects was around 56 percent.

[80]The 2005-2012 period is selected for analysis due to availability of detailed data

Figure 5.2: Top Ten FDI Countries, by Approvals and Inflows, 2005-2012



Source: CDC data for "Approvals"; NBC data for "Realized Investment"
Note for Approvals (*):(1) Approvals offixed asset proposals only; (2) missing data for November 2007, December 2007, and November 2012; (3) Six mega projects excluded: construction ($988 million in 2006; $967 million in 2008; $1.1 billion in 2011), site development ($3.8 billion in 2008), construction of Siem Reap airport ($973 million in 2010), and fertilizer plant ($2.2 billion in 2011).

In terms of approved Chinese FDI projects, the energy sector—mostly hydro-electricity projects—accounted for almost 50 percent of the total approved fixed asset proposals in Cambodia during 2005-2012. The mining and garment sectors amounted to 17 percent and 14 percent, respectively. Agro-industry - which includes plantations and processing of rubber, acacia trees, sugarcane, cassava, rice milling, tobacco and cigarettes factories, animal feed, and other plantations - represented 12 percent. The balance included other sectors such as footwear and other garment-related activities, tourism (hotels and site development), telecom, light manufacturing, assembly, and construction.

For Korean investors, approved fixed asset FDI projects included four main sectors: tourism (25 percent), garments (22 percent), agro-industry (15 percent), and bio-energy (10 percent). The agro-industry included plantations and processing of rubber, cassava, and other plantations. Other FDI projects included construction, infrastructure, light manufacturing, telecom, other garment-related activities, beverages, and electronic assembly.

Approved fixed asset FDI projects from Malaysia followed the Korean pattern. Tourism represented 56 percent of total approved fixed asset proposals, including two large resort projects. Agro-industry (including plantations and processing of rubber, oil palm, corn, and rice milling) and garment sectors accounted for 15 percent and 9 percent, respectively. Infrastructure and energy (involving power transmission lines) sectors accounted for 8 percent and 7 percent of total fixed assets. Other approvals included telecom, light manufacturing and other garment-related activities.

Unlike investors from the three aforementioned countries, Vietnam had the least diversified FDI portfolio with around 86 percent of the total approved fixed asset proposals in agro-industry, including plantations and processing of rubber as well as cashew nuts, cassava, acacia and rice milling. Most investments

involved economic land concessions (ELCs.) Telecom and tourism – primarily a site development in Tonsay Island in Kep province – represented the balance of Vietnameseproposed investments.

Like Vietnam, Taiwan's portfolio was very focused, but with 95 percent of the total approved fixed asset FDI projects in garments (64 percent), footwear (27 percent), and other garment-related activities (5 percent). The remaining 5 percentincluded light manufacturing, infrastructure, construction, and agro-industry projects.

Sixty eight percent of total approved fixed asset projectsfrom Thailand (eighth country on the list of FDI investors)were in agro-industry, mostly plantations and processing of sugarcane until 2012. Since 2012, Thai FDI interests have diversified into rubber, cassava, and particularly rice milling due to the country's price support rice policy which has raised the price of paddy rice in Thailand. Approved fixed assets of Thai projects in the rice milling sector were$76 million in 2012.

While Japan has yet to climb the Cambodia FDI rankings, the importance of the recent investments by major Japanese investors in electronics, automotive parts, and retail activities cannot be over-emphasized. This trend is driven by the gradual horizontal specialization of Japanese firms in the manufacturing sector in the Asia region. In addition to creating signals that will be followed by other Japanese investors, these newcomers have paved the way for significant diversification of the Cambodian export base. It is worth noting that not only many of the companies are the same firms (Minebea, Sumitomo, Denso, etc.) that expanded or set up new factories in Thailand in the late 1980s, but they are producing generally the same products (micro-motors, wiring harnesses, other automotive parts.) Two major differences can be identified, however: first, the factories being built today use much more sophisticated production and quality control processes than those in Thailand 25 years ago – creating a greater demand for various types of higher-skilled labor; second, Cambodian operations must fit into a much more demanding supply chain than those long ago in Thailand – creating considerable pressure on Cambodia to take immediate steps to strengthen transportation and logistics services.

FDI by Sector:The top five sectors receiving FDI inflows from 2005-2012 were commercial banking (28 percent), garments and footwear (25 percent), agro-industry (17 percent), telecom (6.3 percent), and tourism (6 percent.)Light manufacturing and assemblyaccounted for only 1.5 percent of the total FDI inflows during the period.[81]

High demand for banking services, generated by robust economic and export growth, along with increasing maturity of the sector and growing public credibility for it, were attracting FDI in the commercial banking sector. These FDI inflows have resulted in a marked improvement in the Cambodian banking system in recent years.

The relaxation of the Rules of Origin of the Everything-But-Arms (EBA) policy of the European Union (EU) and a relatively cost-effective labor force combined to sustain FDI inflows in Cambodia's garment and footwear sectors.

The huge potential for integrating Cambodia into agro-industry supply chains originating from such countries as Thailand, Vietnam, and China, supported by the Government policy focus on the sector (including through the July 2010 Rice Policy), were a main factor behind the significant increase in FDI inflows into the Cambodian agro-sector.This inflow will likely further increase in the future. During

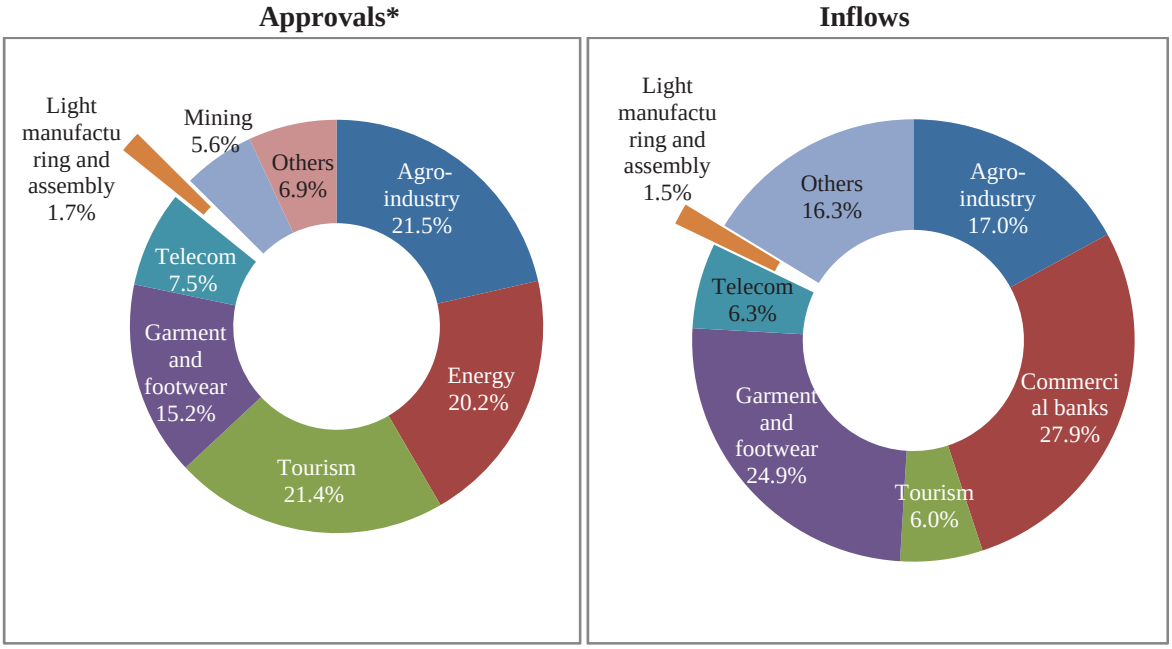
[81] Under NBC classifications, agro-industry includes agriculture and tobacco/cigarettes; tourism, hotels and resort; light manufacturing assembly covering assembly of electronic components, bicycles, motorbikes, as well as wood, paper & publishing, and packaging.

2005-2012, plantations and rubber processing represented 58 percent of FDI approvals in agro-industry. Rice milling and cassava constituted 6 percent and 2 percent, respectively.

Meanwhile, site development projects accounted for 47.2 percent of FDI approvals in the tourism sector, followed by hotel projects accounting for 36 percent.

Light manufacturing assemblyalso started to catch the attention of FDI investors mostly with a view towards integrating Cambodian operations into regional value chains. Still, from 2005-2012, the share of this sector was small -- 1.7 percent in terms of FDI approvals and 1.5 percent in terms of FDI inflows. However, the first approved FDI project in assembly of electronic components dates back to only 2011. These new projects come mostly from investors from Japan, Korea, and Hong Kong. Noticeably, Cambodia can be said to have recently entered the semi-conductor industry with the proposed establishment in Koh Kong of a subsidiary of Hana Microelectronics Group, a Bangkok-based multinational.

Figure 5.3: Main FDI Sectors, by Approvals and Inflows, 2005-2012



Source: CDC data for "Approvals"; NBC data for "Realized Investment"
Note for Approvals (*):(1) Approvals offixed asset proposals only; (2) missing data for November 2007, December 2007, and November 2012; (3) Six mega projects excluded: construction ($988 million in 2006; $967 million in 2008; $1.1 billion in 2011), site development ($3.8 billion in 2008), construction of Siem Reap airport ($973 million in 2010), and fertilizer plant ($2.2 billion in 2011).

Cambodia's FDI Policy

Following the UN-sponsored national elections in 1993, Cambodia took an outward-looking approach and focused on liberalizing its economy. Cambodia joined ASEANand the ASEAN Free Trade Area in 1999, allowing it to import and export goods and services within the region with lower duties and taxes. In 2004, Cambodia acceded to the WTO, which expanded trading opportunities between Cambodia and the rest of the world.

Together with these developments, Cambodia focused on updating its legal and regulatory framework and adopting new laws and regulations to facilitate and promote investment, trade, and business. As noted in chapter 1, considerable reform has already taken place.

1994 Law on Investment and 2003 Law on the Amendment to the Investment Law

The 1994 *Law on Investment* established the Council for the Development of Cambodia (CDC) – the major decision-making body for private and public sector investment. The CDC is chaired by the Prime Minister and composed of senior ministers from various government departments.

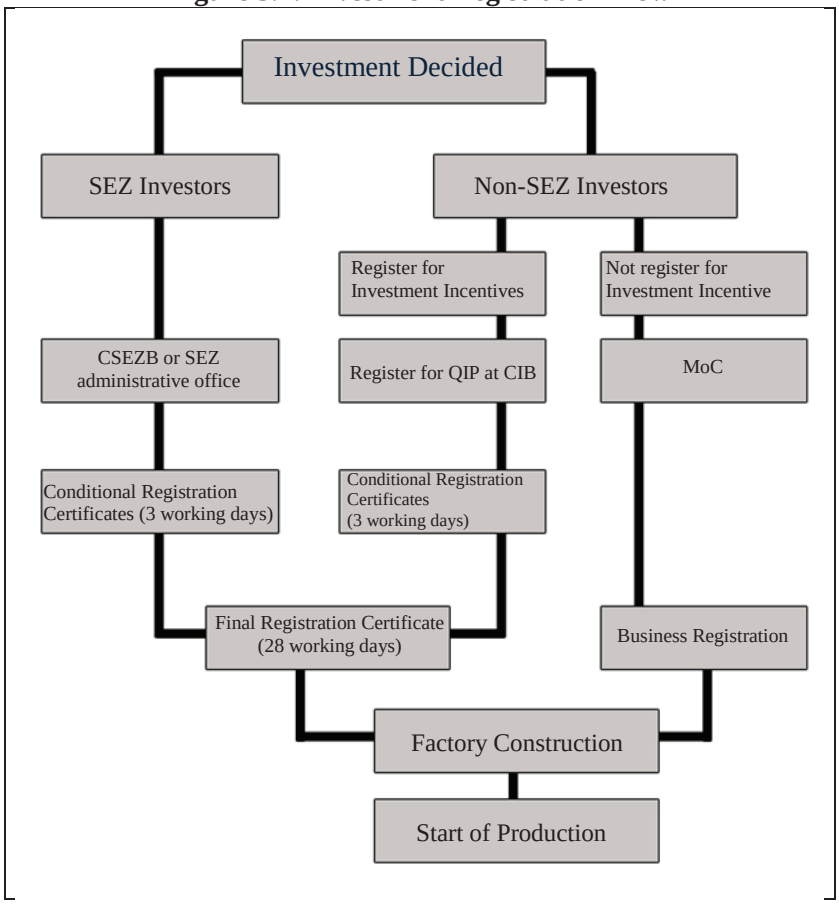
The CDC's Cambodian Investment Board (CIB) plays a leading role in facilitating private sector investment. It reviews investment applications and grants concessions to investors and investment projects that meet the requirements laid out in the Investment Law. However, the CDC needs to consult and obtain the approval of the Council of Ministers for investment projects with the following characteristics:

- A capital investment of $50 million or more
- Politically sensitive investmentsuch as projects that have significant impacts on the public interest or the environment
- Exploration and exploitation of mineral and natural resources
- Long-term development strategy
- Build-own-transfer (BOT), build-own-operate-transfer (BOOT), build-own-operate (BOO), or build-lease-transfer (BLT) schemes.

Projects with capital of under $2 million can be approved by Provincial Municipal Investment Subcommittees.

In 2003, to simplify licensing schemes and make them more transparent, predictable, and nondiscretionary, the original Law on Investment was amended substantially by the *Law on the Amendment to the Law on Investment*.

Figure 5.4: Investment Registration Flow



Source:JETRO, 2012.

In general, the *Law on Investment* and its *Law on theAmendment* are fairly liberal toward foreign investment. The Government follows a pro-business approach and is keen to encourage foreign investment. The laws allow100 percent foreign ownership of businesses, full foreign exchange convertibility, and unlimited repatriation of profits.

In late 2013, the government announced that it is revising the Law on Investment but no details on the nature of the revisions have been formally issued. One factor believed to be driving the changes, however, is the strong push to increase government revenues since the elections in July 2013, possibly through reducing tax holidays in the Law on Investment. Private sector players have urged that the process of revising the Law consider carefully present practices relating to the QIPs. The revised Law is expected to be completed by around June 2014.

Furthermore, Cambodia has entered into bilateral agreements with various countries to promote and protect trade and investment activities. Included in the list of countries are Australia, China, France, Germany, Indonesia, Japan, Lao PDR, Malaysia, the Netherlands, the Philippines, ROK, Singapore, Thailand, the US Overseas Private Investment Corporation (OPIC), Vietnam, and OPEC countries.

Investment Incentives

Certain investment projects in Cambodia can register for Qualified Investment Project (QIP) status which grants recipients a number of government-provided financial incentives. To obtain QIP registration, a

project – rather than a company – must be registered. The CDC/CIB is responsible for implementing strategy and regulating QIPs.

The main incentive offered to QIPs is profit tax exemption (profit tax is usually 20 percent) for a specific number of years (typically six years plus a "priority period.)[82] Alternatively, QIPs can elect to use a special depreciation allowance (more attractive for capital-intensive projects) which allows a deduction of 40 percent of the value of tangible assets used in production in their year of purchase or first year of use.[83]

In addition to the profit tax exemption or special depreciation allowance, QIPs are exempt from import taxes on production equipment, construction materials, and production inputs (the latter only in cases where used to produce exports.) Export tax exemptions also apply, except for certain products where specific laws apply such a tax. QIPs still have to pay withholding tax, salary tax, VAT, and other specific excise taxes. QIPs located inside Special Economic Zones (SEZs) (see below) are also exempted from paying VAT on imports. With certain exceptions, any goods manufactured by the QIP are also exempted from export taxes. With the recently established ASEAN and ASEAN-China Free Trade Areas, it is possible that traded goods may be totally free of export and import duties.

Table 5.2: Duty-Free Import for QIPs

Type of QIP	Commodities Imported Duty-Free
Domestically-oriented QIPs	Production equipment, production input, and construction materials
Export-oriented QIPs (except those that elect or have elected to use the Customs Manufacturing Bonded Warehouse mechanism)	Production equipment, construction materials, raw materials, intermediate goods, and accessories
Supporting industry QIPs	Production equipment, construction materials, raw materials, intermediate goods, and production input accessories

Source: CDC, *Cambodia Investment Guide Book*, 2012.

QIPs also receive an investment guarantee from the government ensuring:

- equal treatment of all investors regardless of their nationality – except for land ownership and certain investment activities;
- no nationalization adversely affecting investors' properties;
- no price control on investors' products or services; and
- no restriction on remitting foreign exchange abroad.

To register a QIP, a one-off fee of 7 million riels (around $1,750) must be paid. This covers the administration fees for securing approvals, authorizations, licenses, and registrations from all relevant ministries and government departments, including registration tax.

Not all investment projects are eligible for QIP status. Activities or entities not eligible for QIP incentives include tourism services, gambling, finance companies, the media, professional services, and real estate

[82] The priority period is determined by the *Financial Management Law* according to the type of project and investment capital.
[83] The potential tax benefit is greater than one year because losses are carried forward for five years when calculating the profit tax.

development. There are also a number industries in which investment is banned or restricted, typically for reasons of safety or national security. A QIP may be in the form of a joint venture. There is no limitation as to the nationality or shareholding proportion of each shareholder, except in the case of a joint venture owning land in Cambodia. In such a case, the maximum combined shareholding of all foreign parties must not exceed 49 percent.[84] Finally, even investments that do not qualify for QIP can register with CDC and receive the investment guarantees.

Employment of Foreigners

The 1997 Labor Law limits the proportion of foreign employees on a payroll and requires employers to give priority to hiring Cambodians. In general, local staff must comprise at least 90 percent of a company's workforce. However, a foreign employer that demonstrates the unavailability of employees with the needed special skills or training can apply to increase the number of nonlocal staff.

Under Article 18 of the *Law on Amendment to the Law on Investment*, foreign investors are entitled to obtain visas and work permits for the employment in Cambodia of foreign citizens as managers, technicians, and skilled workers. The work permit is valid for one year and may be extended.

Special Economic Zones

SEZs are defined areas within a country where certain business rules are different from those that prevail in the rest of the country, including investment rules.

SEZs themselves are QIPs. Hence, zone developers are provided with the following incentives:

- Profit tax exemption for nine years
- Import duty exemption for equipment for constructing the zone
- VAT exemption
- No foreign exchange transfer restrictions
- Guarantees against nationalization and price fixing.

Any tenant (investor) in a SEZ that obtains QIP status receives the same incentives as other QIPs in addition to those obtained by being located in an SEZ. Tenants within a zone apply to the SEZ administration which registers the project with the relevant authorities. Zone tenants receive the following:

- QIP incentives
- VAT exemption (exporters receive VAT exemption on construction materials, production materials, and production equipment; domestic-focused companies receive VAT exemption on construction materials and production equipment)
- No restrictions on foreign exchange transfers
- Other incentives as offered by the zone administrator

A more detailed discussion of SEZs and their benefits can be found in Chapter 9.

[84] CDC, *Cambodia Investment Guide Book*, Phnom Penh: CDC, 2012.

Constraints to FDI in Cambodia

Five major constraints are perceived to affect negatively FDI in Cambodia: (1) ineffective legal framework, (2) expensive and unreliable supply of electricity, (3) high cost and limited means of transportation, (4) inefficient procedures related to custom and trade regulations, and (5) significant skill shortages. These major constraints will require time and strong decision-making to address.

Ineffective Legal Framework: A weak legal framework – including a weak judicial system, inadequate laws or regulations, and absence of enforcement – often leadsto corrupt practices and uncertainty in enforcement of laws or regulations. This has a far-reaching negative externality, especially in so far as it affects the efficiency of public services ranging from investment-related applications and taxation to custom clearance and other services. The weak legal framework will likely remain a key challenge to doing business in Cambodia as it requires systemicgovernance reforms.

The adoption of the 2010 *Anti-Corruption Law*and the creation of the Government's *Anti-Corruption Unit* have yet to produce significant reduction in corruption. The slow progress in addressing this particular challenge has been quantitatively reflected by results of several well-recognized surveys including the 2012 *Investment Climate Assessment* (ICA) of the World Bank, the *Executive Opinion Survey* (EOS) of the World Economic Forum, and the *Corruption Perceptions Index*of Transparency International.[85]Furthermore, uncertainty in enforcement of laws and regulations generates confusion among business. Around 42 percent of firm respondents located in SEZs – mostly involving manufacturing and assembly – considered regulatory policy uncertainty as a major or very severe constraint.[86]

Energy Supply:Expensive and unreliable supply of electricity is also a bottleneck for businesses in Cambodia. This issue is discussed in several of the Sector chapters of the report, including chapter 9 covering businesses based in SEZs.

Transport Logistics Bottlenecks:High cost and limited means of transportation affects negatively Cambodia's competiveness. This issue is reviewed in chapter 3 of the report which focuses on logistics.

Trade Facilitation: While Cambodia has made very significant progress in trade facilitation since 2007, inefficienciesin procedures related to custom and trade regulations remain a constraint. Recent progress, current constraints, and opportunities for further reforms are discussed in chapter 2 of the report.

Skill Shortages:Access to local skilled labor remains a major challenge for investors, especially those in the SEZs. The issue is discussed in chapter 17 and several sector chapters in this report.

Box 5.2: Fair Manufacturing Company – An Example of HR policies

The Fair Manufacturing Company (FMC) produces premium pet treats for export to the US market. Its production facilities moved to Cambodia from China in 2009, when the company owner saw an early opportunity for cost reduction due to lower labor wages in Cambodia. Currently the factory is entirely operated and managed by Cambodian staff.

[85] World Bank, *Investment Climate Assessment – Cambodia*, Phnom Penh: 2012. Cambodia ranked 107 over 144 in terms of irregular payments and bribes in World Economic Forum, *The Global Competitiveness Report 2012-2013*, Davos: WEF, 2013, page 392. Cambodia scored 22 out of 100 in Transparency International, *Corruption Perceptions Index*, 2012. See http://www.transparency.org/country#KHM.

[86] World Bank,*Investment Climate Assessment – Cambodia*, Phnom Penh: World Bank, 2012.

FMC-Cambodia employs approximately 850 production line workers. They work one shift per day, from 7am to 4pm, with a lunch break from 11am to 12pm. The factory operates Monday to Saturday. The company pays overtime bonuses in accordance with the Cambodian Labor Law, as well as additional bonuses, to encourage workers to stay on during some public holidays rather than having to shut down production entirely. For important long holidays, Khmer New Year and Pchum Ben day, FMC provides extra days leave for workers that need to travel to the provinces.

In terms of other benefits, FMC employees are members of the obligatory insurance system provided by the government-run National Social Security Fund (NSSF). This insurance scheme covers medical expenses resulting from work-related accidents. In accordance with Cambodian labor law, FMC also has a clinic on site to provide primary health care consultancy and give free basic medicine.

All employees, including management, are hired on a fixed term '2-way' contract – a contract that states mutual responsibility and compensation of both parties –the employers and its employees. Workers in the production unit reportedly prefer short term (less than 1 year, commonly 6 months) contracts, given the high demand for labor. Each new production line employee is trained for a few weeks during their one month probation period. However, under-performing employees are rotated to work in different units before any attempt is made to terminate the contract.

To minimize turnover and maximize productivity FMC has implemented a unique incentive scheme based on individual and team performance in some key production units of the production line. This scheme was developed internally through an incremental learning process and is only applied to specific stages in the production process, where FMC feels the impact is highest. The performance is measured both at an individual and at a production team level. Operationally, team output needs to be equal or above the targeted output and the output of the previous week. For team leaders, if the production target is met, performance based pay amounts to a fixed 12 percent of base monthly salary. They are also invited twice per year on a company trip that enhances team building. Normal production workers receive a higher incentive as proportion of their basic wage. This performance bonus is linked to the extra profit generated by increased output and can vary between 16-32 percent of base monthly salary. The overall aim is to maintain consistent performance.

Supervisors and team leaders also receive training in soft skills and management to "value and respect people." This is to instill the core value that working for the company is beneficial both to workers and the company. FMC also hangs posters with proverbs on the fence of business premises, to publicly encourage workers and other people to work together and follow the Labor Law. The company has not experienced any strikes or problems with its workers during its 5 years of operations.

Though difficult to attribute to any specific factor, total staff turnover is relatively low at 10 percent outside harvest season. Employees that have worked at FMC for less than 3 months contribute approximately 8-15 percent to this total. Furthermore, FMC believes the performance based incentives has improved overall staff productivity, although the precise effect is difficult to quantify.

Source: Interviews with General Manager and Founder of Fair Manufacturing Company (Cambodia)

The Impact of FDI on Cambodia's Development

Some Conventional Impacts

FDI contributes to the host country, not only by providing the much-needed capital for investment but also by enhancing job creation and managerial skills and transferring new and superior technology. All of these ultimately contribute to economic growth and development.

Augmenting Domestic Resources:FDI stimulates growth by increasing capital formation.This is the case particularly in less developed countries where domestic resources may not be sufficient.[87]

Back in 2009, Cambodia's National Institute of Statistics (NIS) used an econometric model to estimate the total investment required to achieve the projected GDP growth rates over the five-year period covered by the NSDP-III 2009-2013. NIS estimated that a total capital investment of over $15 billion was required, of which 72 percentwould be private investment and the remaining 28 percent, public investment. $8.4 billion or about 56 percent of this total was projected to come from domestic sources and the remaining $6.6 billion or 44 percent from abroad – including remittances from overseas Cambodians, foreign aid, and FDI.[88] Between 2009 and 2012, FDI inflows contributed almost $4 billion (see Figure 5.1.)

Relative to other forms of private foreign capital inflows, FDI tends to be less volatile than foreign portfolio investment and foreign bank lending, which are more liquid and associated with a shorter time horizon. Accordingly, FDI carries the seeds of more stable and sustainable economic growth.[89]For Cambodia, with its low level of equity market development, FDI has been the dominant source of private foreign capital inflows.

Box 5.3: Liwayway – Pioneering Large-Scale Food Processing in Cambodia

Liwayway is a Filipino-owned, multinational producer of snack foods. It has production facilities throughout South-East Asia, including the Philippines, Indonesia, Vietnam, Thailand, Myanmar, Cambodia, and China.

The firm applied for a license in 2010 and started operations in December 2012. The production machinery was imported from Vietnam and Philippines. As of July 2013, the factory employed around 100 workers, but it has the capacity for 200 more. It also has an option to expand the factory on an adjacent plot.

The two main challenges facing Liwayway are finding staff skilled in the food industry and sourcing locally produced raw materials. Because food processing is a new sector in Cambodia, Liwayway experiences difficulties in recruiting skilled staff, particularly middle managers and quality control positions. These are currently filled by Filipino expatriates, but the company is training local staff through OTJ trainingwith the goal of becoming fully Cambodian staffed in the near future. The company also provides seminars in the workplace focusing on food hygiene and safety including proper operation of machinery to prevent accidents.

[87]J. Vanek, *Estimating Foreign Resources Needs for Economic Development*, New York: McGraw-Hill, 1969.
[88] Royal Government of Cambodia, *National Strategic Development Plan Update 2009-2013*, Phnom Penh: 2010.
[89] R. E. Lipsey,"The Role of Foreign Direct Investment in International Capital Flows", New York: NBER Working Paper No. 7094, 1999.

Sourcing of locally produced raw materials has been a challenge because although Cambodia is rich in agricultural products, the country lacks the technology and know-how for semi-processingto sell those as end products. For example, Cambodia produces palm nuts but lacks refining technology to make edible palm oil.

Liwayway is well known for its snack foods and is among the top three leading snack producers in the Philippines, China, and Vietnam. This is due to the high quality of its snacks, its ability to adapt to local taste, and its introduction of flavors for each specific market. This is also the case in Cambodia, where the company currently produces eight different kinds of snack foods under the brand name Rinbee.

At this stage, the company is targeting the lower price segment of the Cambodian market sold through wholesalers and wet markets. In the future, as marketing and brand awareness grow, the company plans to produce higher priced products and distribute to supermarkets and mini-marts. The company prides itself in its quality control processes and hopes that Rinbee can help raise the bar for higher quality and sanitary locally produced food products.

Source: Interview with Operations Manager of Liwayway (Cambodia) Industries and '*First-mover advantage' Key Factor for Oishi Rise Overseas*, Malaya, 27 March 2013.

FDI and Trade Promotion:FDI can also facilitate access to new and large foreign markets through exports. Exporting is difficult because it requires detailed knowledge of foreign institutions, regulations, distribution networks, and consumer preferences. Compared to domestic firms, foreign multinationals are in a better position to enter foreign markets, given their experience operating across many countries.

Export-oriented FDI is believed to play a more positive role in the Cambodian economy because domestic market-oriented FDI come with the risk of crowding out domestic investment and thus hamper domestic growth. This may occur because of the higher wages foreign firms may be able to pay, their easier access to credit, or the superior technology they employ which may reduce the competitiveness of domestic firms. In addition, greater openness to trade can make a country more attractive to foreign investors. Membership in WTO and ASEAN effectively signals the country's commitment to foreign investors and their assets, thus reassures them and encourages further investment. In short, FDI inflows and openness to trade tend to complement each other.

Cambodia's exports are in fact highly driven by FDI. This is illustrated by the FDI sector data shown earlier in the chapter. GMAC data indicates that 87 percent of garment factories in the country are wholly foreign owned, while just 6 percent are wholly owned by Cambodian nationals (the remainder are joint ventures.)

Employment and Poverty Alleviation

FDI contributes directly to employment when the investor sets up business in a host country and recruits staff. It also has an indirect impact on employment through the multiplier effect.[90] FDI also contributes to a country's income tax and, thus,contributes to government-led social programs that target the poor. In Cambodia, however, the contribution of FDI to fiscal revenues is greatly reduced due to tax holidays and relatively low income tax revenues from mostly low-paid labor employed by foreign investors. However, a focus on attracting the FDI higher up in the value chain will result in the employment of higher paid labor, generate higher fiscal revenues, lead to the obvious spillovers in skills and technology transfer, and kick-start export sectors that would be otherwise non-existent due to lack of knowledge and technology.

Foreign investment in the garments industry, for example, plays a major role in poverty reduction by providing employment and producing export products with a comparative advantage in the international market. Entry barriers for those seeking employment in garment companies are not high. Employers do not require factory-floor garment workers to have a high level of education. So far, according to data from the Garment Manufacturers Association of Cambodia in 2013, foreign investment in the country's garments and footwear factories alone have created approximately 450,000 jobs and indirectly help feed an estimated 1 million others. Ninety one percent of these workers are female, mainly poor women from the rural provinces.[91]The development of the industry empowers women economically by providing them with large-scale employment opportunities that also pay good high wages. The average wages are significantly higher than those of garment workers in Bangladesh and often match those of garment workers elsewhere in the sub-region (see chapter 17.)

Likewise, a growing number of FDI projects are in agricultural crops and agro-processing and they, too, are playing a significant role in increasing local employment opportunities and livelihoods. A small number of foreign companies have constructed school buildings and health centers in the areas where they were granted land for agro-industrial investment. These facilities aim to serve the needs of farm workers and, to some extent, local villagers living nearby.

Increasing FDI also contributes to establishing a more diverse job market through diversification, leading to more sectors able to absorb workers and provide employment opportunities to Cambodian job seekers. In addition, FDI may raise employment in other businesses through backward-linkage as it purchases raw materials, spare parts, components, and local services. However, it may also have no effect or even negative effects when it relies heavily on imported inputs. Similarly, in the case of forward-linkage, FDI can indirectly create more jobs when using local distributors to distribute its goods or services.

Skills and Technology Development

FDI generally brings with it superior technology, including know-how and management skills,including the introduction ofadvanced managerial skills and production processes, the use of better equipment and machinery, etc. This is likely to benefit the local economy through skills and technology transfers or spillover effects. While there are very few studies of technology diffusion by foreign firms in Cambodia, FDI is perceived to contribute positively to the country by inducing a more efficient economy through technology transfers and spillovers as described in several of the text boxes in the chapter.

[90]UNCTAD,*Transnational Corporations, Employment and Workplace*, New York and Geneva: UN Publications, 1994and, International Finance Corporation, *Paths out of Poverty: The Role of Private Enterprise in Developing Countries*, Washington: IFC, 2000 http://www.ifc.org/publications/paths_out_of_poverty.pdf

[91] GMAC, *Annual Report2012*, Phnom Penh: GMAC, 2013.

Economists assume that foreign firms have higher productivity than others. Aitken and Harrison give the following reasons:[92]

- Superior and, possibly, newer production equipment can be transferred from the parent company to its FDI affiliate;
- The FDI affiliate may also receive an inflow of non-tangible assets from its parent company in the form of technological know-how, management and marketing capabilities, trade contracts, and coordinated networks with suppliers and customers;and,
- Foreign companies may enjoy a lower cost of capital since they are not constrained to borrow from the local financial system. The possible inability of domestic enterprises to borrow cheaply from abroad is likely to reduce their ability to invest in superior technology.[93]

Technology transfers arise as a result of a multinational's attempt to boost the skills and capacity of the local workforce. Such transfers not only occur in the form of machinery, equipment, expatriate managers, and technicians, but are also realized through the training of local employees. Training may range from OTJ training, to seminars, more formal schooling or even overseas education depending on the skills needed.The technology spilloveroccurs, for example, when FDI operations induce domestic investors to upgrade their human resources to remain at par with the multinationals or through turnover among employees.

The literature on training and capacity building gives many reasons as to why foreign firms provide workers with better learning opportunities than domestic firms. Foreign firms are less likely to face resource constraints because they usually have wider access to foreign ones. In addition, they are more likely to gain information on training techniques and organization because their range of information is global.

Selected examples of corporate training programs offered by foreign multinationals in Cambodia, shown in Box 5.4 beloware illustrative

Box 5.4: The Contribution of FDI to Skill Training and Technology Transfer in Cambodia. Selected Examples

- The $42 million Vietnam–Cambodia joint Cho Ray-Phnom Penh Hospital project in Meanchey district will employ 100 Cambodian doctors and 180 nurses to work alongside Vietnamese counterparts. The hospital will send all doctors to the Cho Ray Hospital in Ho Chi Minh City for a one-year training course prior to beginning their Phnom Penh operation in 2013. It will also send Vietnamese doctors and health experts to Cambodia to train and transfer healthcare technology to Cambodian doctors.
- ANZ, which started in 2005 as a joint venture between the Australia and New Zealand Banking Group Limited (ANZ) and Cambodia's Royal Group, offers potential employees learning and development opportunities through its Royal Young Bankers Program. Successful candidates start within the bank's different core areas of operation over a period of two years before assuming a permanent role within the organization or moving elsewhere. The program helps broaden career opportunities for Cambodians.
- Minebea, a Japanese manufacturer of machinery components and electronic devices which started its operations in 2011, provides technical training on small motors at Technical and Vocational

[92] B. Aitken and A. Harrison, *"Do domestic firms benefit from foreign investment? Evidence from Venezuela,"* American Economic Review, 89(3). 1999.
[93] N. Oulton, *Labor Productivity and Foreign Ownership in the UK*, London: NIESR Working Paper No. 143, 1998.

Education and Training (TVET) Institutes and Institute of Technology of Cambodia (ITC). It also donated equipment to measure motor rotation and circuit boards needed to provide specialized technical education.

- British American Tobacco, with a strong presence in Cambodia since 1996, offers employees its Global Management Trainees Program, which trains future managers by developing their technical and management skills and general business expertise through on-the-job and off-the-job training.
- Prudential Cambodia, which began operations in January 2013 in the country's nascent life insurance market, provides its staff –in particular its sales representatives – an intensive training program on life insurance products so that all local employees who interact with prospective customers are able to provide high-quality information and services. Some of its senior staff is sent to Vietnam for further technical training –something that the Cambodia country office cannot adequately provide. Moreover, having entered a distribution partnership with Cambodia's ACLEDA Bank, Prudential also trains ACLEDA personnel in life insurance concept and operations.
- Bosch, which started operations in Cambodia in 2010, sponsors three vocational institutes in Phnom Penh: Pour un Sourire d'Enfant, the National Polytechnic Institute of Cambodia, and the National Technical Training Institute. As part of the sponsorship, Bosch also offers training in safe handling and correct application of professional power tools, targeting both teachers and students. More than 3,000 young Cambodians are estimated to have attended this program so far.

Other relevant institutions in various sectors have also attempted to upgrade local skills and capacity. An example in the garments and footwear industry is the planned Cambodia Garment Training Center, supported by the Agence France de Development and to be operated by the Garment Manufacturers Association of Cambodia. It is expected to conduct various training courses in production supervision, quality control, sewing operation, and machine mechanics for Cambodians, responding to the need for skilled workers and technicians and supervisors in the country's rapidly growing garments industry.

Box 5.5: DENSO – Emerging Skill Development Opportunities for Cambodians

DENSO Corporation, headquartered in Japan, is a leading supplier of advanced automotive technology, systems and components for major automakers around the world. It operates production facilities in 35 countries and supplies engine parts to automotive factories throughout the Asia-Pacific region.

The company started its operations in Cambodia through expansion from neighboring Thailand, mainly driven by the steep rise in wages there. DENSO wishes to diversify into more CLMV countries, and at the moment Cambodia was chosen mainly due to its lower wages and beneficial geographic location. Those factors were deemed to outweigh the higher logistics and electricity costs, which the company hopes will improve in the near future.

DENSO occupies a leased factory since April 2013, where it started operations of one production line in May. The product is a small automotive engine component. A semi-finished product is brought in from Thailand, receives additional processing in Cambodia, and is shipped back to Thailand for final processing and sales. Currently there are about two such shipments monthly between Thailand and. DENSO is planning to build its own factory on a reserved a 100,000sqm plot in PPSEZ so it can ramp up the number of production lines and capacity significantly. This will require significantly more workers. Around 90 percent of assembly line workers are women.

So far DENSO has found it challenging to find enough assembly line workers. The company actively

goes out to the provinces in order to hire. Frequently workers are found to be illiterate and low skilled. DENSO provide Khmer reading and writing classes in addition to job specific training. Before a worker can start on a production typically five days of training are required. They are taught not only technical skills and safety awareness, but also soft skills and proper worker attitude to adjust "from farm to factory." Higher-skilled staff, such as production supervisors, quality control officers, and maintenance personnel,is sent to Thailand for about two and a half months of training at DENSO's facilities there. The company takes a long term perspective on staff training and skill development and plans to introduce its "Human Development Plan", from Thailand after it has been tailored to Cambodian needs. This plan covers career development for staff in both technical and managerial areas with a training period ranging from two to four years before individuals reach those positions.

Source: Interview with DENSO (Cambodia) General Manager and DENSO website

Community Development

Foreign multinationals are increasingly engaged in corporate social responsibility (CSR) activities associated with codes of conduct, improved health and safety standards, company reporting on social and environmental policy and performance, and increase in corporate social investment through community development projects for example. In that regard, a number of social enterprises or inclusive businesses have begun to emerge in Cambodia, largely driven by foreign enterprises.

For example, ANZ Royal Bank's community program, in partnership with various development organizations, provides both financial and in-kind support to the community. Some of its initiatives include the following:

- Children's Surgical Centre: ANZ Royal Bank helped purchase an ambulance and launched a burn prevention campaign for this NGO which provides free rehabilitation surgery to children in rural Cambodia.
- Helmets for Kids: In collaboration with the Asia Injury Prevention Foundation, ANZ Royal Bank supports the distribution of motorcycle helmets for primary school children. Each year, around 500 helmets are donated to children. The bank has also provided its staff with motorcycle helmets.
- Friends International/Mith Samlanh: ANZ Royal Bank has a formal partnership with Friends International/Mith Samlanh since 2007. ANZ staff volunteer every weekend at Mith Samlanh's shelters and the company provides financial assistance to their fundraising programs, including the Friends Flea Market and the Child-safe Fundraiser.
- National Library of Cambodia: ANZ Royal Bank finances the library's Information Literacy Program, which teaches library users and researchers basic information literacy and library catalogue search skills.

Some additional community programs sponsored by foreign investors include the following:

- Manulife (Cambodia) has made donations to the Kantha Bopha Children's Hospital in Siem Reap and Phnom Penh. It also sponsors the "Youth Stars" program, which recruits and trains Cambodian university student volunteers for 12–18 months service in underserved rural communities, where they work in health education, rural livelihoods and income generation, and good governance.
- Unilever, a supplier of consumer goods, has supported government initiatives to teach the public about environmentally friendly practices, with a focus on reducing water waste.

- AEON, a Japanese investor in Cambodia involved in microfinance and retail, has contributed to the construction of the Preah Norodom Sihanouk-Angkor Museum, which opened to the public in 2008. The company has also worked with UNICEF, sponsoring the construction of more than 100 schools to help provide education in provinces such as Kampong Speu, Prey Veng, and Kampong Thom. Additionally, the AEON UNICEF Safe Water Campaign aims to improve water access in the country.

Other foreign investors also see potential linkages between the long-term growth and profitability of their companies and the sustainability and wellbeing of local communities. For example the American Cambodian Chamber of Commerce formed a CSR Committee in 2012 to improve communication and engagement between American businesses in the country and the NGO community.

Despite these wide-ranging initiatives and activities, the level of CSR in Cambodia among foreign firms remains nascent at best. It is still a new concept and this may be, in part, the result of the multitude of NGOs in Cambodia that appear to make it unnecessary for private foreign firms to undertake significant CSR projects.

Conclusions and Recommendations

To support continued private sector investment in Cambodia and based on the foregoing analysis, a number of factors call for the rapid development and implementation of an innovative investment promotion strategy focusing on:

(a) The need to ensure that investors become more aware of the investment opportunities offered by Cambodia, especially in view of recent developments in investment conditions in other Asian economies and developments in regional and global value chains;
(b) Innovative ways to position Cambodia as an attractive investment location for foreign investors from neighboring countries and those further afield including how best to take advantage of the international division of labor and the resources available in Cambodia;
(c) Strengthened capacity for Cambodia to become a hub for growth of the GMS Southern Economic Corridor and, more broadly, the Greater Mekong Sub-region. The specific ways in which Cambodia can leverage its position in the GMS Southern Economic Corridor need to be very carefully examined and incorporated into the strategy, especially emphasizing the role of Sihanoukville as a major spur off the Corridor;
(d) Careful examination of the ways in which to convince potential infrastructure developers of the benefits of investing in infrastructure in the country and, particularly, in the area of Sihanoukville. A comprehensive investment promotion strategy can be a critical element of building this credibility accompanied by reforms in the framework for public-private partnerships; and,
(e) The need for Cambodia to benchmark itself clearly against competitors both inside and outside the Greater Mekong Sub-region.

To address the critical need for improvements in the investment environment, the following measures will need to be addressed:

Building a National Investment Promotion Strategy

The first major step is to develop a comprehensive national investment promotion strategy as an integral component of an overall policy to develop the investment potential of the country and reduce poverty.[94]Such a policy could include the following elements:

(a) A clear idea of where Cambodia is and where it is going from a business point of view. Lessons learned from recent experiences of foreign investment in Cambodia and the Greater Mekong Sub-region should be carefully considered as they provide invaluable insights into the likely issues to be faced in the future –from both positive and negative viewpoints;

(b) A practical strategy to drive business developments in the right direction, with accompanying measures to address remaining impediments to investment;

(c) A strategic targeting and promotion of FDI. As competition increases and global value chains become more fragmented, it becomes increasingly important to adopt a more targeted and strategic approach to FDI. Thus far, Cambodia has had little by way of strategic programs to target and attract FDI into priority industries. Cambodia needs to learn from regional competitors ranging from Singapore to Malaysia and Thailand. There is a need for a more proactive role of Government in facilitating joint activities with foreign investors and to stimulate the growth of competitiveness-enhancing networks and services;

(d) Concrete measures/actions to strengthen key targeted sectors (see the individual chapters focusing on the ten sectors) or retain existing investments that are vulnerable to relocation (such as low-labor cost investments);

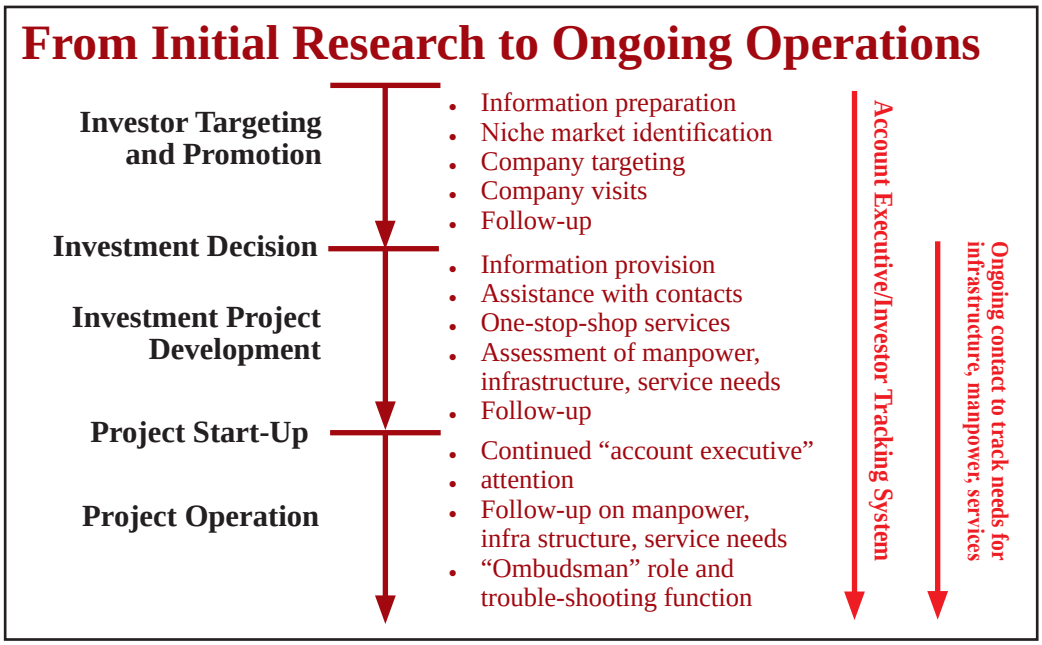
(e) Practical measures incorporating regional cooperation and integration considerations to position Cambodia as a hub for the neighboring countries of the Greater Mekong Sub-region;

(f) A demand-driven, human resource development strategy to build the skills required, incorporating close industry-education sector linkages as a key element of this HRD strategy. This strategy needs to involve all key players – the private sector, Government agencies, and educational institutions (see skill gap chapter.) A critical element of the overall strategy will include ensuring that human resources in the Cambodian Investment Board and any other involved institutions are well prepared and well resourced;

(g) Careful understanding of the various steps in the "investment promotion cycle" from the initial research phase to ongoing operations, in particular ensuring adequate attention to investors following project start-up – the "after-care" function. A key element of this will be an effective firm tracking system.

[94]The National Investment Promotion Strategy should build on the *Rectangular Strategy Phase III*, the *National Strategic Development Plan*, the *Industrial Development Policy*, the *Cambodia Vision 2030*, and findings from this very study, *Cambodia Trade Integration Strategy, 2014-2018*. It should be harmonized with the Laws on Investment and SEZs currently being prepared.

Figure 5.5.: The Investment Promotion Cycle



Strengthening Investment Promotion and Facilitation Capacity of Provincial Governments

Currently, most investment in Cambodia is targeted at urban areas in Cambodia's main economic hubs (Phnom Penh, Siem Reap, and Sihanoukville) while the investment potential in rural areas and in other provinces remains significant but largely untapped. This is due partly to weak or non-existent investment promotion and facilitation capacity in the other provinces and rural areas. The development of a greater understanding of private business and the ability to target and service investors in provinces will contribute to improving the provincial business climate and stimulating greater pro-poor investment.

In the investment promotion area, in line with the Government's Decentralization and Deconcentration (D&D) reforms and to provide more efficient services to private sector investors, a February 2005 Anukret to the Cambodian investment law established provincial investment sub-committees (PISC.)[95] The purpose of the PISC is to make it possible for provinces to register investment proposals and provide investment incentives for investments with capital of less than $ 2,000,000. However, virtually all investment promotion and facilitation activity still remains centered at the national level in the Cambodia Investment Board (CIB.) PISCs require stronger, more coherent guidelines, as well as stronger support from the CIB, and need to develop their capacity to service private investors at the provincial level.

Two of the three pillars of the Trade SWAp mechanism -- Pillar 1 and Pillar 3 -- address various aspects of trade promotion and investment facilitation. However, all the interventions to date have been targeted essentially at the national level. Past support by the World Bank (FIAS), JICA, UNCTAD or UNIDO have also focused on the CIB. Only USAID started working at the provincial level, with production of provincial investment brochures for 12 provinces and capacity-building activities in two provinces.

The CIB presently has no clear specific unit or division dealing with provincial investment issues.Building the capacity of the CIB to support the PISCs and enabling the PISCs to function as more effective provincial Investment Promotion Agencies (IPAs) in provinces will enable provincial authorities

[95]Royal Government of Cambodia, Anukret on the *Establishment of the Sub-Committee on Investment of the Provinces-Municipalities of the Kingdom of Cambodia*, 2005

to provide better services to private investors. Initial efforts should focus on trade-related investments, thus attracting more investment and increasing retention of existing investment in the provinces. Over the longer term, the focus should be on strengthening provincial business climates and attracting quality investments that create jobs, that stimulate backward linkages into the MSME sector, and that contribute to the development objectives of the provinces. This applies to investment in agro-processing, manufacturing or services (especially tourism which can have significant spillover effect through backward linkages.)

Promoting FDI Linkages and Spillovers

Efforts to enhance spillover benefits from FDI should be an intrinsic part of government strategies to enhance competitiveness and restructure industry. Industrial deepening ─ enhancing the levels of value-added created in the production of goods and services ─ is the key to Cambodia's continued competitiveness and economic dynamism. There is a strong case for government intervention because of the widespread externalities and information problems involved in building local linkages. Such programs are absent in Cambodia, and are becoming more urgent in view of greater inflows of foreign investment and increasing competition in global markets.

In 2004, MoCdeveloped a comprehensive action plan for Cambodia's garment industry.[96] A key element of this action plan was to develop backward linkages in the sector, including: (a) promoting investments in backward linkage development, possibly through the formation of a "Garment Industry Investment Fund"; (b) integrating SMEs into the garment industry cluster through reforms in tax policies, investment rules, and removal of other SME impediments; and, (c) strengthening supply chains through closer regional integration. A practical follow-up program in 2005-6 called "Planting Industrial Roots in Cambodia" developed an investment program for the industry and worked to stimulate the interest of Cambodian investors in the sector. While somewhat dated, many of the actions and recommendations are likely still relevant.

In other countries, such as Taiwan, Singapore, and Ireland, programs to develop an internationally competitive small and medium enterprise (SME) supplier sector have been shown to have been key to those countries abilities to attract and retain investment by multinationals. The experiences of these countries as well as Japan demonstrate clearly that top level support and commitment to building a strong SME supplier sector can pay handsome dividends. It is vital for Cambodia to draw on the experience of other countries in this area, adapt it to local needs, and set up a national supplier development program (NSDP) with commitment from government and the allocation of sufficient resources. In order to succeed, such program must bring together all agencies and players involved in SME development and related areas. Existing resources must be deployed more effectively and additional resources must be allocated within a consistent framework to avoid duplication and wastage. The involvement of the private sector is a key element of the whole program. Private sector institutions and associations must be included in all aspects of the program from the setting of goals and targetsto the implementation and monitoring of the specific activities.

Established export industries are a natural starting point for such industrial deepening. Cambodia's garment, bicycle, and footwear sectors have all reached levels of production that create attractive markets to businesses able to supply these industries with inputs. Though the scale of these sectors make it possible to develop clusters of domestic suppliers, for this to succeed Government may need to address some of the current bottlenecks that seem to make it difficult for export-oriented operations to purchase goods or services from domestic suppliers.

[96]ADB, *Cambodia's Garment Industry: Meeting the Challenges of the Post-Quota Environment*, Phnom Penh: ADB, 2004.

A critical dimension of such program will be to link it closely to opportunities offered by Rules of Origin under various trade preferential programs. As shown in Chapter 1, much of the increase in manufactured exports since 2007 has been driven by favorable ROs (from EU under EBA, Canada under DFQF, etc.)

Currently in most sectors, including Cambodia's major export industries, locally produced inputs and materials are simply not available. Investors have to either import them directly or purchase previously imported materials from an intermediary trader in the local marketplace. Other sectors, such as those relying on agricultural inputs, have some domestically produced inputs which may be sourced. In both cases however there are some issues facing investors.

On the most fundamental level, product quality is a major concern – especially regarding agricultural products (see Box 5.3 as well as chapter 4 and several of the sector-specific chapters in the report.) Lack of reliability of local suppliers has also been raised as an issue by firms, particularly those with time-sensitive supply chains of products destined for export.

Additionally, issues have been raised regarding tax incentives provided to QIPs, especially inside the country's SEZs. Currently, export-oriented QIPs located inside SEZs enjoy complete VAT exemption on imports as well as materials purchased inside the SEZ. When purchasing inputs from the domestic market, outside of the SEZ however, they have to pay VAT at time of purchase but are eligible for a rebate at the time of export.[97] This can be a cumbersome process for some firms, which is additionally complicated when domestic suppliers are not registered for VAT. These firms therefore opt to import materials, in order to avoid tax administration issues.

In addition to enhancing the ability of Cambodian SMEs to increasingly play this role, efforts need to be made to promote either or both FDI and domestic suppliers in areas such as production of yarn and fabric, production of bicycle parts, and of inputs to footwear production.

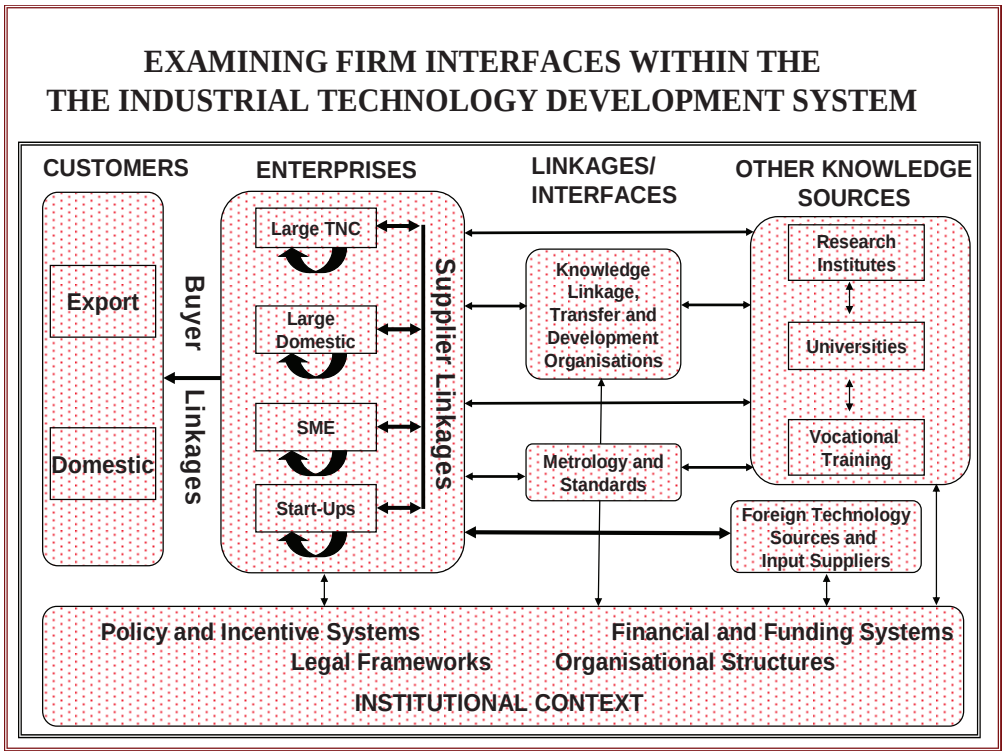
The key elements of the NSDP can be classified into four main groups of activities:[98]

(a) Building awareness and lobbying for support
(b) Supplier capability improvement
(c) Promotion to fill the gaps in the supplier sectors
(d) Incentives to promote the growth of the supplier sector.

The following graphic sums up the important of linkages throughout the industrial technology development system, and indicates where supplier linkages fit into the broader picture.

[97] An exception to this is the garment industry, which receives a full exemption under Prakas Zero Rate VAT for local supply of goods and services to Garment Export Oriented Companies (2005- Prakas No 298 MEF.TD).
[98] UNCTAD, *World Investment Report 2001*, Geneva and New York: Un Publications, 2001 shows the range of policies and programs available to countries to promote backward linkage development. One is matching grants for activities that are demonstrated to create networks or linkages.

Figure 5.6: Technology Development and Supplier Linkages



Experience shows that the activities of the NSDP should be focused on the industry level to enable opportunities to be well-specified and documented. Industries should be selected for specific NSDP attention on the basis of:

(a) The potential for local suppliers to become global suppliers of components, parts, services to principals in the industry. This is especially important in the increasingly global markets in which multinationals are operating.
(b) The potential for extensive "linkage" effects. There must exist realistic opportunities for locally-based suppliers to access a significant share of parts, components, and other inputs.
(c) The potential for major incremental export earnings.

Possible Actions to achieve some of these results are presented in the Trade SWAp Roadmap 2013-2017 under Outcome #5.

Box 5.6: The Impact of ASEAN on FDI in Cambodia

Cambodia joined ASEAN in 1999, committing itself to undertaking the necessary reforms to integrate its economy further into the region. Broadly speaking, Cambodia's ASEAN membership helps to draw more foreign investors through greater and more secure market access abroad and improvement of the country's business environment and image abroad.

As an ASEAN member, Cambodia is part of the evolving ASEAN Economic Community (AEC), the main component of which is to liberalize its regional trade under the ASEAN Free Trade Agreement (AFTA.) AFTA aims to bring about the reduction and elimination of import tariffs on trade in goods within ASEAN by the end of 2015. This reduction of import tariffs will influence the pattern of foreign investment. However, the impact will largely depend on the structure or motive of FDI.[99]

In the case of vertical FDI, when a firm locates its production process and facilities abroad to take advantage of the international differences in factor prices, the link between regionalization and FDI are more complementary. Almost all FDI inflows in manufacturing in Cambodia fall into this category where foreign investors can enjoy Cambodia's comparative advantage of low labor cost. A reduction of trade barriers among ASEAN, as well as other countries that have adopted FTAs with the ASEAN block, is likely to lead to increased FDI inflows in Cambodia as it becomes easier to import the necessary inputs, put them into production process, and export the finished product from Cambodia back to the home country or elsewhere in the region.

In addition to the reduction or elimination of tariffs, the AEC mandates additional reforms in investment and trade facilitation policy, such as limits to foreign ownership and free flow of goods and services.

With regard to investment mandates, the ASEAN Comprehensive Investment Agreement (ACIA) was signed in 2009 and entered into force in 2012, with pillars of investment protection, liberalization, and facilitation, and dispute settlement mechanisms. Cambodia's investment regime is currently liberal and meets or exceeds most requirements, such as allowing 100 percent foreign ownership in most sectors. So the impact is likely to be limited. On the other hand, it should be noted that other emerging markets within the region, such as Myanmar, will enjoy the same benefits and may introduce reforms to become more competitive destinations for FDI inflows.

In terms of free flow of goods and services, challenges for Cambodia remain such as the establishment of an ASEAN Single Window. According to ERIA (2012), five original members already have implementation of their National Single Window (NSW) with clear plans to expand the service to all major ports and airports by 2015.[100] The development of NSW in Cambodia is still in the early stage. This will likely affect the country's effort in promoting integration into regional production networks with other member countries.

Foreign investors have demonstrated recently a positive view on Cambodia as an investment destination within ASEAN. For example, , Japanese firms such as DENSO and Minebea (see boxes 5.1 and 5.5), while considering to diversify their operation into CLMV countries, decided to place their investment in Cambodia due to the country's comparative advantages including lower wages and beneficial geographical location. While these advantages currently outweigh higher logistic and electricity costs, these issues will need to be improved in the near future in order for Cambodia to remain competitive.

[99]M. Blomströmand A. Kokko, *Regional Integration and Foreign Direct Investment*, Working Paper Series in Economics and Finance No. 172, 1997.
[100]Economic Research Institute for ASEAN and East Asia, 2012, *Mid-Term Review of the Implementation of AEC Blueprint: Executive Summary*, ERIA, 2012.

Annex Table 5.1: FDI Approvals by Major Country by Sector Classification, 2005-2012*

(Fixed assets, $ million)	China	Korea	Taiwan	Vietnam	US	Malaysia	Hong Kong	Singapore	Thailand	Russia	Others	TOTAL
Agro-industry	439	161	2	1,037	89	62	0	135	317	0	170	2,412
Assembly (excl. electronic)	14	0	0	0	0	0	0	0	0	0	2	16
Beverages	4	25	0	7	0	0	0	4	11	0	0	51
Construction	11	71	2	5	1	0	0	170	45	0	2	307
Electronic assembly	0	17	0	0	0	0	0	0	0	0	2	19
Energy	1,952	107	0	3	49	29	8	16	3	0	98	2,266
Foods	0	0	0	2	0	0	0	0	0	0	7	9
Hospital	0	0	0	9	0	0	0	0	45	0	5	59
Infrastructure	0	45	4	0	0	36	0	0	0	0	59	144
Light manufacturing	21	35	9	3	6	3	4	6	6	0	60	153
Mining	610	4	0	3	1	0	0	1	1	0	14	633
Pharmaceutical	2	0	0	0	0	0	0	0	0	0	2	4
Telecom	45	32	0	101	92	12	26	0	0	287	250	845
Tourism	57	262	0	31	671	241	225	81	19	328	495	2,410
Garment	525	231	248	0	15	37	188	36	9	0	185	1,473
Footwear	79	6	106	0	3	0	8	6	6	0	25	239
Other garment	36	31	18	2	0	5	37	3	0	0	12	145
Others	36	13	0	4	0	1	1	0	2	0	0	58
TOTAL	3,834	1,040	390	1,206	926	426	496	460	463	615	1,388	11,244

Source: CDC monthly data

Note (*): (1) Approvals of fixed asset proposals only; (2) missing data for November 2007, December 2007, and November 2012; (3) Six mega projects excluded: construction ($988 million in 2006; $967 million in 2008; $1.1 billion in 2011), site development ($3.8 billion in 2008), construction of Siem Reap airport ($973 million in 2010), and fertilizer plant ($2.2 billion in 2011).

Chapter 6

INTELLECTUAL PROPERTY RIGHTS

Introduction

Cambodia has made great strides since the mid-2000s in establishing a modern Intellectual Property Rights (IPRs) infrastructure by focusing on the adoption of a WTO-compatible legal framework, its implementation, and its enforcement. Overall, the Cambodian IP laws developed thus far are largely consistent with international standards even if, in a few cases, some punctual revisions might be helpful to ensure a closer alignment with the TRIPS requirements and/or best practices.

On June 11, 2013, the TRIPS Council postponed the date for Least Developed Countries to comply with the TRIPS Agreement toJuly 1, 2021, with the exception of the provisions inArticles 3, 4, and 5 of the Agreement.[101] This postponement replaces the 2002 and 2005 WTO decisions whereby LDCs enjoyed a transitional period to comply with all TRIPS provisions expiring in July of 2013 or in 2016 for pharmaceutical products.[102]

An interesting question for Cambodian policy-makers might be how to make optimal use of this extended transition period to build an IPR regime that is supportive of the country's development objectives, as an LDC, knowing that, by the end of the transition period, the regime will need to be compliant with the WTO. In that regard, while the long term goal should be WTO compliance, in the short term Cambodia might be able to use selectively non-compliant provisions that are helpful to its development needs. The sequencing of actions should also be an important question for review by Cambodian policy-makers to as to make most effective use of limited financial, institutional, and human resources during the transition period. To be most effective, the order in which various tasks are approached should be influenced by current capacity and the needs for capacity building in various areas.

A complete answer to these complex questions is beyond what can be addressed in this short chapter. Nevertheless, the chapter seeks to identify possible areas of needs and, in the conclusion, suggests a possible sequencing in the deployment of efforts and resources needed.

---

[101]Articles 3, 4, and 5 deal with national treatment and most-favored-nation treatment. WTO Council for Trade-Related Aspects of Intellectual Property Rights, WTO Document IP/C/64, *Extension of the Transition Period under Article 66.1 for Least Developed Country Members*, Decision of the Council for TRIPS of 11 June 2013, Geneva: WTO, June 12, 2013.

[102]WTO Council for Trade-Related Aspects of Intellectual Property Rights, *Extension of the Transition Period under Article 66.1 for Least Developed Country Members for Certain Obligations with respect to Pharmaceutical Products*, Decision of the Council for TRIPS of 27 June 2002, WTO Document IP/C/25, Geneva: WTO, June 28, 2002, and WTO Council for Trade-Related Aspects of Intellectual Property Rights, *Extension of the Transition Period under Article 66.1 for Least Developed Country Members*, Decision of the Council for TRIPS of 29 November 2005, WTO Document IP/C/40, Geneva: WTO, November 30, 2005.

To do so, the chapter reviews four areas:

1. The current state of Cambodia's IPR legal and institutional framework
2. Ongoing developments in the domestic legal framework
3. Cambodia's international IPR environment
4. The deepening use of IP protections by Cambodian businesses and creating an awareness of the importance and value of IPR in the Cambodian public at large

Cambodia's Current IPR Legal and Institutional Framework

Current responsibilities for Intellectual Property Rights protection in Cambodia is distributed across several Ministries. The Ministry of Commerce (MoC) is responsible for Trademarks, Geographical Indications, and Trade Secrets; The Ministry of Industry and Handicrafts (MIH) (formerly, Ministry of Industry, Mines and Energy - MIH), for Patents, Industrial Designs, Utility Models, Integrated Circuits, as well as Seeds Varieties and Plant Breeder Rights; The Ministry of Culture and Fine Arts (MoCFA), for Copyright and related rights; The Ministry of Information, for Broadcasting; The Ministry of Posts and Telecommunication (MoPT), for Internet Domain Names. There are currently three main IP Offices: the Department of IPRs (within the MoC), the Department of Industrial Property (within MIH) and the Department of Copyright and Related Rights (within the MoCFA).

Ministry of Commerce

Trademarks: Producers attach trademarks to their goods, so that consumers can distinguish their products or services from those of others. A Trademark provides consumers information as to the origins of the product or service, hence information about expected quality. There are trademarks for goods and services, also collective/certification marks. Registration and protection of trademarks can be extended indefinitely, as long as the respective product or service is being sold under that trademark. Cambodia's *Law Concerning Marks, Trade Marks and Acts of Unfair Competition* dates back to 2002. Until now, Cambodian companies have made limited use of trademarks. Cambodia exports very few products under a Cambodian trademark. Registration of Trademarks by MoC has grown rapidly in recent years growing from 1,650 applications in 2002 to 5,140 in 2012, including 906 filed by local firms, with a cumulative total of 43,240by the end of 2012. On average, over the period 2007-2012, 80 percent of registered trademarks were by foreign firms.

Geographical Indications (or GIs):Protected geographical indications (GIs) are distinctive labels indicating that a product comes from a certain geographical area and that it is produced according to certain standards, using prescribed methods. GIs are mostly applied to agro-food products with the goal of distinguishing them from equivalent products produced elsewhere or without using a prescribed process or method. In some countries, GIs are purely geographical, in the sense that they only refer to the place of production, and no production method need to be described (Australia, for instance.)

Protection of GIs is internationally recognized, but countries apply very different frameworks. The USA

prefers to facilitate the protection of GIs through the collective trademark system (as allowed by TRIPS), while other countries have developed a *sui-generis* (dedicated) legal framework to protect GIs, notably the European Union.

Cambodia's GI system is currently governed by a Prakas. Cambodian GIs follow the European approach and therefore include a certified quality management structure, not only for the topographical origin, but also for growing/production methods (use of fertilizer and pesticideinputs) and post-harvest processing. Quality management is expensive. In addition, agricultural commodities benefiting from a GI will also need to meet SPS requirements of importing countries. However, compliance with international SPS standards as part of the quality management system of a GI maybe a beneficial by-product of establishing a GI. Maintaining a GI is expensive and requires a high level of compliance for building and maintaining its reputation.

Two Cambodian GIs have been established thus far: Kampot black pepper and Kampong Speu palm sugar. When establishing a GI, MoC works closely with MAFF to identify the geographical boundaries of the GI, the production method of the good, and the quality management structure in place or to be established. Two additional GIs are under consideration for possible future registration: Silk Phnom Sroc and Thmoh Kaul Rice.

Ministry of Culture and Fine Arts

Copyright: Copyright relates to the protection of literary and artistic expressions of creativity, such as writing in books and textbooks, paintings, sculptures, architectural design, music creation and song-writing, movies and video games creation, etc. Copyright encourages creativity by providing authors, artists, and other creators with the exclusive rights to reproduce, publish, and otherwise use their work typically for 50 years (from the death of the author.) Cambodia's *Law on Copyright and Related Rights* was promulgated in 2003.

There are many musicians, painters, (architectural) designers, and other artists in Cambodia that can benefit from exclusive rights for their works. Therefore, copyright can help to stimulate and protect creativity in Cambodia. Non mandatory registration of copyrights has grown to about 50 in 2010.

Cambodia is not a member of the Berne Convention. Most of Berne's substantive provisions are incorporated into the TRIPS Agreementto which Cambodia is a signatory.[103] This implies that copyright recognized in countries that are WTO members should be protected up to its statutory limit of 50 years. However, under the extended transition period granted by the TRIPS Council in June 2013, theBerne's substantive provisions incorporated in TRIPS do not apply to Cambodia as of yet. They will apply only starting in 2021.

Under its Law on Copyright Cambodia also provides for the protection of "related rights." Performers are granted the exclusive right to authorize the broadcasting, fixation and distribution to the public of their

[103]. The WTO TRIPS Agreement includes most of the rules included in the Berne Convention, with the main exception of the "moral rights" provision.

performances, for 50 years following the first fixation of the performance. Phonogram and video producers, as well as broadcasting organizations, also have their rights protected under the law.

Ministry of Industry and Handicrafts

Industrial Design: Cambodia's *Law on Patents, Utility Models and Industrial Designs* dates back to 2003. Industrial Design (ID) provides designers with an exclusive right to the non-technical, non-functional external appearance of their design for up to 15 years upon registration. Protected ID can cover shape, drawing, patterns, prints, colors, or any other characteristic of products that are visible and identify the product from the outside. Technical and functional design features are explicitly excluded from ID protection. However, the product to which the ID protection isgranted must have a specific functionality. Hence, paintings and sculptures are normally not eligible for design protection.

Cambodia has a number of designers and a large amount of traditional and modern designs in fabric, traditional fashion, traditional handicrafts, decoration, or temple and buildingornaments.There are important opportunities to support Cambodian designers with the protection of their design. ID protection may also encourage copiers to become creators,hence, contribute to developing the entire sector.

As of 2012, MIH had received 232 applications for registration of Industrial Designs, including 32 applications from local firms. Of the 232 applications, 192 registrations had been granted, of which 25 to local firms.

Patents and Utility Model:A patent is a 20-year exclusive right granted to an inventor to use and exploit his/her invention. Patents are granted by registration after examination of an application. The examination assesses whether the invention is new, the result of an inventive step, and applicable to commerce or industry. If so, a patent can be granted to the inventor. Patents provide an important incentive for innovation and can contribute to transfer of technology since the technology covered by patents is made public.

In the medium term, Cambodian companies are unlikely to have the capacity required to develop complex technology. All patentapplications from 2003 to 2012 came from foreigners. Still, while Cambodian firms do not work on development of patented technology and do not export any patented technology, Cambodia is importing patented products, including rawmaterials for its emerging manufacturing industry. A good patent system can play an important role in attracting foreign investors. However, it is also important to manage the Cambodian patentsystemwisely, so that it does not lead to unnecessary high prices for rawmaterials or production technology.

The way in which the Cambodian patent system is designed and managed may, not onlyimpact Cambodian producers but, also lead to higher prices for the Cambodian government and Cambodian consumers. Medicine is an important example. If a particular medicine were patented in Cambodia, the premium price charged by the originator of the medicine might make it unaffordable to patients. Though Government might issue a compulsory license, the administrative procedure to allow a government to purchase a generic equivalenttends to be tedious. For the time being, pharmaceutical patents need not be

granted under the Cambodian patent law, based on the WTO extension of transitional period for TRIPSimplementation until the year 2021.

Applications for patents registration had grown from 13 in 2007 and to 196 by the end of 2012. Thus far, no patent has been granted. MIH is still working on putting in place a registration process with some assistance from WIPO.

Similar issues mayexist with the utilitymodel (UM) protection. UMs are designed to protect minor inventions that do not meet the inventive step requirement. UM protection is shorter as compared to patents. The only requirement for UMs is that the technology (or functionality) is new and industrially applicable.

Plant Variety Protection (Plant Breeders Rights): Plant variety protection (PVP) relates to the rights of breeders to exploit new plantvarieties that they bred as long as they are markedly different from existing varieties and can be propagated in a stable manner. "Stable" means that successive generations of the newly created variety are consistent in their characteristics. The TRIPS Agreement allows WTO members to protect plant varieties either through the patent system or by developing a *sui generis* system for the protection of PVP. Cambodia has followed the second path and meets this requirement with its*Law on Seed Management and Plant Breeders Rights* (2008). Cambodia is exploring the costs and benefits of acceding to the International Convention for the Protection of New Varieties of Plants (UPOV, 1991 version.)

Current Implementation and Enforcement Capacity

Initially, each ministry tended to focus on developing capacity and implementation in the areas it covers. In 2008, the Government adopted a sub-decree creating a National Committee for Intellectual Property Rights (NCIPR) to coordinate all agencies involved in IP protection. The NCIPR replaces an earlier Committee (the Inter-Ministerial Committee Governing the Three Areas of Intellectual Property.) Over the last few years, the NCIPR has been quite active in promoting a holistic and comprehensive approach to the development of IP resources in Cambodia.

As far as implementation is concerned, typically the main IP offices tend to be short on institutional, human, IT, and financial resources if only to implement their mandates under the respective Laws. At some point in the future, Cambodia might also want to review the costs and benefits of a fragmented IPR implementation system and the possibility of bringing the main IP offices under a single institutional umbrella, as done in other countries.

As far as enforcement is concerned, mechanisms for the resolution of disputes vary depending on the nature of the rights but are in place or being put in place in most of the current key IP areas. Typically, rights holder can use a number of channels to protect their rights including “cease or desist” letters or other out-of-court mechanisms, such as mediation through the Ministry concerned (for instance, MoC mediated and resolved 32 out of 35 trade mark disputes in 2010), or by calling upon the assistance of the Economic Police (the Economic Police has the authority to cease counterfeits — for instance, some 250,000 CD/VCD were impounded in 2010, up from some 27,000 in 2009). Alternatively, IP holders

whose rights have been infringed can go to Court to seek restoration of their rights (including civil and criminal measures, injunctions, etc.)

Early experience with dispute resolution points to the need for increased coordination among the many actors responsible for implementing and enforcing rights. This applies not only to the line ministries mentioned earlier but also to the Economic Police of the Ministry of Interior (MoI), the General Directorate of Customs and Excise (GDCE,) Cambodia Import-Export Inspection and Fraud Repression Directorate General (Camcontrol) of MoC, the Ministry of Justice, to the judicial system and others.

In addition to focusing on technical assistance needs and coordinating access to AfT resources, the National Committee for Intellectual Property Rights (NCIPR)is in the process of establishing two sub-committees: one focusing on enforcement; the other focusing on education. However the required Anukrets to set up the two sub-committees have yet to be issued.

The Sub-Committee on IP Law Enforcement aims at strengthening coordination among enforcement bodies, clarifying responsibilities, developing consistent guidelines, and developing enforcement data bases.

The Sub-Committee on Educationaims at developing curriculum materials and human capacity to train university students at undergraduate and postgraduate levels as well as active professionals including private and public sector lawyers, government officials, academics, SME representatives, judges, and other enforcement agents, such a custom and police officials. In particular, capacity development initiatives should be designed to enhance the practical knowledge and skills of judges to handle IP cases in an expeditious and effective manner. Cambodian judges, in fact, have not benefited from large and comprehensive programs specifically covering IP. Their capacity to solve IP cases remains inadequate. Hence, preliminary injunctions and criminal measures are very seldom granted. Likewise, the technical skills and expertise of enforcement officials should be enhanced in the field of border measure and in particular on how to distinguish genuine and counterfeited or pirated products.

The Sub-Committee on Educationis also responsible for designing programs and carrying out activities with a view to raising public awareness on IP matters and promoting a culture of innovation. In this regard, as pointed out in the recent *Cambodia National Strategy on IPR*, it would be useful to develop the capacity of other government officials to encourage and enforce the use of IPRs, particularly in the field of agriculture, traditional cultural expressions and traditional knowledge (against third parties counterfeiting of Cambodian products), and tourism.

Ongoing Developments in the IP Legal Framework in Cambodia

Domestic IP Legislation

Table 6.1 provides an overview of the current legal framework for IP in Cambodia. In addition to existing domestic legislation, Cambodia is working on five new key legislations including a *Law on*

Geographical Indications (to supersede the current Prakas) and a *Law on Trade Secrets and Undisclosed Information* under MoC's responsibility, a *Law on Layout Designs* of *Integrated Circuits* (also to supersede an existing Prakas) under MIH's responsibility, a *Law on Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions* under MoCFA's responsibility,and a *Law on Compulsory Licensing for Public Health* under the responsibility of the Ministry of Health (MoH.) The first three laws are all included in the *Work Program of the Royal Government of Cambodia on WTO Requirements and Related Issues 2012*-2015 adopted following the November 2011 WTO Trade Policy Review.

Cambodia is also looking very carefully at the costs and benefits of joining additional international conventions, such as the Patent Cooperation Treaty (PCT), the Madrid Protocol on international registration of Trademarks, the WIPO Copyright Treaty (WCT), and the WIPO Performance and Phonogram Treaty (WPPT.) These new efforts are also guided by the need to ensure Cambodia meets its WTO obligations and ASEAN commitments while making best use of provisions beneficial to LDCs (more on this in this chapter's next major section.)

Law on Geographical Indications: As noted earlier the law will supersede the Prakas that, currently, regulates this area. As explained in the previous section, the draft law follows largely the European model of GIs. Cambodia is rich in products that could benefit from enhanced protection through GIs. However, it is worth recalling that a registration system may not be sufficient to ensure the commercial success of such products. A GI label should be accompanied by a number of strategic marketing and brand-raising measures.

Law on the Protection of Layout Designs of Integrated Circuits: Protected LayoutDesigns(LDs) of Integrated Circuits are the three-dimensional arrangements (topographies) of individual elements in an integrated circuit (IC.) ICs are complex components that are intended to perform an electronic function. The TRIPS Agreement requires WTOmembers to provide owners of LDs with ten years of exclusive rights to their ICdesign in line with selected provisions of theTreaty on Intellectual Property in Respect of Integrated Circuits (IPIC Treaty) as long as their design is original.[104]

This means that layoutdesigns that are commonplace among creators of layoutdesigns and manufacturers of ICs at the time of their creation cannot be protected, except if there is a combination of known designs that is sufficiently original.[105]Protection can be made dependent on registration of the design within two years of its first commercialization. Only willful acts relating to ICs that infringe on an LD are considered unlawful.[106] Exclusive rights of LDowners are subject to government use, public non-commercial use, compulsory licenses and other public interest safeguards that also apply to patents.[107]

[104]. Treaty on Intellectual Property in Respect of Integrated Circuits of 1989(IPIC Treaty)as referred in Article 35 of the TRIPS Agreement
[105].Article 3(2) (a) and (b) of the IPIC Treaty.
[106]. Article 37(1) TRIPS.
[107]. Article 37(2) TRIPS.

If Cambodia chooses not to make LD protection dependent on prior registration, all newly created LDs would be protected in Cambodia for ten years from the date of their first commercial exploitation, wherever in the world it occurred.[108]

Law on Trade Secrets and Undisclosed Information: To prevent acts of unfair competition, the TRIPS Agreement requires that undisclosed information is protected against unauthorized disclosure and transfer, as far as such information is not generally known among or accessible to persons that normally deal with such information. To be eligible for protection, the undisclosedinformation should also have commercial value precisely in light of its secrecy and those, who lawfully hold the information, should have taken reasonable measures to keep it secret.

In this context, a particular issue that may be of direct relevance to Cambodia is the protection of (undisclosed) data necessary to obtain marketing approval for pharmaceutical or agricultural chemical products from the relevant government authority. WTO members must ensure that such undisclosed test or other data are duly protected against unfair commercial use and against disclosure. This obligation applies to data that can only be created through considerable effort and when it relates to products that make use of new chemical entities.

Law on Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions: Cambodia possesses abundant genetic resources and traditional knowledge that could be used for the benefit of the country in numerous sector of the economy, such as in the health, culture, agriculture, and nutrition sectors. A draft Law on Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions is being prepared under MoCFA's responsibility.

International standards on the protection of genetic resources and related traditional knowledge have been agreed upon in the United Nations Convention on Biological Diversity (CBD) of 1992 to which Cambodia is a party. The CBD protects genetic resources for the purpose of maintaining biological diversity and productivity of ecological systems. This is done by facilitating access to and utilization of biological resources in a manner aimed at preserving them for future generations. The CBD requires that communities holding genetic resources or traditional knowledge provide their prior informed consent to their use and be entitled to a fair share of the economic benefits deriving from their exploitation.

While the CBD does not provide forstandard IPRs for communities holding genetic resources, it has important implications for IPRs that are derived from such genetic resources. The 2002 National Biodiversity Strategy and Action Plan for Cambodiarecognize that Cambodian lacks legislation in the area of biodiversity and mentions the need for such law to be enacted in the future.[109]

[108]. Article 38(2) TRIPS.
[109] See *National Biodiversity Strategy and Action Plan for Cambodia*, Theme 16 (Legislation and Institutional Structure), Ministry of Environment of the Royal Government of Cambodia, Phnom Penh: MoE, April 2002, pp. 70 and 72

Table 6.1 : Cambodia's Core Domestic IPR Legal Framework – Existing and Forthcoming		
Ministry of Commerce		
	Law Concerning Marks, Trade Names and Acts of Unfair Competition	Promulgated February 7, 2002
	Anukret on the Implementation of the Law on Marks	Adopted July 12, 2006
	Prakas on Trade Mark Agents	Adopted February 1, 2011
	Prakas on Geographical Indications	Prakas governs GIs at present
	Law on Geographical Indications	Draft submitted to CoM in 2013
	Anukret on the implementation of Law on GIs	Drafting in 2014
	Law on Trade Secrets and Undisclosed Information	Draft submitted to CoM in 2013
Ministry of Industry and Handicrafts		
	Prakas on the Protection of Layout Design of Integrated Circuits	Adopted November 2011
	Law on Layout Designs of Integrated Circuits	Drafting underway
	Anukret on the implementation of the Law on Layout Designs of Integrated Circuits	Drafting in 2015
	Law on Patents, Utility Models and Industrial Designs	Promulgated January 22, 2003
	Prakas on the Implementation of the Law on Patents – Registering Industrial Design	Adopted June 29, 2006
	Prakas on the Implementation of the Law on Patents – Registering Patents and Utility Models	Adopted June 29, 2006
	Law on Seed Management and Plant Breeder Rights	Promulgated May 20, 2008
	Anukret on the Law on Seed Management	Drafting underway
Ministry of Culture and Fine Arts		
	Law on Copyright and Related Rights	Promulgated 2003
	Prakas on Control and Suppression of Activities Violating Copyrights	Adopted March 18, 2003
	Prakas on Procedures for Granting Rights to Manage Literature, Artistic and Music Rights without Heirs	Adopted July 26, 2007
	Law on Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions	Drafting underway
Ministry of Health		
	Law on Compulsory Licensing for Public Health	Drafting underway
National Committee for Intellectual Property Rights		
	Anukret on Establishment of National Committee for Intellectual Property Rights (NCIPR)	Adopted 2008
	Anukret on Establishment of National Sub-Committee for Enforcement of IP under NCIPR	Draft ready to send to CoM
	Anukret on Establishment of National Sub-Committee for IP Education and Public Awareness under NCIPR	Draft ready to send to CoM
Others		
	Anukret on IP Border measures	Drafting underway
Source*:* MoC, Department of Intellectual Property; RGC, *Work Program of the RGC on WTO Requirements and Related Issues, 2012-2015*		

Cambodia has sent samples of more than 2,000 of its traditional indigenous ricevarieties to the genebank of the International Rice Research Institute (IRRI) in the Philippines.[110] Most consumers prefer traditional varieties of rice over new varietiesand some of the Cambodian traditional varieties stand out in the international arena.[111] This might make it commercially attractive to cross-breed a sought-after traditional Cambodian variety with a foreign variety, in order to develop a new rice variety that contains the most desired characteristics from the traditional Cambodian variety coupled with other desirable characteristics, such as drought and flooding resistance, etc.In certain jurisdictions, the result may be regarded as a new variety and could be awarded an exclusive breeders right (possibly under UPOV) and in some cases even a patent (under US patent law.)

While the CBD would require a prior informed consent and a benefitsharing schemefrom those who hold the traditional ricevariety, current international IPR agreements for plantvariety protection, such as UPOV, and most national patent laws of countries where patenting of plantvarieties is not prohibited do not require applicants to disclose the origin of the plantgenetic material that maybe used in a new ricevariety, let alone to provide evidence that permission was obtained from the community where the genetic material originates or proof that the benefits of exploitation will be shared with that community.

As noted earlier, Cambodia has not acceded to the UPOVtreaty. In addition, plant varieties cannot be patented under Cambodian patentlaw. In addition, Cambodia has yet to formulate a legal text addressing this area of IPRs as suggested in the 2002 National Biodiversity Strategy and Action Plan. Without sufficient protection, the possibility that a cross-bred version of a sought-after traditional Cambodian ricevariety is awarded with a foreign IPR and commercialized does exist.[112]

An example of the implications of the lack of protection of indigenous varieties can be found in the breeding of basmati-like rice varieties for farming in Texas patented in 1997 by American firm RiceTec, Inc. in the USA and marketed as "Kasmati" and "Texmati." While the Indian farming community has been the custodian of basmati rice variety for thousands of years, it could not prevent the genetic material from being used in the US without its permission, let alone payment of royalties. This is partly because the US has not acceded to the 1992 Convention on Biological Diversity that mandates consent and benefit sharing by communities relating to the commercialization of genetic material. The only thing that the Indian Basmati Development Fund and Agricultural and Processed Foods Export Development Authority could do was to oppose the use of the word "Texmati" or other indications that would create confusion with "Basmati." After a court battle of several years, interested parties also succeeded to have RiceTec Inc. surrender most of its patent-claims relating to the genetic material of Basmati.

---

[110] See *Third National Report on the Convention on Biological Diversity*, National Biodiversity Steering Committee of the Ministry of Environment of the Royal Government of Cambodia,Phnom Penh: MoE, July 2006,page 56.

[111] Japan International Cooperation Agency (JICA), *Study on Improvement of Marketing System and Post-Harvest Quality Control of Rice in Cambodia*, Phnom Penh, 2001.Cambodian premier Jasmine rice won the 2012 "World's Best Rice" award at the global rice tasting competition during the World Rice Conference in Bali, Indonesia, September 26-28, 2012, organized by The Rice Trader of the International Commodity Institute (www.trtworldrice.com .)

[112]See Thitapha Wattanapruttipaisan, "Trademarks and Geographical Indications: Policy Issues and Options in Trade Negotiations and Implementation" in *Asian Development Review, Volume 20, No. 1, 2009,*pp 166-205. The author describes the Basmati case and provides other examples to explain the importance of ASEAN Business Development Services (BDS) in defending IPR abroad.

Note that, based on recent cases, developing countries have begunrequestingdeveloped countries to acknowledge and reward the contribution of the custodians of traditional varieties and related knowledge to modern innovative initiativesin a manner that is rewarded with valuable IPR.[113] In addition, there seems to be an emerging consensus towards preventing the patenting of plant varieties that are the result of insignificant innovations and the award of breeders' rights for "new" plant varieties that are largely derived from traditional varieties. In this context, some countries have started to set up comprehensive databases with information on traditional varieties that patentexaminers can use to better assess inventive step when analysis the validity of patent applications for new plant varieties. However it should be recalled that no inventive step requirement exists to acquire a breeders' right under the UPOVsystem and, therefore, any stable variety with distinct new features is eligible for exclusive rights.[114]

Law on Compulsory Licensing for Public Health: Cambodia is drafting a Law on Compulsory Licensing for Public Health under the responsibility of MoHto ensure and promote access to pharmaceutical products. Compulsory licensing was addressed initially in TRIPS under Article 31. The Article was later amended by adding Article 31bis (the Amendment to Article 31), and the Annex to Article 31bis to ensure that poorer countries, especially LDCs have access to medicine they can afford.

Specifically, paragraphs (f) and (h) in the original Article 31 were modified by decision of the General Council on December 6, 2005 by inserting Article 31bis, as an amendment to Article 31, as follows:[115]

1. The obligations of an exporting Member under Article 31(f) shall not apply with respect to the grant by it of a compulsory license to the extent necessary for the purposes of production of a pharmaceutical product(s) and its export to an eligible importing Member(s) in accordance with the terms set out in paragraph 2 of the Annex to this Agreement.

2. Where a compulsory license is granted by an exporting Member under the system set out in this Article and the Annex to this Agreement, adequate remuneration pursuant to Article 31(h) shall be paid in that Member taking into account the economic value to the importing Member of the use that has been authorized in the exporting Member. Where a compulsory license is granted for the same products in the eligible importing Member, the obligation of that Member under Article 31(h) shall not apply in respect of those products for which remuneration in accordance with the first sentence of this paragraph is paid in the exporting Member
[….]

With the Annex to Article 31bis defining "pharmaceutical products" and "eligible importing Members" as follows:

1. Forthe purposes of Article 31bis and this Annex:

[113] For a brief discussion of the position of developed and developing countries on protection of genetic resources in the context of IPR and the need for international standards in this area, see Ms. Catherine Saez, "Draft Text on Protection of Genetic Resources on its Way to WIPO Assembly", *Intellectual Property Watch* (International IPR News Service), Geneva: WIPO, February 8, 2013(www.ip-watch.org/2013/02/08/draft-text-on-protection-of-genetic-resources-on-its-way-to-wipo-assembly)
[114]For a comprehensive overview of the interaction between IPR, indigenous knowledge on genetic resources and traditional cultural expressions, *Indigenous People's Innovation: Intellectual Property Pathways to Development*, Peter Drahos and Susy Frankel, editors, Canberra: The Australian National University Press, 2012 (online athttp://epress.anu.edu.au).
[115]http://www.wto.org/english/tratop_e/trips_e/wtl641_e.htm

(a) "pharmaceutical product" means any patented product, or product manufactured through a patented process, of the pharmaceutical sector needed to address the public health problems as recognized in paragraph 1 of the Declaration on the TRIPS Agreement and Public Health (WT/MIN(01)/DEC/2). It is understood that active ingredients necessary for its manufacture and diagnostic kits needed for its use would be included;

(b) "eligible importing Member" means any least-developed country Member, and any other Member that has made a notificationto the Council for TRIPS of its intention to use the system set out in Article 31bis and this Annex ("system") as an importer, it being understood that a Member may notify at any time that it will use the system in whole or in a limited way, for example only in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use. It is noted that some Members will not use the system as importing Members[3] and that some other Members have stated that, if they use the system, it would be in no more than situations of national emergency or other circumstances of extreme urgency;

(c) "exporting Member" means a Member using the system to produce pharmaceutical products for, and export them to, an eligible importing Member.
[…]

Adoption of Article 31bis made permanent an earlier decision on patents and public health, adopted in August 2003 in the form of a waiver, in order to consolidate access of LDCs to cheaper generic versions of patented medicine.

The IPR International Environment

Extension of the Transitional Period for Implementation of TRIPS for Least Developed Countries

As noted earlier, on June 11, 2013, the TRIPS Council postponed the date for Least Developed Countries to comply with the TRIPS Agreement toJuly 1, 2021, with the exception of the provisions contained in articles 3, 4, and 5 of the Agreement.The new deadline for LDCs will be reviewed in due time and can be extended again, and successive extensions may be necessary. Some developed WTO members did not agree to link the deadline for the implementation of TRIPS obligations to the moment the respective WTOMember State is no longer classified as LDC.[116]

The major difference between this and previous waivers is that the current 2021 waiver does not have a so-called "no-roll-back"clause. Under the current waiver, LDCs, Cambodia included, are free to make adjustments to their IPR regime, even if it leads to a lower level of TRIPS compliance. Though, in general, it might be less than desirable to make changes to legislation that would result in lesser compliance with international standards, it is now possible for LDCs to make some aspects of their IPR legislation more responsive to national development needs.

[116]Ms. Catherine Saez, Intellectual Property Watch (International IPR News Service), *LDCs Obtain New Waiver On IP Obligations At WTO, Take It As A Limited Victory*, Geneva: IP-Watch, June 12, 2013, (www.ip-watch.org/2013/06/12/ldcs-obtain-new-waiver-on-ip-obligations-at-wto-take-it-as-a-limited-victory/)

Note that the extension period granted LDCs by the TRIPS Council may, in itself, address some of those countries' pertinent concerns. For instance, as mentioned earlier, Cambodia needs not be concerned about the duplication of textbooks created outside the country at present, since copyright does not apply to those before 2021.

More broadly, the greater flexibility in complying with the requirements of the TRIPSagreement under the new waiver can help countries like Cambodia adapt the speed at which the IPR standards and protection are raised to match developmental considerations. Specifically, given the limited financial and organizational capacity of the Government, it may be helpful to set targets for strengthening IPRs at levels that are realistic and achievable by prioritizing legal reform and institutional capacity building accordingly. If benchmarks for strengthening the IPR system are set too high from the outset, there may be very limited progress towards compliance.

The Harmonization of Intellectual Property Rights under ASEAN

ASEAN is aiming at a "Single Market" or ASEAN Economic Community (AEC) by 2015. Given that IP legal and institutional frameworks are being developed at the national level and are based, primarily, on national needs, this dimension needs to be taken into account in the process of integrating national economies into a single regional ASEAN market.

There are large differences in the level of development among ASEAN member states. Accordingly, there are substantial differences in the capacity, priorities and innovation needs of ASEAN member states. This means that uniform, ASEAN-wide IPR standards are unlikely to fit all, at least as long as such large differences remain.Another critical factor in the functioning of IPR is that knowledge and technology are transferred through language. For instance, the publication of patentinformation to facilitate technology transfer can only work if it is done in a language that the recipients of the technology can understand. Differences inthe main languages and written scripts, not to mention the hundreds of minoritylanguages, that are spoken and written within ASEAN, with still low levels of proficiency in many states in a common language such as English, can be a significant obstacle to the effective functioning of an IPR system at the regional level.

Earlier Harmonization Approaches: Based on the above, the principles adopted under the *1995 ASEAN Framework Agreement on Intellectual Property Cooperation*to promote a coherent regional IPframework took into account the variety of developmentneeds of its members.[117]

[117] See article 2, Principles, of the ASEAN Framework Agreement on Intellectual Property Cooperation, done at Bangkok on 15 December 1995: (1) principle of mutual benefits for ASEAN-members; (2) mindful of the international conventions on IPR; (3) implement IPR-arrangements that are beneficial to creators, producers and users of intellectual property and in a manner conducive to social and economic welfare; (4) recognize and respect the protection and enforcement of intellectual property rights in each member and the adoption of measures necessary for the protection of public health and nutrition and the promotion of the public interests in sectors of vital importance to members' socio economic and technological development; (5) conscious of and understand the necessity for each member to adopt appropriate measures to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain-trade or adversely affect the international transfer of technology.

In 2007, in order to facilitate the development of a consistent internal IPRframework, ASEAN member states committed to follow the "coherence approach"adopted towards external economic relations in the *2007 AEC Blueprint*. The approach includes*"(i) Review FTA/CEP commitments vis-à-vis ASEAN internal integration commitments; and, (ii) Establish a system for enhanced coordination, and possibly arriving at common approaches and/or positions in ASEAN's external economic relations and in regional and multilateral forums."*[118]The coherence approach described in the 2007 AEC Blueprint would seem to deviate from the earlier 1995 ASEAN Framework Agreement on Intellectual Property Cooperation, where commitments to harmonize were subject to existing and future international agreements adopted by individual ASEAN member states.[119]

Current Harmonization Efforts:The *ASEAN IPR Action Plan 2011-2015* seems to return to an approach closer to that in the 1995 Framework. Strategic Goal 2 of the 2011-2015 ASEAN IPR Action Plan stipulates that:

"*ASEAN has attempted to formulate regional IP protection mechanisms. But given the diversity of their respective national laws, the growing demand for international, rather than regional, protection mechanisms from IP owners and creators worldwide, and the need for the region to participate in global IP systems in order to be more competitive, the ASEAN Working Group on Intellectual Property Cooperation (AWGIPC) agreed on an alternative to the establishment of a regional IP System that will enable ASEAN Member States to move at their own pace."*[120]

This statement seems to recognize that it may not be appropriate, at this stage,for ASEAN members to develop regional protection mechanisms for IPRs or other harmonization mechanisms of substantive norms. Hence,the Action Plan suggests that Member States should revert to international (global) IP protection mechanisms in a coordinated manner. In this context, the introduction to the Action Plan states, again, the need to accommodate the different levels of developmentof the various Member States:

"*Given the rapid expansion of international norms and cross-cutting concerns in IP, ASEAN needs to craft an approach that takes into account the diverse needs and varying levels of capacity of its Members States, in the context of broader societal interests and especially development-oriented concerns to contribute to the promotion of knowledge creation, technological innovation and transfer, business generation in a manner conducive to the welfare of the region, among others."*[121]

The initiatives proposed under Strategic Goal 2 focus on the possibility for Member States to join three international agreements for the filing of applications for trademarks (Madrid Protocol), industrial designs (The Hague Agreement), and patents (Patent Cooperation Treaty). It should be noted that these treaties are essentially procedural treaties that assist in the management of filing IPR applications in other jurisdictions; in other words, they are filing mechanismsrather than IPR substantive protection

[118] Actions i and ii are listed under Section 65 of D1, "Coherent Approach towards External Economic Relations", Part II , "Characteristics and Elements of AEC", of the ASEAN Economic Community (AEC) Blueprint adopted in the Declaration on the AEC Blueprint, Singapore: ASEAN, November 20, 2007.
[119] See article 6, General Provisions, of the 1995 ASEAN Framework Agreement on Intellectual Property Cooperation: "Nothing in this Agreement shall prejudice any existing or future bilateral or multilateral agreement entered into by any Member State or the national laws of each Member State relating to the protection and enforcement of intellectual property rights."
[120]*ASEAN IPR Action Plan 2011-2015*, Section 3.2, "Developed national or regional legal and policy infrastructures that address evolving demands of the IP landscape and allow AMSs to participate in global IP systems at the appropriate time." Page 10.
[121]*ASEAN Intellectual Property Rights Action Plan* 2011-2015, page 1

mechanisms (such as the EU CTM system). (Cambodia's current membership in international IP agreements is summarized in table 6.2)

Table 6.2: Cambodia Current Membership in International IPR Agreements, Conventions and Other Arrangements	
WIPO Convention	1995
ASEAN Framework Agreement on IP Cooperation	1995
Convention on Biological Diversity	1995
Paris Convention for the Protection of Industrial Property	1998
WTO (hence the TRIPS Agreement)	2004
Source: relevant websites	

Still, the preamble to Strategic Goal 2 is quite clear in stating that:

"Together, the ASEAN Member States (AMSs) will determine whether it will be in the best interests of the region to participate in multilateral agreements on IP, what agreements they will join, and when each AMSs will start using these systems."[122]

And, in the preamble to Strategic Goal 1:

"A balanced IP system that takes into account the varying levels of development of Member States and differences in institutional capacity of national IP Offices to enable them to deliver timely, quality, and accessible IP services to promote the region as being conducive to the needs of users and generators of IP."[123]

In short, Cambodia's commitment to the 2011-2015 Action Planis not, at this stage, a commitment to accede to the aforementioned conventions in the near or medium term, only a willingness to study the possible implications of such actions. Indeed, given Cambodia's and other less developed ASEAN Member States' current level of development (CLMV - Cambodia, Lao PDR, Myanmar, and Vietnam), these countries may determine that accession to some of those additional multilateral agreements may not be easily manageable for them and/or in their best development interests in the short or medium term.

Surely this short chapter cannot go into a detailed analysis of the costs and benefits of any one of the three treaties and conventions suggested in Strategic Goal 2 or other international conventions for that matter. One can assume there might be disagreement even among experts. However, there is one area that might influence any short term decision by Cambodian policy-makers. Accession to any new treaty, in the short term, is likely to put new financial, institutional and human resources demands in an environment of "scarce" resources. So, at some point the short term question may not be so much as to whether such treaties of conventions are likely to serve or not the longer term interests of Cambodia as it might be about the sequencing of such accession.

At this stage, it might be equally if not more important for Cambodian IPR policy-makers to focus on completing the domestic legislative agenda and for IPR administrators todevelop the urgently needed Business Development Services to SMEs to promote the development of an IPR culture in Cambodia which, for that matter, is precisely the objective of Strategic Goal 1of the 2011-2015 ASEAN IPR.

[122] *ASEAN Intellectual Property Rights Action Plan* 2011-2015, Section 3.2, Strategic Goal 2, page 10
[123] *ASEAN Intellectual Property Rights Action Plan* 2011-2015, Section 3.1, Strategic Goal 1, page 4

Exhaustion of Intellectual Property Rights: ASEAN and the "First Sale Doctrine"

The principle of "exhaustion" limits how far IPRprotection can go. Article 6 of the TRIPS Agreement provides that "*subject to the provisions of Articles 3 and 4, nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.*" The effect of this provision in the TRIPS Agreement is to leave each Member free to establish its own regime for such exhaustion, subject to the MFN and national treatment provisions of Articles 3 and 4. In other words, countries can decide whether to adopt a "national exhaustion" approach or an "international exhaustion" approach (also known as "first sale doctrine" in some common law countries).

Exhaustion means that a product with an intellectual property right (IPR), such as a copyright, a trademark or a patent, can be traded and resold freely after it has been sold legitimately (i.e. the product is not a pirated copy) by the owner of the IPR or with his consent. In Common Law jurisdictions (such as the United Kingdom and the USA), this is called the "first sale doctrine" meaning that the IPRholder loses his rights after the first sale of the product.

Application of the "first sale doctrine" in the USA is illustrated by a recent Supreme Court decision on a Thai individual who resold copyrighted textbooks in the USA that he had imported into the USA from Thailand without permission from the publisher.On March 19, 2013 the Supreme Court reversed an earlier judgment of a New York Court against Thai student Supap Kirtsaeng by which he was originally ordered to pay John Wiley & Sons Inc $600,000 in damages for allegedly importing infringing copies of university textbooks.[124]

Both the Trademark and Patent Laws of Cambodia include a "legal fiction" that the trademark or patentright, if already in place in Cambodia, is revived when a product crosses bordersand enters Cambodia.[125]This "fiction" is technically referred to as "local exhaustion" or "national exhaustion" of IP rights. A "national exhaustion" approach is essentially different from the "first sale doctrine" (also referred to as international or universal exhaustion), which allows free trade in goods subject to IPR, as long as they have been legitimately produced by the owner of the respective IPright or with his/her consent.

If a national exhaustion approach is strictly applied,legitimateproducts may be prevented from entering the country if imported by companiesother than the IP owner.In the case of Cambodia's patent law, the combination of the national exhaustion approach in the law, together with the general principle that patent protection also covers the mere use of a patented invention by any individual (including for not-for-profit/non-commercial use) leads to an undesirable legal situation: Individuals (tourists and other international travelers) cannot legally bring legitimate, genuine personal effects with patented technology (such as laptop computers or smart phones) into Cambodia without the permission of the patentholder assuming that there are numerous patents in any mobile phone and an equivalent patent has been granted in Cambodia. The Cambodian patent law also does not include a "*de-minimis* exception"

[124] Supreme Court of the United States No. 11-697, Kirsaeng, DBA Bluechristine99 v. John Wiley & Sons, Inc. - Decided on 19 March 2013; as reported by the Bangkok Post: "Thai academic wins US copyright case", Bangkok - 20 March 2013.
[125] A *legal fiction* is a fact assumed or created, to which a legal rule is then applied, leading to a result that was not intended by the respective rule and therefore often inconsistent with its goal.

for passenger's personal luggage or personal effects shipments. There is only an exception for technology incorporated in aircraft or ships temporarily on Cambodian territory.

Today, the effect of local exhaustion in Cambodia's patent protection remains limited since no patents have been granted in Cambodia yet. Laptop and mobile-phone technology patents are not in effect in Cambodia, so travelers with legitimate computers and phones do not violate Cambodian patent law, and therefore they don't need to surrender such equipment at the customs when entering the country.

On a different note, MoCFA currently interprets the Cambodian Copyright Law (2003) in such a way that someone who imports textbooks into Cambodia would need permission from the foreign publisher of those books. While this is not explicitly mandated by the Cambodian Copyright law itself, it is a possible interpretation of its wording.

Once the ASEAN common market is established, it would seem that the "first sale doctrine" (as a regional exhaustion approach)might have to be followed. It would be harmful for Cambodian consumers and contrary to the spirit of the ASEAN integration, if businesses would be allowed to use IPR as a pretext for separating markets, in order to charge artificially high prices. With this in mind, WTO members are not obliged to apply the IPR enforcementmeasures at the border under Section 4 of the TRIPS Agreement in relation to genuine goods that may be traded without the permission of the respective IPRholder[126].

IPR Legal Framework and Competition Law

The main purpose of IPRs is the promotion of creativity, innovation, and transfer of technology for the benefit of the public at large. The rationale of IPRs is that the development and transfer of knowledge and technology can be facilitated by rewarding creators and inventors with temporarily exclusive rights to their creative expressions and inventions. When developing IPR policy and legislation and when setting up systems for the acquisition, administration, and enforcement of IPRs, there is always a basic tension between the risk of a loss of public welfare that is incurred by limiting competition (due to possible higher prices through the granting of exclusive rights), on the one hand, and the societal benefits that may result from the extra creativity and innovation encouraged by those exclusive rights, on the other hand.

WTO members agree that some licensing practices or conditions pertaining to IPRs may restrict competition,and therefore have adverse effects on trade and impede the transfer and dissemination of technology.[127]The most appropriate place to address such issue is likely to be the Cambodian Competition Law currently being drafted and scheduled to be enacted by or before 2015.

Experience from advanced economies is that abuse of market-power can be facilitated by an abuse of legitimate IPRs. Examples include anti-competitive contractual or licensingarrangements, the refusal of an IPRholder to license at reasonable terms, possible tie-in clauses, or the complete refusal to provide a license for patented technology that is essential for a third party to apply another technology.

[126] See TRIPS Agreement Note No. 13 under Article 51 (Suspension of Release by Customs Authorities) of Section 4 (Special Requirements Related to Border Measures) in Part III: "It is understood that there shall be no obligation to apply such procedures to imports of goods put on the market in another country by or with the consent of the right holder, or to goods in transit."
[127] Article 40 of Section 8, Control of Anti-Competitive Practices in Contractual Licenses, in Part II of the TRIPS Agreement

Sometimes such behavior involves strategies for acquiring multiple IPRs for the same or very similar products. Even though this may be legitimate in itself, it is being done to create disproportionate obstacles for competing companies. This is illustrated by the findings of a 2008 investigation of the European Commission that found that the pharmaceutical industry had developed patentingstrategies for the purpose of hindering or delaying the entry of competing products into the market, after expiry of the patent protection.[128]

The pharmaceutical sector is one of the main users of the patent system in Europe or elsewhere for that matter.The number of pharmaceutical-related patent applications at the European Patent Office (EPO) nearly doubled between the start and the end of the 2000-2007 period covered by the investigation.Pharmaceutical patentholders were found to use a large amount of patents for one medicine, sometimes up to 100 patent families for a single medicine, amounting to 1,300 patents andpending applications across the EU. This practice of "patent clusters" or "patent thickets" led to uncertainty among competitors, affecting their ability to enter the market.

Besides submitting increasing numbers of patent-applications relating to variations of the same chemical compound towards the expiry of the first patent – for instance, relating to different dosage forms, productionprocesses, or particular formulations, the originator companies also make use of voluntary "divisional" patentapplications. While divisional patentapplications are foreseen in patent law as a legitimate way to split an initial patent application that was withdrawn or revoked (not extending the content of the original application nor the term of protection), they also serve to maintain uncertainty relating to the validity of patents by extending the examination-period. The risk of litigation about multiple, divisional patents would make potential competitors hesitate to enter the market.

Following completion of the Pharmaceutical Sector Inquiry, the EPO took measures to restrictcases in which voluntary divisional patent applications may be filed and time periods during which they may be filed.[129]

In food production, large agribusiness companies sometimes take control of the whole supply chain from seed producers to consumers.[130]Even though farmers and others in the production chain provide labor and take economic risk by investing their capital, biotechnology firms may control almost the whole supply-chain through their IPRs on seeds, pesticides, or other necessary inputs.

The example of a food chain cluster given by Heffernan et al. consists of joint ventures, partnerships and other forms of close cooperation among Monsanto, Cargill, and other companies, in which Monsanto owns the IPR to the seeds (breeders rights) and Cargill holds the IPR covering the fertilizer that farmers need to grow the seeds. Based on breeders-rights to the seeds, Cargill collects the corn from the farmers to

[128]European Commission, *Executive Summary of the Pharmaceutical Sector Inquiry Report,* Communication on the Pharmaceutical Sector Inquiry Preliminary Report by Competition DG, Brussels: November 28, 2008.
[129] Decision of the Administrative Council of the European Patent Organization, amending the Implementing Regulations to the European Patent Convention, Document CA/D 2/09, Munich: EPO, March 2009 (www.epo.org/patents/law/legal-texts/decisions/archive/20090325.html).
[130]W. Heffernan, M. Hendrickson and R. Gronski, *Consolidation in the Food and Agriculture System*, Columbia, Ms: University of Missouri, 1999.

produce wheat and oilseed. These are then provided by Cargill to farmers to use as animal feed. The chicken, pigs and cows that are raised by the farmers are then again bought by Cargill to process them into meat-products.The close cooperation and coordinated use of IPR by a few parties in order to gain control over a whole supply chainmay leadto abuse of market powerin certain cases.

While both Europe and the USA have established competition law practice to deal with anti-competitive behavior of IPRholders, a common global approach to competition law is still lacking, as is the implementation of TRIPS competition law policy provisions in newer WTO members.[131]

Some early work is under way on a *Law on Competition* for Cambodia. The drafters of the text will need to address some issues related to the possible abuse of market power by IPR holders.

Cambodian Public Awareness for IPR and Deepening Use of IP Protections by Cambodian Businesses

Perhaps one of the most interesting short and medium term challenges for Cambodian IP professionals and policy-makers is to increase broad public awareness about the value of IPRs and deepen the use of IPRs by Cambodian businesses, particularly SMEs.

The *National IP Strategy for Cambodia 2013-2018* offers an interesting review of current limited use of IP protections in Cambodia across key sectors of its economy and opportunities for deepening their use.[132]

Agriculture and Agro-processing

There is very limited use of IP protection and IP tools in the agricultural and food sector. In the milled rice export sectors, very few large millers use registered trademarks. There is some Technical Assistance work underway to establish a collective mark. Limited use of registered trademarks is also the case in other agricultural and agro-processing sectors. Branding and labeling are important to future market developments of Cambodian exports of agricultural and agro-processing products.

GIs represent an important development but they require producers to comply with quality management principles that are likely to be very demanding for local producers. GIs will need to be protected outside Cambodia through appropriate registrations.

---

[131]A comprehensive overview of the interaction between IPR and Competition and Anti-trust Law can be found in the *Research Handbook on Intellectual Property and Competition*, including a discussion of available space for WTO members to implement the competition-related provisions of the TRIPS Agreement. See Josef Drexl editor, *Research Handbook on Intellectual Property and Competition Law*, Cheltenham, UK: 2008. Likewise, a very interesting discussion of Competition and Intellectual Property in the ASEAN context can be found in Ashish Lall and R. Ian McEwin, *Competition and Intellectual Property Laws in the ASEAN Single Market*, Chapter 5 in *The ASEAN Economic Community: A Work in Progress*, Sanchita Basu Das et al., editors, Singapore: Institute of Southeast Asian Studies, 2013.

[132] This section draws heavily from the examples provided in the *National IP Strategy for Cambodia 2014-2018*, Cambodia: March 2013

The use of plant variety and breeders' right protection, and possibly patent, is likely to play a key role rather soon as new seed varieties are developed in maturing agricultural sectors, not simply in rice but in other sectors as well, to prevent misuse in the domestic market and misappropriation outside Cambodia.[133] See the earlier discussion of India's basmati rice.

In general, MAFF has little capacity to promote and encourage the use of IP protection in the sector. MoC has limited resources beyond dealing with the backlog of trademark applications. And MIH, which is responsible for patents and plant variety registration is still struggling to get systems up and running. Beyond educating the public and business community about the value of IP, there will be a need for stronger enforcement of IPRs and the awareness of the value of IP enforcement. Field work during the preparation of this chapter suggests that, in the food processing sector, mislabeling of products by processors claiming to hold international certifications that they do not have is not uncommon.

The Cultural Sector

As noted earlier, Cambodia still lacks a comprehensive piece of legislation covering Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions though drafting by MoCFA is underway. To some extent some of cultural heritage creations can be partially protected through the existing IP framework including Copyrights, Industrial Design or even Collective Marks. However, experience shows that a *sui generis* protection may be preferable.

As noted earlier in the chapter, use of Copyright or Industrial Design protection by Cambodian producers remains very limited however. As noted by the authors of the *National IPR Strategy*, even a firm such as Artisans d'Angkor that produces some of the most sophisticated handicraft exported by Cambodia does not have a well-rounded strategy to protect its own designs and products.[134]

Education

Intellectual Property plays several roles in education. The educational sector is a place to train IP professionals. It is a place to increase awareness about linkages between IP protection and the development of Commerce and Industry. It is a sector that itself can benefit from IP protection.

There has been significant progress in recent years to develop an IP training curriculum for future law professionals in a number of universities, including with the help of the NCIPR. However, the lack of legal practice experience in this area by most teachers remains a limitation. In addition, there is still extremely limited exposure of business school or engineering students to the possible use of IP protection tools in their future professional life.

[133] See Chapters 12 and 13 for some limited discussion of the need for seeds development in rice and cassava
[134] *National IP Strategy for Cambodia 2014-2018*, Phnom Penh: MoC, March 2013, page 30.

The Health Sector

IP plays a critical role in the Health sector, especially but not exclusively in the area of pharmaceuticals and traditional medicines. The authors of the *National IPR Strategy* identify five areas where good management of the IP sector can have a positive impact on the health sector:

1. Fostering the growth of a generic pharmaceutical industry;
2. Controlling and reducing the price of medicines by taking advantage of the flexibility accorded LDCs under the TRIPS Agreement;
3. Providing tools to assist with enforcement actions against providers of counterfeit medicines;
4. Facilitating collaboration with outside health organizations to share technologies, methods of treatments, pharmaceuticals otherwise not available without adequate IP protection; and,
5. Protecting traditional medicines and traditional medical practices and innovation in those areas.

Industry and Commerce

While Cambodia may still be at a stage where it lacks resources to become a significant innovator there are many ways in which domestic Commerce and Industry may take advantage of the IPR regime – either to protect themselves or to gain access to international intellectual property assets.

As suggested at the beginning of the chapter, Cambodian businesses that make use of IPR protections remain the exception.[135] One can reasonably assume that businesses that access information available from international databases are even more limited. To a significant extent, Cambodia lacks the Business Development Service structure required to educate and develop awareness and use of IP protection and information in the business community. Surely, much more should be done by way of outreach to increase the business community awareness of the value of IPRs through seminars and workshops, publications, IP events organized at trade fairs, dissemination of success stories, etc.

Tourism

Tourism is a sector that can also benefit greatly from an enhanced use of the IP system to strengthen its image and value. However, it is also the case that its use remains extremely limited.

As noted in the earlier discussion of the Cultural Sector, there is very limited IP protection of Cambodia's cultural heritage in place as of yet. In term of use of collective or certification marks for branding purposes, the authors of the *National IPR Strategy* note that even the highly successful campaign catch phrase "Cambodia – Kingdom of Wonder" does not appear to be protected anywhere, opening it to misuse or misappropriation. According to the same report, the Angkor Handicraft Association appears to be one of the very few organizations in the sector with an IP approach. It has registered its name and logo. It has developed a Seal of Authenticity, also registered, and makes the Seal available to its members if they agree to guarantee certain conditions of quality and authenticity.

[135]Note that such a large export sector as Garments as yet to develop something as simple as a Collective Mark

Conclusion

This chapter has taken a brief look at the current state of Cambodia's IPR framework and needed work to further develop such framework in a manner that serves the trade and development interests of the country. A number of conclusions emerge from this short review:

- There is a significant need to strengthen implementation, coordination, and enforcement capacity to make the existing system more effective. The NCIPR has established two sub-committees to address some of the key requirements for strengthened implementation, coordination, and enforcement, including a sub-committee on enforcement and a sub-committee on education. Efforts should be made to formalize the existence of those two sub-committees through Government adoption of their respective Anukret as soon as possible. Together with that, there should be a clear capacity development plan in the aforementioned area funded and implemented;
- Some five key national laws remain to be completed, approved, and promulgated. These should be among some of the key Cambodian priorities in the IP area over the next few years;
- When completing new laws, Cambodia should make best use of some of the provisions granted by the Council on TRIPS under the new 2021 waiver granted LDCs regarding full compliance with the TRIPS Agreement. While the overall medium and long term objectives of Cambodia should be full compliance with the TRIPS Agreement, the new waiver makes room for LDCs to include, in their current IPR laws, measures that might not be fully compliant but take account of their developmental needs;
- In new and existing laws, Cambodia may need to review and harmonize the language of the provisions relating to the "exhaustion" of IPRs. A number ofsuch provisionsin current laws may be contrary to the objectives of the single market being promoted under AEC 2015;
- Development of Cambodia's IPR framework and infrastructure should be "development-centered." In that regard, there is a need to increase awareness of IPR in the public at large and, equally importantly, to increase the use of IPR protection by Cambodian firms and creators.There is an urgent need to begin promoting more aggressively the use of IP protection among Cambodian businesses, including SMEs. A significant effort and deployment of resources I needed in this area;
- The Law on Competition, currently under preparation, willneed to address, to some degree, the issue of possible abuse of market power linked to the existence of IPRs;
- Cambodian policy-makers and officials should continue to assess very carefully pros and cons, costs and benefits of any possible accession, taking into account national interests, institutional and financial capacity limitations, and trade integration consideration;
- Many of the actions required to achieve some of the aforementioned results are identified in the *National Intellectual Property Strategy for Cambodia* developed in March 2013. A challenge in the years ahead will be to implement successfully many of the actions and activities identified in the Strategy.
- Last but not least, Cambodian policy-makers and officials should also make use of the new transition period granted LDCs by the WTO TRIPS Council and sequence carefully actions and priorities so that the Government's scarce resources are put to the most effective use. In that regard, it would seem the short and medium term focus should be first and foremost on strengthening domestic IP implementation and enforcement capacity, focusing on developing a culture of IP among Cambodian businesses, and completing the domestic legal agenda.

Selected Actions in support of those conclusions are identified in Outcome #6 of the Trade SWAp Roadmap.

Chapter 7

GARMENTS

Background

Cambodia's strong economic record in recent decades owes much to the performance of its garment sector. The sector is one of four economic pillars, alongside agriculture, tourism and construction, that have driven Cambodia's growth and continues to be the single largest contributor to its exports and formal employment. In 2011, the garment sector represented approximately 48 percent of Cambodia's total formal and informal goods and services exports (see Table 1.9 in chapter 1) and employed more than 370,000 workers.[136]Similarly, the contribution of the garment sector to GDP has risen from around 1 percent in the early 1990s to about 10 percenttoday.[137]While the US remains the top export market for Cambodia's garment sector, there has been significant diversification in recent years with export volumes to the EU, Canada and Japan increasing very rapidly. December 2012 was the first time when shipments to the EU were larger than shipment to the US.

Overall, the growth in the garment sector has been a significant success story for Cambodia's economic development and trade integration effortsover the past 20 years. While the development of the sector may have been largely opportunistic, the future of the sector will require close public-private sector collaboration and a more strategic approach to industrial development. Strong linkages will also need to be formed with other parts of the economy, including the vocational education and training sector and a domestic support industry (such as textiles and fabric production) that, while slowly emerging, is still very much in its infancy.

Export Performance

Export Value

Beginning in the early 2000s, the value of Cambodia's garment exports grew at a relatively uniform rate,until the 2008-2009 global financial crisisthat caused a sharp but temporary contraction. As shown in Table 7.1, Cambodia's garment exports have recovered well since the impact of the global financial crisis led to an 18.9 percent contraction in export value.Cambodian garment exports were worth $4.4 billion in 2012.

[136] Better Factories Cambodia, *Twenty Ninth Synthesis Report on Working Conditions in Cambodia's Garment Sector*, Phnom Penh: ILO, 2013.
[137] UNCTAD, *Cambodia Sector-Specific Investment Strategy And Action Plan*, Geneva: UNCTAD, February 2013

Table 7.1: Cambodian Garment Exports,$ billion, 2007–2012						
	2007	**2008**	**2009**	**2010**	**2011**	**2012**
Value $ billion	$ 2.9	$ 3.0	$ 2.4	$ 3.0	$ 4.0	$ 4.4
% Change	-	+ 4.0 %	- 18.9 %	+ 24.4 %	+ 34.5 %	+ 9.8 %
Source:GMAC, 2013						

Overall, total garment exports have increased by more than 51 percent over the 2007 to 2012 period – driven by strong growth in basic apparel production volumes.[138]Cambodia's contribution to global garment trade, however, remains small, growing to about 1.2% in 2012 from a very low base.

Type of Exports

Cambodia's garment supply chain is geared toward manufacturing relatively simple low value "cut-make-trim" (CMT) products. Consequently, garment exports are predominantly large shipments of low-to-medium priced cotton itemsfor theNorth American and European markets.Familiar brand names dominate the list of buyers sourcing garments from Cambodia, including sportswear brands Nike, Reebok, and Adidas and major chains or brands like Abercrombie& Fitch, Marks & Spencer, Walmart, and Columbia Sportswear.[139]

The majority of Cambodia's garment exports are in just four product categories: sweaters/pullovers, men's and women's trousers, and t-shirts/singlets. The global garment trade is typically distinguished between knitted and woven garments. Cambodia's knitted exports include t-shirts, sweaters, and polo shirts. Exports of woven garments include trousers, shirts, and jackets.[140] The exact contribution of each of these categories fluctuates year-on-year in line with overseas orders. Overall, the mix of garment products Cambodia manufactures and exports is essentially the same as those of the mid-1990s when the industry first established its presence. Scope for product diversification should therefore be considered as part of a wider export development strategy, including the potential to produce higher-value garment products.

Current Export Destinations

The main destinations for Cambodia's garment exports are high-income North American and EU markets. The US has been the principal export destination for garment exports since the industry first developed in Cambodia in the 1990s. Initially, this was due to the lack of quota restrictions for Cambodia garment exports to the US market at a time when other garment exporters in Asia (particularly China) began to face high quota restrictions.[141]MFA quota restrictions to the US market were introduced in 1999, but the

[138]GMAC,*Consolidated Data for Garment and Textile Exports*, Phnom Penh: GMAC, 2013.
[139] USAID, *Measuring Competitiveness and Labor Productivity in Cambodia's Garment Industry*,Phnom Penh: USAID, 2005.
[140]TradeMap data.
[141] Bargawi, O., *Cambodia's Garment Industry – Origins and Future Prospects*,Economic and Statistics Analysis Unit, Overseas Development Institute, London: ODI, 2005.

bilateral US–Cambodia Textiles Agreement provided for relatively generous annual quota increases on the condition Cambodia met established labor standards.[142]

The prominent role of the US as the major buyer of Cambodian garments has started to diminish in recent years as exports to the EU and other markets have grown rapidly. Changes to the rules of origin (ROO) requirements to access the EU market under the Everything-But-Arms scheme in January 2011 have proven a catalyst for Cambodia's increased sales to that market. Table 7.2 below shows the changing dynamics of Cambodia's garment exports and the increasing importance of both the EU and other markets. In a noteworthy development, in the month of December 2012 garment exports to the EU were larger than exports to the US for the first time.[143]

Table 7.2: Top Export Markets for Cambodian Garments Percentage Share of Total Exports, 2007- 2012

Destination	2007 Share	2012 Share
US	69.8 %	44.9 %
EU-27	22.0 %	32.7 %
Canada	5.3 %	9.1 %
Japan	< 1 %	3.2 %
Others	2.7 %	10.1 %
Value of Total Exports	*$2.9 billion*	*$4.4 billion*

Source:GMAC,*Consolidated Data for Garment and Textile Exports*, Phnom Penh: 2013.

Potential Export Destinations

The largest importers of clothing apparel in the world are the EU, the US, Japan, and Hong Kong.[144] Table 7.3 lists the top ten global garment importers by value in 2012. Cambodia's growing exports to the EU reflect this market's position as the top importer and, most importantly, the EC decision in 2011 to relax rules of origin for EBA treatment. Other markets, such as Canada and Japan, have also grown in importance and offer further growth opportunities, aided by favorable tariff preferences under various GSP programs. While Cambodia is already a significant exporter of garments to many of the top global importers and there has been export market diversification in recent years, there remains scope to diversify further to other markets including emerging economies – such as Russia, China, Brazil, and Turkey.

[142] A 2001 study of global textiles and garment producers found the availability of quotas was the single most important factor in influencing production and sourcing decisions. This underscored the importance of the bilateral US–Cambodia Textiles Agreement both in terms of setting expectations and creating incentives for Cambodia to meet internationally recognized labor standards, as well as the lure for foreign investors of Cambodia's increasing annual quota access to the US market for garments.
[143]GMAC,*Consolidated Data for Garment and Textile Exports*, Phnom Penh: GMAC, 2013. See also discussion in Chapter 1.
[144]TradeMap data.

Table 7.3: Top 10 Global Garment Importers, $ billion, 2012				
EU-27	$ 155.2		Russia	$ 8.2
US	$ 80.7		South Korea	$ 5.9
Japan	$ 32.0		Australia	$ 5.6
Hong Kong	$ 15.2		Switzerland	$ 5.3
Canada	$ 8.5		China	$ 3.9
Source: Comtrade (HS Chapters 61 + 62).				

Trade Balance

Cambodia is overwhelmingly a net exporter of garments, with imports totaling just $108 million in 2012 compared with exports in excess of $4.4 billion. However, Cambodia imports virtually all of the fabrics, yarn, threads, trim, and related inputs used in the local production of garments, resulting in lost value for the wider economy. For example, in 2012, imports of textile yarns and fabrics were $2.5 billion, while imports of textile fibers (such as cotton, wool and silk) were $68 million.[145]

Of course, Cambodia is not alone in relying on imported materials for garment production. Other major garment producers such as Bangladesh and Vietnam also have limited domestic textile industries and import large quantities of textiles to supply their respective export-oriented garment manufacturing sectors.[146]Nevertheless, given the size reached today by the garment sector, there should be greater scope to produce, in Cambodia, at least in part, some of its yarn and fabric inputs. Government and industry need to investigate the potential for Cambodia to move "down the value chain" and begin to produce some of the sector's inputs domestically in order to maximize the level of local value adding derived from the garment industry.

Dynamism of Exports

The pace of the Cambodian garment sector's growth mirrors the pace at which the sector could decline. This was witnessed in the contraction in Cambodia's garment exports in 2009 when export revenue declined by almost 19 percent year-on-year, whereas global garment trade declined by less than half that rate at 9.2 percent (see Tables 7.1 for Cambodia and 7.4 for world market.) With more than 85 percent of exported garments destined for North American and European markets, Cambodia's garment sector is highly exposed to downturns. That exports have been concentrated toward such a narrow range of markets may explain why Cambodia's garment sector felt the impacts of the global financial crisis so acutely. While reliance on these markets has been driven by significant quota advantages or tariff preferences, further diversification should be encouraged, especially toward emerging markets that may be able to provide a possible buffer to downturns in the global economy.

[145]Comtrade data using SITC Rev. 4 Classification (Code 84 "Clothing and Apparel Products".)
[146] Bargawi, O., *Cambodia's Garment Industry – Origins and Future Prospects*,Economic and Statistics Analysis Unit, Overseas Development Institute, London: ODI, 2005.

A benefit of Cambodia's supply chain being oriented toward basic (low-priced) garment production is that, as the global economy has slowly recovered from the 2008-09 downturn, cautious consumers have reduced discretionary spending. Table 7.4 below and Table 7.1 above show that, while global garment trade contracted as much as 13 percent in 2012, Cambodia's garment exports increased by almost 10 percent, suggesting consumers may be showing a preference toward purchasing lower cost and more basic garments that Cambodia specializes in producing. In this context, focusing on basic apparel production *partly* shields the Cambodian garment sector from contractions in global economy vis-à-vis the more volatile high-value garment trade.

Export Prospect

Notwithstanding the impact of the global financial crisis, Cambodia's garment sector has emerged as a dependable growth sector and the largest source of export revenue for the national economy. However, the sector remains vulnerable to external shocks and the dynamics of the global garment supply chain. Local production volumes are effectively determined by the needs of foreign investors and parent companies that control the supply chain. This makes it difficult for Cambodia to influence both the quantity and direction of its garment exports.

Internationally, Cambodia is regarded relatively well in terms of factory operations and ethics. The latter has become a particularly important attribute in light of increasing consumer awareness and concerns regarding the work conditions and safety of garment and footwear factories around the world. It is important that Cambodia's reputation is protected and safeguarded by continual and transparent monitoring of local factory conditions, as currently takes place under the *Better Factories Cambodia* program.[147]

World Market Conditions

Global imports of clothing were $384 billion in 2012, with the EU and US importingmore than halfof this trade.[148] Table 7.4 illustrates the volatility of global garment trade experienced in recent years. The value of global garment trade is closely correlated with global economic conditions, population growth and disposable incomes. It is therefore highly susceptible to changes in consumer confidence, as seen in the large fluctuations over the 2007 to 2012 period.

[147] The Better Factories Cambodia program is implemented by the International Labor Organization (ILO) and was launched in the 1990s as a requirement for Cambodia to gain preferential market access into the US for its garment exports.
[148] Comtrade.HS Chapters 61+62

Table 7.4: Global Garment Trade, $ billion, 2007–2012						
	2007	**2008**	**2009**	**2010**	**2011**	**2012**
Value $ billion	$ 293	$ 338	$ 307	$ 347	$ 405	$ 351
% Change	-	+ 15.3 %	- 9.2 %	+ 13.8 %	+ 16.7 %	- 13.3 %
Source: Comtrade (SITC Rev. 4 – Code 85: *Articles of Apparel and Clothing Accessories*)						

Market Access Conditions

Market access conditions have been a driving force behind the development of Cambodia's garment industry and export profile. Preferential tariff arrangements have influenced particularly Cambodia's garment exports to the US and EU markets. For instance, the US-Cambodia Textiles Agreement (1999) provided relatively significant quota increases for certain garment exports to the US market. In return Cambodia committed to achieving agreed labor standards and the lowering (and binding) of tariffs on textiles and clothing imports.

In 2001, the EU introduced the "Everything But Arms (EBA)" scheme, which allows duty-free quota-free access for all of Cambodia's garment exports. However, because the Cambodian garment industry sources fabrics, yarns, and other input components from abroad, particularly China, it was difficult for it to meet the EU's rules of origin requirements and gain duty-free access. As a result, benefits from the EU's EBA scheme remained, at first, relatively limited, with annual exports to the EU averaging around $400-500 million over the 2007–2010 period.[149] However, in January 2011, the EU relaxed its rules of origin for EBA treatment. New rules were introduced allowing duty free entry of a garment sewn from two or more pieces using fabric produced elsewhere. This has enabled Cambodia to enjoy duty-free export treatment, even when using imported fabrics.[150] As a result, in the two years since the changes in ROOs have been in place, Cambodia's garment exports to the EU have grown by 110 per cent.[151]

As an LDC and FTA partner, Cambodia also enjoys tariff preferences (often with zero duties and/or ROOs restrictions) to a number of important markets, such as Canada, Japan, Australia, South Korea, and China. See Chapter 1 for more detailed analysis on the role of ROs in the growth of Cambodian exports, including a summary of a number of preferential schemes available to Cambodia's garment producers.

Major Competitors

Cambodia traditionally faces strong competition from larger basic apparel exporters such as Vietnam, Bangladesh, China, and India. Each of these competitors can offer better economies of scale, while Bangladesh, as an LDC, also enjoys the same duty-free quota-free access to the EU market. Looking

[149] Natsuda,Kaoru.,*Challenges to the Cambodian Garment Industry in the Global Garment Value Chain*, RCAPS Working Paper No. 09, Ritsumeikan Center for Asia Pacific Studies (RCAPS), Ritsumeikan, Japan: RCAPS, 2009.
[150] Fukunishi ed., *Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report)*, IDE-JETRO, Japan: JETRO, 2012.
[151] GMAC,*Consolidated Data for Garment and Textile Exports*, Phnom Penh: GMAC, 2013.

ahead, it is anticipated that, as Myanmar reforms and further opens up its economy, it could emerge as a lower-cost garment production center in the next five years. Cambodia's garment sector is also conscious of the emerging garment sectors in Africa that could expand and become a significant competitor over the medium term.

World Market Prospect

The outlook for the global garment sector is encouraging, with the demand for apparel likely to grow on the back of recovering economies in the US and EU as well as the growing number of middle class consumers in Asia (especially China and India.) However, global competition for garment trade is intensifying with manufacturers experiencing narrowing operating margins against a backdrop of increased consumer interest in the industry's ethics.

Given that most of the quota restrictions on global garment trade from the past have now been removed, one of Cambodia's main competitive advantages is the reputation it has built around labor compliance. It is therefore pivotal that Cambodia's reputation as a relatively "safe" and "ethical" source country be protected and safeguarded. This will require continued investment by Government and industry in improving and maintaining working conditions in the sector, as it continues to be monitored under the *Better Factories Cambodia* program.

Domestic Supply Conditions

Producers

There were 375 garment factories operating in Cambodia in 2012, a significant recovery from the 243 operating in 2009 at the height of the global financial crisis. As seen in Figure 7.1, the number of operating factories (and corresponding employment levels) can change quickly year-on-year, reflecting the dynamics of the global garment value chain where purchase orders can rapidly decline (and increase) to suit prevailing global market conditions.

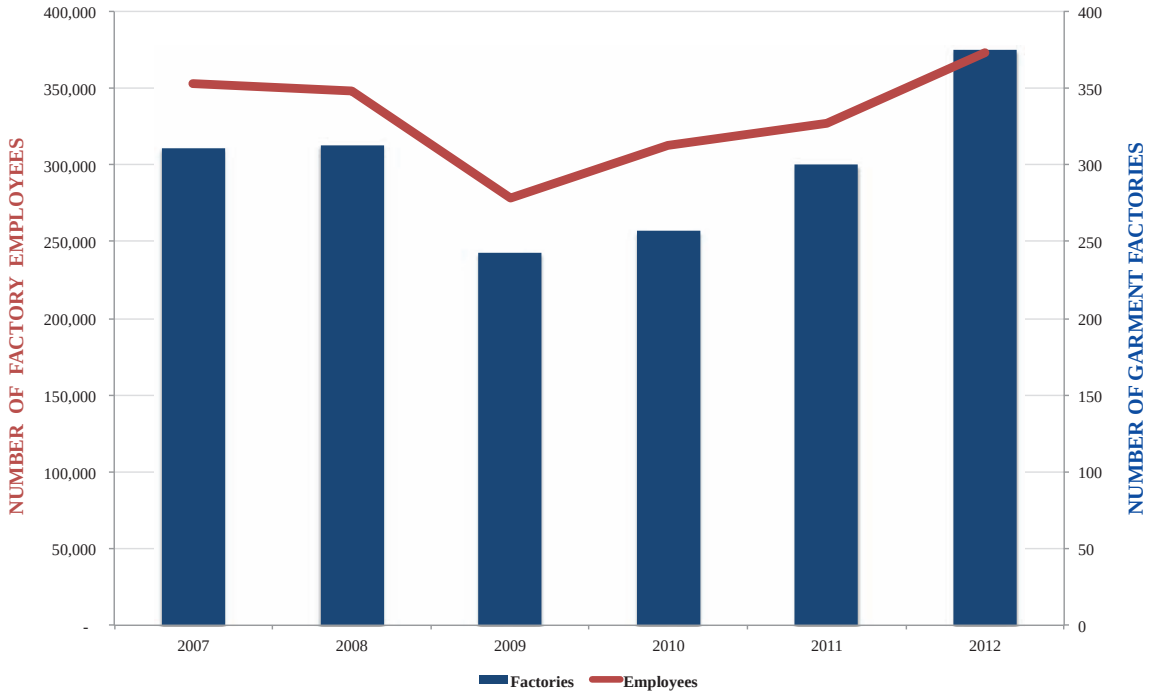
The dynamics of the global garment value chain is directly relevant to the economic impact and welfare benefits that Cambodia derives from the garment sector. In this context, nearly 95 percent of all garment factories in Cambodia are foreign owned with very few local investors operating in the sector.[152] Consequently, while foreign investors provide the industry know-how and expertise in international trade, the main economic and income-generating benefit to Cambodia's economy is from direct employment.[153]

In terms of where the local sector sits within the global garment value chain, as noted earlier the Cambodian garment sector specializes primarily in finished garment products, the cut-make-trim (CMT) stage of production. This means factories typically perform only the final stages of production: the

[152] World Bank, *Value Chain Study – Cambodia Garment Sector*, Phnom Penh: World Bank, 2012.
[153] 370,000 workers in 2012 according to Better Factories Cambodia, *Twenty Ninth Synthesis Report on Working Conditions in Cambodia's Garment Sector*, Phnom Penh: ILO, 2013.

cutting, sewing, finishing, and packaging of garments. These garments are then sent to an intermediary buyer (usually in East Asia) who then negotiates with and coordinates the onward distribution of the goods to buyers largely in the US and EU.

Figure 7.1: Number of Garment Factories & Employees, 2007-2012



Source: Data from bi-annual Better Factories Cambodia *Synthesis Reports*, 2007-2012.

Further, mostgarment factories in Cambodia are either vendor factories or contract manufacturers and are therefore tightly controlled by offshore owners. Consequently, the industry structure offers very little scope for local initiative or entrepreneurship.

In vendor factories, typically a parent company distributes orders among factories that it owns in several countries – including Cambodia – according to available capacity, unit production costs, and required skill level. The parent company will then often arrange delivery of the inputs and components to the factory in Cambodia according to the buyers' specifications.

While the local factory arranges domestic movements of inputs and production, the parent company or buyer's nominated forwarder arranges the international movement of the finished product. Therefore, despite being such a large export oriented industry, very few operators are engaged directly in international trade and havethe ability to attract orders or identify markets into which it could expand.

Among contract manufacturers in Cambodia, mostare foreign-owned but operate as independent enterprises providing CMT services. Some take orders from buyers who provide the designs and specify the inputs, while others assume responsibility for sourcing inputs and preparing samples for approval by

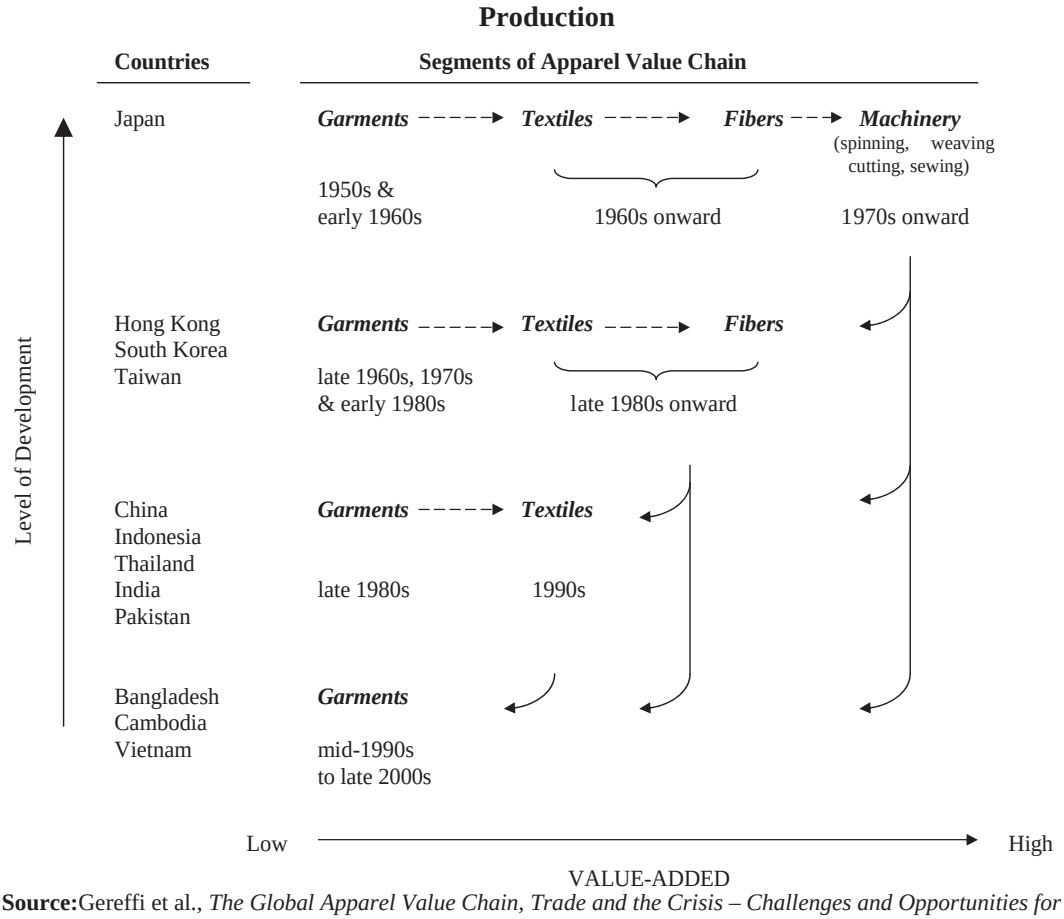
the buyer. Contract manufacturers that do procure inputs do so in accordance with the buyer's specifications and, in many cases, receive a list of authorized suppliers from the buyer. Again, this limits the scope for local garment factories to source inputs from local suppliers.

Vendor factories have the advantage of scale through their relationship with the parent company, which provides access to regional suppliers and global markets. The parent relationship also provides access to low-cost capital borrowed internationally against the parent company's balance sheet. In contrast, contract manufacturers export to a limited number of markets and have difficulties in obtaining inputs of consistent quality at a competitive price. Furthermore, they often lack access to low-cost finance, making it difficult to evolve from the CMT/Assembly business model to a more sophisticated model capable of producing more complex and higher-valued garments.

Around a quarter of garment factories in Cambodia cover the full operations, which include purchasing the fabric, packaging and shipping the orders to wholesalers or retailers.[154]These activities capture a larger part of the financial benefits in the value chain but also entail significantly higher risks. This includes the financial risk if an order is not completed as planned.

Overall, the overwhelming majority of garment factories in Cambodia essentially operate as subsidiaries or affiliates of a regional operator (often headquartered in Hong Kong, Taiwan, Korea, or mainland China). It is those regional enterprises that act as an intermediary – controlling marketing arrangements, distribution networks, and relations with the international buyers – and capture significant value from the global garment value chain. Given the narrow range of value chain activities actually conducted in Cambodia, the prices received are often quite low, subjecting the local sector to very thin profit margins.The challenge for Cambodia is how to integrate more closely with the global value chain and participate in more value-added activities. Figure 7.2 shows a schematic of the evolution of the garment global value chain and Box 7.1 provides further analysis.

[154] World Bank, *Value Chain Study – ANNEX: Cambodia Garment Sector*, Phnom Penh: World Bank, 2012.



Source: Gereffi et al., *The Global Apparel Value Chain, Trade and the Crisis – Challenges and Opportunities for Developing Countries*, Policy Working Paper 5281, Washington D.C.: The World Bank Development Research Group, 2010

Box 7.1: Global Garment Value Chain

Figure 7.2 outlines how countries at different levels of development have progressed down the value chain.The main segments of the garment value chain – garments, textiles, fibers, and machinery – are arranged along the horizontal axis, and reflect low to high levels of relative value-added as capital intensity increases. Countries are grouped on the vertical axis by relative level of development, with Japan at the top, China and India in the middle tier, and the least-developed exporters like Bangladesh, Vietnam, andCambodia at the bottom.

Individual countries tend to progress from low to high value-added segments of the chain in a sequential fashion over time. This illustrateswhy it is important for Government and industry in Cambodia to recognize its role in the value chain and, rather than simply looking to produce higher-value garment products, look at opportunities to participate in more value added steps in the production process.

It is also apparent that there is a regional division of labor in the garment value chain, where countries at very different levels of economic development form a production hierarchy with a variety of export roles. For example, the US generates the product designs and large orders, Japan provides the sewing machines, the newly industrializing economies of East Asia such as Hong Kong and Taiwan supply fabric, and low-wage Asian economies like Cambodia, Indonesia, or Vietnam sew the garment. Importantly, economies like Japan, Taiwan, or even China do not exit the garment industry as lower-cost competitors emerge. Rather these countries move along the value chain and up the export hierarchy.

Production Capacity

Cambodia's liberal FDI regime enables new garment factories to be established relatively quickly, especially as such factories require little in the way of fixed capital assets to operate. As seen in Figure 7.1, garment factories have closed and opened quickly in response to the changing needs of international buyers. Production capacity in the sector – at least in terms of factory output – is therefore quite dynamic and easily adjusted.

However, production capacity is also reliant on the sector's productivity. Despite recent advances, labor productivity is lower in Cambodia than most of its neighbors. At its current level, Cambodia's labor productivity levels are comparable to those of Vietnam in 1993.[155] In the garment sector this has been partially offset by low wages, which together with reputable labor compliance standards have kept the country relatively competitive.[156] Both the RGC and industry's support for the long-standing *Better Factories Cambodia* program gives international investors and buyers the confidence to do business with Cambodia's garment sector. Given most garment factories have minimal investments in fixed assets and can easily relocate if local operating costs are no longer competitive, it is imperative that Cambodia's garment sector safeguards and enhances its reputation as a reliable, trusted and ethical supplier.

However, improving labor productivity still remains important and the sector's challenges are in many ways linked toCambodia's wider challenges in training and skills development discussed in Chapter 17. Given its current stage of development and economic structure, strengthening the provision of technical vocational education and training (TVET) should be an immediate priority for Cambodia. This should include new and ongoing efforts and reforms aimed at developing a national TVET framework, adopting competency based skills standards, and strengthening the capacity of training providers to deliver quality training that responds to actual labor market needs.[157] In view of the recent growing number of illegal strikes there is clearly a need to find a better balance among workers' rights, enforcement of labor laws, regulations and agreements in force, and labor productivity and improve overall labor relations. See chapter 17 for a more detailed discussion.

[155] ILO, *Decent Work Country Program Cambodia (2011-2015),* Phnom Penh: ILO, 2011.
[156] With over 20 years of experience, Cambodia garment manufacturing has developed a reputation as relatively 'ethical' as a result of its "*Better Factories Cambodia*" program.
[157] Williams, D. et al., *From Downturn to Recovery: Cambodia's Garment Sector in Transition*, Phnom Penh: ILO, 2011.

Quality of Product

The principal customers for Cambodia's garment exports are brand marketers and retail chains. The largest customers – including famous brand names such as H&M, Levi Strauss, Nike, Adidas, and Target – account for the majority of Cambodia's garment exports. US store chain GAP alone is estimated to account for 30 percent of total apparel exports.[158] These are major international labels that impose stringent quality control measures on respective supply chains. That these labels continue to trust and rely on Cambodia's garment sector as a major supplier reflects well on the sector's capacity to meet stringent quality specifications.

The challenge for Cambodia is to diversify from mainly producing basic CMT items to more sophisticated apparel. This will require significant public and private sector investment in training and productivity enhancing initiatives in order to demonstrate to buyers that it can provide the necessary skilled workforce to meet these technical standards. Should Cambodia be able to position itself to produce more technically demanding production methods, the sector will be able to link that development to its relatively good labor laws and practices. The development of an industry-wide "Made in Cambodia" brand may help solidify this link as a competitive advantage.Since the sector will be the main beneficiary of effective national branding, the private sector needs to drive such an initiative.

Availability & Quality of Labor Force

Cambodia's garment sector employed 372, 988 workers in 2012, 90 percent of which were women.[159] A significant portion of wages in the sector is remitted to support rural families. Consequently, while most garment factories are located close to Phnom Penh, the sector's prosperity and growth impacts positively on rural livelihoods and economic development. Similarly, external shocks such as the global financial crisis can have profound effects on poverty reduction efforts. More than 75,000 jobs were lost in the sector during 2008-09, the impact of which would have been acutely felt by women and rural communities.

Despite Cambodia's garment sector being characterized by low labor productivity compared to its competitors, many factory operators are discouraged to invest in vocational training programs due to the highly mobile nature of the workforce and other factors (see also discussion in Appendix to Chapter 17.) A joint public-private sector approach to training and vocational education is needed in Cambodia that, at least in part, reduces the burden on private factory operators from high staff turnover. Similarly, factory operators may find the practice of employing staff on short-term rolling contracts only exacerbates the problem of high attrition rates in the garment sector workforce.

Further, the reliance of garment factories on foreign labor in key technical and management positions weakens the local sector's future –the local industry know-how and expertise is as temporary as the presence of each skilled migrant worker. This risk to the sector's future only adds to the need for the

[158] World Bank, *Value Chain Study – Cambodia Garment Sector*, Phnom Penh: World Bank, 2012.
[159] Better Factories Cambodia, *Twenty Ninth Synthesis Report on Working Conditions in Cambodia's Garment Sector*, Phnom Penh: ILO, 2013.

implementation of a national TVET framework thatreflects Cambodia's actual labor market needs, including at the technical and management levels.

While efforts should continue to improve the garment sector's workforce productivity levels and skill attributes, another aspect to the global garment value chain is consumer concern relating to labor conditions and workplace safety. In this context, the development of Cambodia's garment sector and associated labor practices are subject to monitoring against international standards. The continuation of the *Better Factories Cambodia* program is important and its role in keeping Cambodia competitive in the global value chain should not be underestimated. International buyers are paying increasing attention to the labor practices and factory conditions of suppliers. It will therefore be vital that both RGC and industry make good on Cambodia's commitment to decent work.[160]

Level of Processing Technology

Developing countries such as Cambodia usually first integrate into the global garment value chain through labor intensive functions of relatively low knowledge intensity, such as cutting, making (sewing), and trimming (CMT). Cambodiatherefore plays little role in the more knowledge-intensive functions, such as product design, sourcing decisions of input materials, distribution arrangements, and marketing. As such, the level of processing technology in Cambodia's garment sector reflects its current role as, predominantly, a supplier of relatively basic CMT apparel. Further, as most of the garment sector in Cambodia has been established with foreign investment, most factories are equipped with the manufacturing and processing technology needed to conduct CMT assembly.

Cost and Quality of Infrastructure

If the local garment sector wishes to pursue product diversification and participate in more value-added activities, Cambodia will need to improve its base economic services and infrastructure, especially in relation to transport, communications, and energy supply. These are regularly cited concerns of businesses in Cambodia. Improvements in infrastructure would help to significantly lower Cambodia's overall production costs and strengthen the garment's sectors position and integration with the global value chain. For example, improvements in the transit corridor linking Phnom Penh andports in Vietnam would shorten timeframes for importing fabrics and exporting garments, potentially attracting orders for higher value garments that necessitate faster turnarounds.

Efficiency of Domestic Support Industries

Customs procedures are important for trade facilitation and impact directly on the cost of doing business in Cambodia. Despite recent improvements, additional savings in transit time can be achieved through reducing clearance times for imported fabrics and exported garments. This would add to the garment sector's competitiveness and encourage further investment and development of the local production chain.

[160]Better Factories Cambodia *Thirtieth Synthesis Report on Working Conditions in Cambodia's Garment Sector*, Phnom Penh: ILO, April 2013

Domestic Demand

Cambodia's garment industry is almost entirely export-oriented and foreign-owned. The sector's focus is on servicing global value chains in filling international purchase orders. A small number of locally owned garment factories do service the local market. However, these are small in scale and generally set outside the global garment value chain. As Cambodia's economy develops and national income rises, consumer preferences for international brands are likely to increase.

Prospect for Domestic Supply Conditions

Cambodia's garment sector is largely dependent on imported inputs and components. Most fabrics, threads, accessories, and trim used in production of apparel exports are imported while only packaging is produced locally. About 70 percent of the fabric is imported from China, Taiwan, and Hong Kong and another 16 percent from South East Asia.[161] This is largely a reflection of the structure of the global garment value chain where parent companies control production orders and specify where and how suppliers such as Cambodia source inputs and components for CMT assembly. This practice restricts the ability of Cambodian factory operators to purchase even basic local inputs.

However, there have been a number of recent investments in garment support industries in Cambodia. A recent MoC survey concluded there were six local production units as detailed in Table 7.5 below.

Table 7.5: Local Producers – Textiles & Fabrics, 2013

Product	No. of Producers
Yarn / Thread	0
Knitted fabrics	4
Woven fabrics*	2

Source: Ministry of Commerce, Phnom Penh.
Note:* One producer manufactures both knitted & woven fabrics.

Policy and Regulatory Framework

Government Initiatives and Sector Policy

The garment sector in Cambodia has developed in a business and policy environment that encourages foreign investment. While Cambodia has no formal industrial development policy, the liberal FDI policy adopted by the RGC early on has contributed to the sector's growth beginning in the 1990s, driven by foreign investors from countries with extensive experience in garment production. Thus, a key role played by RGC has been to provide economic stability combined with a favorable investment and

[161] World Bank, *Value Chain Study – Cambodia's Garment Sector*, Phnom Penh: World Bank, 2012.

regulatory environment. In addition, Cambodia's pursuit of international trade and market access opportunities, membership into ASEAN, accession to the WTO, and access to various GSP schemes, has provided a catalyst for rapid investment by foreign investors in search of preferences.As a member of ASEAN, Cambodia has also secured improved market access conditions through ASEAN Free Trade Agreements with Dialogue Partners – namely, Australia and New Zealand, China, India, Japan, and South Korea.

Looking ahead, if the garment sector in Cambodia is to follow in the footsteps of past major garment manufacturers, a concerted public-private sector effort will be needed to broaden the scope of productive and value-added activities. This should include moving away from simple CMT assembly operations and assuming greater involvement in the management of supply chains at the production stage. This will require significant improvements toCambodia's supply-chain efficiency and strategic investments by RGC in modern infrastructure and economic services.

In addition, RGC will need to work with industry to help develop a domestic supply chain to link with the garment sector. Signs of an emerging fabric production industry are encouraging and further investments in supply chain integration are possible and will be needed. The benefits to the local economy will be substantial even if domestic input suppliers could only meet a relatively small fraction of overall demand from the garment sector.

To encourage these links a number of policy approaches could be adopted by RGC. These include new incentives to encourage joint ventures between Cambodian enterprises and foreign investors as well as targeted industrial development policies to increase the number of localcomponent manufacturers able to supply the garment sector.[162] Efforts to support such development are discussed in Chapter 5. Other possible initiatives include policies aimed at boosting the efficiency of supply chains (including upgrading infrastructure) and lowering(non-wage) production costs (see Chapters 2 and 3.) In terms of boosting labor productivity, significant public-private sector collaboration will be required to develop and implement a national TVET framework, introduceminimum competency standards for vocational qualifications, and strengthenthe capacity of training providers to deliver quality training that meets labor market needs (see Chapter 17.)

Business Associations

The sector's growth also owes much to the presence of an effective employers' organization in the Garment Manufactures Association of Cambodia (GMAC) – the oldest and arguably most important employers' organization in the country.[163]Following the establishment of GMAC in 1999, the industry organization has earned a strong reputationas a capable representative of garment manufacturers in Cambodia. GMAC's position has been aided by strong support and engagement from the Ministry of Commerce (MoC.)All garment exports from Cambodia require a certificate of origin, whether or not they are destined to a preferential market. MoC issues all certificate of origins and issues them only to producers that are GMAC members and are monitored under the ILO's *Better Factories Cambodia* program.

[162] Williams, D. et al., *From Downturn to Recovery: Cambodia's Garment Sector in Transition*, Phnom Penh: ILO, 2011.
[163] See www.gmac-cambodia.org.

The value of a strong industry association cannot be underestimated – particularly as so many of Cambodia's emerging export sectors are currently looking to establish an effective representative organization that can speak with a strong united voice. GMAC has been rather effective across a number of key development areas for the sector including: helping investors in the sector to speak with a single voice and coordinate actions; lobbying for the sector's interests; reaching negotiated settlements on industrial relations issues; and, dialoguing with Government to influence relevant trade and business policies.[164]In this context, GMAC provides a range of advisory services and training to its members, covering areas such as trade facilitation, taxation, labor law and other regulations, and dispute resolution.

Where GMAC supports primarily employers interests, an emerging trade union movement is maturing in Cambodia – albeit lacking in skills and experience in management, negotiation, and collective bargaining on behalf of employees. The ILO has identified fragmentation and proliferation (some garment factories have more than ten unions present), as well as low human capacity and weak financial viability, as major challenges facing Cambodia's trade unions in the garment sector. According to the ILO's *Decent Work Country Program Cambodia*, despite those challenges there have been some successes – not least with regard to the increasing recent role unions have played both in facilitating social dialogue and in influencing key legal processes (such as drafting the new Trade Union Law.)[165] Still, going forward, and in view of the rise in illegal strikes, there is a need for a maturing of the industrial labor relations environment process with a deeper use of alternative tools such as mediation and arbitration together with strengthened enforcement of labor laws, regulations, and agreements in force.

Overall, securing a viable future will require significant industry transformation over the medium term. In particular, GMAC will need to work closely with RGC to safeguard the sector's reputation as an "ethical" supplier – including through continued transparent monitoring of local factory and work conditions under the *Better Factories Cambodia* program. In addition, current efforts to establish a national TVET framework will also require close engagement between GMAC and RGC in order to ensure future training initiatives are able to meet both the current and future needs of the garment sector.

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

Cambodia's garment sector employed 372,988 workers in 2012, 90 percent of which were women.[166] As the garment sector is export dependent, employment levels, job security and future employment prospects are subject to external shocks – as witnessed during the global financial crisis when more than 75,000 job losses occurred in the garment sector during 2008-2009. These job losses accounted for more than 21 percent of sector's total workforce.

[164]Williams et al., *From Downturn to Recovery: Cambodia's Garment Sector in Transition*, Phnom Penh: ILO, 2011.
[165] ILO, *Decent Work Country Program Cambodia 2011-2015*, Phnom Penh: ILO, 2010.
[166] Better Factories Cambodia, *Twenty Ninth Synthesis Report on Working Conditions in Cambodia's Garment Sector*, Phnom Penh: ILO, 2013.

However, employment growth has averaged 10 percent per year since 2009 reflecting the sector's ability to recover and expand production and employment relatively quickly.

Impact on Development of Disadvantaged Regions

Given the garment sector's need to access urban infrastructure, trade linkages and large population centers for its workforce most factories are located around Phnom Penh or in Kandal Province.[167]Most women workers employed in garment factories come from rural provinces and a significant portion of their wages are remitted to support their families, hence distributing far beyond Phnom Penh and Kandal Province the benefits of income generated in the sector.

Contribution to Skill Development

Many garment factories are reluctant to invest heavily in skills and training due to concerns about high staff attrition rates and the cost associated with work time lost during training in the face of the unusually short Cambodian average work week (see Appendix to Chapter 17.) Nevertheless, the industry association GMAC does support efforts to promote skills development and assess workers against recognized criteria. For example, GMAC in collaboration with the ASEAN Federation of Textile Industries, has been supporting the development of an ASEAN Common Competency Standard and facilitating the certification of workers against the standard. The ASEAN Common Competency Standard covers five positions relevant to the garment sector: Sewing Machine Operator, Sewing Machine Supervisor, Sewing Machine Mechanic, Pattern Maker andMerchandiser.[168]

In addition, GMAC has taken a large loan to build and develop a training center to serve employers in the sector. This will include more advanced training programs such as pattern-making, industrial engineering and fashion. Cambodia has already had some success in developing the first ASEAN-standard training and certification program for pattern-makers with the aim of enhancing the capacity of the local sector to offer value-added services. The training program is administered jointly by GMAC and ASEAN Federation of Textile Industries, with the Garment Industry Productivity Center (GIPC) delivering the training with the support of the Cambodia Skills Development Center.

Pattern-making includes designing and producing sample garments for large-scale production – an activity that falls outside the basic CMT manufacturing model that is prevalent in Cambodia. An increase in the number of certified pattern-makers in Cambodia offers scope to reduce the overall production costs to local garment factories (which spend time and money relying on outside and head office directions relating to patterns), as well as enabling the sector to offer more services to the global garment value chain. Such an approach to industry-led training backed by regional competency standards serves as a useful model for similar initiatives to address the chronic shortage of skills across the garment sector.

While the development of regional competency standards support broader regional integration efforts and is intended to ensure sustained quality of training, Cambodia's reliance on foreign skilled labor in key

[167] World Bank, *Value Chain Study – Cambodia*, Phnom Penh:World Bank, 2012.
[168] GMAC Newsletter, *ASEAN Common Competency Certification Test*, Phnom Penh: GMAC, May 2010

*tech*nical and management positions weakens the local garmentsector's future. This highlights the importance of Cambodia implementing a national TVET framework thataddresses actual labor market needs, including at the technical and management levels, and works hand-in-hand with industry.

Energy and Water Constraints and Environmental Impact

The high cost of electricity undermines investment in Cambodia's garment sector and reduces its overall competitiveness in global garment value chain. Since 2009, the International Finance Corporation (IFC) has been collaborating with GMAC to improve energy efficiency in the Cambodian garment sector with a view to reducing costs and strengthen the industry's overall competitiveness.In particular, the IFC has worked with a team of technical experts toconduct energy audits in selected garment factories in order to identify key improvementsneeded to decrease energy consumption and improve production costs.[169]

Box 7.2: Skill Development

A skilled and dynamic workforce is critical to the future of Cambodia's garment sector. The 370,000+ strong workforce employed by garment factories in 2012 is both one of the sector's most important strengths and weaknesses. The relatively low-cost wage environment in Cambodia is a significant competitive advantage. However, the low labor productivity weighs on the sector's expansion and diversification objectives. Similarly, the over reliance on foreign labor in key technical and management positions weakens the sector's future as the industry know-how and expertise is essentially outsourced to migrant workers.

Given the sector's current state of development and structure, strengthening the provision of technical vocational education and training (TVET) should be a national priority. A national TVET framework is urgently needed and government and industry will need to collaborate to ensure competency-based skills and standards are adopted that meet the sector's needs. The Private Sector, however, cannot rely only on Government or international donors to drive TVET initiatives. It too must get involved.

As part of a national reform effort to enhance the vocational education and training sector, establishing industry-led (and co-funded) vocational training centers will be needed to address acute skills shortages across Cambodia's garment value chain. Where appropriate, these training initiatives should align with recently agreed ASEAN Common Competency Standards relevant to the sector – specifically for Sewing Machine Operator, Sewing Machine Supervisor, Sewing Machine Mechanic, Pattern Maker and Merchandiser positions.

Overall, strong public-private sector collaboration will be needed to address the critical skill and education needs of the garment sector. This will help improve Cambodia's labor productivity levels and, importantly, demonstrate the sector's capacity to shift along the value chain to produce more technically complex and demanding garments. Further, if the sector can maintain, or even improve, its reputation as a reliable, trusted and ethical supplier (through monitoring under the *Better Factories Cambodia* program) Cambodia will be well positioned to enhance its comparative advantages and secure the sector's future in an increasingly competitive global garment value chain.

[169] GMAC Newsletter, *Energy Efficiency in Cambodia Garment Industry*, Phnom Penh: GMAC, Feb 2011.

Box 7.3: Progress since 2007

Cambodia's garment sector has endured significant upheaval in the global economy over the 2007 to 2012 period. The global financial crisis of 2008-09 had a profound effect on manufacturing sectors worldwide. In Cambodia, garment exports declined almost 19 percent, only to recover quickly from 2010. Despite this disruption, total garment exports increased by more than 50 percent between 2007 and 2012 to more than $4.4 billion.

Further, the dynamics and flow of Cambodia's garment exports also started to shift during this period. The US market has seen its relative importance as an export destination decline as exports to the EU market surge following changes to the rules of origin for EBA treatment. While in 2007 the US and EU accounted for 70 percent and 22 percent of Cambodia's garment exports respectively, by 2012 the US market accounted for less than 45 percent and the EU accounted for almost 33 percent.

However, Cambodia's garment sector remains predominantly focused on simple CMT assembly activities which offer very thin profit margins to factory operators and relatively little in terms of value added contributions to the global garment value chain. While there are signs of an emerging textiles and fabric industry, a more strategic approach will be needed, backed by strong public-private sector collaboration to support industry development goals and help secure the future prosperity of Cambodia's garment industry.

Conclusion

The main findings from this chapter are summarized in the SWOT analysis that follows.

Strengths	Weaknesses
• Growth in garment sector a significant success story for Cambodia's recent economic development and trade integration efforts. • Workforce mostly women, with significant portion of wages remitted to support rural families. • With over 20 years of experience, Cambodia garment manufacturing has developed a reputation as relatively 'ethical' as a result of its "*Better Factories Cambodia*" program. • Growth in garment exports is driven by strong growth in basic apparel production volumes. • Focus on basic apparel production *partly* shields Cambodia garment sector from contractions in global economy compared to more volatile high-end garment trade. • Lead times for garment production are comparable to other competitors in the region. • Attractive FDI environment in Cambodia. • The principal export destinations are high-income North American and EU markets. • Low tariffs or tariff advantages on some items drive Cambodia's garment exports to US and EU markets. • Foreign investors provide industry know-how and expertise in international trade. • Industry and government support for long-standing *Better Factories Cambodia* gives international investors and buyers business confidence.	• Cambodia serves a small number of markets (US and EU mainly) with low value basic apparel. • Garment sector remains focused on simple low value 'cut-make-trim' (CMT) production with extremely thin profit margins. • Most garment factories (94%) are foreign owned with no Cambodian lead investors in the sector. • Most garment factories have little capacity to independently attract new orders or diversify. • Reliance on foreign labor in key technical and management positions weakens local industry's future (not in local hands.) • Little evidence of product diversification—the garments being exported today essentially the same as those exported in the mid-1990s. • Fabrics, threads, accessories and trim used in production of apparel exports are mostly imported resulting in lost value. • Cambodian garment worker productivity lags competitors in the region. • Highly mobile workforce discourages firms from investing in vocational training programs. • High cost electricity undermines efforts to shift garment production upstream (value-add). • Most factories have minimal investments in fixed assets and can easily relocate if operating costs are no longer competitive.
Opportunities	**Threats**
• Significant welfare benefits from sectors wage and employment growth aid poverty reduction goals. • Scope to increase profit margins and wages through production of higher valued garments. • Potential of linking 'Made in Cambodia' brand with relatively good labor laws and practices. • Improvements in the transit corridor linking the Phnom Penh & Vietnamese ports would shorten timeframes for importing fabrics and exporting garments—potentially attracting orders for higher value garments that necessitate faster turnarounds. • Additional savings in transit time could be achieved through reducing clearance times for imported fabrics and exported garments. • Industry-led vocational training centers would address acute skills shortages across supply chain. • Scope to incorporate Cambodian garment production into regional supply chain for higher value products.	• Myanmar could emerge as a lower-cost garment production center in next 5 years. • Rising costs of production (wages & energy). • Withdrawal of main foreign investors would have a profound and adverse impact on national income and rural livelihoods. • Pace of the Cambodian garment sectors' growth mirrors the pace at which the sector could decline—as seen in contraction of 2008-09. • High cost of capital and financial stress discourages the few locally owned factories from expanding production or shifting upstream. • Strong competition from larger basic apparel exporters such Vietnam, Bangladesh, China, and India that offer economies of scale. • Preference erosion in key export markets. • Inability to diversify products or export markets. • Reluctance of local investors to enter the sector. • Instabilityfrom labor disputes.

Recommendations

While, Cambodia's garment sector has recovered well from the difficulties of the global financial crisis the impact of the downturn on both factories and employees has served to highlight the sector's vulnerability to external shocks. Diversification of export markets and the type of garment produced will be needed to help the sector create a buffer against future downturns. This will require significant public-private sector collaboration and a strategic approach to sector development. The aim should be for Cambodia to follow in the footsteps of the major international garment producing countries of the past – such as China, Singapore, Hong Kong, and Japan – who have shifted along the value chain as lower cost competitors emerged.

While Cambodia's main competitive advantages – namely low cost labor and reputation built around labor compliance – are not yet under threat, it is important to lay down the foundations to secure the sector's future. This will need to include significant investment in vocational training and education programs to support value-adding, as well as the establishment of domestic support industries able to supply, at least in part, some of the components and inputs to the garment sector.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #7.

Chapter 8

FOOTWEAR

For purpose of CTIS 2014-2018, data for footwear exports are drawn from Comtrade statistics using the HS 64 (Harmonized Commodity Description and Coding System) category. Measurement of inputs for production process is based on HS 6406 (*Part of footwear; removable in-soles, heel cushion etc.; gaiter etc.*) and part of HS 41 (leather). It is not possible to assess exactly what share of leather (category HS41) imports is dedicated specifically to footwear production, though considering Cambodia's export industry and domestic market, it is assumed that a large share of that category imports is dedicated to the footwear industry in Cambodia. Comtrade statistics are used in the chapter up to 2011. There appears to be a glitch in 2012 data. Limited reference to 2012 is based on Certificate of Origin data collected by MoC and GMAC.[170]

Footwear exports contributed to slightly over 7 percent of Cambodia's recorded manufacturing exports in 2012. Cambodia's footwear exports concentrate on leather shoes, though textile and rubber shoes exports have increased significantly over the last few years. Only seven out of 47 footwear factories (15 percent) are located in SEZs.[171] However most of them have received the status of Qualified Investment Projects (QIP) with similar investment incentives as those available in SEZs.[172]

Most Cambodian footwear producers are concentrating on final assembly of shoes from parts (at a minimum, uppers and soles) that have been cut and sewn in neighboring countries or, even, in Cambodia. Under the EBA's rules of origins, footwear whose final assembly has taken place in Cambodia benefit from duty free access to European markets. This is so as long asit is not produced from imported parts that include uppers and soles that have been sewn together outside Cambodia.

An important part of the development of a footwear industry is establishing close proximity between the assembly factories and supporting industries, such as tanneries, synthetic leather suppliers, mold makers, chemical suppliers, and machinery repair operators. At the current stage, Cambodia has to import most of these inputs, including raw material such as leather, production input such as chemicals, and intermediate components such as soles.

Supporting industries to footwear manufacturers do not typically move to a new production country until the footwear industry is well established and has reached a significant scale. Some of the supporting industries are beginning to move to Cambodia: machinery suppliers, chemical suppliers, and tool and die repairers. Still, because of the expense of setting up machinery and production in a new country, because of high capacity in Vietnam, and because of the proximity of the cluster of Cambodian footwear factories to the Vietnamese border (more on this later), large materials suppliers continue to produce inputs in

[170] See discussion in Garments Chapter. Exporters of Garments and Footwear need a CO to export irrespective of destination market.
[171] GMAC data and data from Survey of SEZs carried out as part of *CTIS 2014-2018*
[172] See chapter 9 for discussion of investment incentives

Vietnam and shipthose to Cambodia.

Cambodian Footwear Export Performance

Export Value and Trade Balance

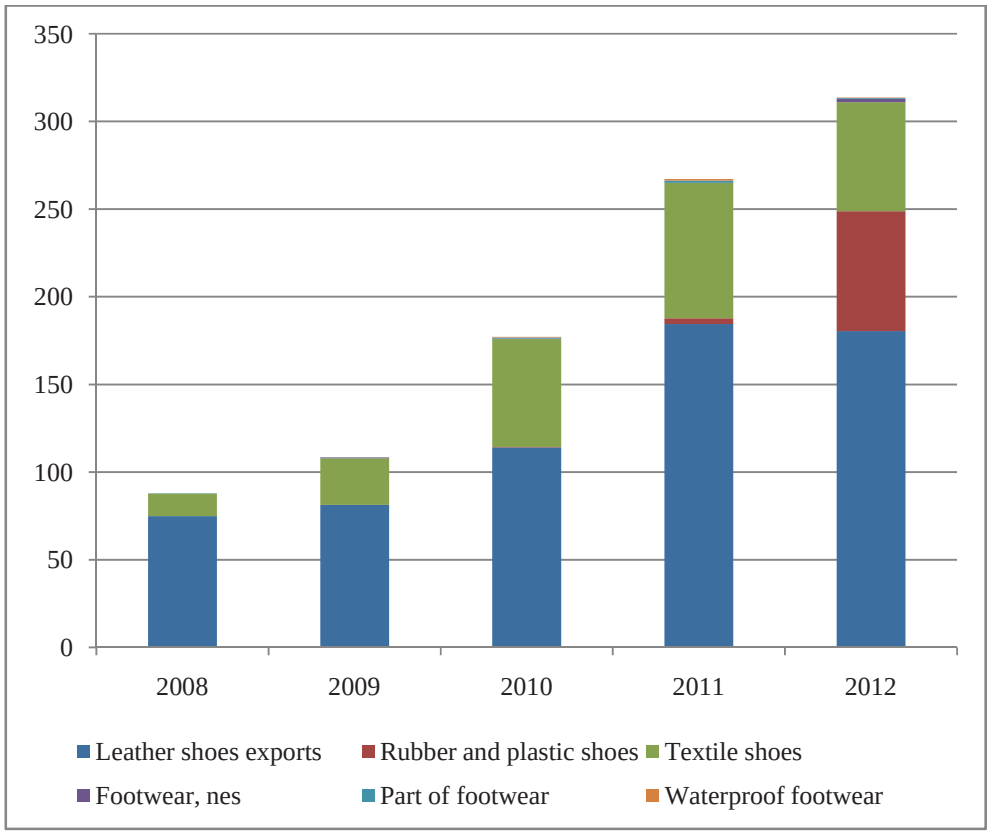
Total footwear exports in Cambodia were almost $311 million in 2012, up from approximately $270 million in 2011 and $88 million in 2008.[173]This represents a nearly250 percent increase since 2008 or an annual average growth of almost 40 percent (Figure 8.1.) Over the same 2008-2012 period, imports of footwear increased by nearly the same amount (413 percent) to reach around $50 million in 2012.Cambodia's trade balance for footwear products is therefore largely positive, with a net trade surplus of more than $250 million in footwear product.

Sihanoukville seaport is the main export terminal for footwear products. However, some footwear factories in Svay Rieng province may export their products through Saigon port in Vietnam due to proximity. There might be some unrecorded exports originating from manufacturing plants near the Vietnamese border and shipped out of Vietnam but those are impossible to estimate.

Footwear exports represented slightly less that 7 percent of Cambodia's total recorded goods exports in 2011, while it represented only 2 percent in 2008. Footwear was Cambodia's second largest recorded goods exports in 2012, after articles of apparel (knit or no knit) but has grown much faster over the 2008-2012 period. The increasing importance of footwear in Cambodia's export basket is based on the sustained strength of its leather shoe exports, combined with new production in plastic/rubber and textile shoes.

[173]2008 to 2011 data are from Comtrade. Comtrade mirror data are roughly consistent with GDCE and MOC data through 2011. 2012 data is from MOC. As indicated earlier, 2012 Comtrade mirror data appears widely inaccurate and is not used here.

Figure 8.1: Cambodia Footwear Exports, 2008-2011 ($ millions)



Source: Comtrade

Type of Exports

Key footwear exports in 2012 included principally:

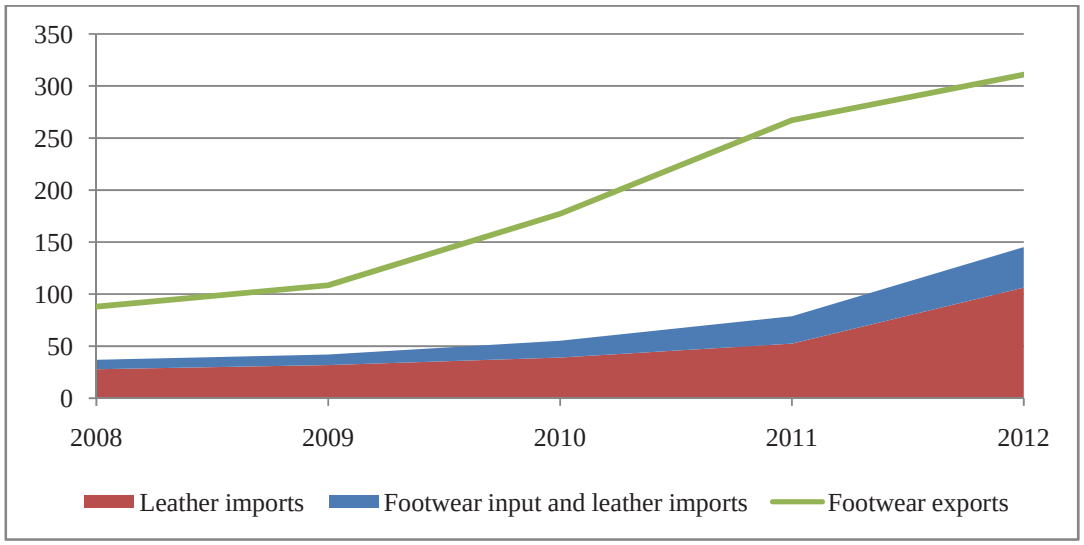
- leather shoes approximately $180 million (about 58 percent of exports);
- textile shoes approximately $70 million (about 23 percent); and,
- rubber and plastic shoes for the balance or approximately $60 million (about 19 percent.)

In 2012, the Cambodian footwear industry remained concentrated in leather shoe production, which represented approximately 65 percent of all footwear exports. However, both textile and rubber footwear exports have increased even faster than leather footwear exports over the last few years suggesting that there is significant diversification under way.Textile footwear exports increased by nearly 90 percent annually between 2008 and 2011. Rubber footwear exports increased even faster. Cambodia did not export rubber footwear before 2009. Continued strong investment by footwear firms drives technology transfer that can support further diversification of Cambodia's footwear exports, for example with an increase in the production of shoes with textile uppers that can result in 50 percent higher FOB value.

Cambodian footwear manufacturers must import most of the leather and other footwear components they need for production. Local suppliers do not have the capacity to meet exporters' demand and to match the pace of production increase. With very rapid growth in exports of finished products, import of leather, textile, and rubber components have increased exponentially over the last few years. Unfortunately, the different components cannot be separated out from the available Comtrade data. One might assume, however, that imports of textile and rubber component have grown even more rapidly than imports of leather to match the shifting trend in the composition of exports.

The faster growth in exports of finished footwear compared to growth in imports of components, suggests that Cambodia is capturing a larger part of the value added in the production process.

Figure 8.2: Cambodia Footwear Imports and Exports, 2008-2011 ($ millions)



Source: Comtrade

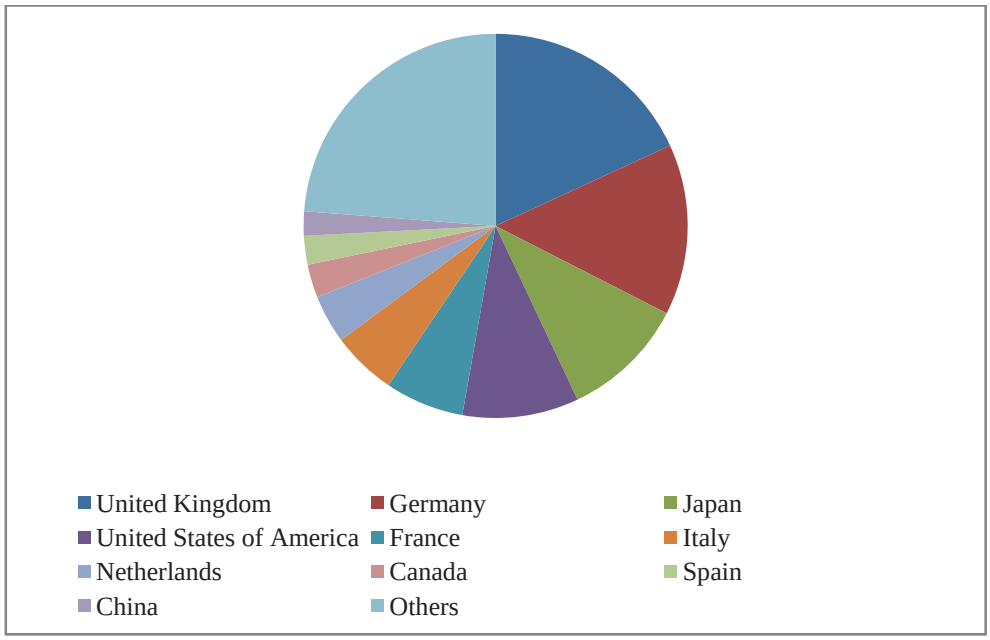
Current and Prospective Export Markets

Cambodia's key export markets for footwear include the UK, for almost $50 million (18.5 percent of Cambodia's total footwear exports) in 2011, Germany for almost $40 million (15 percent) and Japan for almost $30 million (11 percent.) The US is the fourth largest market (9.5 percent) followed by France.

European markets attract most of Cambodia's footwear exports largely because of duty free access under EBA as explained earlier. After the EU as a regional market, Japan is the second largest export market due to a similar duty-free advantage available from the Free Trade Agreement between Japan and ASEAN countries. The current concentration on the EU, Japanese and US markets could be seen as a potential future risk. However, the share of exports to markets other than the three aforementioned has increased from approximately 7 percent to nearly 26 percent between 2008 and 2012.[174] Continued diversification of destination markets should be encouraged.

[174] GMAC data

Figure 8.3: Key Markets for Cambodia Footwear Exports, 2011



Source: Comtrade

Table 8.1: World Footwear Imports and Cambodia Major Export Destinations, 2012

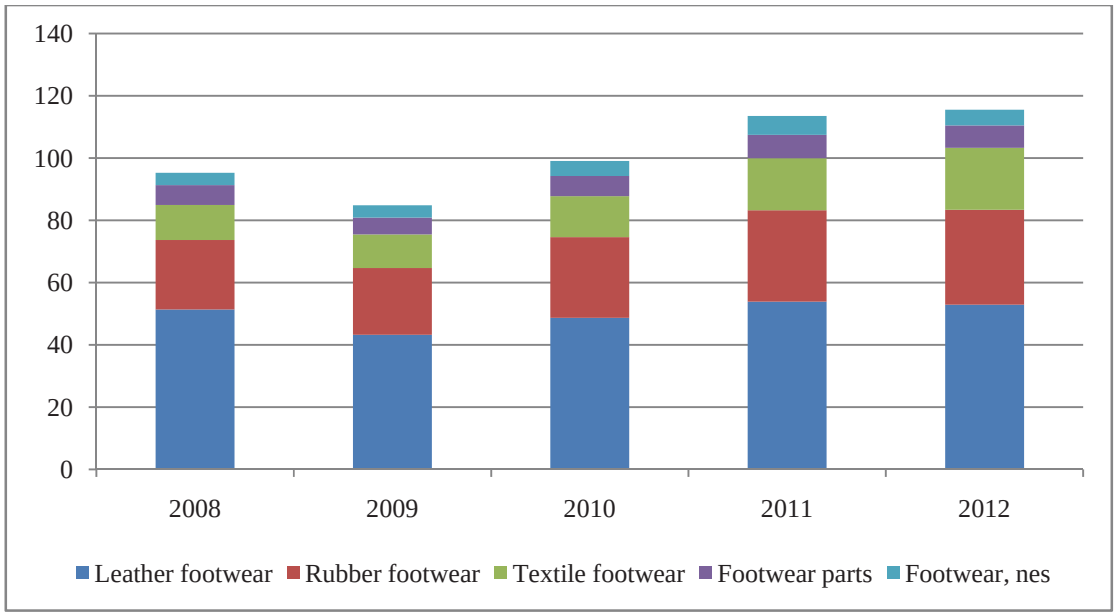
Product	World Market Imports	Cambodia's Exports as share of World Imports	World's Largest Import Markets as Share of World Imports	Cambodia's Largest Export Destinations as Share of Total (2011 data)
Footwear	$117.6 billions	0.72 percent	USA (21 percent) Germany (8 percent) France (6 percent)	UK (18 percent) Germany (14 percent) Japan (10 percent)
Leather footwear	$52.9 billions	0.92 percent	USA (23 percent) Germany (8 percent) France (7 percent)	UK (22 percent) Germany (18 percent) Japan (13 percent)
Rubber footwear	$30.5 billions	0.60 percent	USA (23 percent) Japan (8 percent) Germany (6 percent)	Japan (15 percent) Germany (11 percent) France (9 percent
Textile footwear	$19.9 billions	0.83 percent	USA (20 percent) Germany (7 percent) Japan (7 percent)	USA (20 percent) France (10 percent) UK (9 percent)

Source: Comtrade

World Market Conditions

Global footwear trade reached almost $120 billion in 2012, with more than 20 percent growth since 2008, including around $50 billion worth of leather shoes and $30 billion worth of rubber footwear. Footwear represented 0.65 percent of total global trade in 2012, which is slightly more than in 2008 when it represented 0.59 percent.

Figure 8.4: Global Footwear Trade by Type of Products ($ billion, 2012)



Source: Comtrade

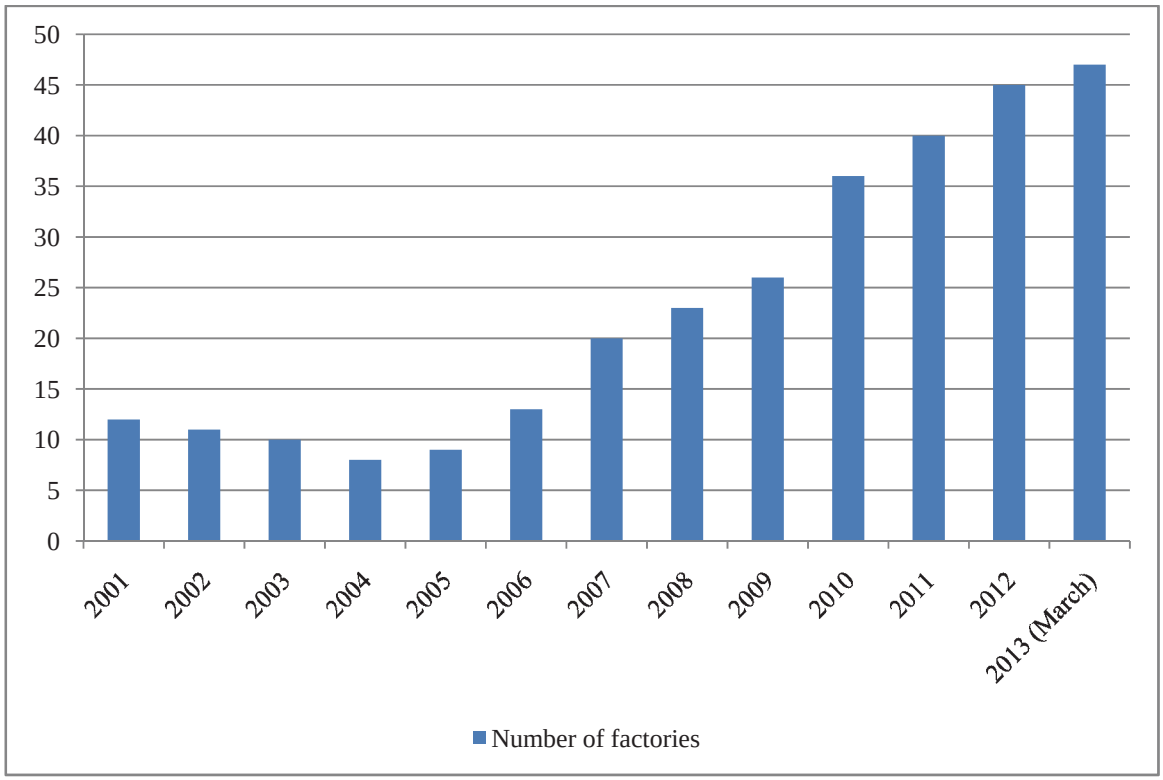
Cambodia's share of the global footwear market has been growing steadily over the 2008-2012 period, increasing from 0.09 percent in 2008 to 0.72 percent in 2012. In comparison, Cambodia's share of total global trade was 0.048 percent in 2012 and its share of global GDP was 0.044 percent, which suggests that Cambodia is very competitive in the global market for footwear. Cambodia's competitiveness in footwear is particularly obvious for leather, for which it went from a share of 0.15 percent of the world market in 2008 to 0.92 percent in 2012, textile, for which it went from 0.11 percent to 0.83 percent of the world market, and rubber, for which it went from no export at all to 0.60 percent of the world market.

Domestic Supply Conditions

Footwear Manufacturers in Cambodia

According to the Garment Manufacturing Association of Cambodia (GMAC), there were 47 footwear factories in Cambodia the end of March 2013 compared to 20 in 2007, and 10 in 2003.[175] Duty-free and quota free shipping to all EU countries and Japan along with rising wages in Vietnam and China have been the key drivers in the growth in the number of footwear factories opening in Cambodia. The pace of growth in the number of factories has been increasing in recent years, with the average annual growth in factory number reaching 18 percent between 2008 and 2012, compared with 9 percent between 2001 and 2007.

Figure 8.5: Number of Footwear Factories in Cambodia, 2001-2013



Source: GMAC

Footwear factories are either organized as *contract manufacturers* or as *vendor factories*. Vendor factories are locally incorporated production units of foreign corporations. They are directly managed by their overseas headquarters, which allocate orders to factories across the region according to capability, capacity and cost structure. Contract manufacturers are stand-alone factories that produce finished products according to specifications provided by buyers. They compete for production contracts and

[175]GMAC, *Consolidated Data for Garment and Textile Exports*, Phnom Penh: GMAC, 2013

procure themselves most of the required production input. In addition to these two types of factories in Cambodia, a number of domestic firms provide support services into the footwear production process, such as dying, trimming and packaging.

According to GMAC, a vast majority of Cambodia's footwear manufacturers are export-oriented factories organized as vendor factories. Their production is driven by direct orders from international buyers. Raw materials used in the production process, such as leather, are mostly imported from neighboring countries or from parent firms located in ASEAN, China, and Hong Kong. The limited number of large factories and the limited access to local outsourcing and production input constrain the development of the footwear industry in Cambodia.

Contract manufacturers are limited to a few domestic firms identified as sub-contractor factories that help vendor factories deal with excessive orders or timelines. Sub-contractor factories are also involved in services to footwear producers, such as dying and trimming.

Most of the raw materials used in the production process are sourced from within the region, with Cambodia having little ready capacity to meet the rapidly increasing input requirements of the footwear sector. In the case of vendor factories, the sourcing of inputs is usually arranged by the parent company, as these international companies can take advantage of their size and networks to optimize the supply process. In most cases, the parent company has long-standing relationships with their suppliers, often located in the same country, in which case the parent company usually purchases the inputs on FOB terms before arranging their delivery to the footwear factory in Cambodia.

Cambodian footwear factories working as contract manufacturers cannot rely in the same way on an international partner to facilitate their access to production inputs. They are therefore at a disadvantage in sourcing inputs because they do not have the same bulk purchase capacity and international networks that the international parent company of vendor factories can provide. Access to production input tends to be more expensive for contract manufacturers, with most inputs purchased C&F and shipped by the supplier.

Vendor factories sell their products to brand manufacturers, wholesalers, and retail chains, while contract manufacturers sell primarily to wholesalers and buying agents.

Footwear Production Process

As noted in the introduction, most footwear factories in Cambodia produce shoes by assembling the different parts of the shoe through cutting, sewing, and stitching according to buyers' orders. Input to the production process and raw material include leather, synthesis, plastic, glue, stitching material and others. Overall, vendor factories in Cambodia have minimal control on inbound and outbound supply chains, no control on design, and, consequently, limited opportunities to increase the value of finished goods.

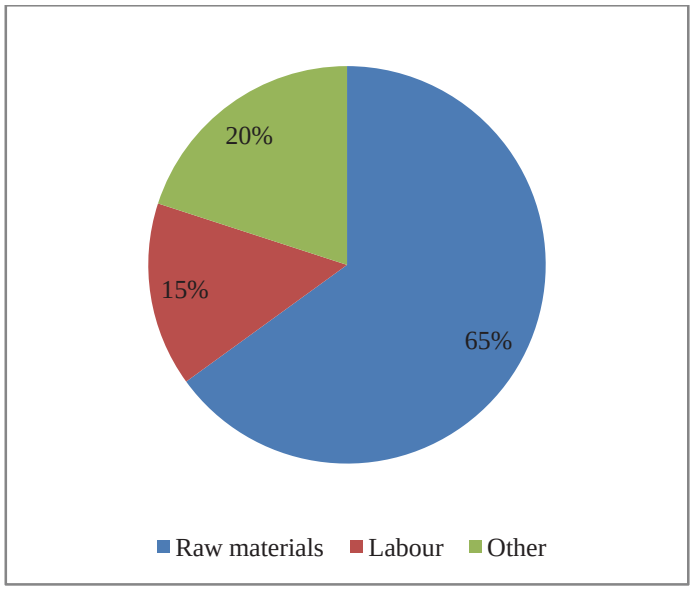
The vendor factory has minimal control over its inbound and outbound supply chains. The parent company headquarters manages everything from sourcing of inputs and managing contacts with buyers to product design, marketing, and finance. The factory arranges the logistics for movement between factory gate and the forwarder's warehouse or loading port. Interactions between factory and buyers are

normally limited to an exchange of samples. As a result, the factory has limited opportunities to increase the value of its finished goods. Production of higher value footwear may be decided by the parent company headquarters once the vendor company has demonstrated its capability in terms of productivity and quality control.

Contract manufacturers have a greater control over their supply chains. They are involved in sourcing inputs, developing basic designs, obtaining export financing, and arranging local logistics. The marketing and branding of the products is still done by the buyers, which means that Cambodian manufacturers have no direct interaction with the final consumer market.

According to Better Factory Cambodia (BFC) most of the production costs of footwear are associated with raw materials (65 percent in 2011.) Since Cambodia imports a large part of these raw materials, it has little control over its costs. Labor represents only 15 percent of production costs, though increase in wages and worker demands have been mentioned has a key concern by some of the footwear manufacturers interviewed. The high price and poor reliability of electricity handicap footwear factories.

Figure 8.6: Distribution of Production Costs in the Cambodian Footwear Industry, 2011



Source: Better Factory Cambodia

To reduce the costs associated with raw materials and other inputs and to improve its competitiveness, the Cambodian footwear industry needs to drive the development of a domestic supply capacity, either for raw materials or for services, and reduce other costs (trade logistics, utilities, etc.)

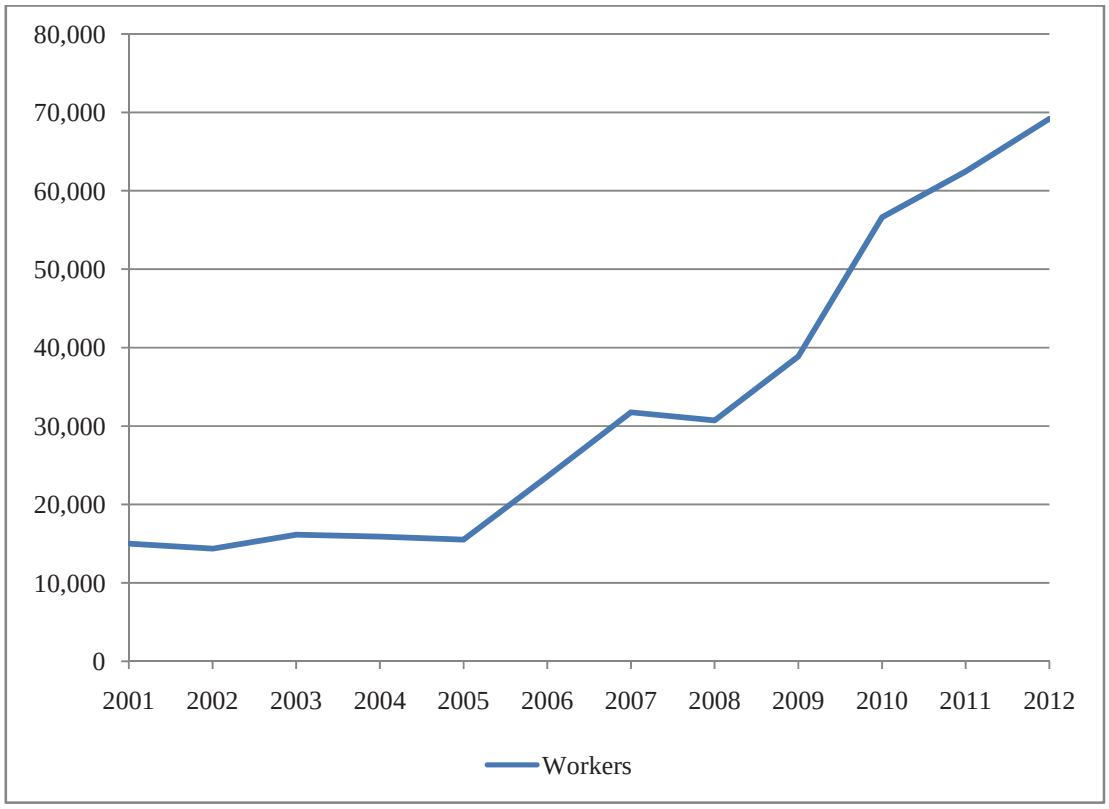
The lowering of production costs associated with raw materials and services is important to maintain Cambodia' relative competitiveness as labor costs increase. Increase in labor costs should be expected if the sector hires more skilled workers in order to diversify and up-skill production, which in turns increase flow on benefits to the local economy.

Cambodia has the capacity to develop certain shoe parts and materials (e.g. tanning) in the vicinity of processing plants leading to clustering among contract manufacturers in particular. It also has the capacity to source raw material such as rubber or leather from domestic producers. However, investment in supporting industries typically does not occur until the sector has reached a critical mass. Cambodia is likely very close to that point. Indeed, some supporting industries are starting to move to Cambodia: machinery suppliers, chemical suppliers and tool and die repairers. However, because of the expense of setting up machinery and production in a new country, high production capacity for inputs in Vietnam, and the cluster of Cambodian footwear factories close to the Vietnamese border, many large materials suppliers continue to operate in Vietnam and ship materials to Cambodia.

Labor Force

The footwear sector was estimated to provide 69,184 direct jobs in 2012, up from approximately 32,000 in 2007, with wages comparable to those of the garment sector.

Figure 8.6: Employment in the Footwear Industry in Cambodia, 2001-2012



Source: GMAC

The pace of growth in employment in the footwear sector has increased in recent years, with average annual employment growth reaching 23 percent between 2008 and 2012, compared with 13 percent between 2001 and 2007.

According to GMAC, nearly all workers in footwear factories were Cambodian in 2011, though 19 percent of the administrative and management staff was foreigners, often at the higher levels of management.

Regional Production Chains

Footwear production is characterized by a large number of components and processes, allowing for a division of labor across ASEAN countries. Low and diminishing profit margin for low and medium quality footwear production drives international investors to search for cost savings, in particular through labor cost reduction. Thus far, Cambodia has been capturing the labor-intensive, low-technology part of the process due to availability of low skilled labor. Rising labor costs in China, Thailand, and Vietnam have favored relocation of production to Cambodia where labor costs remain low in comparison.

Geographical proximity to other stages of the footwear production chain, in Thailand and Vietnam, has also been a key advantage for Cambodia. In addition, relocation to Cambodia has been further facilitated by the desire of footwear producers to benefit from the country's duty free access with lenient rules of origin to the European Union and a number of developed markets. However, the relative fading of Cambodia's preferential tariff access combined with the softening in international rules of origin could reduce Cambodia's regional competitiveness. In addition, the end of European anti-dumping measures against Chinese and Vietnamese footwear exporters might lead investors to return to those locations where they benefit from better productivity, better infrastructure, local input supply, and bigger economies of scale.

Cambodia's weak transport infrastructure compared to that of its neighbors (Thailand, Vietnam, China) hinders its competitiveness, in particular its capacity to meet particularly footwear orders particularly large or under strict time pressure. Overall, these observations point to the need for Cambodia to develop domestic clusters of suppliers and to try to move up the skill ladder in order to retain its regional competitiveness.

Box 8.1: Footwear Production in the ASEAN Region

Footwear production is characterized by a large number of components and processes, allowing for a division of labor across ASEAN countries. This division means that raw materials, shoe components, and final footwear are produced in different parts of Asia. Low and diminishing profit margin for low and medium quality footwear production drives international investors to search for cost savings, in particular through labor cost reduction, which has led to a partial reorganization of the footwear production chain across ASEAN, partly in Cambodia's favor.

Taiwan, Thailand, Vietnam, and China all export significant amount of leather, some of which is being used in the region to produce footwear. Similarly, the rubber used in the regional footwear production comes principally from China, South Korea, Thailand, Vietnam, Singapore, and Malaysia, while cotton and textile comes from China, Bangladesh, Vietnam, Thailand, and Indonesia. These raw materials can be first turned into shoe components before being re-exported or can be exported directly to footwear factories in the region.

Cambodia is the third largest footwear exporter in the ASEAN region. The largest producer of footwear in

the region is Vietnam. China is the world largest footwear producer in the world, and a lot of the ASEAN chain of production in the footwear sector is organized around those two countries. For example, many Cambodian footwear factories are smaller scale operations that take on side work from bigger Vietnamese factories when the latter deal with order to large for their own capacity.

Higher labor costs and shortage of workers domestically have encouraged traditional ASEAN footwear producers to invest in countries offering cheaper workforce, which has led to a switch in production across the ASEAN region. In this context, geographical proximity is a key driver of the organization of footwear production in the region, with Cambodia benefitting from its proximity with Vietnam. Because of the expense of setting up machinery and production in a new country, the high capacity in Vietnam, and the cluster of Cambodian footwear factories close to the Vietnamese border, large materials suppliers are currently operating out of Vietnam and elsewhere, and transporting materials to Cambodia to service the local footwear industry.

ASEAN footwear producers exports mainly to the USA and the EU, particularly Germany, the UK, France, and Italy, as well as to Japan, Singapore, and Hong Kong. With weakening demand and increased competition in some of these traditional developed markets, footwear producers in the ASEAN have started looking regionally to sell their products within the Asian region. Thai producers, for example, have been increasing their exports to Myanmar and China. China has become a significant importer of Cambodian's finished footwear and is now its tenth market for footwear exports.

Revealed Comparative Advantage and Potential Areas for Expansion

A method used to assess the comparative advantage of a given export item is the « revealed comparative advantage analysis » (RCA.) It allows determining what export items a country is more specialized and more successful in a global context, which, all things being equal, suggest a comparative advantage internationally for the said items.

The RCA is calculated as follow:

$$\text{RCA Index for item X of country A} = \frac{\dfrac{\text{Export value of item X of country A}}{\text{Total export value of country A}}}{\dfrac{\text{Export value of item X in world}}{\text{Total export value in world}}}$$

A RCA of 1 suggests no specific comparative advantage as such; Above 1, that the exporting country is globally competitive in producing and exporting the given item; Below 1, that the exporting country is not globally competitive in the given item, though it can still be competitive at a regional level or in the context of a chain of production. In any case, the highest the RCA index is, the more competitive in a given item the exporting country is revealed to be.

RCA indexes for potential key export items of Cambodia are calculated as follows:

Table 8.2: RCA Index for Cambodia's Footwear Exports 2012				
Year	**Footwear**	**Leather Footwear**	**Rubber Footwear**	**Textile Footwear**
2008	3.42	5.49	0.00	4.27
2012	15.01	19.31	12.62	17.34
Source: Comtrade				

While it appears that, by 2008, Cambodia was already strongly competitive in footwear exports, especially for leather and textile footwear (it was not exporting any rubber footwear), it has gained and captured significant market share over the following four years. Cambodia's RCA increased by a factor of four, more or less, in all categories of footwear between 2008 and 2012, to reach 15.01 in all footwear, 19.41 in leather footwear, 17.34 in textile footwear and an impressive 12.62 in textile footwear (starting from nothing in 2008.) The rapid rise in these RCA indexes suggests a growing concentration of footwear production in Cambodia, with regional production being switched to the country from neighboring producers.

The development of a critical mass of suppliers, both for raw materials and services, to the footwear industry, associated with the development of competitive infrastructure and the improvement of workers' skills, is key to drive further the improvement of Cambodia's international competitiveness and to secure its share of the global markets. The concentration of firms in the footwear industry has allowed for productivity gains and economies of scale that have translated into rising RCA indexes. The global competitiveness of Cambodia's garment industry with the relative transferability of workers and service providers has supported the growth in the competitiveness of the footwear industry.

The Domestic Regulatory and Infrastructure Environment

Policy Incentives for Footwear Exports in Cambodia

Footwear companies in Cambodia benefits from a favorable investment environment with special tax incentive when recognized as Qualified Investment Project or located in SEZs.

In addition, footwear manufacturers and companies servicing the footwear industry benefit from a number of tax incentives to facilitate their exports. According to Prakas No. 298 of the Ministry of Economy and Finance issued in 2005, these companies are exempted of VAT on imported production input and equipment. Furthermore, the temporary suspension of the monthly Advance Profit Tax of garment and footwear enterprises approved by Prakas No. 483 of the Ministry of Economy and Finance dated May 29, 2009 (on Validity Extension of Suspension of Advance Profit Tax of Garment and Footwear Enterprises of the Ministry of Economy and Finance) will remain valid for three more years until the end of 2015.

Besides these tax incentives supporting directly the footwear industry, the Cambodian Government has more general policies to attract foreign direct investment presented in chapter 5 of this report. Some of these investments supportive schemes are particularly relevant for footwear production in Cambodia, such as a number of tax holidays, the absence of restriction on funds transfer, or the absence of exchange controls.

Industry Organizations

A number of organizations are supporting the footwear industry in Cambodia:

- The Garment Manufacturing Association in Cambodia (GMAC) is the main organization representing the interest of footwear industry in Cambodia. While its main role is in the garment sector, it has been increasingly involved in supporting the footwear sector, in particular since the Footwear Orders Center of Cambodia (FOCC) stopped its activity last year. GMAC collects information about all factories involved in garment and footwear production, including address and contact, type of products, number of workers and nationality of owners. GMAC also produces research on the footwear and garment industries and it offers training to management and workers in the two sectors. Contrary to some of its activities for the garment industry, GMAC does not organize promotional activities and overseas promotion trip for the Cambodian footwear sector.
- The Footwear Orders Center of Cambodia (FOCC) was established to provide supports to all international footwear buyers and all footwear factories in Cambodia and to promote new export opportunities in overseas markets such as the USA, the UK, Europe and Japan. However FOCC stopped its activities a year ago.
- Better Factories Cambodia (BFC) is a program of the International Labor Organization that assesses and reports on working conditions in Cambodian garment and footwear factories according to national and international standards. BFC helps factories improve their working conditions and productivity. It works with the Cambodian Government, GMAC, trade unions and international buyers to ensure transparent workforce condition improvement. BFC is managed by the International Labor Organization.
- The Cambodia's Arbitration Council is an alternative dispute resolution tribunal responsible for addressing claims of labor rights violations and workplace disputes through direct engagement of workers and employers. In 2012, the Council heard about 230 collective labor disputes in the garment and footwear industry.
- Interestingly, the footwear industry in Cambodia does not have its own representative body. At present, its private sector representation is bundled with garment in GMAC, with most of the focus of the organization’s activities on garment production and exports. This may limit the resources and effectiveness of the representation provided to footwear exporters. Alternatively, GMAC could increase its support to promotion and lobbying activities on behalf of the sector.

Socio-Economic and Environmental Impacts of Footwear Manufacturing

Employment and Working Conditions

Footwear factories in Cambodia range in size from 200 employees up to 5,000, with a national average of 1,200 workers. Over 90 percent of these footwear factory workers are female (62,700 workers out of 64,200 in 2012). Total employment in the sector has increased by almost 450 percent in the last 10 years, and more than doubled time since 2008.

Several labor and trade unions are protecting workers' interests in garment and footwear factories in Cambodia. Labor unrest has been taken place periodically in certain areas (such as on the Vietnamese border), as workers ask for better working conditions and higher wages. This has been mentioned as a concern by foreign footwear investors.

With more than 90 percent of its workforce female, the footwear industry significantly empowers female to formally participate to the economy. A large share of women is young unmarried females who have migrated to Phnom Penh and neighboring provinces from rural areas. They receive higher wages than rural jobs can offer, which converts into extra income for their families through remittances. The high participation of women in footwear sector can be linked to a couple of Cambodia's Millennium Development Goals (MDGs), namely eliminating gender disparities in all economic sectors and reducing poverty in rural areas. However, this predominance of female workers in the industry also reflects a certain degree of discrimination toward male workers with certain job announcements only referring to females or with male workers being offered only short term contracts compared with unlimited duration contracts for female workers.

Child labor can be an issue, as almost 55 percent of footwear factories surveyed by the BCF in 2012 were found to not use reliable documents to verify applicants' age prior to hiring, with altered documentation or age-verification documents borrowed from family and friends.

Health and safety issues are a recurring concern as accidents and casualties in footwear factories are regularly reported in the news. Another concern is the potential for workers to be exposed to hazardous chemicals through both inhalation and dermal routes, with BCF trying to monitor the health risk it represents. In a 2012 survey, it found that more than 55 percent of the companies inspected did not have the proper chemical safety solutions in place. Almost 90 percent of them did not provide adequate safety equipment to their staff.

Regional Impact

Most of Cambodia's footwear factories are located in Phnom Penh (26 factories, or 55 percent of total) and in the neighboring areas of Kampong Speu (6 factories or 12 percent), Kandal (4 factories or 8 percent). Phnom Penh is shown in yellow in the map below, Kampong Speu in red and Kandal in green.

Map 8.1: Location of Footwear Factories in Cambodia, 2013



Source: GMAC
Note: Principal locations shown in yellow (Phnom Penh), red (Kampong Speu), and green (Kandal)

Environmental Impact

The environmental impact of certain activities associated with the sector (e.g. tanning) poses significant environmental challenges through the pollution of water and has yet to be managed properly. Areas of potential pollution associated with the footwear production are associated predominantly with chemical processes involved in the production of shoe materials, such as leather, synthetic materials and textiles, and with issues relating to the return of extracted waste water.

Little information is available regarding the real environmental impact of this industry and more research is necessary in that field. These social and environmental risks associated with certain parts of the footwear production process (tanning) are currently monitored poorly in Cambodia.

Some operators suggest that the absence of environmental regulationsmake it difficult for investors to estimate the possible future cost of certain operations in Cambodia.

Footwear factories are relatively heavy consumer of electricity and are thus relying on power provided by public utilities, with few of them having their own generators.

Conclusion

Information analyzed and reviewed in this chapter can be summarized in the SWOT table that follows.

Strengths	Weaknesses
• Cambodia's low-cost, low-skilled workforce is particularly attractive for footwear production which is labor-intensive and not complex. • Geographical proximity to other stages of the footwear production chain, in Thailand and Vietnam, facilitates the integration of the Cambodian footwear industry in regional production networks. • Cambodia has a limited number of large vendor factories with modern equipment, with relatively high productivity. • Favorable investment environment for footwear companies benefitting from the Qualified Investment Project status or located in SEZs. • Cambodia enjoys duty free access to the E.U. and selected other markets, with lenient rules of origin	• Low skilled workforce and low productivity are limiting the relocation of more complex stages of footwear production in Cambodia. • The Cambodian footwear industry is concentrated in leather shoe production. • The Cambodian footwear industry depends almost exclusively on imported materials for its production. • The high price and poor reliability of electricity handicap footwear factories. • Cambodia's weak transport infrastructure compared to that of its neighbors (Thailand, Vietnam, China) hinders its competitiveness. • The limited number of large factories and the limited access to local outsourcing constrain the development of the footwear industry in Cambodia. • Factories in Cambodia have minimal control on inbound and outbound supply chains, no control on design, and, consequently, limited opportunities to increase the value of finished goods. • The footwear industry in Cambodia does not have its own representative body. At present, its private sector representation is bundled with garment in GMAC.

Opportunities	Threats
• Rising labor costs in China, Thailand, and Vietnam favors relocation of production to Cambodia. • Footwear production is characterized by a large number of components and processes, allowing for a division of labor across ASEAN countries. Cambodia can easily capture the labor-intensive, low-technology part of the process. • Cambodia has the capacity to develop certain shoe parts and materials (e.g. for tanning) in the vicinity of processing plants leading to clustering among contract manufacturers in particular. • Rubber can be sourced locally to feed in the footwear production process. • Continued strong investment by footwear firms drives technology transfer that can support diversification of Cambodia's footwear exports, for example with an increase in the production of shoes with textile uppers that can result in 50 percent higher FOB value. • Low and diminishing profit margin for low and medium quality footwear production drives international investors to search for cost savings, in particular through labor cost reduction.	• The softening formulation of international rules of origin can reduce the share of the footwear production process actually taking place in Cambodia. • The end of European anti-dumping measures against Chinese and Vietnamese footwear exporters might lead investors to return to those locations where they benefit from better productivity, better infrastructure, local input supply, and bigger economies of scale. • The relative fading of Cambodia's preferential tariff access as a result of a general reduction of tariffs on footwear can reduce its regional competitiveness. • Cambodia's exports of final footwear products are dependent on a limited number of markets (nearly 60 percent to its 4 largest markets). • Low and diminishing profit margin for footwear production limits investor's capacity to provide training programs for workers. • Social and environmental risks associated with certain parts of the footwear production process (tanning) are monitored poorly currently in Cambodia. • Increases in Cambodian wages for skilled workers are necessary to diversify and up-skill production, which in turns reduce Cambodia's main competitive advantage. • Labor unrest in large footwear factories disturbs production

Recommendations

Cambodia's footwear industry seems to be following in the footsteps of the garment sector. Strong growth in the industry reflects a shift in production from neighboring countries to take advantage of low labor cost and Cambodia's duty-free access to the EU. As wages increase further in China, Thailand, and Vietnam and as finding workers for footwear production in these countries becomes increasing difficult, more investors might set up factories in Cambodia.

Footwear production is characterized by a large number of components and processes, allowing for a division of labor across ASEAN countries. Low and diminishing profit margin for low and medium quality footwear production drives international investors to search for cost savings, in particular through labor cost reduction. Cambodia has captured a growing share of the labor-intensive, low-technology part of the process and has seen its footwear exports increase dramatically, by more than 76 percent annually between 2008 and 2012. These exports have diversified as well, with Cambodia becoming more and more competitive for textile and rubber footwear, on top of its traditional leather footwear niche. Further diversification will help Cambodia receive higher and steadier revenues from its footwear exports.

Still, labor represents only 15 percent of production costs, and raw materials almost 65 percent. In order to reduce the share of raw material and other services in the production cost of footwear, thus improving its competitiveness and added value, the Cambodian footwear industry needs to drive the development of the domestic material and services supply capacity. In particular, Cambodia has the capacity to develop certain shoe parts and materials (e.g. for tanning) in the vicinity of processing plants leading to clustering among contract manufacturers in particular. It also has the capacity to source raw material such as rubber or leather from domestic producers.

Similarly, while almost all workers in footwear factories are Cambodian, Cambodia has to rely on foreign workers for key management staff in its footwear factories, with local workers lacking the relevant skills. Building local management skills is important to help reduce this dependence on foreign managers and thus increased the flow-on benefits to the local economy.

The recent growth of the Cambodian footwear industry is due more to push factors rather than pull factors. Investment in the sector has been driven by wages dynamics in neighboring countries and by tax policies in key markets (push factors), which are not directly linked to the strategies of the Cambodian Government and footwear industry. To sustain future growth and increase the added value of its production process, the footwear industry to improve its pull factors. This includes sourcing more input domestically (such as rubber or leather), improving worker productivity, developing infrastructure (transport and utilities), and promoting the quality of Cambodian footwear overseas. This will contribute to attract new footwear suppliers and brands while maintaining existing buyers and factories.

Cambodia is considered too small to support a large footwear industry such as exists in China, Vietnam or Indonesia, but Cambodia is well-suited to support smaller scale production. Its footwear factories are almost exclusively vendor factories, which have minimal control over its inbound and outbound supply chains and no control over design or marketing. As a result, Cambodian factories have limited opportunities to increase the value of its finished goods. Further tax incentives and policy support will be necessary to support the development of more contract manufacturers and sustain the inflow of foreign investment in Cambodia's footwear industry

The development of a full supply chain, like in China and Vietnam, is important to support and sustain the competitiveness of Cambodian footwear exports, while improving benefits to the local economy. At the moment, footwear producers must import most of the components needed in assembling a shoe, which limits the added value available for Cambodian shoe producers and the flow-on effects on the local economy.

Cambodia's key export markets for footwear is Europe and to a lesser extent Japan, thanks to duty-free and quota-free shipping to these markets. This concentration to a few export markets as the relative fading of Cambodia's preferential tariff access as a result of a general reduction of tariffs on footwear can reduce its regional competitiveness. The end of European anti-dumping measures against Chinese and Vietnamese footwear exporters might also lead investors to return to those locations where they benefit from better productivity, better infrastructure, local input supply, and bigger economies of scale. GMAC has a role to play in promoting Cambodia's footwear industry overseas and thus help it diversify its export markets.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #8.

Chapter 9

LIGHT MANUFACTURING and SPECIAL ECONOMIC ZONES

Light manufacturing sector is defined as labor intensive operations in automotive and machinery, electrics and electronics, and other various assembly activities. Under the Harmonized Commodity Description and Coding System, it includes HS 87 (*Vehicles other than railway, tramway*), 85 (*Electrical, electronic equipment*), 84 (*Machinery, nuclear reactors, boilers, etc*), 73 (*Articles of iron or steel*), 94 (*Furniture, lighting, signs, prefabricated buildings*) and 95 (*Toys, games, sports requisites*). For purpose of *CTIS 2014-2018*, exports of motorized vehicles (part of HS 87) and exports of machinery (HS 84) are excluded from the scope of this chapter. The first item represents primarily re-export of second-hand cars, motorbikes, or various machinery; the second, re-export of sewing machines. In other words, they do not reflect items associated with value-adding operations in Cambodia.[176]Footwear and garments are receiving dedicated chapters in this study.

Manufacturing (exclusive of garments and footwear) contributed around 5 percent of Cambodia's GDP in 2012. Except for garments and footwear, Cambodia's other manufacturing exports are nearly exclusively light manufacturing as defined above. Light manufacturing operators are located primarily in Special Economic Zones (SEZs.) Proximity to borders and transport infrastructure are key determinants of location to enable the integration of Cambodia's light manufacturing operations in regional production chains.

Cambodian Light Manufacturing Exports and World Markets: Overall

Cambodian Light Manufacturing Exports

Cambodia exported around $372 million worth of light manufacturing products as defined above in 2012. This was a 450 percent increase since 2008, for more than 50 percent of annual average growth. Over the same period, imports increased by 158 percent, or an average of 37 percent annually, to reach more than $3,300 million. Hence, Cambodia's trade balance for light manufacturing products shows a large net trade deficit in 2012.

Based on Comtrade data (see Figure 9.1 below) light manufacturing represented a little more than 4 percent of Cambodia's total recorded goods exports in 2012 compared to 2 percent in 2008. The growing importance of light manufacturing products in Cambodia's export basket is due primarily to emerging items such as bicycles, insulated wires, and electronic circuits. Based on Comtrade data:

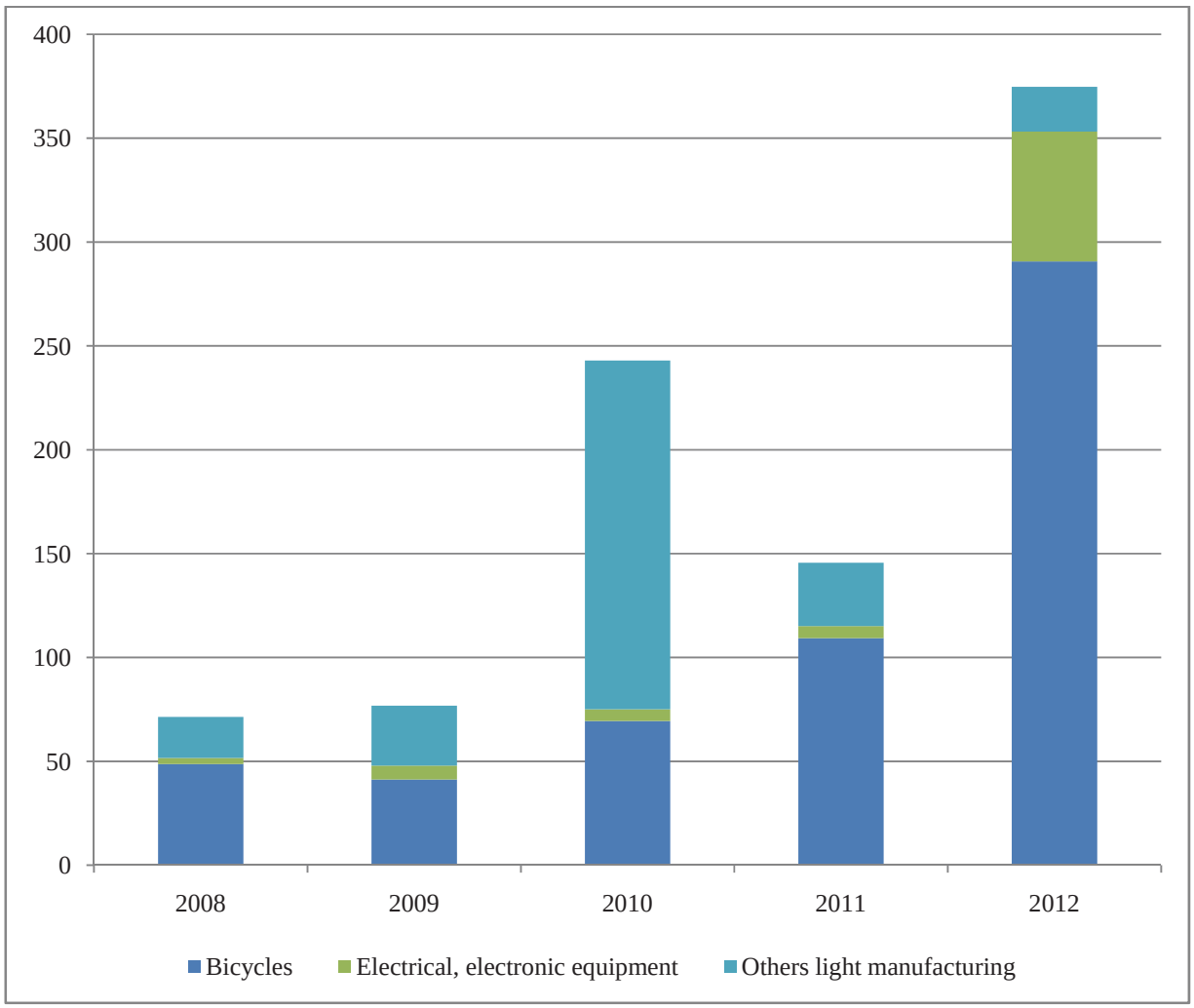
- Exports of bicycles were worth around $291 million in 2012;
- Exports of electrical and electronic equipment worth more than $62 million; and,
- A mixed of other light manufacturing products (referred to as "other light manufacturing" for the

[176] Data for exports of motorized vehicles appear to be widely inaccurate for 2011 and 2012.

CTIS exercise) worth more than $20 million, including sport requisites and toys ($9 million), furniture (mostly mattresses and seats for $6 million), articles of iron and steel (mostly spring and screws for more than $3 million.)

Electrical and electronic equipment was the fastest growing category, increasing by 113 percent annually between 2008 and 2012, while bicycles increased by 56 percent annually and other light manufacturing by 2 percent.

Figure 9.1: Cambodia Light Manufacturing Exports, 2008-2012 ($ millions)



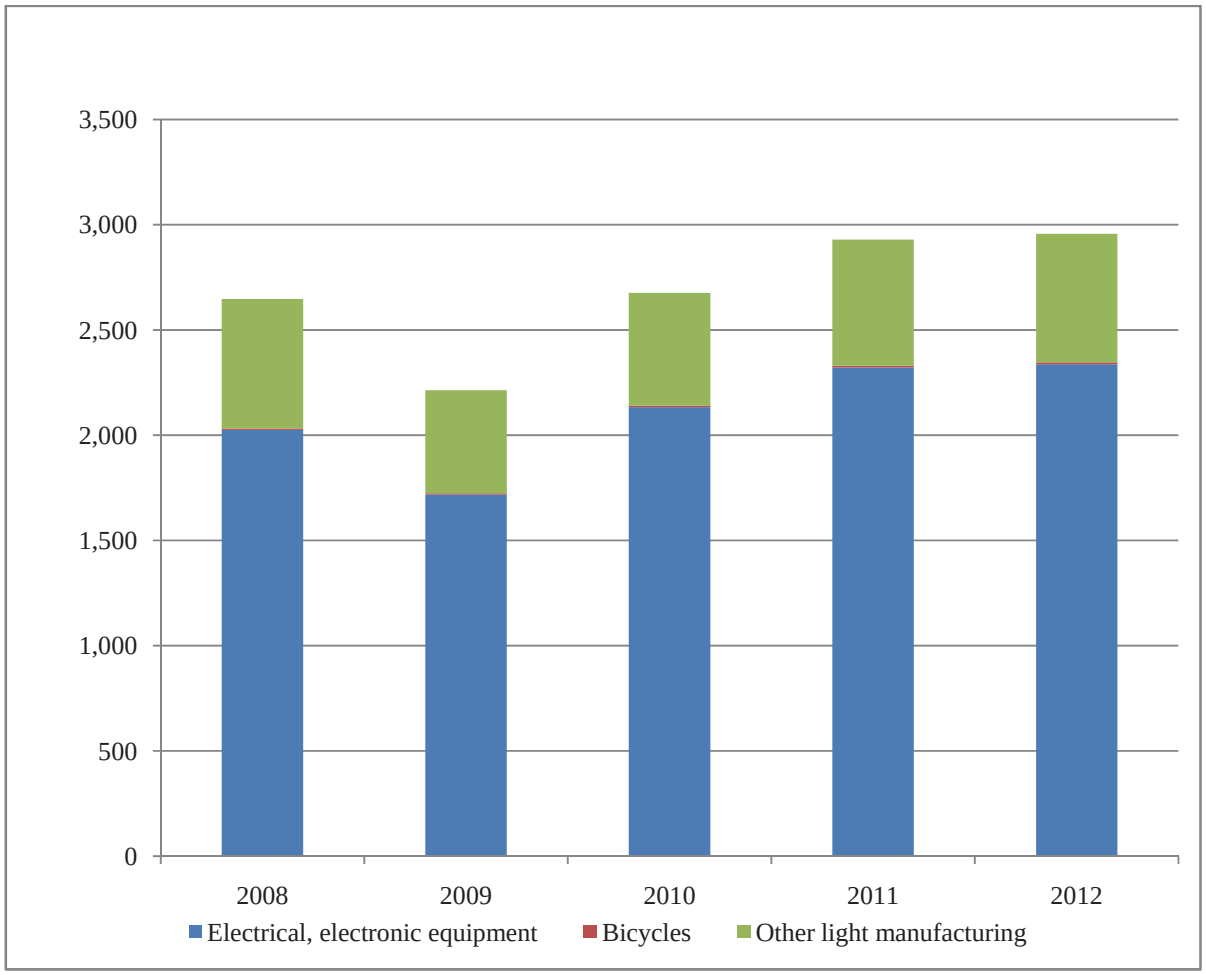
Source: Comtrade

World Demand for Electrical and Electronic Equipment, Bicycles, and OtherLight Manufacturing

Global light manufacturing imports in electrical and electronic equipment, bicycles, and other light manufacturing reached nearly $3 trillion in 2012, or a 12 percent growth since 2008, including more than $2 trillion worth of electrical and electronic equipment s (Figure 9.2.)

Global light manufacturing imports, as defined above, represented 16 percent of total global trade in 2012, nearly unchanged since 2008.

Figure 9.2 Global Light Manufacturing Imports
(Electrical and electronics, bicycles, other light manufacturing), 2008-2012 ($ billions)



Source: Comtrade

Cambodia's share of the global light manufacturing markets as defined in this chapter has been growing steadily though still very small, increasing from 0.0032 percent in 2008 to 0.013 percent in 2012. In comparison, Cambodia' share of global trade was 0.0480 percent in 2012. This suggests that Cambodia is under-performing in these global markets and has room for significant improvement.

Cambodia's key export markets for light manufacturing products include Germany for $37 million (27 percent) and the UK for $31 million (22 percent) – overwhelmingly bicycles in both cases. Thailand is another important market for Cambodia as it imports more than 30 percent of Cambodia's electrical and electronic exports. In value, that amount is still quite small but likely to grow rapidly. See Table 9.1.

Table 9.1: World Light Manufacturing Imports 2012				
Product	**World Imports**	**Cambodia's Exports as a Share of World Imports**	**World's Largest Import Markets**	**Cambodia's Largest Export Destinations as Share of Total***
Light Manufacturing	$2,957 billions	0.013 percent	China (15 percent) USA (14 percent) Germany (6 percent)	Germany (27 percent) UK (22 percent) Belgium (9%)
Bicycles	$8 billions	3.5 percent	USA (20 percent) Japan (11 percent) Germany (8 percent)	Germany (29 percent) UK (28 percent) Belgium (11 percent)
Electronic and electrical equipment	$2,338 billions	0.003 percent	China (23 percent) Hong Kong (10 percent) USA (8 percent)	Thailand (30 percent) Hong Kong (10 percent) Australia (10 percent)
Other Light Manufacturing	$611 billions	0.004 percent	n/a	USA (68 percent) Belgium (9 percent) Australia (4 percent)
Source: Comtrade **Note:** *2011 data				

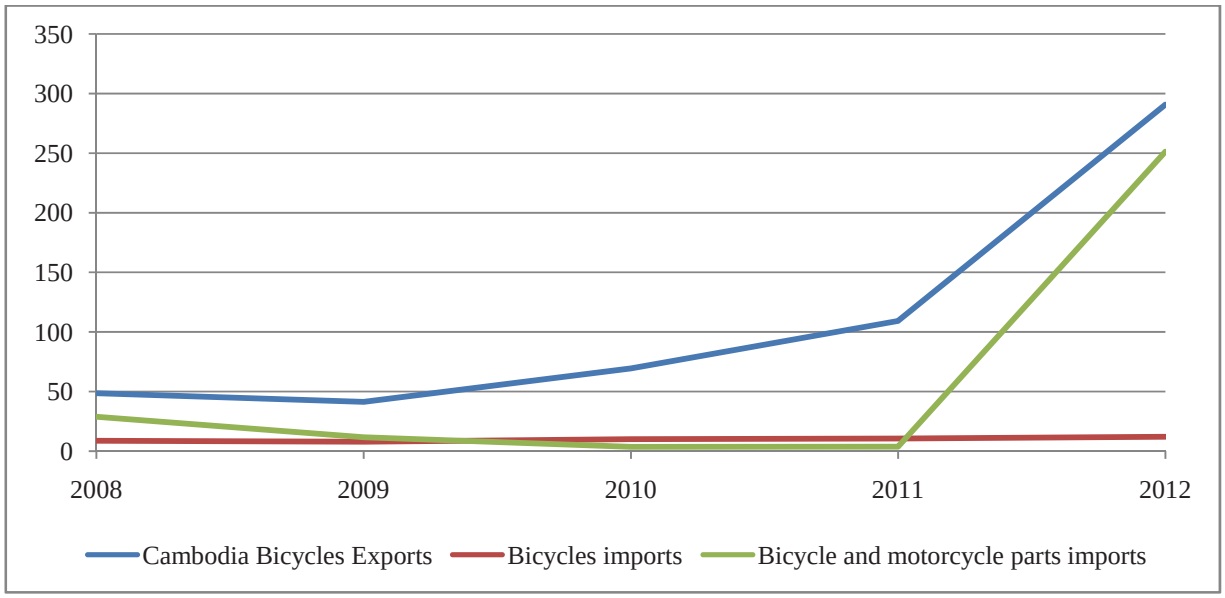
Proximity to neighboring ASEAN markets leads to shorter lead time as part of a production supply chain, with Thailand and Malaysia, in particular, having well developed electric and electronic industries. Likewise, the concentration of ASEAN electronic production in Thailand, Vietnam and Malaysia provides opportunities for neighboring Cambodia to be involved in part of the assembly and supply processes. In addition, most components, parts, and raw materials required in light manufacturing assembly can be sourced from neighboring countries such as Thailand, Vietnam, China, and Malaysia.

Cambodian Light Manufacturing and World Markets: Specific Export Sectors

Bicycles

Cambodian Exports: As noted earlier, Cambodian bicycle exports were worth more than $291 million in 2012 – a 498 percent increase since 2008, for an annual average growth of 56 percent. Over the same period, imports of part of bicycles and motorcycles increased by 774 percent, or an average of 27 percent annually, to reach $251 million. Comtrade statistics do not allow to separate bicycles parts from motorcycles parts. However, since Cambodia's imports of motorcycles have increased significantly over the period, it is safe to assume that a significant part of the bicycles and motorcycles part imports were directed to servicing motorcycles. The balance served as inputs to the Cambodian bicycles export industry, with that sector adding value through production.

Figure 9.3: Cambodia's Bicycle Trade, 2008-12 ($ millions)



Source: Comtrade

Bicycles exports grew from 56 percent of Cambodia's light manufacturing exports in 2008 to more than 77 percent in 2012, with total exports of light manufacturing products growing from 2 percent to 5 percent of total recorded goods exports respectively based on Comtrade data. Clearly, bicycles have become one of Cambodia's most successful export products in recent years, taking advantage of preferential tariff treatment to access key consumer market (Europe in particular).

Cambodia's top export markets for bicycles in 2011 included Germany (29 percent of Cambodia's bicycles exports), the UK (28 percent), Belgium (11 percent), the USA (8 percent) and Canada (4 percent). While the UK has kept a relative steady share of Cambodia bicycle exports between 2007 and 2011 (with significant fluctuations from year on year), Germany has more than doubled its share over the period, with Cambodia's bicycles exports to this country increasing by more than 55 percent annually on average. Belgium, the USA and Canada are relatively new markets that have grown from negligible destinations to significant markets in the space of a couple of years.

The Global Market for Bicycles: Global bicycles imports increased 20 percent between 2008 and 2012 to reach more than $8 billion in 2012. During this period, Cambodia's bicycle exports increased by almost 500 percent, gaining market shares and growing from a 0.7 percent market share of world's bicycle trade to 3.5 percent.

The global market for bicycles is relatively mature with stable growth patterns. Global bicycle sales are forecast to reach around $60 billion by the year 2018. Growth is driven by economic development and urbanization in the poorest economies, by fitness aspiration in richer ones, and by rising fuel and energy prices, environmental concerns and technological advancements in both. Sustained development and urbanization in the densely populated and rapidly expanding Asian markets of China, India, Indonesia, and Taiwan offer vast growth potential for Cambodia's bicycles exports. Furthermore, governments in

developed countries are investing increasingly in bicycle promotion projects and policies. Countries like Australia, Germany, and the Netherlands have government sponsored network of bicycle paths and trails. So do a number of large US cities. Green and environmentally friendly policies target bicycle use as a mean to reduce greenhouse gas emissions.

The USA is the largest national market for bicycles ($8 billion in 2012) in the world, followed by Japan ($2 billion). Europe is the largest regional market, representing 47 percent of the world market in 2012 but this share is eroding with the Asia-Pacific market's share growing to 43 percent of the market. Other Asian countries are also producers and exporters of bicycles. China makes and sells fully assembled bicycles, frames, and components. It is also the largest bicycle market in the world, despite a growing share of the middle-class population adopting motorized vehicles. However, pricing pressures on Chinese manufacturers is shifting production to other Asian nations such as Thailand, Taiwan, and Cambodia. The domestic and regional demand for motorbike and bicycles is increasing quickly, in particular due to the young population in the region, providing opportunities for strong development and economies of scale.

European markets attract most of Cambodia's bicycle exports because they offer duty free access for Cambodian footwear exports. The EU Council Regulation 732/2008, *Everything But Arms*, which became effective as of 1 January 20093, gives Cambodia duty-free and quota-free shipping to all EU countries, with increasing leniency in the rules of origin. While the US, which is the largest market for bicycles in the world, and Japan do also offer preferential tariff access for bicycles produced in LDCs, they have significantly tougher rules of origin than those of the EU. This explains, in part, why Cambodia's bicycles exporters have focused on European markets. In order to capture a growing share of the US and the Japanese markets, Cambodia needs to produce more elements of the final bicycle products it exports. Australia and Canada are other important markets for bicycles that could offer opportunities for Cambodian bicycle exporters. China is also a large market in close geographical proximity of Cambodia, but domestic production, with high competitiveness associated with large economies of scale, would make it difficult for Cambodian exporters to capture a market share.

Table 9.2: World Bicycle Market 2012

Product	World Market Imports	Cambodia's Exports as Share of World Imports	World's Largest Import Markets	Cambodia's Largest Export Destinations as Share of Total*
Bicycle	$8.3 billions	3.5 percent	USA (20 percent) Japan (11 percent)	Germany (29 percent) UK (28 percent) Belgium (11 percent)

Source: Comtrade
Note:*2011 data

Electronic and Electrical Equipment Market

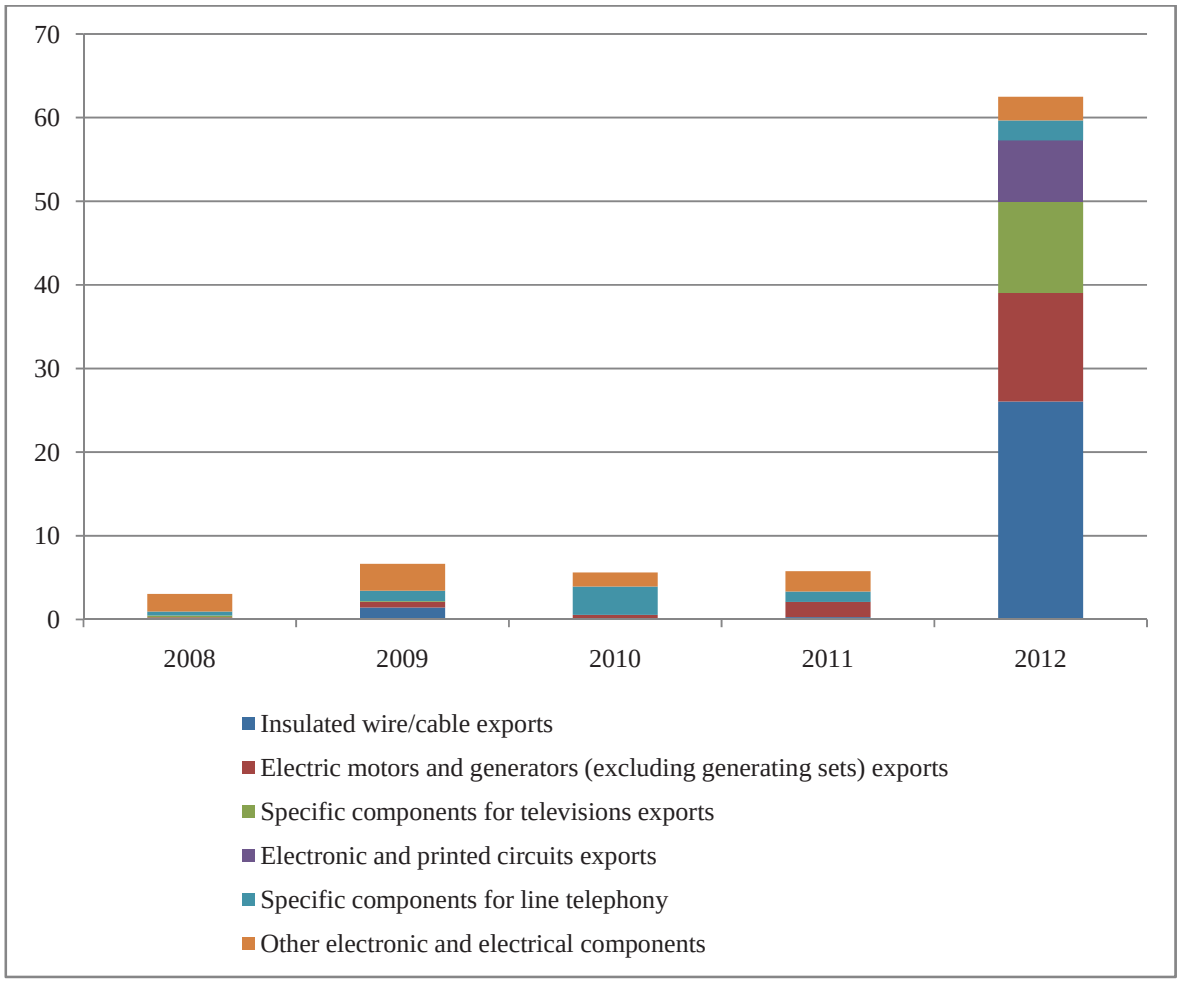
Cambodian Exports: Cambodia exported almost $63 million worth of electronic and electrical products in 2012. Exports were negligible – around $5 million or less – until 2011 (Figure 5.9). Over the same period, electronic and electrical imports increased by 156 percent, or an average of 27 percent annually, to

reach more than $630 million. While the deficit in the electronic and electrical trade balance remains quite large, exports are now growing much faster than imports.

Electronic and electrical products represented 17 percent of Cambodia's light manufacturing exports in 2012, compared to 4 percent in 2008. The electrical electronics industry is nascent in Cambodia with technology firms from Japan, China, and other advanced Asian economies setting up operations in Cambodia, primarily in SEZs, to take advantage of low labor cost for simple labor-intensive operations. Those investments have focused on electrical and electronic products that require only a simple assembly process, such aswinding, for wire harnesses, coils, transformers, and motors.

Cambodia's top export markets for electrical and electronic products in 2011 included Thailand (30 percent of Cambodia's electrical and electronic exports), Hong Kong (10 percent), Australia (10 percent), China (7 percent), and Vietnam (6 percent). Apart from Australia, all these markets are Asian countries where components produced in Cambodia are integrated to next stage of the production process.

Figure 9.5: Cambodia's Electrical and Electronic Exports, 2008-12 ($ millions)

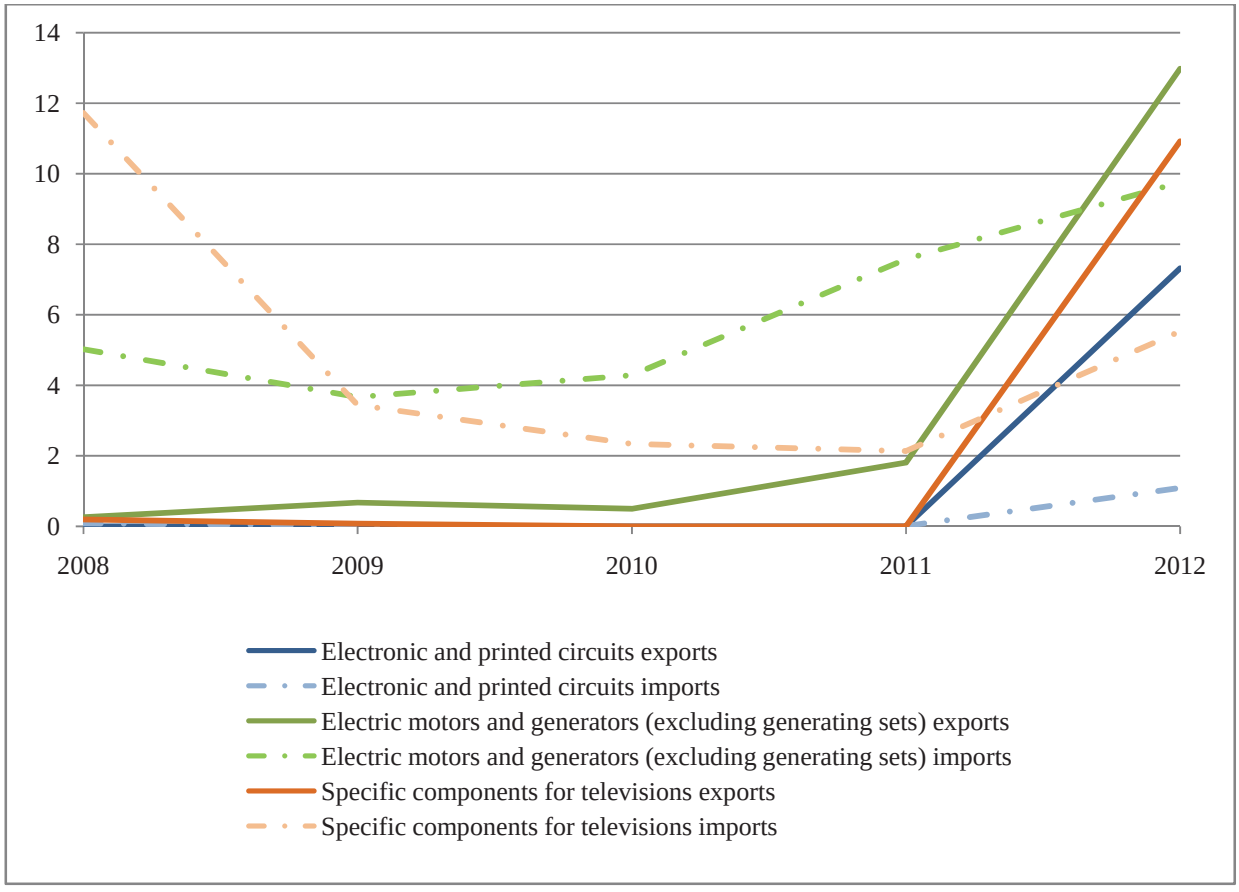


Source: Comtrade

Cambodia's growth in electronic and electrical equipment exports is based on a limited number of products, most of which are built and assembled in SEZs:

- Insulated and wire cable is the largest export, worth $26 million in 2012 and representing 44 percent of Cambodia electronic and electrical exports.
- Electric motors and generators are the second largest electronic and electrical export category worth $13 million in 2012 and 22 percent of Cambodia electronic and electrical exports. Minebea is an example of a Japanese firm with a successful operation in the Phnom Penh SEZ producing and exporting electrical motors.
- Cambodia started exporting electronic and printed circuits in 2010, for a total value of $7 million in 2012 (12 percent of total electronic and electrical exports). These circuit boards are part of an Asian production chain and are exported to factories in Japan, China, and Thailand where the final electronic products are assembled.
- Cambodia is getting involved also in the regional production chain of television sets, with exports of almost $11 million in television components in 2012 (18 percent of total electronic and electrical exports.)

Figure 9.6 Trade in Specific Electrical and Electronic Products, 2008-2012 ($ millions)



Source: Comtrade

Global Market: The world market for electrical and electronic equipment reached more than $2,300 billion in 2012, 15 percent more than in 2008. Cambodia's share of the world market remains very small -- around 0.0027 percent of world imports.

Again Thailand is the main destination for Cambodia electronic and electrical exports, as parts and components produced in Cambodia are then assembled in specific electronic and electrical consumer goods in Thailand. Production has been relocated to Cambodia mainly because of lower labor costs.

Box 9.1: Insulated Wire Cable

Wire harnesses are net-like cable components used to inter-link circuits and components inside electronic and electrical products. As such, global demand is driven by the production of automotive instruments and other electronic appliances.

Because each manufacturer and product has its own structure and specifications, the production process of these cables is highly diversified to produce small lots of wire cables with specific characteristics. Because of the diversity of specifications and design of the final electronic or electrical product, it is particularly difficult to mechanize theprocess of bundling cables of various lengths and thicknesses according to requirements. It is very labor-intensive, which gives Cambodia a competitive advantage in such a production.

Seeking to reduce their production costs, a number of Japanese companies have been looking to move production of wire harness to new locations with lower labor costs. As costs increase in more developed ASEAN countries where factories were initially implanted, such as Thailand, investors increasingly move or divide their production processes to new countries in search of the high-dexterity, low-cost workforce that can be found in Vietnam, Laos, or Cambodia. Industrial sites close to the borders and with good transport infrastructure, as is the case of a number of SEZs, are very attractive destinations for such a re-localization.

Table 9.4: World Electronic and Electrical Imports, 2012			
Product	**World Market Imports**	**Cambodia's Exports as Share of World Imports**	**World's Largest Import Markets**
Electronic and electrical equipment	$2,337.6	0.003 percent	China (23 percent) Hong Kong (10 percent) USA (8 percent)
Insulated wire cable	$105.0 bn	0.03 percent	China (17 percent) USA (9 percent) Mexico (8 percent)
Electric motors and generators	$49.7 bn	0.03 percent	USA (17 percent) China (9 percent) Germany (8 percent)
Television camera, transmission appliances for radio-telephony	$78.2 bn	0.014 percent	Hong Kong (16 percent) Mexico (13 percent) China (9 percent)
Printed circuits	$588.8 bn	0.001 percent	China (30 percent) Hong Kong (21 percent) South Korea (6 percent)
Electric appliances for line telephony	$448.1 bn	0.001 percent	USA (18 percent) Hong Kong (12 percent) China (9 percent)
Source: Comtrade **Note:** 2012 data are lacking for Cambodian exports to specific markets, and 2011 are not relevant for this category of products since exports were very small.			

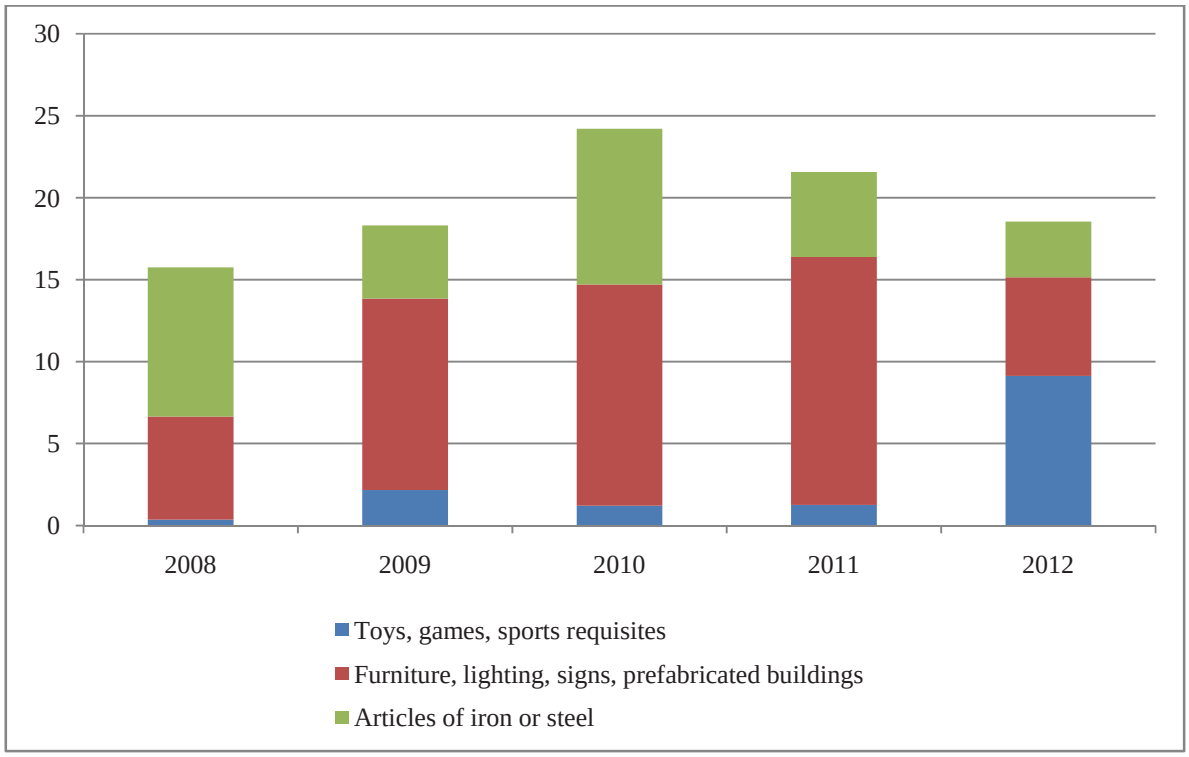
Other Light Manufacturing Exports

For the purpose of CTIS 2014-2018, the other light manufacturing export category includes a variety of products belonging to three different HS code:

- articles of iron or steel (HS73), mainly springs, screws, and nuts;
- furniture (HS94), mainly mattresses and seats; and,
- toys and sports requisites (HS95), mainly sport equipment and various toys.

Cambodia's exports from the "other light manufacturing" category represented $18.0 million in 2012.

Figure 9.6: Cambodia's Other Light Manufacturing Exports, 2008-2012 ($ millions).

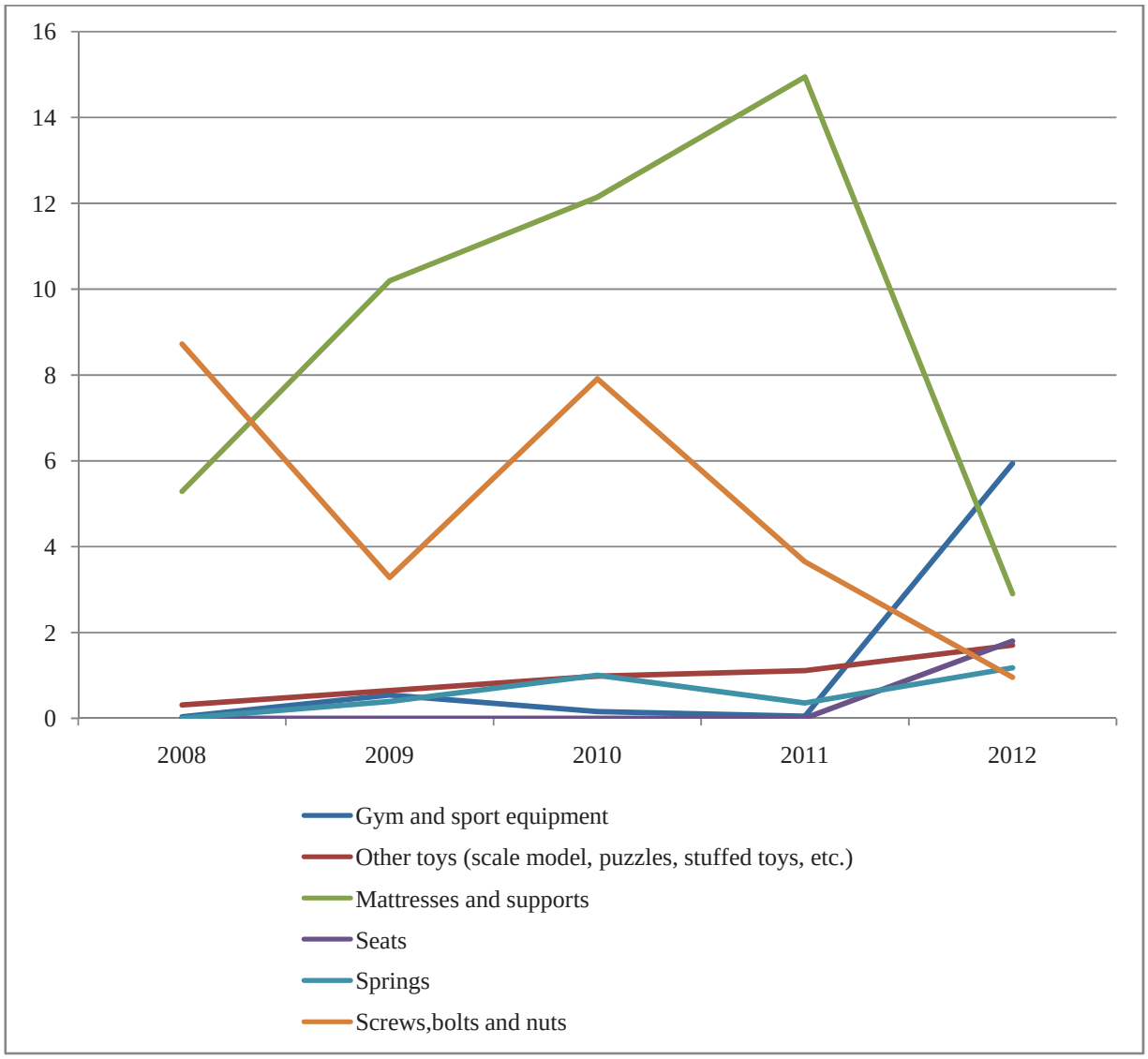


Source: Comtrade

In 2012, the largest items of the "other light manufacturing" exports included:

- articles and equipment for gym and sport, for around $6 million, though some of it might be re-exports as Cambodia also imported $5 million of gym equipment;
- varied toys including scale model, puzzle, and stuffed toy for almost $2 million, though once again some of it might be re-exports as Cambodia imported almost as much;
- arcade games and equipment for $1 million;
- mattresses and mattress support for almost $3 million; and
- springs and bolts/screws for more than $1 million each.
- computer parts for over $0.5 million

Figure 9.7: Exports of Other Light Manufacturing Products, 2008-2012 ($ millions)



Source: Comtrade

Cambodia exports light manufacturing consumer products to developed markets around the world:

- The main market for Cambodia's sport equipment and toys in 2011 was the USA for almost $1.5 million.
- The main markets for Cambodia's mattresses and seats in 2011 were the USA for around$15 million and Australia for around $13 million.
- The main market for Cambodia's springs and screws in 2011 were Belgium for more than $12 million and Germany for more than $11 million.

Table 9.5: World "Other Light Manufacturing" Imports 2012				
Product	**World Market Imports**	**Cambodia's Exports as Share of World Imports**	**World's Largest Import Markets**	**Cambodia's Largest Export Destinations as Share of Total***
Sport equipment	$22.8 billions	0.026 percent	USA (25 percent) Japan (6 percent) Germany (5 percent)	Czech Republic (42 percent) Italy (40 percent) Columbia (6 percent)
Other toys and scale model	$28.7 billions	0.006 percent	USA (29 percent) Germany (6 percent) UK (6 percent)	USA (99.7 percent) China (0.1 percent) Philippines (0.1 percent)
Mattresses	$13.9 billions	0.021 percent	USA (21 percent) Japan (11 percent) Germany (8 percent)	USA (88 percent) Australia (6 percent) Canada (6 percent)
Seats	$64.4 billlions	0.003 percent	USA (28 percent) Germany ((8 percent) France (5 percent)	Estonia (50 percent) South Africa (25 percent) Switzerland (25 percent)
Springs	$6.3 billions	0.019 percent	USA (15 percent) China (8 percent) Germany (8 percent)	USA (100 percent)
Screw and bolts	$33.2 billions	0.003 percent	USA (13 percent) Germany (9 percent) China (8 percent)	Belgium (51 percent) Germany (15 percent) Netherlands (12 percent)
Source: Comtrade **Note:** *2011 data				

Other light manufacturing exports might pick up rapidly in the near future, driven by various social and economic trends. For example, the rapid growth in agriculture (i.e. rice, cassava, corn) and mechanization will support domestic and regional demand for agricultural equipment such as tractors, tiling, and harvesting machineryand Cambodia, with relevant investment, might be able to carve a niche in that market.[177]

Domestic Supply Conditions

Regional Production Chains

Over the past decades, Eastern and South-Eastern Asian countries have become the world's factory, producing and assembling a wide range of low and high-tech manufacturing products for the rest of the world. Japanese, Korean, and Chinese firms as well as European and American multinationals have organized their production process across the eastern Asian region in order to take advantage from cheap labor force, preferential tariffs, and supportive industrial policies. As the ASEAN market integrates further, with additional tariff reductions under the AFTA scheme, the division of labor and trade within

[177] In 2012, Cambodia exports of agriculture machinery were worth $365,000 in 2012 (12 percent of all machinery exports), compared to $3,000 the previous year and no export in 2010.

ASEAN is likely to increase, making larger markets of the region more easily accessible, thus creating opportunities for economies of scale.

Manufacturing companies in the region have organized their production process across specialized functional networks where the different components of a given product are made in different factories and different countries. Various stages of the production process are located according to the relative's competitive advantages of a given country, based on labor costs, labor skills, tariff advantages, transport logistics, other infrastructures, supportive servicing industry, or easier access to the direct market.

Except for garments and, to a lesser extent footwear, Cambodia is a late entrant in the regional division of labor. However, it is beginning to build on such assets as its low labor costs, political stability, a favorable investment environment,favorable market access conditions as an LDC, and proximity to Thai and Vietnamese factories to start integrating into regional production chains. Through the development of special economic zones (SEZs), Cambodia is attracting investment in a broad variety of labor-intensive, low-skilled light manufacturing sectors from across the region. It is buildingalso on the fact that most components, parts, and raw materials required in light manufacturing assembly can be sourced from neighboring countries and that proximity to neighboring ASEAN markets results in shorter lead time as part of a production supply chain.

In the next few years, Japanese, Korean, and Chinese firms are expected to develop further their supply chain network for machinery and electronics manufacturing – searching for new locations to curb production cost increases. In addition, foreign investors operating in regional or international production networks are seeking to diversify locations and lower their dependency on a few countries in the region (e.g. China, Thailand, Vietnam, Indonesia, or Malaysia) in order to mitigate rising labor costs (e.g. China or Vietnam) or potential natural disasters (Thailand, Japan.) For instance, rising wages in China in particular is leading to the relocation of the electronic production chain to Thailand for assembly and to Vietnam which is becoming a key parts and component supplier.

Cambodia is becoming an increasingly attractive destination for the relocation of parts in regional production processes. In addition, as more investors from Japan and China converge on Cambodia SEZs, the trend is likely to attract more investment from the same countries. Recent experiences shows that strong agglomeration of foreign investment from a given country in a specific SEZ (i.e. Japan in PPSEZ, China/Taiwan in Bavet, China in Sihanoukville) tends to attract new investors from the same country. As Cambodia's own light manufacturing industry develops and reaches a critical mass to generate economies of scale and clusters of local suppliers, it is likely to gain an increasing market share in basic light manufacturing components and products and, gradually, move into basic assembly functions such as assembling of mechanical electronics parts.

While Cambodia's initial focus on the simpler, labor-intensive parts of the production process, with supportive policies, its integration into the regional production chain can have a positive effect on its capacity to absorb skills and diffuse technology. The mechanical assembly part of the production process for which Cambodia is particularly suited can drive a beneficial cycle of foreign currency earnings, economic growth, and skills development. This model of development has been observed historically in other countries in the region, from Japan and China, to Thailand, and Vietnam. Increased technology

dissemination within Cambodian industry will result in a better integration in the ASEAN light manufacturing production.

For electrical and electronic products in particular, price and lead time loom large as a factor of competitiveness. Cambodia benefits from its proximity to Malaysia and Thailand, which have both well-developed electrical and electronic industries, and its workforce, which remain cheaper than in other countries in the region. The prospect of potential industrial clusters, as in special economic zones, can compound that competitive advantage thus facilitating Cambodia's deeper integration in the regional production process.

But for Cambodia's integration into regional supply networks to succeed, the country needs to tackle a number of challenges, in particular:

- addressing the low productivity and low skill-level of the manufacturing workforce;
- tackling key infrastructure challenges such as relatively weak transport and costly, unreliable electricity supply;
- addressing labor unrest and strikes that disturb the production process and delay Cambodia's contribution to the regional chain of production, with a focus on poverty and inequality; and,
- facilitating investment and technology transfer by removing unnecessary hurdles.

Addressing these issues is all more important for Cambodia. The erosion of some of the country's competitive advantage due to technological and regulatory changes and increased competition from new countries (in particular Myanmar and Laos) might threaten Cambodia's capacity to integrate more deeply into the regional production chains.

Box 9.2: Manufacturing Production in the East Asia and ASEAN Regions

The signature of a number of trade agreements, such as the Association of Southeast Asian Nations (ASEAN) Free Trade Agreement, in East Asia has resulted in an increase in intra-regional light manufacturing trade and investment in the region, which reflects the vertical integration of manufacturing production networks among ASEAN countries and their partners (mainly Japan, China and Korea). In particular, the increase in intra-regional light manufacturing trade is due to a rise in a trade in parts and components or intermediate goods being produced in different countries before final assembly in another East Asian country. As a consequence, the share of parts and components trade in total regional trade has been increasing steadily. The final consumer markets of the ASEAN manufacturing production remain predominantly the USA, the EU and Japan.

FDI inflows and outflows in the ASEAN region are a key driver of international manufacturing production networks. FDI inflows have surged in the ASEAN region, following a similar pattern to that of parts and components intra-regional trade. Investment liberalization and promotion have contributed to a surge of inward FDI into ASEAN countries. As a result, the regional production chains between the ASEAN and Japan, Korea and China have been strengthened and extended. Most of the industrial production in East Asia, especially in autos and auto parts, computers and computer parts, and electronics and electrical appliances, is part of international production networks, where production is fragmented into several stages and then conducted in various countries of the ASEAN, according to their respective comparative advantages.

In addition to investment liberalization and investment promotion, regional integration is crucial in

linking economies within a regional chain of production. The ASEAN Free Trade Area and the ASEAN and Japan Comprehensive Economic Partnership have created the framework for the regional organization of manufacturing production. In addition to bilateral trade agreements, the ASEAN has embarked on several economic integration initiatives such as the ASEAN Free Trade Area, the ASEAN Framework Agreement on Services, and the ASEAN Investment Area, which have all contributed to accelerate intra-regional trade and supported the regional organization of production, with the ultimate aim of creating a ASEAN Economic Community. The ASEAN Economic Community will be completed by 2015, with some of the ASEAN members including Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand having already lifted their tariffs under the ASEAN Trade in Goods Agreement, while others, like Cambodia, Lao PDR, Myanmar, and Viet Nam expected to lift their tariffs later.

The ASEAN and the PRC Free Trade Area, the ASEAN and Japan Comprehensive Economic Partnership, the ASEAN and Korea Free Trade Area, and, to a lesser extent, the ASEAN and India Free Trade Area have all played an important role in facilitating the reorganization of manufacturing production away from Asian countries with rising production costs, such as Japan, South Korea, China and now Thailand, toward ASEAN countries with lower labor cost, such as Cambodia.
The ongoing reorganization of the ASEAN and regional manufacturing production networks results from market-driven forces such as vertical specialization and higher production costs in certain countries such as China and Thailand, and from institutional-led reasons such as free trade agreements. China and Thailand are key manufacturing assembly bases in the East Asia region. Other countries, such as Cambodia, are organizing their production and supply chains around economic activities in these two countries. The recent decline in the share of parts and components exports of several members of the ASEAN such as Indonesia and Thailand, suggests that these countries have moved up the production chain to assemble final products from components produced in other, less developed and cheaper ASEAN economies such as Cambodia.

As the ASEAN market integrates further, with additional tariff reductions under the AFTA scheme, the division of labor and trade within ASEAN is likely to increase, making larger markets of the region more easily accessible, thus creating opportunities for economies of scale.

Revealed Comparative Advantage and Potential Areas for Expansion

A simple method to assess the comparative advantage of a given export item is the "revealed comparative advantage analysis (RCA.)" RCA allows determining the export items for which a country is more specialized and successful in a global context. All things being equal, this suggests a comparative advantage internationally for the said item.

The RCA is calculated as follow:

$$\text{RCA for item X of country A} = \frac{\dfrac{\text{Export value of item X of country A}}{\text{Total export value of country A}}}{\dfrac{\text{Export value of item X in world}}{\text{Total export value in world}}}$$

An RCA of 1 suggests no specific comparative advantage as such; above 1, that the country is globally competitive in producing and exporting the given item; below 1, that the country is not globally competitive in the given item, though it can still be competitive at a regional level or in the context of a production chain. The highest the RCA index, the more competitive the country is in a given item.

RCA indexes for potential key export items of Cambodia are calculated as follows:

Year	Light manufacturing	Bicycles	Electronic and electrical components	Other light manufacturing
2008	0.05	26.5	0.01	0.02
2012	0.12	73.6	0.06	0.01

Year	Electronic and electrical components	Insulated wire cables	Electronic and printed circuits	Electric motors and generators	Specific electronic component for television
2008	0.01	0.00	0.00	0.02	0.01
2012	0.06	0.52	0.25	0.55	0.29

Year	Other light manufacturing	Toys and equipment	Furniture	Articles of iron and steel
2008	0.02	0.01	0.13	0.11
2012	0.01	0.18	0.06	0.02

Apart from bicycles where Cambodia appears extremely competitive, with a RCA index peaking at 73.6 in 2012, the statistics show that, all thing equal, the country is not yet very competitive in light manufacturing in general. However, the rapid rise in the RCA index over the last few years for a number of light manufacturing goods suggests that Cambodia has potential to become a competitive player in global trade for a number of items, as it did earlier with bicycles.

The development of a critical mass of operators for a given light manufacturing item, associated with the development of a competitive infrastructure, in particular in SEZs, will contribute to the attraction of additional investment in the production of light manufacturing exports and to the development of local skills. For instance, the concentration of firms in sub-sector such as bicycles allows for productivity gains and economies of scale. These developments are keys to improving Cambodia's international competitiveness.

Labor Force and Skills

Low labor costs make Cambodia attractive for the labor-intensive stages of light manufacturing production in the ASEAN division of labor, in particular for tasks with lower level of technology such as bicycles, wire harness, electric motors, electronic and printed circuits, mattresses and seats. However, low productivity and low skill-level can more than eliminate the competitive advantage provided by low labor cost, thus make Cambodia less attractive for the more capital-intensive stages of the regional chain of production, such as the mechanized winding process involved in the development of coil, filters, converters and vibration motors.

The Domestic Regulatory and Infrastructure Environment: The Key Role of Special Economic Zones (SEZs)

SEZs are critical elements of the emerging integration of Cambodia into regional and global production chains. In 2005, the Cambodian Government adopted the Anukret (Sub-decree) on the *Establishment and Management of Special Economic Zones* that created the Cambodian Special Economic Zone Board within the CDC.[178] The intention was to help free businesses from regulatory and legal constraints. China's experience with SEZs was initially used as a guide to establish SEZs in Cambodia.There are two types of SEZs in Cambodia – general industrial zones and export processing zones – though in practice the Government does not distinguish between the two.[179]

To further understand their role, strengths and weaknesses, five SEZs -- Phnom Penh SEZ, Manhattan SEZ, Sihanoukville II SEZ, Siahnoukville Port SEZ, and Neang Koh Kong SEZ -- were visited in the course of the field work associated with the preparation of *CTIS 2014-2018*.

Face to face interviews were conducted with 20 companies and with the operators of the five SEZs. Short surveys were also completed by 30 light manufacturing and footwear companies from four of the five SEZs to provide information on their activities and their workforce. While by no means a full survey of all companies based in SEZs, the data collected provides some insights into the operations of light manufacturing exporters located in SEZs. Difficulty to access accurate financial data, confidentiality issues, and the partial nature of the data collected mean that no updated export and employment data could be compiled for 2012-13.

SEZs in Cambodia

Description of Cambodian SEZs:So far, the Council of Development of Cambodia CDC) has granted 23 licenses to develop SEZs. Only eight of them – Phnom Penh SEZ, Siahnoukville SEZ II, Siahnoukville Port SEZ, Manhattan SEZ, Tai Seng Bavet SEZ, Neang Koh Koh Kong SEZ, Poi Pet O'Neang SEZ and Goldfame Pak Shun SEZ – have investors and only six zones are fully operational with a total of close to 100 companies. Main investors come from Cambodia, Japan, China, Thailand, and Taiwan. The additional 15 SEZs that have been licensed have been created but have no investors as of yet.

Most of the active licenses granted for SEZs are regrouped in 4 different areas:

- in Phnom Penh itself (Phnom Penh SEZ);
- in Sihanoukville, where Cambodia's main port is (Sihanoukville Port SEZ and Sihanoukville SEZ II);
- close to the Vietnamese border in the Bavet area (Manhattan SEZ and Tai Seng SEZ); and,
- close to the Thai border, in the Koh Kong area (Koh Kong SEZ).

[178] A draft Law on SEZs, to be submitted to Parliament, is under preparation. See chapter 1.
[179] While this categorization exists in the Anukret, it is not functioning practically. No formally designated EPZs currently exist. Rather, all currently existing SEZs are in effect industrial zones where investors enjoy export related incentives.

All these SEZs are expanding their operations. According to government officials, approximately five additional zones have the potential to attract investors and start operations in the short term to medium term if they receive sufficient technical and financial resources from their developers. Based on experience from other countries and Cambodia's overall investment attractiveness, the country has potential to expand significantly the economic impact and community benefits generated by these zones.

In 2011, the eight active SEZs were generating over 7,000 jobs and exports worth just under $100 million per year. At that time, only three SEZs had more than two companies each having started operation in the zone. Five of them now have more than two companies operating in their zone. Workforce and exports data at a country level for all SEZ are not available for 2012 as of yet but it is expected that the value of exports from SEZs has grown significantly over the last year.

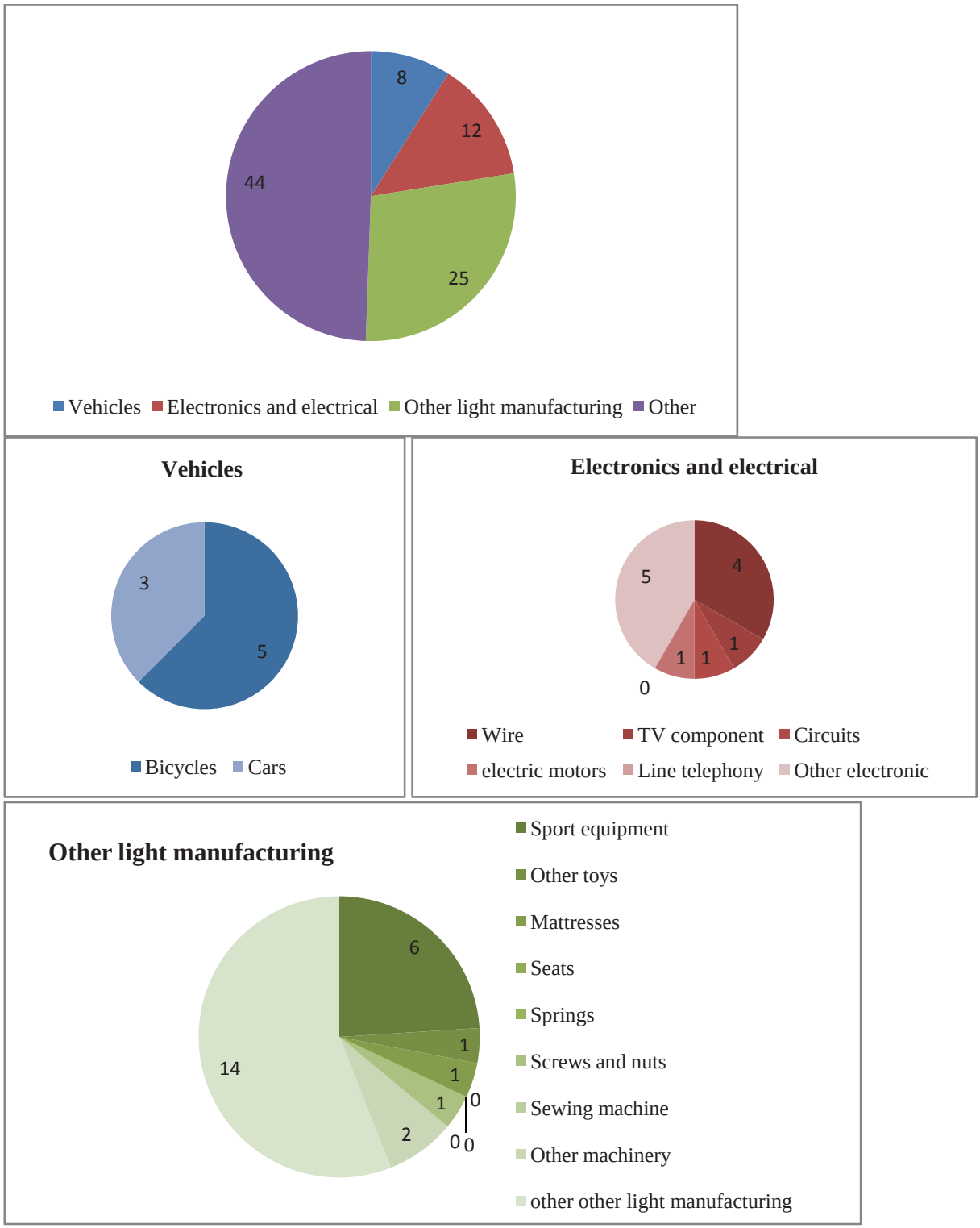
Just over half of the companies (45 firms) located in SEZs produce light manufacturing exports. Another 19 percent of companies (17 firms) in SEZs produce garments and 8 percent (seven firms) produce footwear. The rest are either utilities or companies providing a service or a good for the domestic market.

The contribution of these SEZs to Cambodia's light manufacturing exports, though not directly quantifiable in terms of monetary value, could be divided as follow according to export types in 2013:

- While bicycles represented Cambodia's largest light manufacturing exports in 2012, only five companies produce bikes from inside three different SEZs. Four of those companies are located closed to the border with Vietnam.
- Three companies (3 percent of all SEZ companies) in three different SEZs work on assembling motorized vehicles, which was Cambodia's largest light manufacturing export in 2011.
- Twelve companies (13 percent of all SEZ companies), a majority of which located in Phnom Penh SEZs, produce electronic and electrical exports. Sixty percent of these companies produce one of Cambodia's top electronic or electrical exports (wires, motors, circuits, tv components, line telephony components).
- Twenty five companies (28 percent of all SEZ companies) were involved in producing "other light manufacturing", including 8 percent in sport equipment and toys, 1 percent in mattresses, 1 percent in nuts, screws and bolts, 2 percent in machinery, and 16 percent in other type of light manufacturing.

To compare, there were seven companies producing bicycles across Cambodia in 2011, five producing motorized vehicles parts and components, 15 producing electronics and electrical goods, and 24 that could be classified under the "other light manufacturing" (minus furniture) category. This suggests that SEZs represent most of Cambodia's total light manufacturing production. They are also likely to produce a much larger and more valuable share of exports.

Figure 9.8: Distribution of SEZ Firms by Type of Export, 2013 (All SEZ Firms)



Source: CDC and site visits

Phnom Penh SEZ: Phnom Penh SEZ (PPSEZ) is the largest and fastest growing SEZ in Cambodia. From 14 companies in operation in 2011, it was now home to 37 as of mid 2013, a 164 percent increase in less than two years. PPSEZ is located just outside Phnom Penh, in close proximity to the international airport. PPSEZ is managed by Japanese investors and hosts a broad array of activities ranging from animal feed and food processing, utilities, steel processing and construction material production to motorbike assembly, precision mechanical products, and high tech electronic engine. Most investors in PPSEZ are from Japan, Taiwan, and Cambodia. Production in PPSEZ is destined both to the export and domestic markets.

PPSEZ is managed privately by a Khmer-Japanese company which provides language services, also appealing specifically to Japanese investors. Manufacturers operating here include multinational Japanese brands such as Ajinomoto, Minebea, Sumitomo Wiring System, Yamaha, and Combi baby products. More recently, investors in new industries such as light electronics manufacturing (Denso), food processing (Vinamilk), and diamond polishing (Laurelton diamonds), are beginning to construct large production facilities there.

Light manufacturing export is the main activity for 46 percent of the companies located in PPSEZ, with in particular seven electronic and electrical export companies (including three companies producing insulated wires) and nine companies in other light manufacturing targeting exports. PPSEZ had also one vehicle assembly factory.

Most investors interviewed indicated that they located their operations in PPSEZ for the following reasons:

- management and administrative services provided by the zone developer;
- better physical infrastructure;
- proximity to domestic market and major transport infrastructure (airport, roads);
- stable supply of utilities, in particular energy; and,
- cultural understanding (Japanese) with zone developer.

By locating close to Phnom Penh, investors have been able to minimize transaction costs even though their overall costs of shipping from the capital city to overseas markets can be higher than for investors located in the border-SEZs or next to the Port of Sihanoukville. Investors targeting the domestic market or less price or time sensitive have therefore favored PPSEZ.

Investors in the zone expressed specific concerns about the persistence of informal fees in administrative procedures, the lack of independence for Government officials inside the SEZ that lengthens these procedures, and the systematic requirement for certificates of origin including for those products that do not get any tariff benefits through certificate of origins.

Manhattan SEZ: Manhattan SEZ was the first SEZ opened in Cambodia. It is located in the Bavet area close to the Vietnamese border. It began operations in late 2006 and is still one of the fastest growing SEZ in Cambodia. There are currently 18 factories operating, mainly from Taiwan. This is a 125 percent increase on 2011.

Light manufacturing export was the main activity of eight companies located in PPSEZ, with in particular one bicycle factory, one car assembly factory, one electronics company and five companies in other light manufacturing targeting exports of sport equipment, mattresses, screws and machinery.

Reasons cited by investors locating in the Manhattan zone include:

- proximity to Vietnam from which better and cheaper transport infrastructure and utilities can be accessed;
- quality of the one stop shop for administrative procedures (with five different Government departments represented) available inside the SEZ. So much so that investors from the neighboring SEZ come to use these services; and,
- cultural understanding with the zone developer and most investors in the zone (Taiwanese), with a majority of investors being Chinese speaking.

In particular, utilities and infrastructure cost competitiveness is a key advantage for Manhattan SEZ. The cost of shipping a container to the USA from the Manhattan SEZ via Ho Chi Min in Vietnam is less than $500 compared to $800 to shipping through Sihanoukville. Electricity costs in Manhattan SEZ are also cheaper than in other SEZs, with Vietnam-sourced electricity in Manhattan costing $0.12/Kwh compared with $0.193/Kwh in PPSEZ.

Investors in the zone expressed specific concerns about the complexity, cost, and delays associated with the process of doing business with Cambodian companies outside the zone (in particular in Phnom Penh) and about labor unrest.

Sihanoukville SEZ II: Sihanoukville SEZ II is the third largest SEZ in Cambodia in terms of investors and the largest in terms of land area (more than 1,000 hectares). Following its opening in 2009, it has grown steadily and now counts 18 investors. Sihanoukville SEZ II is located immediately outside Sihanoukville, in close proximity to Cambodia's largest port.

Sihanoukville SEZ II is managed by Chinese investors and has a significant focus on light manufacturing. Light manufacturing export is the main activity of 14 companies located in the zone, with nine companies in "other light manufacturing," three firms in electronics, and two in vehicle assembly. Most investors in Sihanoukville SEZ II are coming from China. Production in the zone is targeted mostly to the export market.

Most investors interviewed indicated that they located their operations in Sihanoukville SEZ II for the following reasons:

- proximity to the Sihanoukville port;
- quality and independence of government officials located in the zone; and,
- cultural understanding (Chinese) with zone developer.

Investors in the zone expressed specific concerns about health, safety and security in the zone, workers availability, transport, as well as the cost and reliability of power.

Siahnoukville Port SEZ: Sihanoukville Port SEZ is the latest SEZ developed in Cambodia. Financed with a loan from the JICA, it is the only SEZ in Cambodia developed and managed by the Government. Sihanoukville Port SEZ is located directly next to Sihanoukville Port.

Sihanoukville Port SEZ II has only one investor currently, whose main activity is packaging. Reasons for setting up operation in Sihanoukville Port SEZ include:

- proximity to the Sihanoukville port; and,
- access to government support and services in a SEZ managed by government.

Key concerns in the zone are linked to the risks and limitations associated with the public management of a special economic zone and to the rental cost of land inside the SEZ.

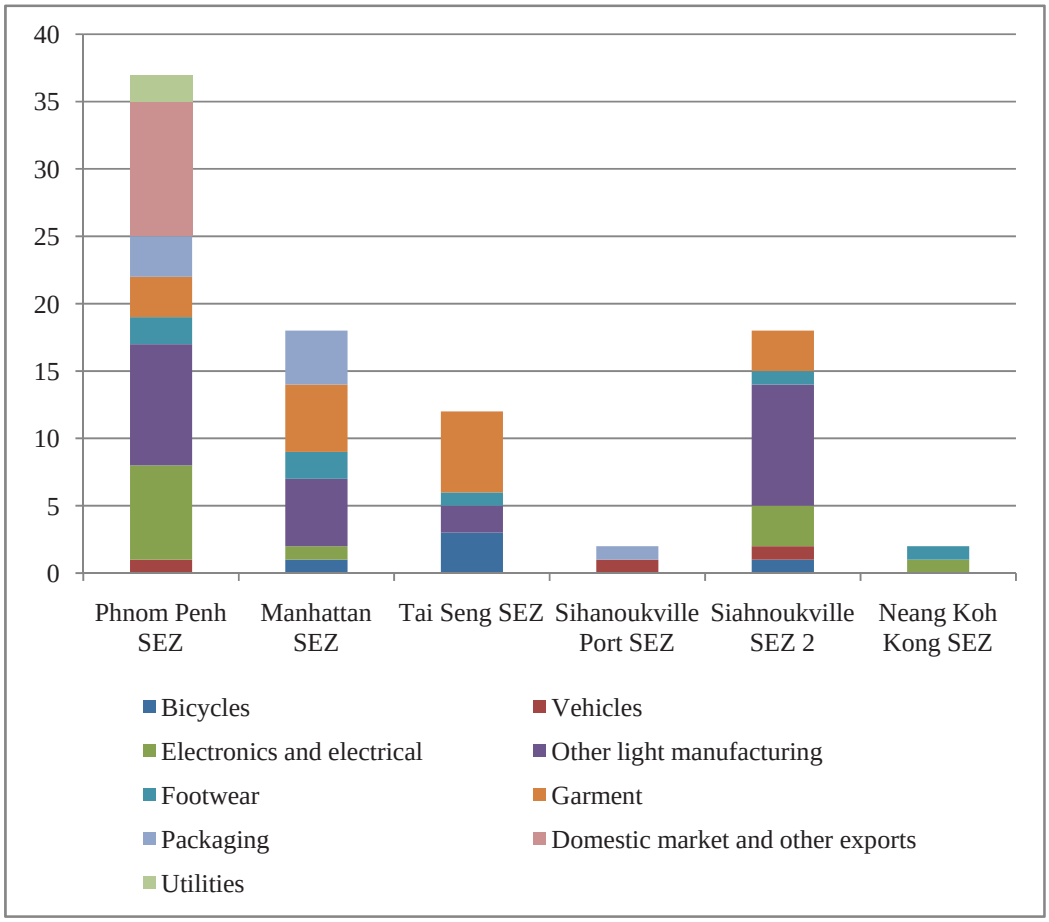
Neang Koh Kong SEZ: Neang Koh Kong SEZ is a "young" SEZ next to the Thai border that started development in 2011. Building on its proximity to factories in Thailand, the SEZ has only three factories and does not have a one-stop shop government office yet.

The three companies located in Koh Kong SEZ work on car assembly (for the domestic market), wire harness, and footwear respectively. Reasons for setting up operation in Neang Koh Kong SEZ include:

- proximity to the regional chain of production in Thailand; and
- access to a pool of more skilled workers.

Key concerns in the zone are linked to the risks of losing workers to better paid job in Thai factories across the border, to unnecessary red tape in export procedures (in particular for sealing export containers,) and to electricity costs.

Figure 9.9: Number of Firms per Type of Export Products and per SEZ



Source: CDC and site visits

The SEZ Framework in Cambodia

Legal Framework: The legal framework for SEZ in Cambodia is based on the *Anukret No.147 on the Organization and Functioning of the CDC*, which includes the "Establishment and Management of Special Economic Zones." The sub-decree was published in December 2005 and is implemented as part of the Investment Law. While conceived initially as a way to link urban and rural economic areas, to support workforce development, and to test export support policy reform, SEZs have become fully private driven industrial parks, successfully attracting foreign investment and concentrating key light manufacturing operations.

The SEZ legal framework in Cambodia applies many best practice principles based on private sector-driven good economic governance, competition, as well as openness and transparency. This legal framework meets international legal standards including by:

- supporting a private sector-driven development of most zones;
- not imposing limitations on foreign and local ownership; and,
- providing a labor arbitration mechanism.

Table 9.6: International Best Practice for SEZ Legal Framework	
Elements of the Legal Framework	**International Best Practices**
Concept of extra-territoriality	Outside domestic customs territory; Eligible for national certificates of origin; and, Eligible to participate in national trade agreements and arrangements.
Eligibility of benefits	No minimum export requirement; Manufacturers and services; Foreign and local investors; Expansions of existing enterprises; and, Private developers of zones.
Foreign and local ownership	No limitations; and, Equal treatment
Private zone development	Clearly identified in legislation; Specific zone designation criteria; Eligible for full benefits; and, Competition from government-run zones on a level-playing field.
Sales to the domestic market	Liberalized, provided on a blanket basis rather than case-by-case; Treated as imports into domestic market; and, Subject to payment of import duties and taxes
Purchases from domestic market	Treated as exports from domestic market; and, Enterprises eligible for indirect exporter benefits
Labor policies	Full consistency with International Labor Organization labor standards; and, Specialized dispute settlements mechanism.
Source: World Bank	

According to the sub-decree, the private company owning and managing a SEZ is also responsible for part of the salaries of government officials staffed inside the zone, though it appears that, in many cases, salaries paid for by SEZ operators are complemented with informal fees.

Any imports and exports to and from an SEZ are treated as imports and exports to and from Cambodia (the relevant customs paperwork must be completed.) Furthermore, SEZ investors cannot remove their output from the zone without permission and any domestic purchase or disposal of products must be approved. No retail businesses can locate in an export processing zone. Each zone contains a production and service area and may also include dormitories to accommodate workers.

Reforming SEZs was on the agenda of the Fourth Cambodia Economic Forum in 2011 and the stated next steps include:

- implementing extra-territoriality (all zones designated as a separate external customs territory);
- harmonizing the existing laws and regulations; and,

- computerizing administrative formalities.

Ownership Structure: Apart from Sihanoukville Port SEZ, managed by the Cambodian Government and financed by a loan from JICA, all other SEZs are owned and developed by private investors under licenses obtained from CDC. Those investors are allowed to run the SEZs as they will, within the boundaries of their license. As such each SEZ has its own individual ownership structure.

SEZs typically own the land on which they are situated. An exception is where the zone developer obtains a land concession from the government – these are generally near the Cambodian border or in isolated regions. The Government stipulates certain minimum requirements relating to the size of the zone and the infrastructure it provides.

Private ownership supports the development of market driven best practices on zone governance and management and include:

- private sector and market driven initiative approach;
- responsive decision–making;
- streamlined administrative processes;
- Government "one-stop-service";
- physical, legal, and tax incentives for zone developers and investors;
- avoidance of specific export incentives;
- broad diversity in the type of investors in the zones; and,
- relative flexibility as regards sales to the domestic market.

Government Agencies:The Council for the Development of Cambodia is the Government agency responsible for SEZs. CDC was established by the 1994 Law on Foreign Investment. Its Board includes senior ministers from related government agencies and is chaired by the Prime Minister of Cambodia. Under the supervision of the CDC, the Cambodian Special Economic Zone Board (CSEZB) is in charge of granting licenses and supervising the development and management of SEZ operations. According to Articles 2, 4.2 and 4.3 of Anukret #147, the CSEZB is responsible for setting up a permanent One-Stop-Shop Government service unit in each SEZ.

The "Special Economic Zones Trouble Shooting Committee" that is part of the CDC deals with SEZ legal and technical issues beyond the competence of the SEZ management and of the CSEZB on an ad-hoc basis. It also receives and handles complaint filed by zone developers and investors.

Incentives:The key benefits provided by SEZ to investors include:

- on-site One-Stop-Shop with Government representatives to help with administrative procedures and implementation of regulations;
- VAT exemption across multiple sectors, including for construction materials for development and operation within the Zone. A similar benefit is available outside SEZs through qualification under a Qualified Investment Project (QIP);
- trouble-shooting facilitation with zones management providing support and cultural understanding

(when of the same origin) to investors;
- industrial-ready land with appropriate utilities for investors to set up and expand their operations; and,
- better infrastructure than that found usually outside the zone.

The degree of support and services offered by different Government agencies via the One-Stop-Shop office located inside SEZs varies depending on the zone. Investors in the Manhattan SEZ claim to receive strong support from the on-site representatives of the five government agencies and investors from the Tai Seng SEZ are even calling on their services though it implies travelling to a different zone. Investors in PPSEZ express greater concerns about the quality of on-site Government services offered, with concerns over delays, lack of independence from the actual ministries located in Phnom Penh, and informal fees. The Koh Kong SEZ does not have Government representatives on-site, and the Sihanoukville Port SEZ, because of its public management structure appears to be able to fast track government procedures. It seems as well that the capacity, knowledge and skills of on-site Government representatives vary considerably from one SEZ to the other, with a general need for improvement.

SEZs provide an expedited mechanism for Certificates of Origin required by importing markets, in particular the EU. The Ministry of Commerce has adopted a streamlined procedure for speedy issuance of Certificate of Origins in SEZs within One-Stop-Shops. One concern expressed by investors is that these certificates are systematically required by MoC even for products or markets do not benefit from such, which creates unnecessary red tape and costs.

The Benefits of SEZs

The degree of success of the different SEZs varies based on different factors. Investors in the Manhattan SEZ benefit from the utilities and infrastructure available from next-door Vietnam and from a comprehensive and effective One-Stop-Shop office on-site. Investors in the PPSEZ take advantage of the proximity to the domestic market and the airport and from access to a larger pool of workers. The zone has been particularly successful in attracting Japanese investors because of cultural affinity with the zone developer. Sihanoukville SEZs' success is based on the proximity to Cambodia's major port. More broadly, the attractiveness of Cambodia's SEZ framework is evidenced by the rapid increase in the number of investors in SEZs, particularly in the Phnom Penh, Manhattan, and Sihanoukville II zones.

Infrastructure: High electricity costs and unreliable supply are significant constraints to the development of light manufacturing in Cambodia, with steady power supply required in automated processes. Relatively weak transport logistics across Cambodia weakens the labor cost advantage and restricts Cambodia’s ability to expand into higher-value, time-sensitive segments of the market. SEZs provides better infrastructure than elsewhere in Cambodia, in particular, water, waste water treatment, logistics and communication infrastructure. These facilitate investors’ operations and support their competitiveness. However, the transport infrastructure linking SEZs to their markets is still relatively poor in comparison to international standards and to competitors.

The proximity of some SEZs to international transport infrastructure reduce export time and cost. PPSEZ benefits from the neighboring international airport, while investors in Sihanoukville SEZ II and Sihanoukville Port SEZ provide easy access to the port facilities. The proximity of SEZs to the Thai and Vietnamese borders facilitates integration of manufacturing operations into the regional production

chains, through easy access to those countries transport infrastructure. Integration into regional production networks should benefit further from regional development programs such as the Greater Mekong Sub Region projects. A number of those projects focus on funding improvement in east west transport network corridor (Vietnam to Thailand via Cambodia.) Such improvements should reduce transport time between SEZs in Phnom Penh and Bavet and their supply/markets.

Preferential Policies and Incentives: Various preferential policies are granted to SEZs in Cambodia, including relatively cheaper land, rapid customs clearance, streamlined administrative procedures, duty-free imports of raw materials and intermediate goods destined to be incorporated into exported products, and a license to sell into the domestic market. The benefit of some of these tax-free investment incentives is limited however and do not encourage investment expansion as they only apply to the initial investment.

Some of these preferential policies are embedded in the granting of Qualified Investment Project status – available to investors outside SEZ but also granted to firms located in SEZs. Because companies located outside SEZs but benefiting from the Qualified Investment Project status receive similar tax and investment incentives as companies located inside SEZs, it does reduce the attractiveness of SEZs.

Zone developers all have QIP status and are provided with the following incentives:

- Profit tax exemption for nine years;
- Import duty exemption for equipment for constructing the zone;
- VAT exemption;
- No foreign exchange transfer restrictions; and
- Guarantees against nationalization and price fixing.

Zone investors, that have received QIP status, benefit from the following:

- QIP incentives;
- VAT exemption (exporters receive VAT exemption on construction materials, production materials, and production equipment; domestic-focused companies receive VAT exemption on construction materials and production equipment); and
- No restrictions on foreign exchange transfers.

The fact that companies located outside SEZs but benefiting from the QIP Project status receive similar tax and investment incentives as those located inside SEZs does reduce the attractiveness of SEZs.

Government Support: As mentioned earlier, various Government agencies provide a range of services to handle the processing of forms and procedures relating to export and import through the One-Stop-Shop set up in each SEZs, though it appears that not all officials in all SEZs are fully trained in handling some of this work. Investors can also received expedited support for various submissions, requests, and complaints through CDC's Special Economic Zones Trouble Shooting Committee.

SEZs also offer expedited trade and administrative procedures. As of September 2008, special streamlined customs procedures apply to SEZs located within 20 km of the Cambodian border. Some of these expedited trade procedures needs to be better defined and communicated to investors and to on-site officials.For example, it appears that investors in SEZs are meeting difficulties in organizing supply

contracts with domestic companies located outside SEZs. This issue needs to be addressed if Cambodia wants to encourage the development of domestic clusters of suppliers to feed into the operations of investors based in SEZs and tied into regional production networks.

Published official fees provide increased transparency and certainty to investors, even though it seems official fees are not yet implemented systematically and informal fees continue to be required for many a procedures. Informal fees continue to be a concern for many investors.

SEZ Management: SEZ operators provide assistance to investors in dealing with Government. An association of major SEZs also allows for discussion of common issues and lobbying with Government.

In general, it seems that private management of SEZs allows for more efficiency and better services in the zone. Furthermore, continuity in management of SEZ operations provides confidence and reliability to investors.

In many case, interviews and surveys show that cultural affinity reinforces the attractiveness of a given SEZ for investors from a specific country. SEZs provide a comforting and supportive environment for companies of the same nationality as the operator.

Workforce and Skills Development: Cambodia lacks many of the technical, engineering, and business skills necessary not only for the development and automation of operations in SEZ companies, but also for operating the services provided by the SEZs themselves. Furthermore, Cambodia lacks an integrated national labor market to ensure investors they can find the workers they need beyond the direct proximity of the SEZ. Cambodian managers and mid-manager in firms located in surveyed SEZs represented 1 percent of the firms' total workforce in 2013.

However, SEZs can help deal with these workforce and skill issues faced by investors in two ways:

- By attracting workers to the SEZ area where jobs are available, providing a larger pool of labor for companies to hire from. Many SEZ developers also work with other local businesses to ensure that workers can access accommodations close to the zone, transport to the zone, and food and other services when working in the zone. This makes SEZ area more attractive to workers and thus increase the pool of workers the zone investors can pick their employees from.
- SEZ manager can facilitate training for workers in the zone, either by providing their own training programs, as in Sihanoukville SEZ II, or by facilitating study trips to factories across the border in Thailand or Vietnam. In 2012, 1 percent of employees in the SEZs surveyed received training abroad. Language training provided by SEZ developers can be particularly helpful as the lack of foreign language skills together with low management skills hinders the promotion of Cambodian workers to management and supervisory positions.

In addition, by concentrating foreign direct investment and Diasporas, SEZs facilitate capital investment, technology transfer, and management skills development in Cambodia, generating learning and spill-over, and, thus, helping build the local manufacturing capacity.

The Challenges of SEZs

Electricity Costs:Energy costs in most SEZs remain high, even though somewhat lower than outside the zones. SEZs, like the rest of the country, suffer from expensive electricity and unreliable supply. Price of electricity in Cambodia is $0.23 per Kwh from EDC and approximately $0.40 per Kwh or more if self-generated. Electricity prices in Vietnam vary between $0.05 and $0.09 per Kwh and in Thailand between $0.04 and $0.09 per Kwh. Even for SEZs with enhanced access to electricity (either through self-generation like in PPSEZ or across the border like in Manhattan), costs remain high compared to competitors in neighboring countries. High cost is compounded by unreliability in power supply, with companies in Manhattan SEZ facing up to 40-50 power interruptions a week on average.

Government Support: Government recognizes that more on-the-job training is required to help officials in One-Stop-Shops further develop their competencies as facilitators, rather than pure regulators, of investors. While officials in Manhattan SEZ One-Stop-Shop have developed a good understanding of investor servicing and the importance of continued improvements in daily operations, their experience have not been emulated fully by officials in other zones. Interviews and surveys in Cambodian SEZs show that not all SEZs offer the same level and quality of government services.

Furthermore, uncertainty in enforcement of laws and regulations generates confusion among business. Around 42 percent of firm respondents located in SEZs – mostly involving manufacturing and assembly – considered regulatory policy uncertainty as a major or very severe constraint.[180]

Taxes and Incentives: Tax administration remains problematic. Investors claim that government officials exact tax penalties excessively. Although investors in Cambodia fare relatively well compared to other regions, almost 15 percent of surveyed firms still identify tax administration as a major constraint.

Table 9.7: Tax and Red Tape Constraints

	Cambodia	Region	All Countries
Share of senior management time spent in dealing with requirements of government regulation	5.6 percent	7.3 percent	8.6 percent
Average number of visits or required meetings with tax officials.	1.0	2.3	2.2
If there were visits, average number of visits or required meetings with tax officials.	2.3	3.3	3.2
Percentage of firms identifying tax rates as major constraint	16.3 percent	23.1 percent	35.4 percent
Percentage of firms identifying tax administration as a major constraint	14.8 percent	15.5 percent	23.5 percent

Source: World Bank Enterprise Surveys 2011

[180] World Bank,*Investment Climate Assessment – Cambodia*, Phnom Penh:World Bank, 2012.

Informal fees are a major burden on business, although zone investors report that unofficial fees are lower inside than outside the zones. Even among zone investors, the informal fee paid by individual firms varies widely depending on how well each company has negotiated with respective officials and whether they use a broker or not. Although information is limited, some zone developers do absorb these fees on behalf of investors, further adding to the zone-developer's cost of doing business. Given that the majority of firms operating in Cambodia are in the manufacturing sector with investments of less than $5 million (almost 70 percent of 108 firms surveyed in the World Bank Survey), the unpredictability of fees seriously impacts operations and competitiveness of Cambodia compared to other countries in the region and globally. One investor that re-located to Cambodia from Vietnam claims that informal fees are still three times higher than those the company previously paid in Vietnam.

Table 9.8: Informal Fees

	Cambodia	Region	All Countries
Percentage of firms expected to pay informal payment to public officials (to get things done)	61.2 percent	28.1 percent	27.4 percent
Percentage of firms expected to give gifts in meetings with tax officials	60.3 percent	19.1 percent	16.8 percent
Percentage of firms identifying corruption as a major constraint	53.7 percent	29.0 percent	36.6 percent

Source: World Bank Enterprise Surveys 2011

International Perceptions and Competitiveness: The current shortfalls that remain in SEZs (infrastructure, government services) may lead to a potentially negative perception of SEZs in Cambodia among foreign investors. This negative perception might be compounded by a comparison with neighboring countries that offer SEZs with better infrastructure and lower investment costs (Thailand, Vietnam), better electricity supply (Thailand, Vietnam, Laos), or even better growth potential (Myanmar).

Socio-Economic and Environmental Impact

Employment Prospect and Working Conditions

The manufacturing sector employed more than 531,000 people in 2011, with nearly 80 percent employed in garments (370,000) and footwear (64,200.) Workers in non-garment manufacturing industries receive wages slightly higher than in the garment industry.

In 2011, the bicycle sector was employing 1,527 workers, the electronic and electrical sector 262 workers, and the "other light manufacturing" (minus furniture) sector 352 workers, the furniture industry 3,685 workers. In total, the light manufacturing export sector represented just more than 1% of total manufacturing employment in Cambodia in 2011.

Worker health and safety is a significant issue in Cambodia's manufactures. However, issues in light manufacturing companies tend to be lesser that in the garment industry, as light manufacturing operations necessitate more capital input, offer better wages, and require more skills. Labor unrest and strikes in certain industrial areas (for example in Manhattan SEZ on the Vietnamese border), along with the health and safety issues (for example in Sihanoukville SEZ II) mentioned above can disturb the production process and delay a deepening of Cambodia's integration into regional production chains.

Contribution to Skills Development

The very limited availability and supply of skilled labor, particularly in rural areas, is a very serious concern especially for light manufacturing operations taking place in SEZs away from Phnom Penh. In most cases, high-skilled workers and managers are brought from the country of origin by the investor. Shortages in engineering and technical personnel result in high dependency on more expensive expatriate personnel. It also requires companies to provide their own training. Cambodian workers are also lacking the language skills needed to facilitate their promotion to management and supervisory positions in foreign firms. [181]

.

SEZs and companies within SEZs provide training to their workers, either on site or through visit to parent factories in neighboring countries. Combined with the used of new technologies in factories, light manufacturing can be a key driver of skill development across the Cambodian economy.

Regional Impact

Most of the impact of light manufacturing in SEZ is concentrated to four regions: in the capital city, Phnom Penh, on the Vietnamese border at Bavet, on the Thai border at Koh Kong, and in the Sihanoukville area. Some of these SEZs to attract workers from much further rural areas, which means that the impact of economic activities in these zones can stretch beyond the immediate proximity of the zones.

[181] See chapter 17 for further discussion of this issue.

Map 9.1: Location of Main SEZs



Environmental Impact

Special economic zones in general and light manufacturing operations in particular are heavy consumers in electricity and, to a lesser extent water.

No specific data was available about the environmental impact of special economic zones, though the zone managers in Phnom Penh and Siahnoukville indicated having specific plans to monitor and mitigate environmental impacts. In general, SEZs seem better equipped to manage the environmental consequences than factories outside the zones.

Conclusion

Information analyzed and reviewed in this chapter can be summarized in the two SWOT tables that follow. The first SWOT focuses on light manufacturing exports; the second, on the operation of SEZs themselves.

Light Manufacturing Exports

Strengths	Weaknesses
• Low labor costs make Cambodia attractive for the labor-intensive stages of light manufacturing production in the ASEAN division of labor, in particular for tasks with lower level of technology such as wire harness, structural blocks for digital information appliances, chassis and auto body component. • The concentration of firms in sub-sector (i.e. bikes or wire harness) allows for productivity gains and economies of scale. • The domestic and regional demand for motorbike and bicycles is increasing quickly, in particular due to the young population in the region, providing opportunities for strong development and economies of scale. • Duty-free status for exports to EU for a number of manufactured good (such as bicycles) has brought investors to move production from neighboring countries to Cambodia. • Most components, parts, and raw materials required in light manufacturing assembly can be sourced from neighboring countries (Thailand, Vietnam, China, Malaysia). • Proximity to neighboring ASEAN markets leads to shorter lead time as part of a production supply chain, with Thailand and Malaysia, in particular, having well developed electric and electronic industries. • Rapid growth in agriculture (i.e. rice, cassava, corn) and mechanization support domestic and regional demand for agricultural equipment such as tractors, tiling, and harvesting machinery. • Political stability limits external disruptions to the flow of component supply. • Foreign expatriate employees can enjoy a safe residential environment.	• Low productivity and low skill-level are trumping low labor cost and make Cambodia less attractive for capital intensive stages in the ASEAN chain of production, such as the mechanized winding process involved in the development of coil, filters, converters and vibration motors. • High electricity costs and unreliable supply constrain the development of light manufacturing, with steady power supply required in automated processes. See discussion in SEZs Operators SWOT. • Relatively weak transport logistics weakens the labor cost advantage and cuts off Cambodia from higher-value, time-sensitive segments of the market. • Unnecessary and inconsistent clearance and administrative procedures slow imports and exports, both in domestic trade and as part of the ASEAN division of labor. This hinders Cambodia's integration into the regional chain of production. • With the exception of bicycles, the critical mass for clustering of various light manufacturing industries has not been reached as of yet, with a lack of Cambodian firms capable of performing outsourced processing, hindering further investment/development (vicious circle). • Cambodian workers lack the language skills needed to facilitate their promotion to management and mid-management positions in foreign companies. • The shortage in engineering and technical personnel results in high dependency on more expensive expatriate personnel. • Labor unrest and strikes disturb the production process and delay Cambodia's contribution to the regional chain of production. • Cambodia's small scale domestic market limits the development of light manufacturing industries and economies of scale. • Limits in capital and technology sourced locally constrain technology transfer.

Opportunities	Threats
• Strong agglomeration of foreign investment from a given country in a specific SEZ (i.e. Japan in PPSEZ, China/Taiwan in Bavet, China in Sihanoukville) tends to attract new investors from the same country. • Rubber can be sourced locally to feed into the light manufacturing production processes. • The concentration of ASEAN automobile production in Thailand and electronics production in Thailand, Vietnam, and Malaysia, provides opportunities for neighboring Cambodia to be involved in part of the assembly or supply processes. • Proximity of countries with strong light manufacturing sectors and investment from firms already operating in those countries provides opportunities for training Cambodian workers and for technology transfer. • The reduction of tariffs under the AFTA scheme is likely to increase trade and division of labor in the ASEAN, making larger markets of the region more easily accessible for Cambodia, thus creating opportunities for economies of scale. • Foreign investors operating in regional or international production networks are seeking to lower their dependency on a few countries in the region (e.g. China, Thailand, Vietnam, Indonesia, or Malaysia) and mitigate issues such as rising labor costs (e.g. China or Vietnam), natural disaster (Thailand, Japan), and others. • Rising wages in China, which is moving up the value chain in electronic production, in Thailand, which has become a key center for automotive production in the ASEAN, in Vietnam, which has become a key parts and component supplier, as well as in Singapore and Malaysia are leading to the relocation of production across the region, with an opportunity for Cambodia to capture some of the more labor intensive part of the work. • Increasing strategy of horizontal division of labor implemented by Japanese, Taiwanese, and Korean companies. • Domestic demand will increase along with economic development. • Large manufacturing firms, in particular in electronics from Japan, are seeking to diversify away from Chinese suppliers (and from other location with political risks) as part of their risk management strategy. • Increased technology dissemination within Cambodian industry will result in a better integration in the ASEAN light manufacturing production, in particular for the electronic assembling process.	• Because efficient procurement of parts and material from other countries is critically important in the production process, logistic issues might factor higher in investment decision than labor cost. This can penalize Cambodia because of its relatively weak soft and hard logistics infrastructure. • Trends toward more mechanization and more capital intensive production is reducing Cambodia's cheap labor competitive advantage and making its electricity constraints more damaging for manufacturing investment attraction. • Negative changes in rules of origin of the EU's EBA program threaten market access for Cambodian bicycles. • Cambodian workers once trained can be tempted to take jobs in Thai and Vietnamese factories across the borders where they get better wages (for SEZs close to the borders). • China's scale of production and domestic market keeps the Chinese industry cost competitive in spite of potentially longer lead time and rising wages, thanks to economies of scale. • Lowering of electrical costs in Laos as a result of large scale hydro-electricity projects may attract light manufacturing winding process in that country. • The democratization process in Myanmar and its opening to investment is capturing the attention of regional investors because of low wages and a large domestic market (though heavy constraints in infrastructure suggest that Myanmar may not be a viable investment option before 4 or 5 years at best). • The increasing contraction of design-production cycles in electronics leads to shorter lead time requirement, emphasizing one of Cambodia's weaknesses. • Sustained morose economic climate in the Western World, especially in Europe, constrains traditional demand for cycles and high end electronics.

• Cycling companies located in Western markets are increasingly moving to Asia to cut costs in response to falling demand in the USA and Europe, with Cambodia already capturing parts of this investment.	

Special Economic Zones

Strengths	Weaknesses
• SEZs provides better infrastructure than elsewhere in Cambodia (in particular, water, waste water treatment, logistics and communication infrastructure). • Firms located in SEZs benefit from Qualified Investment Project status. QIP grants new investors (inside or outside SEZs) a number of investment and tax incentives. • Government officials on site in the SEZ provide a one-stop shop to handle foreign investors' submissions, requests, and complaints. • SEZs offer streamlined trade and administrative procedures. • Published official fees provide transparency and certainty to investors. • SEZ operators provide assistance to investors in dealing with public administration. • Private management of SEZs allows for more efficiency and better services in the zone. • SEZs' proximity to borders or export infrastructure facilitates integration of manufacturing facilities into regional production chains, in particular with firms in neighboring countries as potential suppliers or customers (especially Thailand and Vietnam). • Proximity to international transport infrastructure reduce export time and cost (maritime or air, Phnom Penh, Sihanoukville). • SEZs attract workers, providing a larger pool of labor for companies to pick from. . • SEZs provide a comforting and supportive environment for companies of the same nationality as the operator (i.e. Phnom Penh SEZ for Japanese or Sihanoukville SEZ II for Chinese). • An association of major SEZs allows for discussion of common issues and lobbying of government.	• Companies located outside SEZs can receive similar tax and investment incentives as companies located inside SEZs under the Qualified Investment Project status, which reduces the attractiveness of SEZs. • Tax free investment incentives do not encourage investment expansion as they only apply to the initial investment. • SEZ rules are unclear as to which procedures must be followed to allow trade with firms outside SEZ, making subcontracting relationships with firms located outside the zone uncertain, costly, and time consuming • SEZs, like the rest of the country, suffer from expensive electricity and unreliable supply. Price of electricity in Cambodia is $0.23 per KWH from EDC and approximately $0.40 per KWH or more if self-generated. Electricity prices in Vietnam vary between $0.05 and $0.09 per KWH and in Thailand between $0.04 and $0.09 per KWH. • The lack of language skills to communicate with SEZ investors and low management skills hinders the promotion of Cambodian workers to management and mid-management positions. • The Cambodian workforce lacks the technical, engineering, and business skills necessary for the development and automation of operations in SEZ companies. • The Cambodian Government, and in particular CDC, does not coordinate with SEZs operators for external SEZ promotion initiatives. • Exports and transport infrastructure linking SEZs to their markets are relatively poor in comparison to international standards and to competitors. • Published official fees are not implemented consistently by government officials with informal fees still required systematically. • Government officials on site in SEZs are not always informed about the administrative procedures firms operating in SEZs must follow. • Not all SEZs offer the same level and quality of government services. • Low mobility and distribution of the workforce at a national level means that certain SEZs face difficulty to access the workforce they need.

Opportunities	Threats
• Foreign investors express a preference for privately developed and managed SEZ as it is the case in Cambodia. • Foreign investors express a preference to invest in a SEZ managed by a company from their own country of origin. • Cooperation of major SEZs through a single representative association can facilitate the resolution of issues with Government. • Continuity in management of SEZ operations provides confidence and reliability to investors. • The Greater Mekong Sub Region projects focusing on the east west corridor (Vietnam to Thailand via Cambodia) continues to fund improvement in road network thus reducing transport time between SEZs in Phnom Penh and Bavet and their supply/markets. • Development of night shifts in SEZ factories help switching electricity demand to low peak time.	• Current shortfalls in SEZ (infrastructure, government services) generate a potentially lasting negative perception of the SEZ system in Cambodia amongst foreign investors. • Lifestyle requirements of foreign workers might not be easily met for provincial SEZs. • Neighboring countries offer SEZs with better infrastructure and lower investment costs (Thailand, Vietnam), with better electricity supply (Thailand, Vietnam, Laos) or with better growth potential (Myanmar).

Recommendations

The contribution of light manufacturing exports to Cambodia's economy has grown rapidly over the last few years, with exports increasing by an annual average of 44.3 percent between 2008 and 2012, to reach $373 million. These exports represented just below 5 percent of Cambodia's total recorded goods exports in 2012. Bicycle is the success story of Cambodia's light manufacturing exports, reaching $291 million in 2012 (almost 80 percent of all Cambodian light manufacturing exports) as it captures a growing share of the global market. But, with electrical and electronic parts attracting new FDI, it appears a second light manufacturing export sector is taking shape. Cambodia's key export markets for light manufacturing exports include Thailand, mainly for electrical and electronic components that will be integrated in an ASEAN chain of production, and European markets for finished products (mainly bicycles).

This relative success of the Cambodian light manufacturing industry is linked to its capacity to integrate into regional production networks. Manufacturing companies in the region have organized their production process across specialized functional networks where the different components of a given product are made in different factories and different countries. Various stages of the production process are located according to the relative's competitive advantages of a given country, with Cambodia capturing labor intensive stages of the production process. Proximity to neighboring ASEAN markets where the core of the regional chain of light manufacturing production is taking place has also provided opportunities for neighboring Cambodia to be involved in part of the assembly and supply processes. In addition, most components, parts, and raw materials required in light manufacturing assembly can be obtained from neighbors. As the ASEAN market integrates further, with additional tariff reductions under the AFTA scheme, Cambodia will have more opportunities to integrate regional chains of production and to take advantage of easier access to larger markets in the region.

As Japanese, Korean, and Chinese firms are expected to try and curb their production costs and develop further their supply chain network for light manufacturing in the next few years, Cambodia, a late entrant in regional chains of productions, has an opportunity to attract part of these investments. SEZs, with their

access to better infrastructure, larger pool of workers, and streamlined administrative process, are in an ideal position to capture these investments. Cultural affinity with the zone manager might dictate what foreign direct investment flows to what zones.

Cambodia's initial focus has been on the simpler, labor-intensive parts of the production process. With supportive policies, its integration into the regional production chain can have a positive effect on its capacity to absorb skills and diffuse technology, thus moving the country's production up the value chain and increasing flow-on benefits to the domestic economy.[182]

However, with the exception of the bicycles industry (or more established sectors such as garments and footwear), the critical mass for clustering of various light manufacturing industries has not been reached as of yet, with a lack of operators in Cambodia capable of performing outsourced processing. Development in the light manufacturing industry is further constrained by the small size of the domestic markets and by the lack of domestic suppliers for the production process. These combined factors continue to limit Cambodia's relative competitiveness for light manufacturing exports.

Infrastructure challenges also plague the development of the light manufacturing industry in Cambodia, with, in particular, electricity costs/reliability and transport infrastructure capacity significant deterrent to foreign investment. Similarly, the limits in capital and technology that can be sourced locally constrain technology transfer. Most light manufacturing companies have to employ foreign managerial staff and engineers due to limited domestic capacity. This limits flow-on benefits to the local economy.

To overcome these limitations and further Cambodia's integration into regional supply networks, the country needs to tackle a number of challenges, in particular:

- addressing the low productivity and low skill-level of the manufacturing workforce;
- tackling key infrastructure challenges such as relatively weak transport and costly, unreliable electricity supply;
- addressing labor unrest and strikes that disturb the production process and delay Cambodia's contribution to the regional chain of production, with a focus on poverty and inequality; and,
- facilitating investment and technology transfer by removing unnecessary hurdles.

SEZs, through their infrastructure, pool of workers, training programs and streamlined processes, contribute to providing answers to these challenges. As their services and infrastructure improve further and as the number of SEZ companies reaches a critical mass, SEZs will be able to attract more foreign investment and light manufacturing companies.

Government has an important role to play to support their development. In particular, there is a need for better standardized, efficient and comprehensive government representation inside all active SEZs which will help streamline further export procedures. Red tape and delays in those procedures are still significant deterrent to further investment in the light manufacturing industry. Finally, Government can further support the development of SEZ by helping them promote overseas their services and location.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #9.

[182] See chapter 5 for further discussion of these issues

Chapter 10

PROCESSED FOOD

Background

The processed food industry in Cambodia is characterized by thousands of SME operations, typically household run and often located in rural areas close to agricultural production zones. While larger commercial-scale food processing operations are emerging, the sector is heavily domestic-focused and competes directly with significant agro-food imports. Overall, Cambodia's processed food, beverage, and tobacco industries were estimated to account for around 2.3 percent of GDP in 2011.[183]

With the right policy incentives and a coherent strategy for export-led development, Cambodia could position itself as a key supplier of processed food and related products. With significant changes underway in the dynamics of global food trade and unprecedented expected growth in demand for food products in the Asia region, Cambodia has an ideal opportunity to transform its processed food industries.

The further expansion of a local processed food sector would complement Cambodia's economic profile as a large and growing producer of agricultural products. The processed food industry is important for both export market development and import-substitution production of selected consumer goods – generating income from value-adding as well as diverting cash outflows from the economy. With much of the food processing taking place at the household or village level, the prospects for continued growth in demand for value-added food (and animal feed) offers important food security and poverty reduction benefits for Cambodia.

Export Performance

Export Value

Cambodia's export of food, beverage, and tobacco products is estimated at around $59.6 million in 2011 as has grown considerably since 2007, as outlined in Table 10.1 below.[184]Much of the growth is due to increases in the export of tobacco, cane sugar, and palm oil.

[183] Council for the Development of Cambodia, *Cambodia Investment Guidebook*, Phnom Penh: CDC, 2012.
[184]Comtrade data using Standard International Trade Classification (SITC, Revision 4) system. Note: Tariff classification of processed food products vis-à-vis raw agricultural products is a matter of contention. Based on ADB Economics Working Paper Series No. 154, *Appendix I: Defined List of Processed Food Products*, Manila: ADB, April 2009.

Table 10.1: Cambodian Processed Food, Beverage & Tobacco Exports, $ millions, 2007-2011					
	2007	**2008**	**2009**	**2010**	**2011**
Value ($ million)	$16.2	$22.4	$23.5	$35.0	$59.6
Source: Comtrade using Standard International Trade Classification (SITC, Revision 4).					

Type of Exports

As shown in Table 10.2, tobacco products are the main export item in this category, followed by palm oil and cane sugar. Opportunities to diversify the export base beyond these three commodity groups will need to form part of Cambodia's export development strategy for this sector. In particular, encouraging increased value-adding should be a priority.

Table 10.2: Cambodian Top Exports of Processed Food, $ millions, 2011[185]		
Category of Product	**Cambodian Exports**	**Value ($ millions)**
Tobacco goods	Unmanufactured tobacco & cigars/cigarettes	$20.1
Animal & vegetable oils	Mainly crude palm oil	$17.2
Sugar preparations	Mainly cane sugar	$12.6
Beverages	Mainly spirits & non-alcoholic drinks	$3.1
Fish products	Frozen shrimp and frozen fish	$3.1
Vegetables	Incl. cassava preparations	$2.5
Source: Comtrade		

Current Export Destinations

Key export markets for processed food, beverage and tobacco products vary depending on the production, although there are strong trade links (for both exports and imports) with the ASEAN region. For tobacco products, Vietnam, Singapore, Indonesia and Thailand are important export markets. Crude palm oil is exported mostly to India and Switzerland, and to a lesser extent to Vietnam and Malaysia. For beverages, most exports go to Vietnam and Singapore. Almost all vegetable exports head to Thailand and, similarly, virtually all of Cambodia's sugar exports head to the UK market with the benefit of duty-free access.[186] Exports of fish products (particularly frozen goods) rely heavily on Japan and China as export markets, and to a lesser extent the US.[187]

[185] Wherever possible, unprocessed products – such as fresh cassava and fresh (live) fish – have been excluded from these estimates. Also note, substantial quantities of fish and semi-processed cassava products are exported informally and are not reflected in the trade data above.
[186] The EU's EBA policy permits duty-free imports of sugar products from LDCs.
[187] TradeMap data

Potential Export Destinations

With the right policy settings and strategic investments, Cambodia can be well placed to support growing food demand and changing consumer preferences of nearby markets in South East Asia. This might even include demand for Halal food products from the key markets of Indonesia and Malaysia. Other potential export markets for Cambodia's processed food sector include China, India, and the Middle East.

More generally, the expansion of Cambodia's livestock industries would offer scope to supply emerging markets as demand for animal foods increase.[188] This would require significant investment in disease management, for example in order to secure a FMD-free zone, which would offer scope to develop meat export markets. This would also have a multiplier effect of encouraging expansion of local animal feed production plants as an input industry.

Trade Balance

Cambodia is a net importer of processed foods, beverages, and tobacco goods, with the local industry almost exclusively focused on the domestic market and import-substitution production. Key imports include tobacco products, cereal preparations (particularly flours), and beverages. Total imports of food, beverage and tobacco products were estimated at $251.8 million in 2011.[189]

Dynamism of Exports

In an industry dominated by thousands of household and village-level SMEs, the export-oriented processed food industry in Cambodia is still in its infancy. A 2010 IFC-sponsored survey of SMEs in Cambodia found that more than 93 percent of businesses did not practice importing or exporting activities. Only 3.2 percent were involved in exporting, 4.2 percent in importing and just 0.8 percent in both importing and exporting functions. While the relatively low participation levels of SMEs in international trade activities reflect the basic nature of SME operations, it also presents an opportunity for development and expansion.[190] Efforts to disseminate information on processed food trade in South East Asia would aid strategic investment by both small and large businesses and support efforts to expand processed food exports.

Export Prospect

There are a number of key agro-food sectors with good prospects for future export development. For example, Cambodia's emergence as a significant producer of cassava has created an opportunity for increased production of semi-processed and processed cassava products used in global industries – including cassava pellets for animal feed, cassava flour and starch as inputs for processed food, or even methanol.Similarly, Cambodia's extensive fish resource, if sustainably managed, could support an expanded fish processing industry to target consumers in the ASEAN region and key markets worldwide.

[188] See chapter 4
[189] Comtrade data using Standard International Trade Classification (SITC, Revision 4) system.
[190] International Finance Corporation, *Understanding Cambodian Small and Medium Enterprise Needs for Financial Services and Products*, Phnom Penh: IFC, 2010.

Further, as modern cultivation practices and agro-industry supply chains are still in development in Cambodia, there is scope to develop a national organic food industry The Cambodian Organic Agriculture Association (COrAA) has identified rice, soybeans, cashews, fruits, spices, and palm sugar as sectors offering the greatest potential for organic industry development.[191] Small quantities of organic rice and cashews are currently exported – illustrating Cambodia can export organic products – although the process of acquiring and maintaining organic certification is expensive and the costs and potential benefits need to be carefully weighed by individual farmers and producer associations.

World Market Conditions

Market Access Conditions

In general, processed agricultural food products do not enjoy the same level of tariffpreferences as raw agricultural goods. Similarly, the practice of tariff escalation in global trade discourages trade in value-added goods. However, as an LDC in ASEAN, Cambodia has access to a number of important growth markets in South East Asia. The ASEAN Free Trade Area (AFTA)is a trade bloc agreement that helps to support local manufacturing in ASEAN member countries. Regional integration can therefore be expected to be an important aspect of future growth in Cambodia's processed food exports.

For exports such as cane sugar that target EU markets, theEBA preferential trade scheme allows Cambodian sugar to be sold duty-free on the European market and avoid an MFN applied tariff of 1.9 percent. Cambodia's crude palm oil exports to Switzerland also avoid an MFN duty of 122.3 Swiss Francs/100kg.[192]

Major Competitors

Cambodia's principal competitors for trade in processed food products are within the ASEAN region. In particular, Thailand's food processing industry has grown rapidly in the past decade and is one of the most developed in South East Asia. This growth is built on Thailand being a leading supplier of a wide variety of agricultural commodities including rice, rubber, cassava, sugar, seafood, poultry meat, frozen and ready-to-eat foods and processed fruits and vegetables.

In Thailand, there are over 10,000 food and beverage processing factories consisting of small, medium and large-scale plants. Most of these factories, which are small to medium size, serve mostly the domestic market, while medium to large food processors tend to produce higher-valued products for the domestic and export markets. Overall, Thailand's food processing sector is heavily export-oriented with more than 50 percent of production sold outside the country.[193]

[191] Cambodian Organic Agriculture Association (COrAA), *Organic Agriculture and Food Processing in Cambodia – Status and Potentials*, Phnom Penh: April 2011.
[192] World Trade Organization, *Tariff Download Facility*. Geneva: WTO, 2013.
[193] Food Export Association, *Country Profile – Thailand*, Chicago: Food Export Association, 2012

Vietnam‘s food processing industry has also expanded rapidly in recent years with estimated annual growth rate in excess of 10 percent per year. Government reforms – including efforts to make regulations more transparent and reduce red-tape – have enticed both foreign and local investors into Vietnam‘s food processing industry. Vietnam has also tried to protect local food manufacturers by imposing high import tariffs (from 20 – 40 percent) on selected food imports that compete with locally produced products (such as confectionery, snack foods, juices, canned foods, ice cream.)It is reported that most large local manufacturers have GMPor HACCP.

As major processing hubs, both Thailand and Vietnam also rely heavily on processed food ingredients and additives. This presents an opportunity for Cambodia to form part of a regional supply chain for processed agricultural goods, for example, in the supply of cassava flour and starch – a major ingredient in the production of food and consumer goods.

World Market Prospect

World exports of processed food, beverage and tobacco products were valued at $791 billion in 2011.[194]A clear worldwide trend exists towards diets that include more animal products such as fish, meat and dairy products, which in turn increases the demand for animal feed and grains. Population and income growth will drive global demand for food products. The world’s population is projected to reach around 8 billion by 2025. As the world economy shifts from west to east, millions of people are likely to move out of poverty and the middle class is predicted to grow from 1.8 billion in 2010 to 3.2 billion in 2020 and 4.9 billion in 2030. Upwards of 85 percent of this growth will be in Asia.[195]

Consequently, the value of world food consumption is projected to be 75 percent higher in 2050 than in 2007, an annual average increase of 1.3 per cent. Demand for food is projected to increase most strongly in Asia, doubling between 2007 and 2015.China and India alone will contribute a combined 56 percent of the expected growth in global demand for food.[196]

Global food security will also remain a priority as populations continue to grow in many food–deficient countries. The prospect of feeding a larger and wealthier global population is not without its challenges. For example, by 2025 global food production will be affected increasingly by the availability of key inputs to production, including land, soil, energy, water, wild fish stocks and, potentially, phosphorous.[197] Global supplies of food can therefore be expected to continue to be volatile and subject to sudden disruptions and price spikes.

Overall, the medium to long-term outlook for agro-food commodities and products is overwhelmingly positive. Cambodia has the potential to position itself as a key agro-food supplier in a region where the majority of the increased demand for food products will be generated. Consequently, it will be imperative for Cambodia to develop a national strategy that can help it build on these advantages and drive the development of an export-oriented processed food sector.

---

[194] World Trade Organization, *International Trade Statistics – 2012*, Geneva: WTO, 2012.
[195] Kharas, H., *The emerging middle class in developing countries*, OECD Development Center, Paris: OECD, 2010.
[196] Linehan, V. et al., *Global food production and prices to 2050: scenario analysis under policy assumptions*, ABARES Conference Paper 13.6, Canberra: ABARES, 2013.
[197] Foresight, *The Future of Food and Farming, Final Project Report*, London: Government Office for Science, 2011.

Domestic Supply Conditions

Producers

The domestic agro-processing sector is heavily geared toward grain milling, while beer and wine, sugar and tobacco production also represent a significant number of businesses. The seasonal surpluses of perishable agriculture goods (such as fruit and vegetables) in Cambodia provide a useful platform on which to base a processed food and beverage sector. However, the informal export of many raw agricultural goods (particularly to Vietnam and Thailand) reduces access to a reliable supply of inputs for processing. Of course, a local processing sector with access to international markets would create a strong market signal and encourage the flow of informal exports to reverse and source the domestic supply chain for value-adding.

The processed food, beverage, and tobacco supply chain in Cambodia can be divided into two components – thousands of small household and village-level SMEs that supply nearby consumers, and the growing number of larger factories that mostly target the domestic markets with some limited capacity to supply export markets.

In 2010 there were more than 31,400 registered SMEs in Cambodia's processed food, beverage and tobacco sector. As shown in Table 10.3, the number of SMEs in the sector has increased by 45 percent in the seven years to 2010, with the sector accounting for 84 percent of all registered SMEs in Cambodia. Total employment from registered SMEs in the processed food, beverage and tobacco sector reached more than 93,700 in 2010, equivalent to a 90 percent increase in the workforce since 2004 with the sector accounting for more than 70 percent of total SME employment. Total output from these SMEs also increased by 56 percent to $780million over the same period.[198]

Table 10.3: SME Profile inFood, Beverage & Tobacco Sector, 2004 – 2010

	2004	2005	2006	2007	2008	2009	2010
No. of SMEs	21, 692	23,727	25,455	26,379	26,208	29,987	31,479
Employment	49,383	57,557	58,512	60,262	57,496	90,148	93,704
Output ($ million)	$ 500	$ 588	$ 615	$ 574	$ 555	$ 631	$ 780

Source: Council for the Development of Cambodia (CDC), *Cambodia Investment Guidebook*, Phnom Penh: 2012.

In contrast to the SME operations, there were 56 large factories in the sector in 2011, an increase from the 42 in operation in 2008 (see Table 10.4 below). While the processed food, beverage and tobacco sector dominate SME operations in Cambodia, the sector accounts for just 8.1 percent of all large factories operating in 2011, a modest increase from the 7.3 percent share recorded in 2008.[199]

[198] Council for the Development of Cambodia,*Cambodia Investment Guidebook*, Phnom Penh: CDC, 2012.
[199] Council for the Development of Cambodia, *Cambodia Investment Guidebook*, Phnom Penh: CDC, 2012

Table 10.4: LargeFactories in Food, Beverage & Tobacco Sector		
	2008	**2011**
Food, Beverage & Tobacco	**42**	**56**
- Food	*21*	*30*
- Beverage	*12*	*15*
- Tobacco	*9*	*11*

Source: Council for the Development of Cambodia (CDC), *Cambodia Investment Guidebook*, Phnom Penh: 2012.

Production Capacity

As the processed food sector in Cambodia is dominated by family-run SMEs it is difficult for the sector to gain economies of scale. While this may be less of an issue when focusing solely on the domestic market and import-substitution, it can weigh on industry development plans. Similarly, being family-run and rural-based, SMEs in the sector tend to rely on utilizing obsolete technologies and have limited access to capital and market information to successfully expand or diversify production. Other constraints to SMEs include a lack of a robust regulatory and legal framework, lack of access to and the high cost of institutional finance, and the high cost of infrastructure services such as refrigerated transport and energy.[200]

These obstacles to export-led growth warrant close public-private sector collaboration in the development of a national policy platform and action plan to spur investment and create a more business-friendly environment in the processed food sector for both SMEs and larger businesses. Indeed, despite a relatively attractive FDI regime there has been relatively little foreign investment in Cambodia's processed food sector compared to other industries such as garments and tourism.[201]Table 10.4 outlines key Cambodian and foreign (fixed-asset) investments in the processed food sector over the ten years 2001 to 2010.

[200] Cambodian Development Research Institute *Case Study 3 – Policy Support for the Promotion of Non-farm Rural Enterprise – A Focus on SME Development Policy*, Phnom Penh: CDRI, July 2011.
[201] There has been fairly significant investment in other agricultural and agro-food sectors such as rubber and cashew plantations by Vietnam, rice milling by China and Malaysia, and others as well. See Chapter 5.

Table 10.5: Approved Fixed Asset Investment in Food Processing $ million, 2001-2012									
Origin of Investors	**2001**	**2003**	**2004**	**2007**	**2008**	**2009**	**2010**	**Total 2001-10**	**Share %**
Cambodia	0.8			10.1	3.7	8.5	30.2	53.3	71.3%
Australia		0.7		9.0				9.7	13%
Canada							4.3	4.3	5.7%
China				0.7				0.7	0.9%
Singapore							3.8	3.8	5.1%
Thailand	1.2							1.2	1.6%
Vietnam				1.7				1.7	2.3%
TOTAL	**2.0**	**0.7**	**0.7**	**20.9**	**3.7**	**8.5**	**38.3**	**74.7**	**100.0%**
FDI Share	*60%*	*100%*	*100%*	*51.5%*	-	-	*21.2*	*28.7%*	

Source: Cambodian Development Research Institute (CDRI), *Foreign Investment in Agriculture in Cambodia*, Working Paper Series No. 60, Phnom Penh: 2012.

In the decade 2001-2010 there has been patchy involvement in Cambodia's food processing sector by foreign investors. Over this period, foreign investors share of fixed assets in total sector fixed assets was 28.7 percent. Cambodian businesses have generally taken the lead in investing in this sector.

A number of noticeable foreign investments over this period include:

- Australian investors set up a soya milk manufacturing plant with 100 percent-own assets in 2003 and, separately, have partnered with Cambodia interests (which holds 51 percent) in beer manufacturing in 2007.
- Canadian investors launched a beer manufacturing project in 2010 with 100 percent-own fixed assets.
- Singaporean investors partnered with a Cambodian firm (10 percent stake) to produce bottled pure drinking water.
- Thai investors partnered with Cambodian interests (40 percent stake) in producing instant noodles and other instant food.
- Vietnamese investment partners with a Cambodian business (30 percent interest) in producing beer, soft drinks and drinking water.
- Chinese investors with 100 percent-own assets established a sea-food processing in 2004.[202]

More recently, Thailand's CP Group established its food processing business in Cambodia with 100 percent foreign ownership by the parent company. These operations produce both animal feed products and processed consumer goods. For animal feed production, almost 95 percent of inputs are locally sourced – namely corn, cassava, rice bran, broken rice and soya bean. For consumer goods, 100 percent

[202] Council for the Development of Cambodia, *Cambodia Investment Guidebook*, Phnom Penh: CDC, 2012

of inputs are locally sourced – including pork and chicken meat. Both of these production chains are focused on supplying the local domestic market only.[203]

On the whole, investors from within the region have a strong interest in Cambodia's food processing sector – albeit on a relatively small-scale. There is a clear need to encourage further private sector investment in the processed food sector as well as attract more foreign investors from beyond the region. This will be central to expanding Cambodia's processed food production capacity. Developing large-scale processing facilities that meet international standards can also be supported through joint partnerships between local and foreign businesses.

Quality of Product

Given the overwhelming focus on servicing the domestic market, Cambodia's processed food sector is only just starting to come to grips with the challenges and complexities of securing access to international markets. In this context, a key constraint to the further development of an export-oriented processed food sector is the lack of compliance with international SPS measures in Cambodia.

Significant investment by both government and industry will be needed to improve the SPS and food quality standards in Cambodia if the local sector is to shift from inwards-looking to export-oriented. As soon as acceptable standards have been reached by key food processing facilities, a national brand /logo that promotes 'Made in Cambodia' should be established to support marketing initiatives on international markets and trade fairs.

Availability & Quality of Labor Force

Labor costs are relatively low in Cambodia. However there is a general and widespread shortage of skilled labor in Cambodia that can discourage investment across industry. While processing operations reliant on manual labor may benefit from low wage conditions, modern processing plants that are most likely able to target export markets will require skilled labor to service and manage more capital-intensive operations. To avoid over-reliance on foreign labor for managers and technicians, introducing local training requirements as part of operating licenses and/or investment requirements may create an added incentive for the private sector to invest in local training programs.

Level of Processing Technology

The large and vibrant SME component of Cambodia's processed food sector is characteristically set up with small amounts of financial capital, low level technology, and unskilled labor. Further, household SMEs often rely on unpaid family labor with little access to institutional finance, making it even harder to adopt modern processing technologies. In this context, expanding access to institutional finance and banking to rural areas would create significant opportunities to greatly improve the productivity of the sector.

[203] Interview with CP Foods, Phnom Penh: May 2012.

For the larger commercial factories operating in the processed food sector, modern processing technology is more widely utilized. However, access to export markets remains difficult due to a lack of widespread certification in food safety (such as HACCP / GMP). Cambodia's pursuit of increased production of semi-processed or processed agricultural commodities (e.g. milled rice and cassava products) will help create demand for post-harvest agribusiness – such as grading, handling, laboratory, and logistics services – that will also complement the wider development of local agro-processing. However, investment in internationally recognized food safety regimes should be a priority for the sector if exports are to drive development and new export markets are to be secured.

Cost and Quality of Infrastructure

Poor transport (including highways, railways and ports) and storage infrastructure and the high cost of energy in Cambodia discourage private investment in food processing facilities. Indeed, there is a risk to the local processing industry that it is more cost-effective to export raw agricultural goods to Thailand and Vietnam for onward-processing and then re-import the finish products for consumption in the local market. This underscores the importance of developing a national action plan to support export-led development of the processed food sector.

Efficiency of Domestic Support Industries

The processed food and beverage sectors are particularly dependent on the quality of raw agricultural inputs supplied. In Cambodia, the seasonality of supply and a lack of available refrigerated transport lower the overall consistency and quality of raw inputs and impede efforts to expand local processing facilities.

While Cambodia's agriculture sector is predominantly small-scale, the use of contract farming by processors may be a useful means of securing more reliable inputs while also giving greater certainty in terms of how individual business can manage respective inwards supply chains. Further, those raw agricultural inputs considered poor quality may be still useful in the production of animal feed that could be used to support the development of local livestock industries.

Domestic Demand

As the Cambodian economy grows and household consumption increases, the food processing industry can be expected to grow at a faster pace. However, it will be important the Cambodian food processing industry remains competitive in order to continue to service the local market and avoid loss of market share to foreign imports.

Prospect for Domestic Supply Conditions

A number of agricultural sectors – such as rice and cassava – are enjoying encouraging increases in yields and are pursuing export-oriented growth strategies. This will lead to improvements in both the quality and availability of supply for processing industries.

Policy and Regulatory Framework

Government Initiatives and Sector Policy

The processed food industry in Cambodia has not enjoyed the same level of strategic attention as other sectors – such as garments, tourism, and rice. Instead, issues relating to the processed food industry have tended to be addressed through other industry development initiatives that happen to overlap with this sector. While a broad *SME Development Framework 2010-2015(Strategy 2015)* is in place, it is largely an internal strategy for the General Department of Industry rather than a national policy platform adopted by RGC.

The *Strategy 2015* framework does identify the lack of domestic investment along the value chain – especially in agro-industries – as a major issue and points to the need for regulatory reforms to create an enabling environment conducive to increased private sector interest in the sector.[204] Other priorities for industry development that have been identified include the need to increase marketing initiatives on a global scale to help drive exports, to establish international standards across Cambodia's manufacturing sectors, and to better enforce of rules and regulations to protect business interests and investments.

The successful implementation of sector-specific policies – including in relation to garments, tourism and, most recently, rice – underscores the importance of developing policy platforms backed by strong public-private sector engagement. For Cambodia's processed food sector, a sector-specific national policy is needed to drive export-led development. This policy will need to address important cross-cutting issues, such as FDI, the environment, agriculture, trade, infrastructure, energy, SMEs, and vocational training.

Business Associations

While a Working Group on Agriculture & Agro-Industry does convene under the Government-Private Sector Forum (G-PSF), no national business association specific to the processed food industry exists in Cambodia. However, a number of commodity-specific associations do exist in the agriculture sector. These associations (such as Rice Millers Associations) often seek to influence the whole supply chain, for example, by working with farming communities to improve the quality and consistency of raw products being supplied.

Due to the pressing need to establish a national policy platform to drive development of Cambodia's processed food sector, a national association is warranted and would serve as a useful mechanism for public-private sector collaboration. Given the structure of Cambodia's processed food sector, it will be important that any such collaboration includes the interests of the thousands of SMEs with a stake in the sector's future.

[204] General Department of Industry, *The Strategic Framework of the General Department of Industry (2010–2015) – Concept Paper*, Phnom Penh: MIH, GDI May 2010

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

In 2010, there were more than 31,400 registered SMEs in Cambodia's processed food, beverage and tobacco sector, employing more than 93,700 people.[205]Many of these are small household agro-processing businesses, and typically engaged in grain milling (especially rice). With forward and backward supply chain linkages, the processed food sector offers high multiplier effects in terms of job creation and value addition in Cambodia.

Impact on Development of Disadvantaged Regions

The development of the SME sector is important to rural livelihoods in Cambodia because of its ability to generate employment and income for poverty alleviation.Survey results confirm that access to markets, particularly new markets, remains a challenge for SMEs due to limitedaccess to information, lack of demand from SMEs, and the fact that SMEs do not have the capacity to pursue largermarkets.

It is quite common in Cambodia that when one enterprise succeeds, similar enterprises start up in close proximitywith the hope of being successful too. Today, with too many similar businesses operating in the same area, and notenough consumers/customers to go around, accessing new markets, whether within Cambodia or internationally,is increasingly important for household and village-based SMEs.[206]

Contribution to Skill Development

For Cambodia's vast number of SMEs operating in the processed food sector, opportunities for skill development are limited. Empowering these businesses with the right tools to access and interpret market information and identify new opportunities will therefore need to be a key component of Cambodia's strategy for export-led development of the food-processing sector. The larger commercial-oriented food processing businesses that have foreign investor backing are known to, at least occasionally, invest in staff training activities in order reduce reliance on skilled labor from overseas. Such initiatives should be encouraged as part of wider government efforts to entice future investment in the sector.[207]

Energy and Water Constraints and Environmental Impact

Electricity prices in Cambodia are considered the highest in the ASEAN region. By way of comparison, the average price of electricity in Cambodia is $0.18 per kilowatt/hour, and prices are as high as $0.90 per kilowatt/hour in remote rural areas. This compares to around $0.054 per kilowatt/hour in Vietnam.[208] The price of electricity is a major deterrent to foreign investors and undermines Cambodia's ability to

[205] Council for the Development of Cambodia, *Cambodia Investment Guidebook*, Phnom Penh: CDC, 2012.
[206] International Finance Corporation, *Understanding Cambodian Small and Medium Enterprise Needs for Financial Services and Products*, Phnom Penh: IFC, 2010.
[207] Interview with CP Foods, Phnom Penh: May 2012.
[208] Sotharith, Chap, *Industrial Readjustment in Cambodia*, BRC Research Report No.7, Bangkok Research Center, IDE-JETRO, Bangkok: IDE-JETRO, 2012.

compete with neighboring countries such as Thailand and Vietnam – including in the processed food and related industries.

As the processed food sector expands, it will also need to be conscious of its environmental impact, not only at the enterprise-level, but also up and down the supply chain. For example, a processing facility will need to be mindful of the environmental impact of any raw agricultural inputs it sources. Similarly, waste products from agro-processing need to be carefully managed and, in this context there is real opportunity to address high electricity costs through use of alternative technology, such as the use of by-products as biofuel. As been trialed in the milled rice sector, generating power from organic materials by combining effective waste management with clean technology could contribute substantially to lowering costs in processing facilities in the future.

Box 10.1: ASEAN & Regional Integration

Given the right policies and strategic plans, Cambodia can position itself as a reliable supplier of key agro-food products to the growing number of middle-class consumers in the Asia region. Worldwide, millions of people are likely to move out of poverty and the middle class is predicted to grow from 1.8 billion in 2010 to 3.2 billion in 2020 and 4.9 billion in 2030. Upwards of 85 percent of this growth will be in Asia.

As incomes grow in the region, diets will shift toward including more animal products such as fish, meat and dairy products, which in turn increases the demand for animal feed and grains. As an emerging agricultural exporter in South East Asia, these changing global dynamics in world food trade present an important opportunity for Cambodia to develop a viable and export-oriented processed food industry. Wedged between two large regional food exporters – Thailand and Vietnam – Cambodia also has an opportunity to become more closely integrated in the regional supply chain. This will require the vast quantities of agricultural products (such as rice, cassava and fish) that are currently traded informally across these borders to reverse direction and enter the formal economy. This will provide further opportunities for value-addition – such as through the production of cassava starch, a major ingredient in both the global food and animal feed industries.

Regional integration is already taking place at an investment-level, with modest but growing FDI-levels from within the ASEAN region being recorded in Cambodia's processed food sector. While these larger commercial food processing operations are still focused on servicing the domestic market in Cambodia, they may well serve as useful platform on which to drive export-led development of the sector. It will be important also that Cambodia's vast numbers of SMEs in the processed food sector are given an opportunity to diversify, expand production, and share in the dividends of export-led development.

Conclusion

The main findings from this chapter are summarized in the SWOT analysis that follows.

Strengths	Weaknesses
• The development of a local processed food sector complements Cambodia's economic profile as a large and growing producer of agricultural goods. • The processed food sector is dominated by a very large number of SMEs at household and village level, generating direct livelihood benefits. • The processed food industry important for both export market development and import-substitution production of selected consumer goods—generating income from value-adding as well as diverting cash outflows from the economy. • Increased exports of agricultural commodities will create demand for post-harvest agribusiness—such as grading, handling and logistics—and support the wider development of local agro-processing. • Seasonal surpluses of highly perishable agricultural goods (such as fruit and vegetables) are well suited to further processing. • Agricultural production of low quality—unsuitable for use in processed food—can be used in production of animal feed and support the development of local livestock industries. • Cambodia's extensive fish resource supports a fish processing industry that focuses on meeting traditional consumer preferences in the domestic market (with limited exports to the ASEAN region). • Cambodia's emergence as significant producer of cassava has created an opportunity for increased production of processed and semi-processed cassava products—including pellets for animal feed and flour/starch for the global food processing industries.	• A major constraint to development of an export-oriented processed food sector in Cambodia is the lack of compliance with international SPS standards. • Inconsistent and generally low quality of raw agricultural products impedes efforts to expand local processing facilities. • Informal export of many raw agricultural goods further reduces access to inputs for food processors. • Often more cost-effective to export raw agricultural goods to Thailand and Vietnam for processing and then re-import finished product for local market. • Poor transport and storage infrastructure and the high cost of energy in Cambodia discourage private investment in food processing facilities. • Limited access to finance impedes SME expansion in the processed food industry. • Cambodian agriculture sector predominantly small-scale farms with very limited contract farming available for food and beverage processors to secure reliable supplies of raw inputs. • Despite the large size of the poultry sector, small-scale farms make little use of support services such as animal health, advisory, and technical services. • Despite an attractive FDI regime there has been relatively little foreign interest in investing in Cambodia's processed food sector compared to other industries such as garments and tourism. • Low availability of skilled labor discourages investment. • Lack of information on processed food trade in Southeast Asia impedes strategic investment and efforts to expand processed food exports exports (especially for household and village-level SMEs). • Tariff preferences generally not as favorable for processed agricultural goods.

Opportunities	Threats
• As the Cambodian economy grows and household consumption increases, the food processing industry can be expected to grow at a faster pace. • With much of the food processing taking place at the household or village level, the prospects for continued growth in demand for value-added food offers important food security and poverty reduction outcomes for Cambodia. • With forward and backward supply chain linkages, the processed food sector offers high multiplier effects in terms of job creation and value addition. • Modern cultivation practices and agro-industry supply chains are still in development in Cambodia, offering scope for development of export-oriented organic food industry—especially in sub-sectors such as milled rice, soybeans, cashews, fruits, spices, and palm sugar. Incentives that encourage use of locally produced raw agricultural goods in food processing sector could substantially boost industrial development in Cambodia. • Improved disease management and securing an FMD-free zone would offer scope for development of meat export markets. • With appropriate policy settings and strategic investments, Cambodia can be well placed to support the growing food demands and changing consumer preferences of nearby markets in Southeast Asia, possibly including demand for Halal food.	• Processed food sector expands on the back of imported agricultural inputs—denying the local farmers an opportunity to improve earnings and diversify supply chains. • Larger food processing facilitieschoose not to rely on smaller, resourcepoorfarmers for raw inputs—the latter are left out of supply chains and the socio-economic benefits of a processed food industry are potentially reduced. • Failure of local food processors to link up with larger multinational companies would undermine efforts to better understand international markets as reduce the prospect of significant export earnings. • Cambodia's consumer preferences shift to imported international brands of processed food and beverage products. • Failure to entice substantial FDI in food processing sector would deny local sector access to global value chains, technology and finance.

Recommendations

Cambodia's processed food and associated industries are at an important cross-road. While current production levels are relatively small and focused mostly on servicing the domestic market, there is a clear opportunity for Cambodia to position itself as supplier of key agro-food products on international markets. This will require significant structural changes to the industry and a renewed approach to industry development specific to the processed food sector.

The overarching catalyst for action in developing an export-oriented processed food sector will be the creation and implementation of a national policy platform and strategic plan for the sector's expansion. Similar approaches have been taken elsewhere (such as the RGC's national policy for the rice sector) and serve as a useful model for how to organize government and industry stakeholders and develop cohesive action plans that are realistic and practical.[209] First and foremost, a national industry association is needed that represents the key stakeholders (large and small) in the processed food sector to facilitate closer public-private sector collaboration.

A national policy platform together with regulatory reforms will help create a business environment conducive to further investment in Cambodia's food processing sector. Where appropriate, partnerships

[209] Refer to *Promotion of Paddy Production and Rice Export 2010* as discussed in Chapter 12.

with foreign investors that have expertise in food processing and export market development should be encouraged.

Indeed, a modern processed food sector will not emerge from Cambodia's "cottage" food processing industry, but will require large domestic and foreign investors with experience in the sector. Such large-scale investment and expansion will also help restructure the local industry, create greater awareness and understanding of international markets, and highlight the importance of meeting the Good Manufacturing Practices (GMP) and HACCP standards that are expected.

While there is a clear trend toward more processing activities taking place in specific agro-industries – such as rice, cassava, and fish – the absence of a national strategic approach to food processing development is holding back the industry. In developing a national policy platform and action plan for the sector, a comprehensive review and detailed stock-taking of current processing activities will be needed. This will require strong public-private sector collaboration that is not present currently in the sector. Such an approach will help build a stronger body of industry knowledge on which to base regulatory reforms and targeted policy incentives needed to drive export-led growth in the sector.

There are significant changes underway in the dynamics of global food trade and unprecedented expected growth in demand for food products in the Asia region. This presents Cambodia with an ideal opportunity to transform its processed food sector over the medium-term, grow and diversify its industries, and develop new export markets.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #10.

Chapter 11

FISHERIES

Background

Cambodia's fisheries sector is inextricably linked to the country's history, environment, and culture. The sector is a major contributor to food security and freshwater fish is the largest source of animal protein for most Cambodians. It is estimated the average person consumes around 50 kg of fish per year, making Cambodia one of the largest per capita consumers of fish in the world.[210]

The Mekong River and the Tonle Sap Great Lake create a vast inland water system that extends into flooded forests, grasslands, rice fields, and swamps. This water resource supports extensive inland capture fisheries in Cambodia, playing a very important role in rural livelihoods and the national economy. Further, policy reforms implemented over the past decade have significantly expanded local communities' access to freshwater fisheries, and instituted a system that establishes community-based management. In comparison, Cambodia's marine capture and aquaculture industries are relatively small, although have the potential to contribute significantly to national income and export revenue into the future.

The annual production of the fisheries sector (including harvesting, processing and trading)was estimated between $1.2 and $1.6 billion in 2009, contributing around 10 to 12 percent of GDP.[211] Because of the limits to wild fish stocks and growing demand for fish products, aquaculture is likely to provide an increasingly important contribution to domestic fish supplies and export revenue.

Export Performance

Types of Exported Products

Recorded fish exports include freshwater species from Cambodia's vast inland fisheries as well as marine catch. Fish products are predominantly exported in chilled or frozen form, although some small volumes of fish sauce are exported to regional markets. Some exporters specialize in live fish exports – with high value fish such as the Marbled Sand Goby especially popular in Asian markets.

[210] Ministry of Agriculture, Fisheries and Forestry, Fishery Administration, *Fisheries Statistics*, Phnom Penh: MAFF/FiA, 2011.
[211] Presentation by Deputy Director of Cambodia's Inland Fisheries Research and Development Institute (IFReDI), Mr Hap Navy

Exports

Cambodia's recorded exports of fish exports in 2012 were 21,000 MT, down from 35,000 MT in 2010.[212] Despite the fall in volumes, export revenue rose from $40 million in 2010 to $60 million in 2011 on the back of higher international prices.[213]

However, actual exports are likely significantly higher as most of Cambodia's fish exports are informal and unrecorded. For example, large quantities of freshwater species are traded informally with Thailand and Vietnam. Exports of Cambodia's marine catch are also significantly under-reported. This is due to licensed vessels trading catch at sea rather than at port, as well as the prevalence of unlicensed foreign vessels operating in Cambodia's Exclusive Economic Zone. However, it is likely informal exports of inland fish are significantly larger than those from marine resources.

Current Export Destinations

The main export markets are Thailand and Vietnam, however, much of this trade is informal and unrecorded. Other key export markets are Singapore, Malaysia, Hong Kong, China (live fish), Taiwan, Japan (particularly frozen shrimp), the US (an important market for frozen fish, fish fillet, fish boil and salted dry fish) as well as Australia. Some of Cambodia's fish exports to regional markets in Asia seem relatively well established with regular trade occurring yearly. In contrast, fish exports to the US and Australian markets appear more irregular and sporadic. This suggests trade ties with these important markets remain under-developed, possibly due to stringent SPS requirements.

Potential Export Destinations

The high value markets of the US, EU countries, Japan, Korea, account for the top ten global importers of fish products (see Table 11.2.) Other major importing markets for fish products (see Table 11.3) include several countries from the region, many with current trade ties with Cambodia's fisheries sector, as well as farther markets (such as Russia, Brazil, or Nigeria.) In this regard, at this stage in the development of the sector, efforts might include growing trade volumes to current export markets – especially Hong Kong, China, Malaysia, Singapore, or even Japan – or developing new markets in some of those farther destinations especially if their standards requirements are easier to manage.

Trade Balance

Historically, given strong consumer preferences for local freshwater fish, imports of fish products have been small – around 18 000MT each year – making Cambodia a slight net exporter of fish.[214] However, much like fish exports, it is estimated significant quantities of imported fish are informal and unrecorded.

[212]Compiled from *FiA Annual Reports*, Phnom Penh: MAFF/FiA, 2007 to 2012.
[213] As reported in an interview with Mr Nao Thouk, (Director of the FiA) in the Phnom Penh Post, *Fish Exports Fall in plan to Increase Production*, Phnom Penh: 4 January 2012.
[214] Kim Leang, I., *The Importation of Fish into Cambodia*, MAFF Working Paper, Phnom Penh: MAFF, 2006

Dynamism of Exports

The decline in Cambodia's fish export volumes from 2010 to 2012 has been attributed to the abolition of commercial fishing lots in mid-2012 as part of wider government reforms to improve the sustainability of the sector and preserve rural livelihoods dependent on the inland fisheries sector's viability.

In terms of seasonality, Cambodia's inland capture fisheries are particularly reliant on the flood season. Traditionally, the Great Lake is the spawning ground for many fish habitats that migrate through the Tonle Sap River when the lake expands with floodwaters – usually by a factor of four to six times from its level during the dry season. Fluctuations in the scale, timing, and duration of each flood season therefore influence freshwater fish populations and available export supplies.

Export Prospect

Given strong consumer preference for local freshwater fish products and growing pressures on wild fish stocks, future export growth is more likely to come from expansion of Cambodia's aquaculture industry (fresh water or marine.) This could lead to significantly increased capacity to target key segments of the global fish trade – such as shrimp and pangasius (catfish) – in which Thailand and Vietnam are key suppliers.As noted earlier, in the short-medium term, the best prospect for increasing fish exports may be to target markets in the region where Cambodia has already established a consistent trade profile or target new, far distant markets especially if their standard requirements are easier to meet by the sector. In the longer term, on-going efforts by industry and fisheries authorities to comply with EU regulatory and SPS requirements may open up access for Cambodian fish exporters to the EU markets – the largest fish importing market in the world by value, but this is likely to take time to materialize.

World Market Conditions

Market Access Conditions

Owing to the high perishable nature of fish and fishery products, 90 percent of trade in fish and fishery products in quantity terms (live weight equivalent) consists of processed products (i.e. excluding live and fresh whole fish.) Fish are increasingly traded as frozen food (39 percent of the total quantity in 2010, compared with 25 percent in 1980.)[215]

Trade liberalization has reduced tariff barriers, increasing developing countries' access to developed country markets. However, the main barrier to increased exports is no longer tariff barriers but the difficulties developing countries such as Cambodia face in meeting the importing market's quality and safety-related requirements. As more than 70 percent of seafood trade is destined for three main markets (the European Union, the US and Japan), these markets are important regulatory reference points and represent a more complex regulatory regime for potential exporters.However, this does not mean that

[215] FAO, *State of World Fisheries and Aquaculture 2012*, Rome: FAO, 2012.

export opportunities cannot be pursued elsewhere, especially to regional markets (ASEAN, Hong Kong, China and Taiwan) where demand for fish imports is growing very rapidly or to markets where less onerous SPS and regulatory regimes may exist.

Stringent EU regulations require countries to establish a "Competent Authority." This means Cambodia's fisheries sector is unable to take advantage of the duty free access it is afforded until such Authority is established and approved by EU.[216] Current efforts to have Cambodia's Fisheries Administration (FiA) recognized as a "Competent Authority" that meets EU regulatory requirements, together with parallel capacity building actions at the processors level, should help remove a substantial barrier to increased export earnings.

While regulatory requirements for other markets – such as the US, Canada, or Australia – may be less onerous and do not mandate a "Competent Authority" be established to meet the requirements of each importing country, stringent health, hygiene and SPS certification standards must still be met. In addition, individual processing plants will need to be certified by the importing country's SPS agency before exports of fisheries products can commence.

As future export growth in Cambodia's fisheries sector is likely to come for the emerging aquaculture sector, effective disease management practices will need to be adopted as intensively farmed fish and shellfish are naturally susceptible to bacterial, fungal, and parasitic infections. Overall, a clear industry strategy – backed by Government – is needed across Cambodia's fisheries subsectors to increase the food safety and regulatory compliance with international standards.[217]

Major Competitors

Key exporting and importing markets vary depending on the type of fish product being traded. Table 11.1 below outlines the main participants in each of the key segments of global fish trade.

Cultured fish products from aquaculture production now accounts for 37 percent of global fish trade and this is expected to increase further given concerns of over-exploitation of many of the world's wild fish stocks.[218] China is by far the leading aquaculture producer, accounting for about two thirds of world aquaculture production. The other major aquaculture producing countries are India, Vietnam, Indonesia, Thailand, and Bangladesh.

[216] A number of conditions must be met to obtain approval, such as ensuring compliance with standards such as antibiotics residues, hygiene and health certification in line with the OIE standards. See Kees van der Meer Laura L. Ignacio, *SPS Balance Sheet for Cambodia*, Research work for the Standards and Trade Development Facility, Phnom Penh: STDF, 2008.
[217] See chapter 4
[218] FAO, *State of World Fisheries and Aquaculture 2012*, Rome: FAO, 2012.

Table 11.1: Key Segments of Global Fish Trade			
Fish Product	**Main Exporters**	**Main Importers**	**Comment**
Shrimp	Thailand, China, Vietnam	US, Japan	− Accounts for 15 percent of global fish trade.
Salmon **(Atlantic & Pacific)**	Norway, Chile	Japan, China	− Accounts for 14 percent of global fish trade. − Farmed salmon accounts for 70 percent of global salmon trade.
Ground Fish **(e.g. Cod / Haddock)**	Denmark, Norway, Sweden	Denmark, France, Spain	− Accounts for 10 percent of global fish trade. − Popular in Scandinavian and EU markets.
Cephalopods **(e.g. squid, octopus)**	Thailand, Spain, China, Morocco	Spain, Italy, Japan	− Accounts for 4 percent of global fish trade.
Pangasius **(Freshwater fish species often labelled 'basa')**	Vietnam Thailand	US, EU, Australia	− Accounts for <1 percent of global fish trade but fastest growing segment. − In top 10 of fish species purchased in key markets such as US and EU. − Low-cost aquaculture product from Vietnam, popular with price-sensitive consumers in developed markets
Source: Extracted from *FAO, The State of World Fisheries and Aquaculture*			

Table 11.2: Top 10 Exporters & Importers of Fish and Fishery Products, 2000–2010								
Top 10 Exporters					**Top 10 Importers**			
	2000	**2010**	**APR**			**2000**	**2010**	**APR**
	$ Millions		*percent*			*$ Millions*		*percent*
China	3,603	13,268	13.9		**USA**	10,451	15,496	4.0
Norway	3,533	8,817	9.6		**Japan**	15,513	14,973	-0.4
Thailand	4,367	7,128	5.0		**Spain**	3,352	6,637	7.1
Vietnam	1,481	5,109	13.2		**China**	1,796	6,162	13.1
USA	3,055	4,661	4.3		**France**	2,984	5,983	7.2
Denmark	2,756	4,147	4.2		**Italy**	2,535	5,449	8.0
Canada	2,818	3,843	3.1		**Germany**	2,262	5,037	8.3
Netherlands	1,344	3,558	10.2		**UK**	2,184	3,702	5.4
Spain	1,597	3,396	7.8		**Sweden**	709	3,316	16.7
Chile	1,794	3,394	6.6		**Korea**	1,385	3,193	8.7
Top 10 Total	26,348	57,321	8.1		**Top 10 Total**	43,171	69,949	10.3
Rest of the World	29,401	51,242	5.7		**Rest of the World**	33,740	41,837	2.2
World Total	**55,749**	**108,563**	**6.9**		**World Total**	**76,911**	**111,786**	**6.4**
Source:FAO, *The State of World Fisheries and Aquaculture 2012*								

Table 11.3: Other Key Importing Markets of Fish and Fish Products, $ Billions, 2012	
Hong Kong *($3.1bn)*	Nigeria *($1.4bn)*
Thailand *($2.8bn)*	Brazil *($1.2bn)*
Vietnam *($2.4bn)*	Malaysia *($0.9bn)*
Russia *($2.4bn)*	Australia *($0.8bn)*
Canada *($1.9bn)*	Singapore *($0.7bn)*
Source: TradeMap	

World Market Prospect

Fish and fishery products are among the most traded food commodities worldwide. Between 1976 and 2011, global trade in fish and fishery products grew significantly, rising from $8 billion to $125 billion.[219] Higher prices and increased demand from developing countries has driven global fish trade over the past five years despite the weak economic conditions in many developed markets.

The factors that might influence the sustainability and growth of fishery trade include the evolution of production and transportation costs as well as the prices of fishery products and substitute commodities, including meat and feeds.

The fishery market is very dynamic and it is changing rapidly. It is becoming much more complex and stratified, with greater diversification among species and product forms. High-value species such as shrimp, prawns, salmon, tuna, ground fish, flat fish, seabass, and seabream are highly traded, in particular towards high income markets. Low-value species such as small pelagic are also traded in large quantities, mainly to developing countries. In the last two decades, aquaculture has contributed to a growing share of the international trade in fishery commodities, with species such as shrimp, prawns, salmon, molluscs, tilapia, catfish (including *Pangasius*), seabass, and seabream.

Notwithstanding their perishability, trade in live, fresh, and chilled fish represented 10 percent of world fish trade in 2010, up from 7 percent in 1980, reflecting improved logistics and increased demand for unprocessed fish.[220]

Domestic Supply Conditions

Producers

In recent years there has been a sizeable shift in the production scale of Cambodia's inland fisheries sectors. Table 11.4 below outlines the diminishing role of commercial-scale inland fisheries production as

219 FAO, *State of World Fisheries and Aquaculture 2012*, Rome: FAO, 2012.
220 FAO, *State of World Fisheries and Aquaculture 2012*, Rome: FAO, 2012.

a proportion of Cambodia's total annual catch and the increasing role of small-scale family-based production. In contrast, the contribution of rice-field production, aquaculture, and marine capture to Cambodia's total annual catch has been relatively stable over the same period.

Table 11.4: Share of Annual Catch by Type of Fisheries

Production Type	2000–2010 Average	2012
Inland fisheries	**76%**	**74%**
– ***Medium-Large (Commercial)***	*35%*	*15%*
– ***Small-scale (Family)***	*20%*	*39%*
– ***Rice-field***	*21%*	*20%*
Aquaculture	**10%**	**11%**
Marine Capture	**14%**	**15%**

Source:2000-2010 data from IFReDI, *Fisheries Resources in Cambodia*, Phnom Penh: 2011and 2012 data from MAFF, *Annual Report 2012*

Between 2000 and 2010 commercial-scale inland fisheries production accounted for an average of 35 percent of Cambodia's total annual catch, with small-scale family-based production accounting for 20 percent over the same period. By 2012, commercial-scale production had fallen to 15 percent of Cambodia's total annual catch, with small-scale production rising to 39 percent in the same year. This change coincides also with the RGC's announcement in 2012 to abolish all remaining commercial fishing lots – with fishing areas either returned to Community Fisheries organizations or set aside as sanctuaries to promote regeneration of wild fish stocks. The practice of co-management of Cambodia's inland water resources through the use of Community Fisheries organizations has given greater voice to small-scale fishers and has heralded an important step forward in the sustainable use of these natural water resources.

Production Capacity

Cambodia's inland freshwater fisheries are among the most productive in the world due to the presence of large floodplains around the Great Lake and along the Tonle Sap and Mekong Rivers. Cambodia's inland fisheries are estimated to be the fourth largest in the world on the basis of total catch, after China, India, and Bangladesh. In 2012, total catch from inland fisheries reached 509,000MT, representing more than 74 percent of Cambodia's total fisheries catch. In contrast, the marine capture fisheries (99,000MT in 2012) and aquaculture (74,000MT in 2012) is small compared to other countries in Southeast Asia.

Table 11.5: Inland, Marine, and Aquaculture Production in MT, 2007-2012				
Year	**Inland Catch**	**Marine Catch**	**Aquaculture**	**Total Catch**
2007	395,000	63,500	35,260	**493,760**
2008	365,000	66,000	40,000	**471,000**
2009	390,000	75,000	50,000	**515,000**
2010	405,000	85,000	60,000	**550,000**
2011	445,000	91,000	71,930	**608,000**
2012	509,000	99,000	74,000	**682,000**
Source:MAFF Fisheries Administration , *Annual Report 2012*				

Cambodia's inland fisheries productivity stems from the annual inundation by the Mekong River of the large floodplains in central Cambodia. However, increasing pressures on these inland water resources has led to a decline in the average fish catch rate in the Tonle Sap region, falling from 347kg/fisher in 1940 to 116kg/fisher in 2008, a 70 percent decrease over seven decades.[221] These pressures are also evident in the increasing dominance of small-sized fish (with lower economic value) that was estimated to account for 85 percent of Cambodia's total catch in 2011.[222] The current moratorium on commercial fishing lots provides an opportunity for a more sustainable management regime for Cambodia's inland water resources to be developed in partnership with fishing communities dependent on these resources.

Cambodia's marine capture sector faces similar over-fishing pressures that are exacerbated by the illegal activities of unlicensed foreign vessels operating in the EEZ. The economic prospects of the sector are also affected by the practice of local fisherman trading deep-sea catch at sea to larger Thai, Vietnamese, and Hong Kong vessels, bypassing Cambodia's markets and on-shore processing facilities. Increased resources and capacity for Cambodia to patrol and monitor its marine fish resources could lower the significant quantity of fish harvested by foreign vessels as well as discourage the practice of deep-sea trading. Improved regional cooperation among the Gulf of Thailand countries could help with wider efforts to more sustainably manage this important fisheries resource. Similarly, improved regulation of marine catch and more efficient fishing practices could also ease the pressure on marine fish stocks.

Expansion of the aquaculture sector provides an opportunity to reduce the fishing pressures on wild stock, while also providing future export capacity. Historically, the aquaculture sector has been primarily focused on shrimp and freshwater fish with production family-based or in conjunction with small-scale farming. However, given the likely supply constraints facing inland and coastal fisheries, aquaculture will become essential to the future of Cambodia's fish supply.[223] The opening of the Marine Aquaculture Research and Development Centre (MARDeC) in 2012 might help the sector grow rapidly.However, experience elsewhere in South East Asia suggests the use of private hatcheries to produce and distribute fingerlings will be key to the development of a sustainable and profitable aquaculture sector in Cambodia.

[221]Inland Fisheries Research Development Institute (IFReDI), *Fisheries Resources in Cambodia - Current Status, Key Issues & Directions*, Phnom Penh: IFReDI, 2009.
[222] IFReDI, *Fisheries Resources in Cambodia*, Phnom Penh: IFReDI, 2011.
[223]World Fish Centre, *Fish Supply and Demand Scenarios in Cambodia*, 2011.

Ultimately, as in other markets in the region, it will be feed availability and low fish production costs that stimulate the aquaculture sector in Cambodia.[224]

Quality of Product

The bulk of Cambodia's inland fish production is sold through small villages and markets. The use of ice in these markets is limited with much of the produce sold live or in a fermented or dried form. Poor roads and lack of electricity also make the storage and transportation of fish products difficult and hampers efforts to maintain international standards of quality and food hygiene that are essential attributes for accessing lucrative export markets. Increased institutional capacity for fish inspection and enforcement of quality and food safety standards is required to grow export revenue.

Availability & Quality of Labor Force

FiA statistics for 2009 suggest that over 420 000 people were employed in the fisheries sector, accounting for almost 5% of the Cambodian workforce.[225] Many more Cambodian's – especially in rural areas – participate in the fisheries sector on a part-time basis or for subsistence purposes (particularly during the wet season). As a traditional sector with a long history there is a significant knowledge base of fisheries species and habitats across Cambodia in remote areas, coastal zones, and along the large inland waterways.The development of commercial-scale aquaculture sector in Cambodia would provide an important source of rural employment and may mitigate migration to urban centers.

Level of Processing Technology

The fish processing industry is small and predominantly household-oriented, reflecting Cambodia's centuries old tradition of processing freshwater fish. The FiA estimates that 85,000 tons of freshwater fish and 6,200 tons of marine fish were processed in Cambodia in 2012. The fish processing sector is focused largely on supplying the domestic market, with 7,000 tons (or 7.5 percent) exported in 2012.[226]

Due to the seasonality of inland capture fisheries, processing fish products is a means of managing the irregularity of supply. The most common products being fish paste, fish sauce, salted dry fish, fermented fish, and smoked fish. There is increasing demand for sun-dried fish for animal feed, including for export to Vietnam. Processed fish products from high-value fish species are exported to regional markets.

There are four freezing plants in Cambodia to process fish, all of which hold export permits. One plant is in Phnom Penh to service inland fisheries catch and three are in Shihanouk Province to service marine catch. However, the seasonality of supply of inland fisheries catch and lack of consistent supply from marine capture inhibit efforts to expand output or reliably service export markets.

Overall, investment in both harvest and post-harvest technology to meet international standards could provide a catalyst for improved access to export markets. The planned expansion of Cambodia's

[224] FAO, *Analysis of Aquaculture Development in Southeast Asia: A Policy Perspective*, Rome: FAO, 2009
[225] FAO, *National Fishery Sector Overview Cambodia*, Rome: FAO, 2011
[226] MAFF, *Annual Report*, Phnom Penh:MAFF, 2012.

aquaculture sector could also provide the consistency of supply to make commercial processing (including freezing) more economical.

Cost and Quality of Infrastructure

In many rural areas poor roads and a lack of electricity make the storage and transportation of fisheries products difficult and more expensive vis-à-vis competitors in Thailand and Vietnam. Frozen fish is exported through the seaport of Sihanoukville and fresh and live fish is exported via Phnom Penh International Airport.

Domestic Demand

It is estimated the average Cambodian consumes around 50kg of fish per year, with the population in the Tonle Sap region consuming as much as 80kg of fish per year.[227] Cambodians have a strong preference for freshwater fish and domestic demand is expected to increase with population growth. However, as incomes rise, consumer preferences are shifting away from preserved fish products toward consumption of live and fresh fish. However, for those with no access to refrigeration preserved fish products (mainly "prahoc") will remain the mainstay of the daily diet. Domestic consumption of marine fisheries products is low and most marine fisheries products are exported.

Prospect for Domestic Supply Conditions

Increased government and industry investment in research and development would enhance efforts to promote fish processing technology and minimize post-harvest losses. As aquaculture becomes more important to Cambodia's future fish supply, there will be increased demand for better technical, market and financial services. Support to better organize rural and fishing communities will also improve capacity to deliver extension services and help fishers access to inputs and markets.

Policy and Regulatory Environment

Government Initiatives and Sector Policy

Given the importance of the fisheries sector to Cambodia's rural livelihoods, food security, and contribution to the national economy creating a sustainable fisheries sector is a national priority. A series of policy reforms implemented over the past decade have significantly expanded local communities' access to freshwater fisheries, and instituted a system that enables community-based management. Key actions have included (1) reducing (and in 2012 abolishing) commercial fishing lots; (2) creating a dedicated department to support Community Fisheries; (3) building capacity of community fishery organizations; and, (4) revising the fisheries law and adopting regulations that establish the legal authority of community fishery organizations to manage designated fishing grounds.

[227] MAFF/FiA, *Fisheries Statistics 2011*, Phnom Penh: MAFF/FiA, 2012

The *Strategic Planning Framework for Fisheries 2010-2019* seeks to achieve the national goals of environmental fisheries protection and conservation of biodiversity in order to secure the sustainable use of fisheries resources for current and future generations. In this framework, the Fisheries Administration defines goals that encompass the RGC's vision for the future of the sector. These goals include (1) maintaining a sustainable contribution of fisheries and aquaculture production to national prosperity; (2) improving livelihoods and resilience in the fisheries sector, sustainable management of the fisheries domain and associated resources, and sustaining abundant fish supply as a valuable source of food; (3) promoting sustainable, profitable and responsible business development in the sector; (4) collaborating closely with neighboring countries for fisheries management, development and conservation; and (5) enabling appropriate policy and regulatory environment to support the fisheries sector.[228]

Implementation of national fisheries policies has yielded significant progress and enabled a more poverty-focused approach to managing Cambodia's fisheries resources. For example, access to inland freshwater and marine resources for the rural poor has been supported through the establishment of 468 Community Fisheries with 126,360 families countrywide.[229]

While these policy initiatives and strategic plans have been important steps toward more sustainable management of Cambodia's fisheries resources, closer collaboration between Government and industry will be needed to create a more export-oriented value chain – especially in relation to aquaculture development and marine capture fisheries.

Business Associations

Cambodia's three fisheries resources – inland catch, marine catch, and aquaculture – are three distinct fishing supply chains. A recent objective of RGC is to promote the development of a more dynamic and export-oriented private sector in Cambodia's fisheries. For example, the Fisheries Administration (FiA) has been assisting by organizing small producer associations in the three main coastal provinces – Koh Kong, Kampot and Kompong Som. Similarly, the practice of co-management of Cambodia's inland water resources through the use of Community Fisheries organizations (that have been backed by government legislation) has also given greater voice to small-scale fishers and enhanced the sustainable use of inland water resources. While these have been important steps toward creating better-organized marine fisheries and small-scale inland fishers, closer collaboration between Government and industry is needed to deliver a more export-oriented value chain.

The establishment of a single national association that encompasses the export interests of each of the three fisheries sectors would help drive the export-led development of Cambodia's fisheries. A national association representing the interests of key stakeholders (including both small and commercial-size fishers and processors) would help drive private sector collaboration, investment, and export-oriented industry reform.

[228] Extract from CDRI, *Policy Coherence in Agricultural and Rural Development: Cambodia,*Working Paper Series No. 55, Phnom Penh: CDRI, July 2011.
[229] Japanese International Cooperation Agency, *Cambodia Investment Guidebook,* Phnom Penh: JICA, 2010.

Closer collaboration between Cambodian fish processors is particularly important and established cooperatives in each of the freshwater, marine, and aquaculture sectors would provide an additional catalyst for export market development. In particular, processor cooperatives could be used to improve export readiness across Cambodia's fisheries sectors through: (i) identification of markets, development of market contacts, match-making with import buyers, trade missions and trade fairs; (2) becoming SPS compliant to meet requirements of high-value export markets; (3) identifying possible negative environmental impacts and possible mitigations as appropriate; and (4) branding and marketing of exports. Current proposals to trial export readiness programs in a select number of small and medium-size marine fish processors may serve as a useful guide to more widespread adoption of export strategies in Cambodia's fisheries sectors.

Socio-Economic and Environmental Impacts

Current Employment and Job Creation Prospect

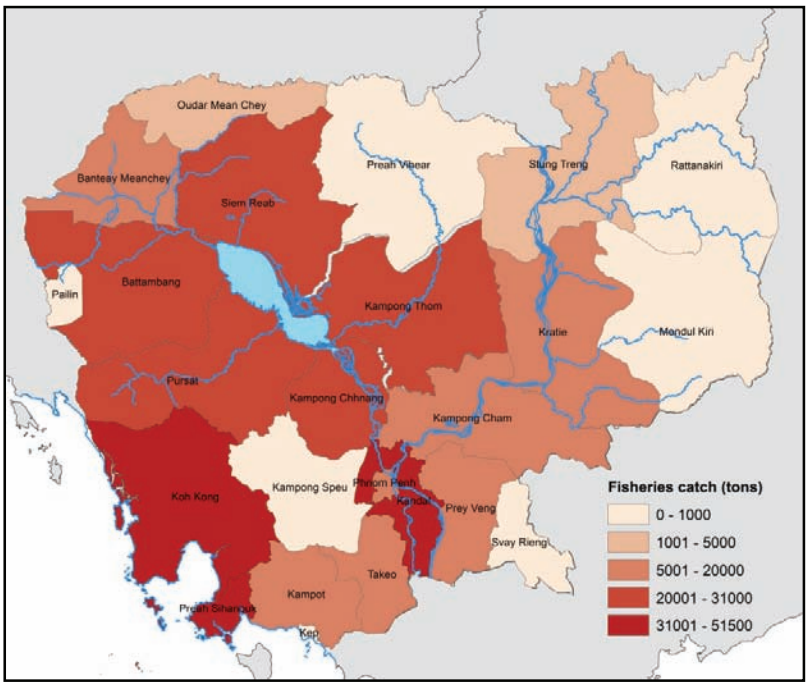
With few barriers to entry working in the fishing sector is, for many, a job of last resort. As a result, the overall development and sustainability of the sector can have profound economic consequences for the rural poor and Cambodia's most vulnerable. Greater access to international markets and improved economic returns could lead to welfare benefits for up to 420,000 people that work directly in Cambodia's fisheries sector. Reforms to the fisheries sector over the past decade have also returned vast fishery resources to the rural poor – including through the establishment of 468 Community Fisheries involving more than 126,000 families nationwide. Future growth of both small-scale and large commercial aquaculture will provide further employment opportunities in a sector where overall fishing effort in fragile inland and marine eco-systems will need to be carefully managed.

Regional Impact

Cambodia's fisheries provide permanent employment for up to 420 000 people, with participation in the sector increasing significantly during the wet season when many rural households undertake fishing for subsistence purposes.[230]Map 11.1 below provides an indication of Cambodia's vast inland waterways that swell four to six times in size during the annual wet season. Thirteen of the twenty-one provinces of Cambodia are considered fishing provinces and more than 3 million Cambodians, about 25 percent of the population, live in the six provinces bordering the Tonle Sap Great Lake.[231]In contrast, Cambodia's coastline is relatively small, with most marine and coastal fisheries activities limited to Koh Kong, Kampot and Kompong Som (home to the major deep-water port town of Sihanoukville.)

[230] FAO, *National Fishery Sector Overview Cambodia*, Rome: FAO, 2011.
[231] Cambodian Institute for Cooperation and Peace, *A Competition Study in The Fishery Sector in Cambodia*, Working Paper No. 13, Phnom Penh: CICP, 2006.

Map 11.1: Major "Fishing" Provinces in Cambodia, 2012



Source: Ministry of Agriculture, Fisheries and Forestry

Gender

Fish processing and trade are often conducted in addition to fishing and/or farming, therefore provide an additional source of income for many households. Fish marketing and trade provide one of the few opportunities for women and poor households who live in and near the Tonle Sap Lake areas to increase household income.Increased access to international markets has the potential to increase prices received for fish catch and improve livelihoods for fishers. However, as a mainstay of the national diet higher fish prices also has the potential to adversely affect low-income Cambodians.

Contribution to Skill Development

While Cambodia's inland fisheries sector relies predominantly on the traditional fishing techniques of small-scale fishers, the future growth and expansion of the sector will rely heavily on development of a significant aquaculture sector. This will require significant investment in extension services to train rural families in small-scale aquaculture production.

Energy and Water Constraints and Environmental Impact

The high cost of electricity significantly impedes the competitiveness of Cambodia's fish processing industries, especially energy-intensive freezing facilities. Future opportunities to develop alternative energy sources, such as biofuel from agricultural by-products may assist cost pressures facing fish processing plants.

A wide range of environmental factors affects the quality and reliability of Cambodia's vast water resources. As recognized by the FiA in the *Strategic Planning Framework for Fisheries 2010-2019*, improved monitoring of fishing and agricultural activities will be needed to reduce pressures from over-fishing and habitat degradation. However, the fisheries sector still faces a number of challenges related to destructive fishing practices, land use change, fishing beyond the natural capacity of the system to regenerate, dam development in the Greater Mekong Basin, climate change and competing use of water and wetland expansion.[232]The impending expansion of Cambodia's aquaculture sector also poses risks to the environment, particularly in relation to water pollution and destruction of important ecosystems (such as mangroves).

These environmental challenges justify the priority given to "sustainability" in the RGC's and FiA's approach to fisheries management over the next decade. While improved monitoring will be needed, strong public-private collaboration in Cambodia's fisheries sector will be needed to ensure decisive action and further reforms are enacted where unacceptable risks to the future sustainability of the country's vast waterways are identified.

Box 11.1: ASEAN & Regional Integration

The ASEAN region will remain a global growth center for fish supply and demand into the future. The fisheries sector in the region has the capacity to meet this increased demand but to do so governments and industry will need to engage pro-actively. In particular, efforts will be needed to stimulate investment in aquaculture, and evaluate research and policy development needs along the entire supply chain from inputs to consumer markets.[233]

While countries such as Thailand and Vietnam dominate fisheries exports in the ASEAN region, other countries such as Indonesia, Brunei, and Myanmar have invested heavily in aquaculture development and may offer lessons for Cambodia as it seeks to further drive expansion of its aquaculture sector. More broadly, shared learning of best practice across the ASEAN region in sustainable fisheries management, R&D and aquaculture development could offer opportunities to close the gap between Cambodia and other fish exporters in the region.

[232]CDRI, *Policy Coherence in Agricultural And Rural Development: Cambodia*, Working Paper Series No. 55, Phnom Penh: CDRI, July 2011.

Box 11.2: Progress Since 2007

Cambodia's fisheries exports (by volume) have fluctuated significantly since 2007, although the upward trend in the value of fisheries exports has helped to offset the recent fall in volumes. These variations in export performance are to be expected – especially where the RGC has sought to place a high priority on implementing domestic fisheries reforms aimed at improving the sustainable use of Cambodia's fisheries resources. These reform efforts have taken place over more than a decade, and include the most recent decision in mid-2012 to abolish all remaining fishing lots to help preserve rural livelihoods dependent on the inland fisheries sector's viability.

Further, policy reforms implemented over the past decade have significantly expanded local communities' access to freshwater fisheries, and instituted a system that establishes community-based management. Yet despite the corresponding decline in large-scale commercial fishing activities in Cambodia's inland fisheries, the total catch from these vast waterways has increased substantially from 395,000 MT in 2007 to 509,000 in 2012. It is therefore not surprising that small-sized fish (with lower economic value) accounted for 85 per cent of the total catch in 2011.

Cambodia's marine catch and aquaculture production have also increased since 2007 – the former by 56 percent and the latter by 110 percent. However, both these sectors remain small in relation to the overall total fish catch – together accounting for 25 percent of Cambodia's 682,000 MT catch in 2012. The expansion of Cambodia's aquaculture sector is widely seen as providing the best opportunity to reduce fishing pressures on wild (inland and marine) stocks, while also providing future export capacity. The opening of the Marine Aquaculture Research and Development Center (MARDeC) in 2012 may help the sector grow quickly over the medium term.

Overall, ongoing efforts to promote the sustainable use of Cambodia's vast fisheries resources will need to be supported by the development of a more export-oriented value chain. This will help Cambodia achieve higher returns (through export earnings) from its overall fishing effort.

Conclusion

The following SWOT analysis summarizes many of the factors reviewed in this chapter.

Strengths	Weaknesses
• Cambodia's vast water resources offer significant economic opportunities for rural livelihoods—across floodplains, rivers and lakes, marine fisheries, rice field fishery and aquaculture. • Cambodia's freshwater fisheries are among the most productive in the world due to the presence of large floodplains around the Great Lake and along the Tonle Sap and Mekong Rivers. • As a traditional sector with a long-history in Cambodia there is a significant knowledge base of fisheries species and habitats. • Freshwater fish is the largest source of animal protein in Cambodia and figure prominently in Cambodian nutrition. • Establishment of small producer associations in the three main coastal provinces has been an important first step in creating a better-organized marine fisheries sector. • The practice of co-management of Cambodia's inland water resources through the use Community Fisheries (CF) organizations has given greater voice to small-scale fishers and enhanced the sustainable use of inland water resources. • Since 2010 there has been a rapid growth in export volumes (of mainly frozen shrimp) to one of the largest and most high-valued markets for fish—Japan. • While most fish exports are unrecorded, it is likely informal exports of inland fish are significantly larger than those from marine resources. • Global fish trade typically faces very low (and often zero) tariff barriers.	• Lack of knowledge and/or compliance with SPS requirements in high-value international markets, including the EU, is a substantial barrier to increased export earnings. • Lack of consistent supply constrains onshore processors (including freezers) from expanding output or seeking export markets. • Licensees are empowered to collect a 4 percent fee on the value of fish exports, discouraging exports or leading traders to seek informal trade channels. • Pressures on freshwater and coastal fisheries resulting in catch of lower economic value. • Many of the larger and more valuable fish species have declined significantly both in numbers and size and are now in short supply in local markets. • A significant quantity of deep-sea catch is sold at sea by Cambodian fisherman to larger Thai, Vietnamese and Hong Kong vessels, bypassing Cambodia's markets and on-shore processing facilities. • Poor roads and lack of electricity make the storage and transportation of fish products difficult. • Highly unreliable trade data (especially for marine fisheries) impedes policymaking and strategies for export market development. • Little industry knowledge of international fish markets, export practices or marketing.

Opportunities	Threats
• Greater access to international markets will have significant welfare benefits—the sector directly employs 420,000 people while up to 6 million people derive some form of livelihood benefit from fisheries activities in Cambodia. • *The Strategic Planning Framework for Fisheries: 2010–2019* and ongoing reforms to the management of Cambodia's fisheries provide the current platform to drive private sector investment in the fisheries sector and in exports. • Significant quantities of deep-sea catch could be processed onshore in Cambodia. • Increased resources and capacity for Cambodia to patrol and monitor its marine fish resources could lower the significant quantity of fish currently harvested by foreign vessels within Cambodian waters. • Opening of the Marine Aquaculture Research and Development Centre (MARDeC) in 2012 could help the marine aquaculture sector grow rapidly. • Expansion of the aquaculture sector provides an opportunity to reduce fishing pressures on wild stock while also providing future export capacity. • Investment in harvest and post-harvest technology to meet global market standards would provide a catalyst for improved access to export markets. • Current efforts to turn the FiA into a 'Competent Authority' that meets EU requirement together with parallel actions could help lift SPS capacity in the sector.	• Environmental degradation and habitat destruction from damming, deforestation and conversion of land for agricultural uses. • Widespread over-fishing of freshwater and marine stocks due to increased demand, unregulated catch limits and less efficient fisheries practices. • Key importing countries impose new and more stringent SPS and TBT restrictions on Cambodia's fish exports. • No increase in institutional capacity for fish inspection and enforcement of quality and food safety standards would deny the sector any real chance of a sustained increase in export earnings. • Disease outbreaks, especially in aquaculture. • Reluctance for government or industry to invest in research and development would weaken efforts to promote fish processing technology and minimize post-harvest losses.

Recommendations

The export-led development of Cambodia's inland fisheries, marine capture, and aquaculture sectors will require significant investment from Government and industry. The RGC's approach of implementing ongoing reforms to the management and utilization of Cambodia's vast water resources is both prudent and necessary. The environmental risks (such as upstream damming and over-fishing) to Cambodia's inland fisheries and marine resources are real, and introducing sustainable management practices coupled with appropriate monitoring and enforcement should be a high priority. In this context, further expanding Cambodia's emerging aquaculture sector offers genuine scope to deliver increased export capacity over the medium term. The RGC will need to work closely with the private sector to create an enabling environment conducive to further investment in this sector.

More broadly, Cambodia will also need to improve the functioning of the post-harvest components of the fish supply chain. A better-organized and well-coordinated supply chain will help drive private sector collaboration, promote investment, and implement export-oriented industry reforms. This includes the clear need to implement internationally recognized hygiene and health standards among fish processors to improve supply chain integrity as well as opening up access to key export markets. Cambodia's

Fisheries Administration (FiA) should continue to pursue achieving accreditation as a "Competent Authority" to facilitate exports to the high-value EU market.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #11.

Chapter 12

MILLED RICE

Background

Rice is Cambodia's most important agricultural export and a traditional crop of cultural and historical significance. Following recent RGC policy changes, the Cambodian rice market is experiencing significant transformation. This has been driven by a number of factors, including:

- a more strategic, coordinated, and export-focused approach to the industry's development;
- improvements and modernization of Cambodia's milling capacity;
- opportunistic gains in export market share due to preferential tariff advantages; and,
- domestic policies of competitors that have disrupted export supply and opened the door for Cambodia's milled rice exporters to access new markets.

The underlying comparative advantage of Cambodia's milled rice sector is that its primary input – local paddy rice – has one of the lowest farm-gate costs of production in the world, approximately between 35 to 40 percent lower than those in Vietnam and Thailand.[234] This provides a sound basis for Cambodia to be a competitive exporter of milled rice. However, rice millers must contend with a lack of uniformity of quality and consistency in the supply of paddy rice that is necessary for the milled rice sector in order to enjoy sustained export growth. Further, low-cost advantages are partially negated by weak export infrastructure, still insufficient modern milling capacity, and high milling costs.[235]

The Royal Government of Cambodia adopted a national Rice Sector Policy in July 2010.[236]The Policy identifies quite comprehensively current bottlenecks in the sector and means to eliminate or mitigate those. The strong export performance and growth in milled rice in recent years demonstrates the value of implementing a coherent, stable, and investor-friendly sector policy.

[234] Ministry of Commerce, *Rice Sector Profile*, Value Chain Unit, Trade Promotion Department, Ministry of Commerce, Phnom Penh: MoC, October 2010.
[235] See Chapters 3 and 4. Also, World Bank, *Improving Trade Competitiveness in Cambodia: An Analysis Using TTFA*, Phnom Penh: World Bank, 2012.
[236] Royal Government of Cambodia, SNEC, *Policy Paper on the Promotion of Paddy Production and Rice Exports*, Phnom Penh: SNEC, July 2010.

Export Performance

Export Value

Formal exports of Cambodian rice have increased sharply in recent years. This increase is primarily due to the growth in milled rice exports to the EU and Russia. New investment in modern rice mills and polishing factories has contributed also to a rapid growth in exports.

Table 12.1: Cambodian Milled Rice Exports (HS 1006), 2007-2012

	2007	2008	2009	2010	2011	2012
Volume (thousand MT)	4	6	16	51	146	174
Value ($ million)	1.2	2.4	11.0	34.7	106.4	130.0

Source: Comtrade and TradeMap; GDCE

Calculating the volume and mix of informal rice trade needs to be approached with caution. Estimates of Cambodia's exportable surplus of paddy rice have grown from 3.2 million MT in 2010to 4.3 million MT in 2012.[237]While such volumes equate to more than 2 million tons of milled rice, informal trade with Thai and Vietnamese traders is overwhelmingly in paddy rice. More recently, the composition of informal trade has shifted slightly toward some amount of milled rice – reflecting attractive prices for milled rice in the Thai market and the need for instant cash flow that informal trade offers some rice millers. Estimates of the value of informal exports are shown in Chapter 1, suggesting a possible growth in value from $356 million to $581 million between 2007 and 2011.[238]

Type of Exports

There are three broad components to Cambodia's rice exports: (i) informal (and unrecorded) paddy rice exported to Thailand and Vietnam via land border crossings; (ii) informal (and unrecorded) milled rice exported to Thailand via land border crossings; and (iii) formal milled rice exports that transit through the ports of Sihanoukville or Phnom Penh. The variety, type and direction of Cambodia's rice exports each year is influenced largely by the prevailing prices and domestic policy settings in Thailand and Vietnam.

Current Export Destinations

Cambodia's formal export of milled rice has grown rapidly since 2009. This is mainly due to tariff preferences as well as investments in modern rice mills and polishing factories. Both the EU and Russia permit duty-free milled rice imports from Cambodia. Cambodia's main competitors do not enjoy similar tariff advantage. These tariff preferences enable Cambodian exporters to avoid duties of $217/MT and 25

[237] Royal Government of Cambodia, SNEC, *Policy Paper on the Promotion of Paddy Production and Rice Exports*, Phnom Penh: SNEC, July 2010 and Tom Slayton and S. Muniroth, 2013, *Turning Rice into "White Gold"*, Phnom Penh: World Bank Working Paper (Draft), 2013.
[238] See Table 1.9

percent in the EU and Russian markets respectively. As outlined in Table 12.2 below, these two markets accounted for more than 85 percent of formal exports in 2011reflecting such significant competitive advantage. Malaysia applies a 20 percent tariff to all rice imports originating within ASEAN – including from Cambodia – below the 40 percent MFN applied tariff.

Table 12.2: Top 5 Export Markets Cambodian Milled Rice, 2011	
European Union (27)	73.8%
Russian Federation	12.7%
Malaysia	8.4%
US	1.2%
Togo	0.9%
Source: TradeMap	

Potential Export Destinations

The major global importers of milled rice are African and Middle Eastern markets, which account for seven of the top 10 rice importing countries. Other key rice importing markets are Indonesia, the Philippines, and China where shorter transits could benefit Cambodia. However, global rice trade is highly segmented with demand from key importing markets differing in terms of the rice variety, quality, and processing method. Consequently, rice exported to one market is not easily substituted or exported to another market.

In terms of export diversification, focusing on becoming an exporter of lower quality milled rice (with 25 percent brokens) to the Philippines and West Africa may be feasible in the short to medium term. As Cambodia's milling industry improves it should also be able to move up the quality scale to become a supplier to other ASEAN markets such as Indonesia, as is already happening with Malaysia. Trial shipments of Cambodian fragrant rice to China have also recently commenced following the conclusion of a bilateral MOU on SPS. In light of reports of significant Chinese investment flowing to new Cambodian rice mills, the prospects of establishing regular exports to such a large and important market are encouraging.

Trade Balance

The total trade balance for rice products is overwhelmingly positive. While small quantities of imported milled rice are recorded each year (principally from Thailand), imports typically represent less than 5 percent of the quantity of Cambodia's milled rice exports.

Dynamism of Exports

While the cost of local paddy production is significantly lower than in Thailand and Vietnam, higher milling costs severely curtail the competitiveness of Cambodia's milled rice exports in most international

markets. Recent increases in exports to the EU and Russian markets are almost exclusively due to Cambodia's access to tariff preferences combined with the disruption in supply from Thai and Indian exporters that stemmed from domestic policy interventions.

In addition to high milling costs, Cambodia's access to international markets is impeded by limited capacity to produce large commercial and consistent quantities of uniform milled rice. As noted previously, this is due to both inconsistent suppliesfrom rice farmers as well as insufficient modern milling capacity.Cambodian rice millers are also relatively "new" to international trade and need to build export market know-how and capacity. Further, as exports grow large millers will need to adopt proper phytosanitary production methods that meet HACCP or GMP standards required by many importing markets.

The supply chain is also geared toward containerized exports, while international practice is for milled rice to be traded as bagged cargo on break bulk vessels. Nevertheless, progress on several of these fronts combined with substantial investment in modernmilling capacity will position the sector to increase exports and reduce reliance on the EU and Russian markets.

Export Prospect

Large rice importing markets with strong growth potential are on Cambodia's horizon – including Malaysia (already growing fast), Indonesia, and the Philippines. Government-to-government agreements might open up some of these markets. Cambodia also has particularly good prospects of exporting fragrant rice to China following the signing of a bilateral MOU that facilitates SPS compliance. The development of a national brand/logo would support efforts to establish Cambodia as a reputable supplier of milled rice on international markets.

There is also scope to accelerate current efforts to simplify export procedures and reduce trade facilitation costs. In addition, whereas a rice miller that exports directly is entitled to VAT-exemption, export of milled rice via a third-party exporter is subject to VAT. Such discrepancy impedes the overall efficiency of the supply chain and discourages specialization. Millers also complain about the de-facto CICC monopoly in fumigation that keeps prices high.

World Market Conditions

Market Access Conditions

The world rice market is subject to significant government involvement, is highly segmented, and has relatively few buyers and sellers, making prices highly volatile. Significant tariff and non-tariff barriers (including SPS and milled rice specifications) also impede global trade in rice – under scoring the importance of Cambodia's preferential tariff arrangements.

There are very distinct international rice markets based on different rice varieties, qualities and processing methods. As rice for each market segment cannot be easily substituted by rice from another exporter, it is difficult to gain market share.In the world market, considerable emphasis is placed on grain length and on the percentage of brokens as criteria of quality. In addition, the kernel shape (length/breadth), the chalkiness, and the translucency are considered. Uniformity of quality is also important to rice buyers.

Major Competitors

Thailand and Vietnam have historically been the world's No. 1 and No. 2 rice exporters. However, in 2012 India took the top spot for the first time, shipping 10.25 million MT on the back of strong production increases and domestic policy settings in Thailand that resulted in local stockpiling and the country falling to third spot behind Vietnam.[239]More broadly, global rice markets are often subject to disruptions from domestic policy interventions in the major producer and exporter countries. Whether Thailand's ongoing domestic price support policy, or India's recent export ban on non-Basmati rice (now lifted), changes in the direction and regular flow of global rice trade can be sudden and unpredictable. Consequently, it is important for emerging rice exporters such as Cambodia to be dynamic and respond quickly to changing circumstances and new opportunities to take market share.

Over the next five to ten years, Myanmar could also emerge as a key competitor to Cambodia's rice exports as its economy modernizes and opens up to global trade. Significantly, Myanmar is likely to benefit from the same duty-free preferences as Cambodia.

World Market Prospect

Global rice production was 468 million MT (milled basis) in 2012. Global rice trade reached a record high of 39 million MT in 2012. The outlook for rice exports is positive, driven by expected strong demand for rice from China and Africa.[240]This provides an ideal trading environment for Cambodia to pursue export-led development of its milled rice sector and improve rural livelihoods through stronger integration in the global rice markets.

Domestic Supply Conditions

Producers

As a traditional crop of cultural and historical significance rice production in Cambodia is extensive. Strong growth in rice cultivation over the past decade has taken place across Cambodia's vast lowlands as farmland is brought back into production. There are an estimated 2.9 million rice farms in Cambodia with an average land holding of 1.2 hectares.[241]

[239]USDA, Foreign Agricultural Service, *World Rice Trade by Calendar Year*, Washington DC: US GPO, 2013.
[240]USDA, Economic Research Service, *World Rice Supply and Utilization, Rice Yearbook*, Washington DC: US GPO, 2013.
[241]USDA, Economic Research Service, *World Rice Supply and Utilization, Rice Yearbook*, Washington DC: US GPO, 2013.

Production Capacity

Production of paddy rice increased 123 percent in the ten years from 2002 to 2011on the back of encouraging increases in yield as well as expanded cultivated area.[242]There is scope to further increase production capacity by converting land to rice productionand increased multiple cropping through irrigation investment. Improved cultivation practices have led to a significant increase in rice yields – rising from less than 2 MT per hectare in 2004 to 3.2 MT per hectare in 2011.[243]However, unfavorable global rice prices and inadequate finances to fund large-scale irrigation investment suggest historical growth rates may be more difficult to maintain in the short-to-medium term. Further, the practice of Cambodia's rice farmers to mix varieties undermines the ability of exporters to provide a uniform product to international buyers. This practice will need to change for Cambodia to continue to expand its exports.

Cambodia had a production surplus estimated at 4 million MT of paddy rice in 2012 – indicating ample supply of paddy for milling. Since 2009 the milling capacity of Cambodia's larger mills has quadrupled in size to an estimated 350 MT per hour and increased the supply of milled rice that meet the quality demanded by export markets.

The number and size of new individualrice mills in Cambodia continues to increase dramatically. Table 12.3 gives an indication of the scale of investment underway in Cambodia's milling sector. In 2009, only two rice milling companies had a capacity of 20 MT per hour or higher, while most of the larger companies had capacities of 10 to 12 MT per hour. There are now seven firms that have a capacity of at least 20 MT per hour, including three capable of milling 30 MT per hour. There are on-going plans to build even larger mills to accommodate the expected growth in exports. These will be in the 50 to 100 MT per hour range and involve substantial FDI.[244]

While these increases in milling capacity are encouraging for the sector's future export prospects, overall milling capacity utilization remains very low. Many of Cambodia's larger rice mills are of comparable size with those in Thailand –yet the Thai mills usually operate 24 hours per day and six days per week most of the year. In contrast, nearly all of Cambodia's larger mills only work a single 8 to 10 hour shift and lack access to working capital to operate during the entire year.

Recent increases in Cambodia's paddy rice production and investment in irrigation infrastructure to boost dry season production may alleviate some of the working capital constraints facing the mills. It is reported that some of the new mills being built are confident of having access to sufficient working capital and plan to work three shifts per day. More widely, however, improved access to finance for the mills may also help re-direct some of the paddy rice being sold informally over the borders toward Cambodia's competitors.

[242] AFSIS: http://afsis.oae.go.th
[243] AFSIS: http://afsis.oae.go.th
[244] Tom Slayton and S. Muniroth, 2013, *Turning Rice into "White Gold"*, Phnom Penh: World Bank Working Paper (Draft), 2013 and World Bank, *Improving Trade Competitiveness in Cambodia: An Analysis Using TTFA*, Phnom Penh: World Bank, 2012.

TABLE 12.3 Capacity of Large Rice Mills in Cambodia (MT rice paddy per hour)

Mill	Capacity		Location	Comment
	Milling	Polishing		
As of mid 2009	95.5	72		
As of mid 2011	244.5	201		
As of mid 2012	322.0	305		
Angkor Rice (AKK)	30	20	Near PP	In Kandal; operational 2000; expanded by 20 tph February 2012
Baitang	20	30	Battambang	Operational 2010
BVB	30	30	K. Thom	Operational June 2011
Canadia	8	5	Battam/Takeo	Ea. Mill 4 tph; operational Takeo early 2011, Battambang January
Cavifood	24	12	PP	Operational April 2012 with 12 tph; capacity doubled June 2012
Chhun Thom	10	6	Prey Veng	Operational 2011
Golden Rice	20	20	Near PP	K. Speu; operational early 2009, JV Reunion
Green Trade	10	8	PP +	4 of 6 mills in PP; partner in Cavifood
Guohong	8	5	K. Chhang	Guangxi gov't; operational June 2012
Hoeur Chy	8	6	Siem Reap	Operational 2010
Lor Ngor Peng	20	20	K. Cham	Built 2009 10 tph; expanded to 20 tph & added polishing capacity 20 tph September 2011
Loran Import-Export	12.5	36	Battambang	Built 1994 & then serially expanded; includes 30 tph polishing operational February 2012
Mega Green	10.5	10	Battam/ S. Reap	Purchased existing Naga Thom mill in Siam Reap & older mill in Battambang
Men Sarun	25	24	PP +	Built 2003, also polishes rice from its other 39 mills elsewhere
Mong Reththy	10	10	SHV	Operational May 2012
Phou Poy Rice	8	6	Battambang	At two mills, built 2003
QQ Rice	12	10	Pursat	JV Malaysia
Sour Keang QC Rice	12	10	K. Cham	Built 2010
Vinh Cheang	12	15	K. Cham	Operational July 2011
Yam Leoung	15	12	Battambang	Following mill expansion, operational June 2011
You Khim Rice	8	10	K. Cham	Mill expansion, operational March 2011
White Gold	8		Battambang	2 mills; first started 2005
Under Construction/Planned	262	174		
AMRU	12		various	3 brown rice mills - K. Cham, Prey Veng & Battambang over next 3 years, ea 4-6 tph
CRK a/	20	20	Kampot	Under construction, operational July 2013; phase 2 adds 20 tph July
BRIC b/	30	15	Battambang	Operational May 2013
Canadia	44	8	Takeo	Operational fall 2012; brings capacity to 52 tph & polishing 13 tph
CCAD c/	20	20	Battam/Takeo	Operational September 2013
Chray Son	18	10	Battambang	Under construction; operational April 2013
Eang Heng	6	10	Battambang	Expansion of existing mill 4 tph to 10 tph; operational early 2012
Golden Rice	20	20	Near PP	Early 2013
Hak Se	15	9	K. Cham	Expansion of existing mill 6 tph to 21 tph; operational Nov 2012
KVCL d/	12	8	B.M.	Under construction; white capacity operational October 2012, parboiled by November 2012
Long Grain Co.	30	30	Near PP	K. Speu - JV UK & India; under construction, operational Jan 2013; phase 2 (incl 10 tph parboil) & phase 3 equal size in 1 yr intervals
Lor Ngor Peng	4	4	Battambang	Relocating from K. Cham, operational end 2012
Loran Import-Export	15		Battambang	Operational May 2013
Phou Poy Rice	12	14	Battambang	Constructing new mill, operational end 2012
White Gold	4	6	Battambang	Expansion existing mill, operational end 2012; brings capacity 12 tph milling
Rice Polishing				
As of mid 2011		20		
As of mid 2012		32		
AMRU		12	PP	Operational April 2012
Im Eang Kry		10	PP	Built 2010
Khmer Foods		10	PP	Built 2009; 22 tph by September 2012
Under Construction/Planned		44		
CCAD c/		20	SHV	Operational September 2013
Khmer Foods		12	PP	Under construction; operational end 2012
Mega Green		12	PP	Under construction; operational August 2012
Rice Upgrading				
Ying & Yang Rice		10	SHV	Built 2009, foreign company

Source: Slayton, T. and S. Muniroth, 2013. *Turning Rice into "White Gold"*

In this regard, there is need to develop short-term lending products drawing on movable collateral — either paddy or milled rice. Similarly, insurance firms will need to be prepared to insure against such collateral if such lending practices are to become available.[245] Overall, access to short-term finance products is vital to modernization of Cambodia's milling capacity, without which, tasks such as upgrading and expanding rice storage facilities have little prospect.

Quality of Product

Rice millers report poor paddy quality supplied by farmers and traders with low purity levels (mixed varieties) and inadequate post-harvest handling (such as poor drying and storage facilities). This leads to a higher percentage of broken grains in milled rice and a lower percentage of purity in aromatic variety. Consequently, both profit margins and access to high-value export markets is reduced.

A key challenge is that rice farmers have limited access to quality seeds. Most rely on older seeds from a past harvest. Coupled with traditional cultivation techniques, these result in lower yields, with smaller grains lacking aroma, and, ultimately, a less valuable harvest. In parallel with other efforts to modernize Cambodia's rice industry, there is a clear need to accelerate farmer's access to quality seed varieties that suit the season, geography and the specifications of the market.

To ameliorate some of these problems, a small number of the larger mills sometimes purchase paddy directly from growers' associations or through contract farming arrangements. In this situation, mills are concerned with quality and will provide funding for inputs and advise farmers on seed selection. This is a relatively new initiative on the part of the millers and provides a good model for the future direction of the industry.[246]

More broadly, the provision of extension services to farmers – with the backing of both government and the private milling sector – would improve rice cultivation practices, increasing yields further and making available stocks of uniform and higher quality grains for millers. Encouraging the establishment of rice cooperatives to help organize farmers would also aid the delivery of extension services as well as facilitate access to market information and finance. In addition, millers complain about CARDI's de-facto monopoly over the supply of seeds and suggest opening the market to private sector competition.

Productivity

Strong growth in rice cultivation and improved yields has supportedbroader efforts to increase milled rice exports through larger supplies of paddy rice. Table 12.4 outlines the improvements made to paddy rice yields over the last two decades that, combined with increases cultivated area, has led to a surge in Cambodia's total rice production.

In 2011, Cambodia's average rice yield reached a record 3.2 MT per hectare over a cultivated area of 2.77 million hectares (also a record.) This yield is comparable to Thailand's, but below Vietnam paddy yields

[245] Note the International Finance Corporation (IFC) is commencing a three-year project to develop short-term lending capacity and products in Cambodia's commercial banking sector.
[246] World Bank, *Improving Trade Competitiveness in Cambodia: An Analysis Using TTFA*, Phnom Penh: World Bank, 2012.

of 5.6 MT per hectare. This is partly due to Cambodia's reliance on wet season crop production (rain-fed), which results in lower yields but is cheaper to cultivate than irrigated rice production. Millers therefore benefit from being able to source comparatively cheaper rice paddy although supply of paddy rice is more abundant during the wet season.

Table 12.4: Production of Paddy Rice in Cambodia

	1990	1997	2004	2011
Cultivated Area (million hectares)	1.85	1.90	2.10	2.77
Average Rice Yields (MT per hectare)	1.35	1.77	1.98	3.17
Total Production (million MT)	2.50	3.42	4.17	8.78

Source:*ASEAN Food Security Information Service*

Availability & Quality of Labor Force

While labor costs are lower in Cambodia relative to regional competitors, there is an acute lack of skilled labor to service and manage milling and polishing operations. Many of the larger millers rely on foreign operations managers and technicians. In the absence of qualified local technicians, large mills may depend on technical support from equipment manufacturers from Japan, China, or even Vietnam.

Level of Processing and Storage Technology

Rice milling and polishing processes are capital-intensive. The majority of mills in Cambodia continue to rely on old processing equipment from Vietnam and China and predominantly service the domestic market. Older processing equipment, coupled with the use of mixed varieties of paddy rice, leads to a higher proportion of broken grains and are not of a grade suitable for export.

The export potential of Cambodia's milled rice sector rests with the recent investments in larger and more modern mills that are now coming online. These mills will need to source reliable supplies of uniform paddy rice to have the necessary working capital to operate 24-hour-a-day and achieve the necessary efficiencies to be competitive suppliers of quality milled rice in international markets.

The sector is also in need of modern silo and other storage facilities to provide large mills access to a more steady supply of paddy. Development of such facilities is partly linked to the development of banking product to finance inventory.

Cost and Quality of Infrastructure

The cost of transporting rice in Cambodia is between two to three times the cost in Vietnam and Thailand. Current estimates for transporting rice are estimated at $10 to $13 per 100 km, while comparable costs in Vietnam are approximately $7 per 100 km and $5 per 100 km in Thailand.[247] The higher transport costs in

[247] Slayton, T. and S. Muniroth, 2013, Turning Rice into "White Gold", World Bank Working Paper (Draft), 2013.

Cambodiarelative to neighboring countries are due partly to the heavier reliance on significantly cheaper river transport in these markets. Expanding access to Vietnam's ports through inland waterways offers the prospect of break bulk barging down the Mekong River.[248] This could improve significantly the competitiveness of Cambodia's milled rice exports.

Cambodia's reliance on road freight as the main domestic transport mode is also increasingly at odds with urban sprawl and traffic congestion problems in major cities. For example, the decision by Phnom Penh municipality to prohibit heavy road freight from the city's roads between 6am and 9pm in an effort to alleviate traffic congestion is impacting exporters adversely, including rice millers. Such policy conflict highlights the need for a more strategic approach to urban development planning and regulation as well as the need for rail connections to be modernized. The re-launch of rail freight service between Battambang and Phnom Penh, following the recent opening of scheduled rail service between Phnom Penh and Sihanoukville should provide an alternative as well as healthy price competition to the trucking sector.

Efficiency of Domestic Support Industries

Cambodian rice millers pay significantly more for transport, electricity, diesel and port access compared to competitors in Vietnam and Thailand. Insufficient access to finance forces local millers to compete with Thai and Vietnamese buyers for paddy rice. The latter are able to purchase and pay Cambodian farmers cash on-the-spot at the time of harvest. This practice has proved a major impediment to millers and processors accessing sufficient working capital to operate effectively and has been identified in the RGC's 2010 national rice policy – *Promotion of Paddy Production and Rice Export* – as a key area requiring action.

The RGC is committed to improving the financing of paddy rice collection. This includes recapitalizing with additional funds the Rural Development Bank (RDB) and Agriculture Development and Support Fund (ADSF) and establishing a Credit Guarantee Scheme and Risk Sharing Facility to encourage commercial banks to extend loans to paddy collectors, SMEs and agricultural processing activities more generally.

Domestic Demand

Per capita consumption of rice in Cambodia is expected to remain at current levels (around 160kg per person per year) over the next decade.[249]Coupled with increased yields and paddy rice production, this should lead to higher exportable surpluses in future years and increase paddy supply to rice millers.

Prospect for Domestic Supply Conditions

Improved farm extension services and capacity building support would equip farmers with the market information to match cultivation practices and yields with the needs of millers. In turn, millers will have access to the appropriate mix of rice varieties and quality as demanded by international buyers. In

[248] See chapter 3
[249] World Food Program, *Comprehensive Food Security & Vulnerability Analysis – Cambodia*, Rome: FAO, 2008.

addition, continued expansion and modernization of Cambodia's milling sector will increase output, utilization of capital and reduce operating margins.

Policy and Regulatory Framework

Government Initiatives and Sector Policy

In 2010, the RGC launched Policy on the *Promotion of Paddy Production and Rice Export*. The policy set a target of achieving one million MT of milled rice exports by 2015. While Cambodia already produces sufficient paddy rice to meet this target, the quality and reliability of supply remain impediments as do a number of logistical problems– especially the lack of modern milling capacity of sufficient scale to accept larger orders. While achieving the one million MT export target will significantly increase the value of Cambodia's rice exports significant gains can be equally achieved by increasing the quality of rice exports. Both efforts require a restructuring of the inbound supply chains which are currently based on small-scale operations. While the increase in exports of milled rice can be achieved through a short-term strategy, the improvement in quality of the rice requires a longer-term strategy.[250]

To achieve the one million MT export target, the RGC Rice Policy establishes a clear action plan aimed at (i) improving farm-level productivity and output; (ii) encouraging investment in modern rice processing and milling capacity; (iii) facilitating trade by reducing costs and regulatory barriers impeding export growth; and, (iv) export market development. Table 12.5 summarizes some of the key action items addressing each of these components of the rice policy.

The RGC's Rice Policy has provided investors clear policy guidance and signaled the Government's commitment to the milled rice sector. Significant progress on facilitating exports has occurred which can be largely credited to the guidance and incentives provided by RGC's rice policy. This includes:

- The investment pace in larger mills and rice polishers has accelerated;
- A number of the new mills being built will have access to sufficient working capital that they plan to operate three shifts per day, rather than the current single shift;
- Overall costs associated with export procedures have declined compared to prior to the launch of the rice policy (although these costs need to fall further to be comparable to regional competitors);
- A "one stop" office has opened, helping to reduce the number of days required to acquire export permits;
- The barging of non-containerized rice down the Mekong River has begun; and,
- Recent investments in port facilities in Kampot should permit mid-stream loading of large vessels by 2013 and, similarly, in Sihanoukville by 2015.

[250] World Bank, *Improving Trade Competitiveness in Cambodia: An Analysis Using TTFA*, Phnom Penh: World Bank, 2012

Table 12.5: Cambodia's July 2010 Rice Policy at a Glance		
	Main Issues (Selected Policy Measures)	**Responsible Institutions**
Rice Production		
Quick-Wins	Increase productivity by using high-yield seeds and modern production techniques (facilitate import of seeds and fertilizers, strengthen domestic seed production, review Ag. extension services, etc.)	MEF, MAFF
	Continue to expand irrigation (strengthen small scale irrigation schemes, irrigation maintenance, etc.)	MoWRAM, relevant ministries
	Maintain rural road, develop rural feeder network	MRD, relevant ministries
	Promote micro-credit	MEF, NBC
Medium/Long Term	Improve productivity and crop intensification (long term water management plan, rehab of Ag. stations and centers, R&D, etc.)	MoWRAM, MAFF
	Implement national policy for rural electrification	MIH, relevant ministries
	Establish and strengthen capacity of farmer organizations	MAFF, relevant ministries
	Promote and implement policy on sustainable use of Ag. land	MLMUPC, MAFF, MoP, relevant ministries
Paddy Rice Collection and Processing		
Quick-Wins	Encourage Private Sector participation in paddy production and processing (continue implementation of law on investment; improve as needed)	CDC, MEF, relevant ministries
	Improve financing paddy collection (recapitalize RDB with additional $7 million; double ADSF capital from $18 million to $36 million; develop Credit Guarantee Scheme to guarantee loans from commercial banks to rice sector; set up Risk Sharing Facility for commercial banks to lend for Ag. processing)	MEF, NBC
	Provide treatment to Rice Miller Association similar to that extended to GMAC	RGC
Medium/Long Term	Create new financial instruments and leverage existing financing mechanisms (implement laws on secured transactions and financial leasing; develop credit information; consider creation of Ag. Development Bank)	MEF, MoC, NBC
	Develop "Open Paddy Market" (develop contract farming, promote market-driven rice production, paddy-based collateral loans)	MAFF, relevant ministries
	Lower electricity price and extend coverage (accelerate diversification of rural energy sources, improve EDC management, etc.)	MIH, EAC, EDC

Logistics		
Quick-Wins	Enhance trade facilitation, reduce informal fees, eliminate illegal check points (extend 'special treatment' similar to garment sector)	MEF/GDCE, MAFF, MoC/Camcontrol, relevant ministries
	Implement single-stop service for export processing (for issuance of SPS certificate, fumigation, grading and quality, weights and measures, customs declaration)	MEF/GDCE, MAFF, MoC/Camcontrol, MIH/ISC, relevant ministries
	Address grading and quality standards in compliance with internationally-recognized standards (define standards, create internationally accredited certifying body or encourage independent international institutions, etc.)	MIH/ISC, MAFF, MoC, Private Sector
	Encourage construction of bonded warehouse at PP port	MPWT, MEF
Medium/Long Term	Formulate strategic and legal framework with emphasis on SPS (law on SPS, related Anukrets and Prakas, establish clear division of responsibilities among line ministries, strengthen human and institutional resources, etc.)	MAFF, MoC, MoH, MIH
	Invest in infrastructure to reduce costs of exports (eg. accelerate renovation of Poipet-PP and PP-Sihanoukville railways, etc.)	MPWT, relevant ministries
	Facilitate financing for export(consider establishing export-import bank)	MEF, NBC
	Facilitate financing for infrastructure development	MEF, NBC
Marketing		
Quick-Wins	Explore export opportunities in regional and global markets (studies of potential import markets, lead mission to potential markets, explore Philippines, Indonesia, Brunei, etc.)	MoC, MFAIC
	Explore establishing rice market intelligence unit	MoC, MAFF, Private Sector
	Strengthen domestic market information sharing and monitoring	MoC, MAFF, MoWRAM, MRD
Medium/Long Term	Prepare strategic plan for Cambodia's rice sector to compete in regional and global markets (define objectives, identify markets, negotiate bilateral agreements, etc.)	MoC, MFAIC, relevant ministries

Source: Based on *Policy Paper on the Promotion of Paddy Production and Rice Export*, Council of Ministers, July 25, 2010. From: Ministry of Commerce, *Trade Sector Development and Aid for Trade in Cambodia*, Phnom Penh: MoC, July 2011

Business Associations

Many of the more medium-to-long-term actions identified in Cambodia's national rice policy will require regular and effective dialogue between industry and government. At present, Cambodia's rice supply

chain remains quite fragmented with many intermediaries involved from farm-gate to the export market. Transforming Cambodia into a trusted and reliable supplier of quality milled rice in international markets will require both close collaboration and a strategic approach across the supply chain and with government.

No single national rice exporter association currently exists. Instead an array of fragmented associations may often lead to competition rather than cooperation. This undermines the ability of the sector to speak in a single voice.

The creation of a single national rice exporters association should be a key priority for both Government and industry. By giving industry a stronger voice, it would facilitate more productive public-private engagement as the national rice policy continues to be implemented. Similarly, it would allow exporters to coordinate on important export market development initiatives – such as export promotion, creating a national brand/logo for fragrant rice exporters, and participating in international trade fairs. The recent creation of the Federation of Cambodian Rice Exporters (FCRE) may help provide this single voice.

While a Working Group on Rice has been created under the RGC's Government–Public Sector Forum (G–PSF) framework partly to support implementation of the Rice Policy, this particular Working Group has not met for nearly two years. Clearly, it is not as effective as it ought to be. The private sector has a role to play in making it a more effective mechanism by finding ways to speak in a single voice.

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

There are 2.9 million rice farms in Cambodia. As the sector becomes more integrated into the formal global supply chain there is scope for the wider industry's returns to improve – offering increased earning potential for those rice farms with a tradable production surplus. The expansion of Cambodia's milling and rice processing sector will also offer future employment opportunities in a range of semi-skilled and skilled positions.

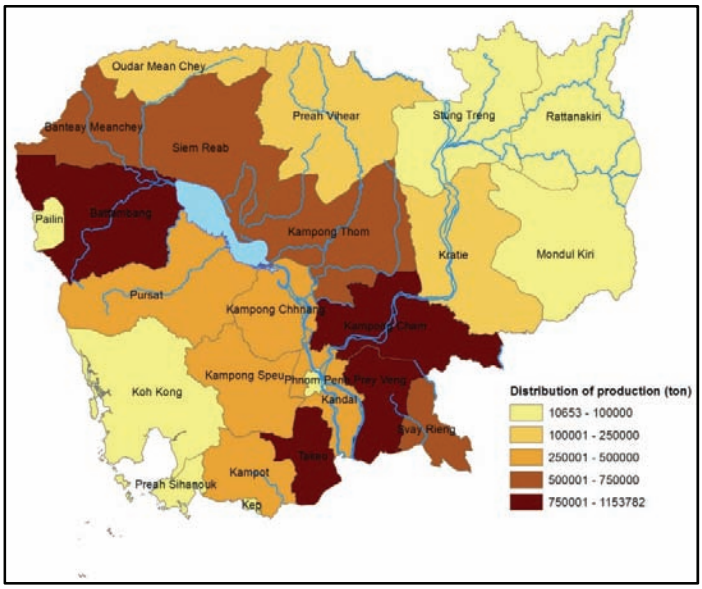
Impact on Development of Disadvantaged Regions

Approximately 80 percent of the population resides in rural areas and 71 percent are estimated to be solely dependent on agriculture – largely cultivated rice – for their livelihoods. In a typical season 40 percent of rice farmers generate a marketable surplus to trade. The majority of farm households are engaged in rice production. The most important ricegrowing areasinclude the provinces of Prey Veng, Takeo and Kampong Cham in the South East; Battambang, BanteayMeanchey, and Siem Reap in the North West and Kampong Thom in the Centre (see Map 12.1). In normal years, theseprovinces account for approximately 65 percent of the aggregate national production.[251]Increased participation in the global

[251] FAO/WFP, *Crop & Food Security Update Mission To Cambodia Report*, Phnom Penh: FAO, April 2012

rice market should improve industry returns, offering increased income potential for up to 2.9 million rice farms.

Map 12.1: Main Rice Growing Regions in Cambodia, 2012



Source: Ministry of Agriculture, Fisheries and Forestry

Contribution to Skill Development

Expansion of the milled rice sector offers increased employment opportunities for operations managers, machine technicians, marketing professionals and rice traders.

Energy and Water Constraints and Environmental Impact

The high cost of electricity impedes significantly the competitiveness of Cambodia's rice milling sector. Some millers report that energy costs in some provinces are up to ten times higher than in Vietnam.Most rice mills use one diesel engine to power a single shaft, with belts attached to the shaft that drives all milling equipment: transporters, shakers, threshers, and polishers. Modernization of a traditional rice mill that is currentlypowered by a single diesel-burning engine requires a large investment and electricity supply to drive its dozens of small electric motors.[252]

However, there is real opportunity to address high electricity costs through use of alternative, cost-competitive technology, such as the use of rice husk as biofuel. Backed by a $15 million multi-donor trust fund, an International Finance Corporation-led program aims at developing energy efficiency in the sector, by promoting rice-husk gasification technology that generates power from organic

[252]IFC, *Cambodia Biomass Gasification Technology Survey*, Phnom Penh: IFC, December 2012.

materials.Gasifiers could therefore contribute substantially to the savings of rice mills in the future.However, this will require significant modernization of both the rice sector and Cambodia's energy regulations. For example, electricity generation based on biofuel from rice husks is not currently economically feasible as generators need to run 24/7. But most mills operate only single eight-hour shifts. They would need to sell extra production to EDC. However, Cambodia's state-owned electricity generator and distributor (EDC) does not buy-back electricity from small-scale producers at present.

Box 12.6: ASEAN & Regional Integration

As Cambodia pursues a rapid export-led expansion of its milled rice sector the ASEAN region provides both competitive risks and important opportunities. The fact Cambodia is wedged between two of the world's top three rice exporters – Thailand and Vietnam – is a key reason so much of Cambodia's surplus paddy rice production is traded informally with these countries. Thailand is a major competitor for aromatic rice exports, while Vietnam is a major competitor for non-aromatic rice exports.

While Cambodia may have a competitive advantage in paddy rice production, local millers struggle to compete with buyers in Thailand and Vietnam for the working capital on offer each season. The RGC has enacted a number of measures to improve access to finance for collectors/millers and, as Cambodia's milling capacity increases, some of the outward flow of paddy rice are starting to reverse.

Further, Vietnam's river systems and the port of Ho Chi Minh offer an alternative transport and export gateway that can improve significantly the competitiveness of Cambodia's milled rice exports.[253] In this context, Thailand and Vietnam offer important benchmarks in terms of export procedures and supply chain management that should serve as a useful guide for Cambodia as it seeks to further increase milled rice exports toward its one million MT target. Closer regional integration at both a Government-to-Government and industry-to-industry level will be a key component of Cambodia's success as a milled rice exporter.

More broadly, ASEAN is a major consumer of rice with large importing markets – such as Indonesia and the Philippines – and a strong growth outlook. Cambodia already ships milled rice to Malaysia and securing similar arrangements with other ASEAN partners will be an important step toward expanding and diversifying Cambodia's milled rice exports. Beyond ASEAN, Cambodia also has a good prospect for increased exports of fragrant rice to the key market of China.

[253] This will require break-bulk barging down the Mekong River (not containerized like most of Cambodia's milled rice exports.)

Conclusion

The main findings from this chapter are summarized in the SWOT analysis that follows.

Strengths	Weaknesses
• Introduction of *Policy on the Promotion of Paddy Production and Rice Export* in 2010 has encouraged investors to significantly boost milling capacity. • Rice is a traditional crop of cultural and historical significance and production in Cambodia is extensive and widespread. • Very low-cost paddy rice gives local millers an advantage over foreign competition. • Strong growth in rice cultivation and improved yields has supported efforts to increase milled rice exports. Yield in Cambodia was 3.2MT/ha in 2012 (5.6MT/ha in Vietnam; 2.8MT/ha in Thailand) • Duty-free access granted to Cambodia by the EU and Russia is a key driver of rapid export growth since 2009. • Opportunistic in taking market share from competitors when global trade is disrupted by foreign government rice policies (e.g. India and Thailand).	• Low and inconsistent paddy quality and poor post-harvest handling results in lower value milled rice. • Cambodian export procedures for milled rice remain complex and costly: $11/MT compared to $0.10/MT in Thailand and $0.05/MT in Vietnam.The large number of government agencies with overlapping bureaucratic mandates adds to the cost of doing business and exporting milled rice. • Few cooperatives exist to help organize farmers (small land holders), limiting access to extension services, market information, finance and reducing bargaining power. • Insufficient capacity building support. • Inconsistent supply and working capital reduces efficiencies and profitability of milling operations. • Inadequate access to finance forces local millers to compete for paddy rice with Thai / Viet buyers. • Limited capacity of modern mills reduces the size of exports that can be handled. • Lack of modern silo and storage facilities to provide large mills a more steady access to paddy supply • Cambodian rice millers pay significantly more for transport, electricity, diesel and port access compared to competitors in Vietnam and Thailand. • Difficult to meet international standards, including milled rice specifications and SPS. • Lack of skilled labor to service and manage milling and polishing operations. • Cambodian practice of mixing varieties undermines ability of exporters to provide consistent quality.

Opportunities	Threats
• Increased participation in global markets will improve industry returns and offers increased income potential for 2.9 million rice farms. • Provision of extension services to improve rice cultivation practices can further increase yields and available stocks of uniform and higher quality grains for millers. • Global trade in milled rice is expected to remain at near record volumes over medium term (at 30+ million MT per year). • Large rice importing markets with strong growth outlook are nearby — including Indonesia, the Philippines, and China. • Continued expansion and modernization of Cambodia's milling sector will increase output and lower costs. • Good prospects for increased exports of fragrant rice to China. • Break bulk barging down the Mekong River would significantly improve competitiveness of Cambodian rice exports. • Significant opportunity to address high electricity costs through use of alternative, cost-competitive technology (use of rice husk as bio-fuel).	• Myanmar likely to re-emerge as a large low-cost rice exporter in next 5 years and will benefit from similar duty-free preferences. • Historical growth rates in rice paddy production become more difficult to maintain. • Thailand is a major competitor for aromatic rice exports, while Vietnam is a major competitor for non-aromatic rice exports. • Return of India and Thailand as dominant rice exporters likely to weaken global prices. • Sales to EU market may have already peaked. • Global rice markets are unpredictable and often subjected to significant government intervention. • Price volatility and variable climatic conditions adds to risk and reduces returns on investment • Reliance on containerized rice exports is at odds with global practices of trading in break bulk rice. • Without ability to reliably produce large quantities of uniform milled rice access to international markets will be restricted. • Increases in electricity costs could place millers under further cost pressure. • Export of fragrant and non-aromatic rice exports will continue to grow only if modern milling capacity continues to expand and rice exporters open new markets beyond their current main targets (EU and Russia). • Emerging pest and disease threats. • Absence of pests and diseases surveillance system might lead to bans by importing countries in the event of infestation

Recommendations

The RGC's national rice policy has provided investors and industry stakeholders with clear guidance and signaled the Government's long-term commitment to the milled rice sector. Already clear progress has been made in implementing many of the key action areas identified in the rice policy, and this has been evident in the strong growth recorded in formal milled rice exports since 2010. Much of these gains have been opportunistic – reflecting the "quick-wins" for government and industry that could be implemented with immediate results. While Cambodia's emergence in global rice markets has been impressive, its future success is by no means assured.

Action is needed across the supply chain. Farmers need support to ensure the right rice varieties are being sowed with appropriate post-harvest handling practices in place. For millers and processors, efforts need to focus on meeting basic HACCP or GMP standards in order to promote Cambodia as a capable and trusted supplier of milled rice in international markets. Similarly, the costs associated with exporting milled rice places Cambodia at a disadvantage compared to regional counterparts and further reforms relating to export procedures and trade facilitation are needed.

These challenges will require close public-private sector cooperation to overcome and local rice exporters will need to speak with a stronger unified voice to ensure initiatives to promote the sector are well-targeted and effective.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #12.

Chapter 13

CASSAVA

Background

Once considered the "food of the poor" cassava has become a multipurpose crop that responds to the priorities of developing countries, to trends in the global economy, and to the challenge of climate change.[254]Cassava has many end-uses – including for both human consumption and in animal food, and increasingly in many industrial sectors, particularly in the form of starch. More recently, cassava has emerged as a key input to ethanol production. Indeed, China's dominance of global cassava trade is driven, in part, by domestic policies that place a priority on bio-fuel production. While cassava is primarily grown for its roots, the full plant can be used: the wood as a fuel, the leaves and peelings for animal feed, and even the stem as dietary salt. The plant shows good resistance to drought, diseases, and pests and offers a very good yield.

It is these many attributes, coupled with favorable prices, which have seen Cambodia's cassava production increase exponentially over the last decade. Much of this improvement reflects the expansion into new production areas where soils are relatively fertile, combined with the adoption of new higher yielding varieties. In this context, cassava has now become an important cash crop for resource-poor farmers in Cambodia while also supporting the development and expansion of a local processing sector. This presents an important opportunity for the sector to more fully integrate with regional and global markets, which will require close cooperation between Government and producers and processors to address the key constraints to the sector's export-led development.

Export Performance

Export Value

It is difficult to assess the exact value of Cambodia's cassava exports as most of it is sold as informal, unrecorded cross-border trade with Vietnam and Thailand. However, formal exports of cassava exports have been growing recently as production capacity increases. In 2011, total formal exports were $5.3 million with strong growth in fresh/dried cassava export volumes during 2007 – 2012 (see Table 13.1.)

[254] FAO, *Policy Brief – Save and Grow: Cassava*, Rome: FAO, 2013.

Table 13.1: Cambodian Cassava Exports 2007-2012					
	2007	**2008**	**2009**	**2010**	**2011**
Fresh or Dried Cassava (HS 071410)					
Volume (MT)	2,758	22,289	66,753	24,000	93,503
Value ($ million)	$ 0.6 m	$ 0.5 m	$ 0.9 m	$ 0.4 m	$2.3 m
Cassava Starch (HS 110814)					
Volume (MT)	23,629	10,286	31,280	13,723	16,722
Value ($ million)	$4.3 m	$ 1.6m	$ 4.8 m	$ 2.5 m	$3.0 m
TOTAL CASSAVA EXPORTS ($ million)	**$ 4.9 m**	**$ 2.1**	**$ 5.7 m**	**$ 2.9 m**	**$ 5.3 m**
Source: UN Comtrade and TradeMap					

Given the large quantities of Cambodia's fresh/dried cassava traded informally, it is difficult to accurately compare the scale of local exports with international partners. However, a number of recent assessments of the cassava sector have concluded that Cambodia is now potentially one of the top five global exporters of fresh/dried cassava in the world.[255] Some estimates put the value of informal cassava trade at $200 – $300 million each year.[256]Chapter 1 takes on a more conservative view and estimate informal exports in 2011 at a value of $161 million (Table 1.9.)

Type of Exports

Cassava can be traded in two forms: raw (fresh or dried) cassava and as a processed starch. Freshly harvested cassava root has a very short shelf life and is highly perishable. Consequently raw cassava can really only be traded in dried form – as either cassava chips or as pellets. Cassava starch is traded in powdered form and can be used for human and animal consumption as well as a variety of industrial applications. While, at first glance, Table 13.1 may suggest Cambodia specializes mostly in exporting cassava starch this does not take account of the substantial informal trade in fresh/dried cassava.

Current Export Destinations

In recent years Cambodia's formal cassava exports have been concentrated on just two markets – Thailand (for raw cassava) and Vietnam (for cassava starch). Historically, cassava exports have also been recorded with Malaysia and China although not with regularity. Following the Memorandum of Understanding (MoU) on SPS for cassava exports signed between Cambodia and China in 2010, formal exports to the latter country are becoming more organized and consistent.[257]Although 47 cassava processors are registered with MAFF to export to China, compliance with stringent SPS requirements for this important market remains a key challenge for many processors.

[255] Ministry of Commerce,*Cassava Sector Profile and Strategy,* Phnom Penh: MoC, 2012.
[256] Zhi, C., *Cambodia Launches Cassava Development Project under China-UNDP Support,* Xianhuanet News, 21 May 2013.
[257] China-Cambodia, *Protocol on Phytosanitary Requirements for the Export of Tapioca from Cambodia to China,* Beijing and Phnom Penh: 2010

Potential Export Destinations

China has become the principal buyer of cassava products on international markets. Since 2008, its share of the global demand for fresh/dried cassava has more than doubled from 37 per cent of total imports to 84 percent in 2012 while the EU's share has declined dramatically from 32 percent to less than 2 percent over the same period. In 2012, China produced 780million liters of bio-ethanol from 6million MT of dried cassava.[258]

Table 13.2 below lists the top five global importers in 2012 for each of these products. While other markets may appear relatively small in comparison they could still offer export opportunities for Cambodian cassava exports. For cassava starch, markets in Asia account for most imports – especially China and Indonesia. Overall, there is scope for Cambodia to expand formal cassava exports to the major global importers of both fresh/dried cassava and cassava starch.

Table 13.2 Top Global Importers Cassava, by World Share, 2012

Fresh / Dried Cassava			Cassava Starch	
China	84.0 percent		China	34.5 percent
South Korea	5.7 percent		Indonesia	25.3 percent
Thailand	4.4 percent		Taiwan	11.4 percent
US	3.1 percent		Malaysia	6.0 percent
EU-27	1.5 percent		Japan	5.3 percent

Source: TradeMap

Trade Balance

Cambodia is consistently a net exporter of both fresh/dried cassava and cassava starch with zero imports recorded in recent years.

Dynamism of Exports

Cassava production in Cambodia has significant potential to become a major source of export revenue for Cambodia. Indeed, in many respects it already has, and is most likely now the second most important agricultural crop after rice. However, Cambodia's cassava export trade is heavily oriented toward informal trade across land borders with Thailand and Vietnam, where it is further processed and most likely re-exported.

In this context, informal cassava trade limits further export-led development of the sector in a number ways. Firstly, by not being part of the formal economy it becomes very difficult for policymakers to make informed decisions on how best to support export development. Secondly, while informal trade may make good business sense for those conducting it, for the wider economy it represents both lost value and a lost opportunity for additional economy activity to take place – such as through formal

[258]FAO, *Policy Brief – Save and Grow: Cassava*, Rome: FAO, 2013.

handling, processing and marketing channels. By way of comparison, the international price (FOB) for cassava starch is $445 per MT at the time of this writing, while the international price of cassava chips is $235 per MT.[259] Further, Cambodia's informal exports of both fresh cassava roots and dried chips would sell at a significantly discounted rate to this international price.

Recent investments in processing facilities – including by foreign investors – may prove a turning point for the cassava sector and encourage more production output to enter the formal supply chain. However, most likely further efforts will be needed by both Government and producers and processors to support the necessary structural changes within the sector, modernize the supply chain, and drive export-led development.

Export Prospect

In recent years, Cambodia has experienced significant improvements in the production capacity of the cassava sector. This is creating a substantial exportable surplus that is already supplying international markets – albeit mostly through informal channels via Thailand and Vietnam. With further growth expected in Cambodia's production capacity there is clearly scope for the local sector to become more closely integrated in global markets and, particularly, more fully share in the dividends of China's growing appetite for cassava.

World Market Conditions

World cassava production reached 282 million MT in 2012. This follows 14 years of successive increases in global output, driven by increasing industrial applications of cassava in East and South East Asia – especially, ethanol – and rising demand for food in Africa. However, despite the large and growing volumes of global production, only 12 percent of total production is traded on world markets.[260] In 2012, the global market for fresh/dried cassava ($1.8 billion) is larger than the market for cassava starch ($1.3 billion) with global trade in both products having more than doubled in value during 2007-2012.[261]

Like many other raw materials, export prices for flour and starch in Thailand (FOB Bangkok - the reference price) have increased, particularly during the second half of the last decade. Over the last eleven years, they have increased threefold, from $146.15 per metric ton (MT) in January 2000 to $509.21/MT in May 2011. An all time high of $630/MT was recorded in August 2010, following a bad harvest in Thailand. Since then, prices range from $500 to $600/MT. Traditionally, starch export prices from Thailand are competitive compared with corn, wheat, or potato flour.[262]

[259] FOB Bangkok prices are regarded as the international reference price. Quoted prices obtained from Thai Tapioca (cassava) Starch Association in September 2013.
[260] FAO, *Food Outlook – Global Market Analysis*, Rome: FAO, November 2012.
[261] TradeMap Data.
[262] UNCTAD, *Infocomm Commodity Profile – Cassava*,Geneva: UNCTAD, 2012.

The bulk of world trade in cassava is in the form of pellets and chips for feed (70 percent) and the balance mostly in starch and flour for food processing and industrial use. Very little is traded in the form of fresh root, given the product's bulkiness and perishable nature.[263]

Market Access Conditions

Cambodia has relatively favorable market access conditions in a number of key importing markets. For fresh/dried cassava Cambodian exporters enjoy tariff-free access in China, the EU, and US markets – all of which are major importing countries. Thailand enjoys similar tariff-free access, except for the EU market where Thai exports face a 12 percent tariff.[264]

For cassava starch, global market access conditions are less favorable, reflecting tariff escalation practices. While ASEAN, the US, and Hong Kong grant tariff free access for Cambodia's exports, two of the main global importers of cassava starch – China and Taiwan – impose duties of 10 percent and 7 percent respectively.[265] Japan imposes a highly prohibitive tariff rate of 140 yen per kg (equivalent to around $1,400 per MT).[266]

Major Competitors

Thailand and Vietnam are the dominant global exporters of both fresh/dried cassava and cassava starch. In 2012, Thailand and Vietnam accounted for 58 percent and 31 percent respectively of global exports in fresh/dried cassava; and 74 percent and 21 percent respectively of global exports in cassava starch.[267]

The ability of Thailand and Vietnam to service global demand for cassava products is undoubtedly assisted by the supply of fresh/dried cassava imported (largely informally) from Cambodia. The challenge for Cambodia is therefore to formalize these trade links so the cassava sector is able to better capture the value of strong international demand for cassava.

In terms of Cambodia seeking to emulate Thailand's rise to dominate cassava exports, the Thai cassava sector is seen as having grown largely on the back of government policies in relation to trade and processing as well as government support of R&D tailored to domestic conditions. For example, Thailand actively supported the establishment of commodity-specific trade associations (such as the Thai Tapioca Starch Association) and research institutions. These organizations promoted new varieties and farmer training and participated actively in the national policy dialogue. The organizations also focused on increasing yield andmarket access, attracting investors, and improving rural transport networks. With strong government-industry collaboration, the Thai export market expanded tough reliable trade links with the EU and China.[268]

---

[263] FAO, *Background Paper for the Competitive Commercial Agriculture in Sub–Saharan Africa (CCAA) Study Cassava: International market profile*, Rome: FAO, 2008.
[264]WTO Tariff Analysis Database.
[265] Ministry of Commerce (MoC) *Cassava Sector Profile and Strategy*, Phnom Penh: MoC, 2012.
[266] Japan Customs Database (www.customs.go.jp/english). Note: to calculate tariff equivalency an exchange rate of $1= ¥100was assumed.
[267]TradeMap data.
[268] Tijaja, J., T*he Evolution and Organization of Cassava Value Chains in Global Trade Landscape: Lessons for Africa from Thailand*, Bangkok: 2009.

World Market Prospect

The outlook for international cassava markets is variable and influenced by a number of factors. In Asia, cassava production is being guided heavily by highly competitive industrial utilization, including for starch, alcohol, and fuel ethanol. Government policies in Thailand – the world's largest exporter – such as the use of "price pledging schemes" also influence world prices and trading conditions. Stockpiles of cassava accumulate and are then price-discounted. Given the use of cassava in Asia for industrial purposes, prices for cassava are also influenced by the price competitiveness of substitute products – especially corn, which is used in animal feed and ethanol production.

While these factors will all influence the international price for cassava products, the strong demand from China is expected to continue. This demand is driven by two main factors: domestic policies that encourage ethanol production; and, the need to feed an expanding middle class with consumer preferences increasingly favoring meat (and hence supporting demand for animal feed). China will therefore play a pivotal role in the export-led development of Cambodia's cassava sector and current efforts to forge closer links could provide an important catalyst.

Domestic Supply Conditions

Producers

While cassava grows well on marginal land and is generally considered a resilient, low-input crop, constraints impede production worldwide. Disease, lack of access to improved seed and farm inputs, weed competition, and high labor requirements all constrain production and impact yield.[269]Cambodia's reliance on poor quality imported (often through informal channels) plant seedlings from Thailand and Vietnam expose cassava farmers to disease outbreaks and highlight the need for establishing reliable local supplies of quality seedlings. Recent FAO studies have shown the availability and use of high quality planting materials that maintain genetic purity and are free of diseases and pathogens are crucial to intensified cassava production.[270]

In the absence of a formal seed production and distribution system Cambodia may need to look to experiences elsewhere to determine how best to support the expansion and intensification of more sustainable cassava production. For example, cassava development programs in Africa have used a three-tier community based approach for rapid multiplication of seeds. At the top level, material from breeders is multiplied in research stations and government farms to produce clean, disease-free foundation seed. The secondary level involves further multiplication in farms often run by farmer groups and NGOs. Certified material is then distributed to tertiary multiplication sites in farming areas.[271]

[269] Evans School Policy Research & Analysis, *Cassava – Integrated Value Chain*, EPAR Brief No. 223, Seattle: EPAR, University of Washington, December 2012.
[270] FAO, *Save and Grow: Cassava A guide to sustainable production intensification*, Rome: FAO, 2013.
[271]FAO, ibid.

The start of a JACA-funded project at the University of Battambang in 2014 aimed at developing disease-resistant cassava seedlings is an important beginning in reducing Cambodia's reliance on imported and inferior plant material and could serve as basis for initiating more community-oriented extension services. More broadly, this project highlights the need for a strong R&D approach to innovation and increase productivity in Cambodia's agriculture sector.

Cassava is the second most important agricultural crop (after rice) in terms of total productionin Cambodia. Cassava production has increased significantly over the past decade due to a combination of increased demand for both domestic consumption and export, and higher international prices. Cassava is also often grown by farmers with other crops, such as corn and soybeans, as well as in rubber plantations prior to tree maturity (though this practice is not advisable due to the adverse consequences on rubber yields.) Consequently, it is difficult to determine exactly how many farmers in Cambodia produce cassava though it is most likely several hundred thousand across all provinces.[272]

The average farm-size for cassava farmers is in the range of 2 to 5 ha, with some larger cassava farms of 50 ha and more. Cassava farming is labor-intensive in both the planting and harvesting season (usually around 8 to 10 months apart) and can be a useful rotation crop, enabling farmers to respond to prevailing market conditions. Fresh cassava root has high water content and is therefore highly perishable with starch content decreasing rapidly after harvest. Accordingly, it needs to be processed (chipped and dried) within a few days of harvest.

This processing can be done on-farm by hand, however, it is very labor intensive and poor quality handling can reduce the quality of the dried cassava, including because it has been dried on unclean floor space and/or has been contaminated with soil and dirt. Mechanized on-farm choppers are used in Thailand and China, but are not yet commonly used in Cambodia.

Many Cambodia cassava farmers simply sell the fresh cassava root to collectors and traders. This practice is driven by the needs of smallholder farmers to access "instant" cash, as well as the high cost of labor required to conduct the chipping activities discouraging such value-adding activities on-farm.[273] Once in dried chip or pellet form, cassava can be stored for long periods, enabling collectors and traders to resell when prices are more favorable, which is often across the Thai or Vietnamese border.

In Cambodia, a number of small and large-scale cassava processing activities take place. Cassava chip factories are usually small-scale family businesses located close to plantations with simple chopping equipment. Processing of cassava starch can be done in both small-scale and large-scale facilities, although sufficient working capital is needed to make the processing economical. Other processing facilities (such as for animal feed or bio-fuel) have started to emerge in recent years and are often joint ventures with Thai, Vietnamese, Chinese, or Korean investors. As of 2011 around a dozen large-scale processors were operating in Cambodia – each specializing in a specific product.

[272] Ministry of Commerce, *Cassava Sector Profile and Strategy*, Phnom Penh: MoC, 2012.
[273] Emerging Markets Consulting, *Trade Project Cambodia: Cassava Industry Study*, Phnom Penh: UNDP Cambodia, 2008.

It will be important that Cambodia's processing capacity keeps pace with the rapid increase in local cassava production. In 2010 the total cassava processing capacity in Cambodia was estimated around 920,000 MT (fresh root equivalent) per year, when at the same time total cassava production exceeded 4.2 million MT.[274] Given that cassava production has grown to around 6 to 7 million MT, significant processing capacity is needed and should be encouraged by RGC.

In this context, a planned Cambodia-Thai joint venture to export 300,000 MT of dry cassava to China yearly was announced in January 2012 after the launch of a cassava processing plant in Siem Reap.[275] Similar investments are critical to driving export-led development of Cambodia's cassava sector and encouraging domestic value-adding activities rather than relying on informal exports. Importantly, investments that target specific markets such as China are needed in order to build on expected growing demand and to take advantage of the bilateral MoU signed in 2010.[276]

Production Capacity

Cambodia's total area planted to cassava has expanded dramatically from around 16,000 ha in 2000 to more than 345,000 ha in 2012. Consequently, annual production of fresh cassava has increased exponentially from around 148,000 MT in 2000 to more than 6.8 million MT in 2012 (see Table 13.3.) The drop in cassava production from a record high of 8 million MT achieved in 2011 corresponded with a 13 percent fall in planted area as lower prices for fresh cassava root encouraged some farmers to switch to other crops (such as beans.)[277]

Table 13.3 Cassava Production & Yields

Year	Planted Area (ha)	Harvested Area (ha)	Production (MT)	Yield (MT/ha)
1995	14,000	12,000	82,000	6.83
2000	16,000	15,000	148,000	9.87
2007	109,000	109,000	2,215,000	20.32
2008	180,000	180,000	3,676,000	20.42
2009	160,000	157,000	3,497,000	22.26
2010	206,000	202,000	4,249,000	20.98
2011	391,714	369,518	8,033,843	21.74
2012	346,594	n/a	6,860,000	21.70[f]

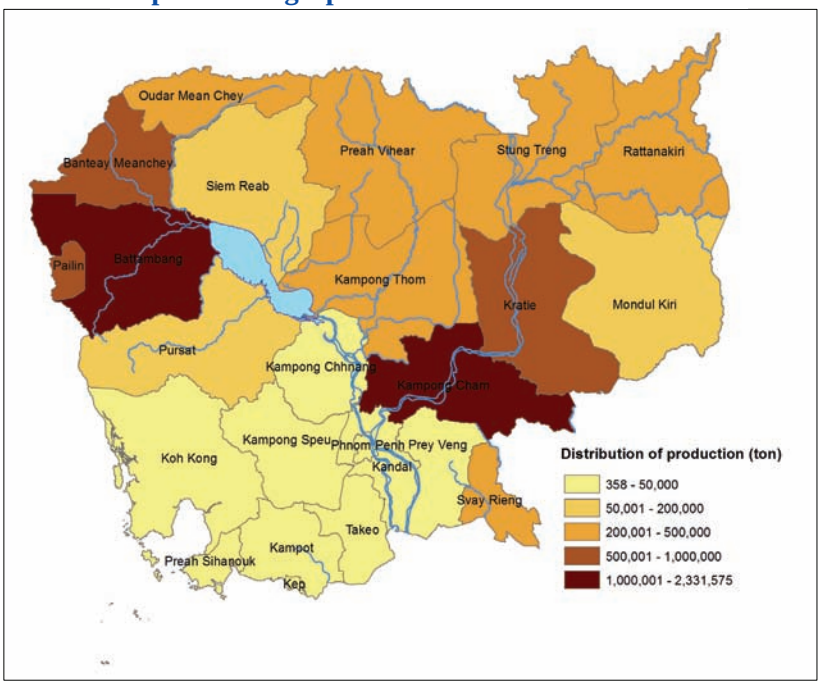
Source: ASEAN Food Security Information Service (AFSIS). Note: yields estimate for 2012 production year is an FAO estimate (FAOSTAT).

[274] Emerging Markets Consulting, *Trade Project Cambodia: Cassava Industry Study*, Phnom Penh: UNDP Cambodia, 2008.
[275] Bunthy, S., *Cassava Processing, China Trade Planned*, Phnom Penh Post, 12 January 2012.
[276] China-Cambodia, *Protocol on Phytosanitary Requirements for the Export of Tapioca from Cambodia to China,* Beijing and Phnom Penh: 2010
[277] Reuy, R., *Cassava production dropped in 2012*, Phnom Penh Post, Tue, 5 February 2013

There are a number of key factors driving this rapid increase in cassava production. These include the rise in international cassava prices; new domestic processing facilities; the adoption of higher yielding cassava varieties; and, the expansion into new production areas where soils are relatively fertile.[278] This is evident in the more than doubling of the average yield enjoyed to more than 20 MT per hectare – one of the highest yields for fresh cassava root reported in the world.[279] Indeed, India and Thailand are the only countries in the world that report higher average yields.

However, yields differ markedly across Cambodia's provinces (see Figure 13.1.) This is because cassava cultivation can have serious adverse impacts on soil quality with sharp decreases in yield usually experienced after about three years of successive cultivation. Consequently, newly cultivated land will typically generate very high yields, encouraging farmers to repeat the practice year-on-year, only to find that in due course average yields decline quickly. This highlights the critical need for farm extensions services that can improve crop management practices, such as through the use of natural fertilizers and crop rotation.[280]

Map 13.1:Geographical Distribution of Cassava



Source: Ministry of Agriculture, Fisheries and Forestry

[278] Sopheapa et al., *Unveiling Constraints to Cassava Production in Cambodia: An Analysis from Farmers' Yield Variations,* International Journal of Plant Production 6 (4), October 2012.
[279] FAOSTAT Database.
[280] Ministry of Commerce, *Cassava Sector Profile and Strategy*, Phnom Penh: MoC, 2012.

Quality of Product

The heavy reliance of Cambodia's cassava sector on informal trade links has a number of knock-on effects that impede the sector's development. For example, Cambodia's cassava farmers, processors and exporters are facing enormous constraints,including price distortions in neighboring countries (principally Thailand), a lack of information on price and quality criteria of importing markets and, for farmers, a lack of access to technology.

In particular, as the sector still seeks to more fully integrate into the regional and global supply chain, few local operators fully comprehend the marketing of cassava in international markets. Consequently, the expectations of import markets in areas such as product standards and quality are not fully understood.

In this context, forging closer bilateral relations between the local sector and key export markets will be important to achieving closer integration and meeting international standards. The signing of a bilateral protocol on the export of Cambodian cassava to Chinain December 2010 was therefore an important step forward in this regard. The protocol included a commitment by China to provide technical expertise to Cambodia's cassava sector including in the areas of environment sustainability of cassava cultivation and improving the quality of fresh/dried and processed cassava to a standard acceptable for export to China.[281]

Availability & Quality of Labor Force

Cassava production involves a number of stages, namely planting and harvesting, that are relatively labor intensive and is a considerable expense for smallholder farmers. The cost of hiring unskilled workers also rises significantly during the peak planting and harvest season. While mechanized planting and harvesting are available to the larger farms, such capital costs are beyond the reach of small-scale farms.

Processors require skilled labor for plant maintenance to operate machinery. With factory equipment imported, often from Thailand or Vietnam, technicians and engineers are also generally sourced from overseas. This is consistent with a general shortage of skilled labor across Cambodia's export sectors, and the need for a comprehensive Technical and Vocational Education Training (TVET) framework that ensures trainees and graduates qualify with the skills needed by employers (see chapter 17.)

Level of Processing Technology

The mechanization of on-farm cassava chipping would significantly lower seasonal labor costs, reduce wastage (from spoilage) and improve farmer's profits margins though value added activities. However, most farmers have limited or no access to on-farm technology, even where mechanization of on-farm activities is cost-effective for small-scale farmers. This reflects the widely recognized need for strengthened agricultural extension services in Cambodia – including in relation to plant material distribution systems, cultivation practices, and adoption of farm technologies.[282] Ultimately it is likely the private sector will need to be involved in the delivery of some farm extension services rather than

[281] Zhi, C., *Cambodia Launches Cassava Development Project under China-UNDP Support*, Xianhuanet News, 21 May 2013.
[282] CDRI, *Agricultural Trade In The Greater Mekong Sub-Region: The Case Of Cassava And Rubber In Cambodia*,Phnom Penh: CDRI Working Paper Series No. 43, 2009.

leaving such responsibility solely to MAFF. Private sector involvement – such as cassava processors – will also ensure direct linkages between the specifications of the market and the on-farm practices of cassava producers.

Off-farm processing of cassava is also important due to the highly perishable nature of fresh cassava roots and the absence of adequate post-harvest handling on-farm. Cambodia's relatively liberal FDI regime has encouraged strong growth in cassava processing enterprises, especially through joint ventures operations. Foreign investor interest in the sector has been driven by rapidly increasing local cassava production and the opportunities to market processed cassava in the region.For example, plans for an ethanol plant backed by Japanese investors have been formalized with MAFF. Following a three-year pilot phase, the plant will source cassava from 2,000 contract farmers across 15,000ha. Investments such as these underscore the importance of producing consistently large supplies of cassava of reliable quality.

Cost and Quality of Infrastructure

Roads connecting main cassava productioncenters to major urban areas are poor. This makes transportand transaction costs very high, especially as fresh/dried cassava is a bulky item with a relatively low value per MT compared to other agriculture commodities. High-cost infrastructure therefore discourages cassava production entering the formal supply chain.Renovation of the Battambang – Phnom Penh rail link and resumption of freight service between the two cities would go along way to improving transport logistics and associated costs for the cassava sector.

Poor quality roads also impedeCambodia's processing factories (located in urban areas) fromcompeting effectively with foreign traders in purchasing fresh/dried cassava. This is because local processorshave a higher cost of access to the area of production. Consequently, farmers have limited choice in terms of who to sell to, placing them in a weak bargaining positionwith little abilityto influence price.[283]

Efficiency of Domestic Support Industries

There is very limited access to finance due to unfavorable credit conditions, especially for small-scale cassava farmers. This impedes efforts to encourage local farmers to expand production and/or utilize modern cultivation techniques. More broadly, the lack of established marketing channels, poor infrastructure,poor market information, and erratic supply and quality of cassava material has been among themain factors constraining trade in cassava.[284]The lack of working capital is a particular constraint to expansion of Cambodia's cassava processing capabilities.Overall, there is an urgent need to implement a national export development strategy for the cassava sector. The export strategy should be backed by RGC, the private sector and RDB and will need to target each of the key constraints to further export development.

[283] CDRI, *Agricultural Trade In The Greater Mekong Sub-Region: The Case Of Cassava And Rubber In Cambodia*,Phnom Penh: CDRI Working Paper Series No. 43,2009.
[284] FAO, *Background paper for the Competitive Commercial Agriculture in Sub–Saharan Africa (CCAA) Study Cassava: International market profile*, Rome: FAO, 2008.

Domestic Demand

It is estimated between 20 to 30 percent of cassava starch produced in Cambodia is consumed domestically, especially for animal feed.[285] There is little processing capacity to value-add to the remaining locally produced starch, which is subsequently exported to Thailand or Vietnam. In this context, Cambodia's cassava starch processors would benefit from the further development of a local food processing industry given the many end-uses starch offers, such as in bakery products, noodles, confectionary and glucose. Similarly, expansion of Cambodia's livestock sector would also improve domestic utilization of locally produced cassava starch.

Prospect for Domestic Supply Conditions

There is no significant local industry for farm inputs, such as fertilizer and pesticides, in Cambodia. This leads to a dependence on either high-cost imported products or illegal low-quality imported products. Improved farm extension and support services would help to reduce the risk to farmers of utilizing low-quality inputs, many of which are fake or diluted.

The export-led development of a number of agricultural industries in Cambodia, including rice and cassava, may also provide the necessary catalyst for local investors to commence import-substitution production and, at least in part, reduce the lost earnings resulting from import dependence.

Policy and Regulatory Framework

Government Initiatives and Sector Policy

The strong growth recorded in cassava production in recent years provides an important opportunity for Government and stakeholders to take a strategic approach to export-led development of the sector. The competitive advantage of Thailand poses a daunting challenge to countries such as Cambodia wishing to more fully integrate with the international cassava market. However, in many respects, the path taken by Thailand provides a useful example of how to promote export development of agricultural industries.

Thailand's success was founded on close public-private sector collaboration, investment in R&D, pursuing market access opportunities and implementing government programs to ease constraints to export development (such as infrastructure.) This template is useful basis for Cambodia's cassava sector. A national cassava industry association is needed (see below) to promote industry coordination and engage effectively with government. This should form the catalyst for developing and implementing a national policy platform focused on export development of the cassava sector.

The approach taken by RGC for Cambodia's rice sector demonstrates that coordinated and strategic action by Government and sector stakeholders can be successful in driving export development. To this

[285] Ministry of Commerce, *Cassava Sector Profile and Strategy*, Phnom Penh: MoC, 2012.

end, the national policy and action plan should include the roll out of farm extension and support services to ensure cassava farmers have an opportunity to improve operations and cultivation practices. The policy will also need to address important cross-cutting issues, such as FDI, the environment, trade, infrastructure, energy, and vocational training.

In terms of trade and market access, the bilateral MoU between Cambodia and China will form an important basis for improving the industry's standards and aligning the supply chain toward the world's largest and most important importer of cassava.

Business Associations

While a Working Group on Agriculture & Agro-Industry does convene under the Government-Private Sector Forum (G-PSF), no national association specific to the cassava sector exists in Cambodia either at the processor or farm-gate level. Due to the pressing need to establish a national policy platform and strategic action plan to drive and coordinate export-led development of Cambodia's cassava sector, a national farmer and processor association is warranted and would serve as a useful mechanism for public-private sector dialogue and collaboration, including the formulation of a national policy. This would also help overcome the fragmented nature of farming as well as the weak supply chain linkages.

A national association would enhance significantly the prospects of Cambodia's cassava sector and should be a key priority for both Government and stakeholders. A national association would also help better organize stakeholders and identify opportunities for cooperation, including through vertical integration. This could include, for example, encouraging contract farming where the relationships between farmers and processors and formalized, enabling farmers to access market information and support services while improve processor's access to better quality fresh/dried cassava in reliable quantities.

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

Possibly hundreds of thousands of farmers grow cassava. Very few numbers are available on employment among processors and traders. As the cassava sector becomes more integrated into the global supply chain there is scope for the industry's returns to improve. This would offer the prospect of increased earnings for cassava farmers. The expansion of Cambodia's cassava processing sector will also offer future employment opportunities in a range of semi-skilled and skilled positions.

Impact on Development of Disadvantaged Regions

Cassava is grown in every province in Cambodia though there are two main production corridors. Battambang, Bantey Meanchey, and Pailin, along the Thai border, accounted for 38 percent of total cassava production in 2011. Kampong Cham, bordering Vietnam, is the single largest cassava-producing

province and accounted for 31 percent of total production. However, the importance of these production corridors has diminished in recent years as cassava production has become more widespread. Consequently, the export-oriented development of the cassava sector would have significant welfare and poverty reducing benefits across Cambodia.

Contribution to Skill Development

Expansion of Cambodia'scassava-processing sector offers increased employment opportunities for operations managers, machine technicians, marketing professionals and cassava collectors and traders.[286]

Energy and Water Constraints and Environmental Impact

Electricity prices in Cambodia are considered the highest in the ASEAN region. This is a major deterrent to foreign investors and undermines Cambodia's ability to compete with neighboring countries such as Thailand and Vietnam, including in the export of processed cassava products. Given that one of the many end-uses of cassava is in bio-fuel (ethanol) production, there may be scope for local processors in Cambodia to reduce reliance on the national electricity grid and adopt more cost-competitive and "renewable" energy sources.This is likely to be viable only where surplus electricity can be sold back to the national grid by relatively small processors — a practice currently prohibited by Cambodia's state-owned electricity provider EDC.

A key environmental consequence of poorly managed cassava cultivation is the way in which the root exhausts the soil, depleting its nutrients. However, cassava can be farmed sustainably in Cambodia if farmers are given access to the right tools and information to introduce more optimal cultivation practices. In particular, if farmers knew about the risks of mono-cropping, much of the actual harm to future soil viability could be avoided.[287] Similarly, recent expansion of cassava cultivation into the hillsides in North East Cambodia is leading to significant soil erosion and highlights the need for targeted farm extension services.

Cassava processing, especially in areas where the sector is highly concentrated, can also be regarded as polluting and be a burden on the environment and natural resources. Some forms of processing, particularly for starch, arewater intensive yet often located in areas of water scarcity. Cassava processing for starch extraction produces large amounts of effluent high in organic content that if left untreated can have adversely affect the local environment, especially if starch waste water enters local waterways.[288] Consequently, given Cambodia's vast and valuable waterways, it should be a requirement of investing in, and establishing, cassava-processing facilities that approved waste management systems are installed and monitored.

[286] See Chapter 17 for a broader discussion of skill development in Cambodia.
[287] Emerging Markets Consulting, *Cassava Industry Study*, Phnom Penh: UNDP Cambodia, 2008.
[288] FAO, *Impact of Cassava Processing On The Environment*, Rome: FAO, 2001.

Box 13.1: ASEAN & Regional Integration

The rapid expansion in Cambodia's production of cassava presents an ideal opportunity for the sector to reduce its heavy reliance on informal export channels and more fully integrate with the region. Importantly, Cambodia's increased production capacity has enabled a local processing sector to emerge, drawing on the many end-uses for cassava and favorable international prices. These processing plants relate to drying cassava, animal feed, starch production, biofuel and alcohol – providing a strong basis on which to further develop value-added activities and exports.

While Cambodia should continue to pursue development of processed cassava products, the strong demand and government-to-government agreement with China provide an important opportunity for the sector to secure access to the world's largest cassava importing market. To achieve this, cassava farmers, collectors, and processors need to change practices and improve standards in order to meet the SPS and quality requirements of the Chinese market.

More broadly, the lack of established marketing channels, inadequate infrastructure, weak market information, unreliable supply, and quality of cassava are among the main factors that are still impeding closer trade integration with Asia. Significant investments by both Government and industry will therefore be needed to modernize the cassava supply chain in Cambodia. Ideally, this process should be overseen by a national cassava industry policy and export market development strategy.

Conclusion

The main findings from this chapter are summarized in the SWOT analysis that follows.

Strengths	Weaknesses
• Cassava is adaptable to diverse climates and soil varieties—offering potential income source to farmers on marginal land. • Inexpensive source of carbohydrate and can be substituted for rice during shortages, offering important food security to the rural poor in Asia. • Cambodia has some of the highest yields for cassava roots in the world—average 20 MT/ha. • Cassava can be grown as a single crop or inter-cropped—offering an additional income source. • Rising prices have encouraged increased plantings and improved returns to farmers. • Cassava offers farmers the flexibility to time harvest with suitable market conditions. • Low labor cost makes intensiveness of planting / harvesting cassava manageable. • Cassava has many end uses and is widely used in the global food, animal feed, bio-fuel, and semi-industrial sectors. • Substitution of corn for cassava in Chinese bio-fuel industry has opened up a new market offering attractive returns for dried cassava. • Attracting FDI from South Korea and China to establish large commercial plantations and dedicated processing facilities (for bio-fuels). • Cambodia's cassava exports enjoy tariff preference advantages in ASEAN, EU, and China.	• Raw cassava roots are highly perishable and need to be quickly processed (chipped and dried.) • Weak investment in R&D and inadequate extension services to support use of higher yield varieties or improve crop management practices. • Exports are mainly fresh tubers or dried chips traded informally across the Thai and Viet borders and are subject to high cross-border fees. • Significant disease in new seedlings, low quality cassava plantings, and poor post-harvest handling make it difficult to maintain yields or meet export specifications in higher-value markets. • Inconsistent supply in term of quantities • Poor preparation, drying,and storage of cassava chips reduce quality and value. • High cost of credit impedes efforts to improve post-harvest handling and farm-gate returns. • Low investment in processing facilities, despite sectors growth and new export opportunities. • Competition from Thai and Viet traders for raw cassava limits available stock for local processors and undermines sectors profitability and growth. • Lack of skilled labor to operate and manage processing facilities. • Limited experience in marketing, supply chain management and exports. • Difficulty in meeting SPS standards for key markets such as China

Opportunities	Threats
• The poorest rural families often farm cassava and opportunities to earn higher returns will have significant welfare enhancing benefits. • Mechanization of on-farm cassava chipping would significantly lower seasonal labor costs, reduce wastage from perished stock and improve farmer's margins. • Development of local processing capacity near main production areas would increase competition for cassava crop and improve farm-gate prices. • Increase in local processing capacity would significantly boost sectors overall prospects and support parallel agro-processing sector. • Scope to diversify exports of processed cassava to other Asian markets—especially China, Korea, Indonesia and Malaysia. • Cambodia–China MoU offers an important platform to facilitate technical exchanges and exports of up to one million MT of dried cassava per year.	• Deforestation from increased cultivation. • Rising cost of agricultural inputs and labor shortages during planting / harvesting. • Maintaining poor cassava farming practices can lead to serious depletion of soil quality, erosion, falling yields and lower farm profits. • Unpredictable border closures (such as with Thailand) and limited access to credit to finance increased production. • Continued dominance of Thai and Vietnamese traders impedes efforts to shift production to more local channels for value adding and generating higher returns to rural communities. • Limited market information leading to farmers' continued acceptance of lower farm-gate prices despite higher regional and international prices. • Exposure to future changes in Chinese Government bio-fuel and import policies. • General reluctance by government and private sector to invest significantly in cassava industry.

Recommendations

The cassava sector in Cambodia has undergone significant expansion over the past decade to become one of the most important agricultural sectors in the economy. Strong growth in production capacity has helped support the expansion of local cassava processors, generating important value-added activities and income. This provides a strong basis for export-led development of the cassava sector.

However, closer integration in the regional and global economy will not be easy. Thailand is the dominant exporter in the world with strong trade linkages to the major markets. Similarly, Cambodia will need to overcome significant barriers to expand formal exports and take advantage of opportunities for vertical integration with the processing sector. In particular, the standards and quality of production must improve both at the farm level and at processors. Internationally recognized practices and processing methods will need to be met, including improved SPS compliance and adoption of more modern cultivation techniques. The bilateral MoU between Cambodia and China provides a useful basis for the local cassava sector to expand exports to this important market, while also taking advantage of the technical assistance the agreement provides for.

Overall, a national cassava industry policy is needed to drive export-led development and modernization of the supply chain. Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #13.

Chapter 14

RUBBER

Background

The cultivation of rubber in Cambodia can be traced back to the 1910s, with the country's climate, soils, and pest and disease profile presenting favorable conditions for rubber plantation. In recent years the sector has undergone a significant transformation that still has some way to run. The rubber industry has strong government backing and has been identified as a priority sector help drive export-led development in Cambodia.

Since 2005, total rubber planted area has increased almost five-fold from 60,000ha to more than 280,000ha. As these new plantings come into production in coming years, total rubber output is set to increase rapidly. This provides an important opportunity to align the rubber supply chain with international markets, by adopting best practices in rubber cultivation, modernizing processing plants, and promoting production of higher-quality rubber products that meet designated international standards.

Export Performance

Export Value

Cambodia exported 54,520 MT of natural rubber in 2012, valued at approximately $175 million.[289] This is consistent with the clear upward trend in export volumes and values over the last five years, as outlined in Table 14.1 below. The decline in value of natural rubber exports in 2012 corresponded with a sharp decline of 30 percent in international prices.[290]This highlights the volatility of international prices for rubber products in general and is one of the risks associated with rubber production worldwide.

Table 14.1: Cambodian Natural Rubber Exports

	2007	2008	2009	2010	2011	2012
Volume (MT)	20,359	11,881	31,469	27,031	44,443	54,520
Value ($ million)	$ 40.7	$ 31.1	$ 48.6	$ 82.7	$ 190.8	$174.8

Source: TradeMap for 2007-2011 data; MoC and GDR for 2012 data.

[289]Export volume data was provided by the Ministry of Commerce, Phnom Penh. Export value data are quoted from the General Directorate of Rubber, *Annual Report 2012*, Phnom Penh: MAFF/GDR, 2013.
[290] International Rubber Study Group, *Statistical Summary of World Rubber Situation 2010-2012*, Singapore: International Rubber Study Group, 2013.

Note that significant quantities of natural rubber are exported informally, particularly to Vietnam. This trade is unrecorded and is not captured in the data presented here. According to theinternational Association of Natural Rubber Producing Countries (ANRPC) – of which Cambodia became a member in 2009 – there were seven rubber exporting companies operating in Cambodia in 2011.[291]

Type of Exports

While rubber products can be traded in many forms, natural rubber accounts for almost all of Cambodia's formal rubber exports. Small quantities of other rubber products are recorded, including vulcanized rubber (used in garment manufacturing) and rubber pneumatic tires. In 2011, exports of these products were $1 million (73 MT) and $0.18 million (106 MT) respectively.[292]

Current Export Destinations

Vietnam accounts for the majority of Cambodia's natural rubber exports, followed by China and Malaysia. Table 14.2 lists the top five export destinations for Cambodian rubber products. Vietnam's position as the leading export destination for Cambodian rubber is partly due to the large number of rubber estates located in close proximity to the Cambodia – Vietnam border. Other factors include the willingness of Vietnamese traders to purchase lower-quality natural rubber than might otherwise be accepted on international markets, and the fact Vietnam has suitable facilities to process natural rubber imported from Cambodia.

Typically, Vietnamese rubber traders will import natural rubber, process, and re-export to third-country markets (especially China.) Cross-border trade also offers the advantage of avoiding the costs associated with transport and logistics that would be incurred in direct sales to other markets, such as China or Malaysia.[293]

Table 14.2: Top 5 Export Markets for Cambodian Rubber Products, by Value, 2011

Export Market	Value ($ million)	Share of Total Exports (%)
Vietnam	$ 111.2	58 %
China	$ 39.8	21 %
Malaysia	$ 23.2	12 %
Singapore	$ 5.8	3 %
South Korea	$ 3.7	2 %

Source: TradeMap (formal exports only)

[291] ANPRC, *Directory of Natural Rubber Exporters in ANRPC Member Countries*, 2011.
[292] TradeMap Data
[293] Ministry of Commerce, *Rubber Sector Profile*, Value Chain Unit, Phnom Penh: MoC, 2012.

Over the past five years Vietnam's share of total Cambodian exports has declined from a high of 87 percent in 2007, down to 80 percent in 2010, and, subsequently, 58 percent in 2011. This reduced reliance on the Vietnamese market has occurred as exports to other markets have grown rapidly – especially to China and Malaysia.[294]The ability to diversify export markets has been made possible from significant investment in, and expansion of, Cambodia's rubber production capacity. This expansion is likely to continue over the medium term.

Potential Export Destinations

China, the US, Japan, and Malaysia are the main global importers of natural rubber products, followed by South Korea and Germany (see Table 14.3.) While, in comparison, Indiamay still be a relatively small importer, it has a very strong growth record with imports increasing almost five-fold from $229 million in 2008 to $967 million in 2012.[295]Each of these markets offer significant export potential if Cambodia can continue to boost production and develop an export-oriented supply chain that can service international markets.

Table 14.3: Key Global Importers of Natural Rubber Products, $ Billions, 2012

Importing Market	Value ($billions)
China	$ 6.8
US	$ 3.5
Japan	$ 2.5
Malaysia	$ 2.5
South Korea	$ 1.4
Germany	$ 1.3
India	$ 0.97

Source: TradeMap

Trade Balance

Cambodia is overwhelmingly a net exporter of natural rubber products, although is a net importerof other rubber products. These imports, valued at $60 million in 2011are mainly from Chinese Taipei and China and are mostly vulcanized rubber goods used in the manufacturing of clothing apparel and accessories. Local demand for these imports is from Cambodia's large and global garment and footwear manufacturing industries.[296]Given the value of these imports and its links to large export-oriented industry

[294] TradeMap Data
[295]TradeMap data. Note: While Malaysia is a significant importer of natural rubber products, it is still a net exporter and competes with Cambodia's natural rubber exports on regional and global markets.
[296] TradeMap data

in Cambodia, the potential opportunity for local rubber processors to pursue import-substitution production could be explored further by RGC and the private sector.

Dynamism of Exports

The RGC enacted new export tax arrangements for Cambodia's natural rubber exports in December 2010. The effect was to increase the export taxes applied to Cambodia's natural rubber products based on the prevailing export prices. Prior to these changes, most natural rubber exports were subject to a $50/MT levy.[297] Table 14.4 below outlines the tiered export tax arrangements that came into effect in December 2010.

Table 14.4: Export Tax on Natural Rubber

Export Tax Rate	Conditions
$ 50 / MT	if export price is < $2,000 / MT
$150 / MT	if export price is between $2,000 - $3,000 / MT
$ 200 / MT	if export price is between $3,000 - $4,000 / MT
$ 300 / MT	if export price is > $ 4000 / MT and above

Source: RGC, *Anukret (Sub-Decree) No 172*, 29 December 2010.

While export tax arrangements on natural rubber products have been in place in Cambodia for more than a decade, the changes implemented in December 2010 might well exacerbate problems associated with informal exports. In general, higher taxes and related charges create an added incentive for tax avoidance and appear at odds with the broader government strategy of export-led development of Cambodia's rubber sector.

The tiered export tax also goes against efforts to encourage local value-adding and/or improve product quality that would attract a higher international export price and, consequently, a higher export tax imposition. Further, given the high volatility in international prices for natural rubber products it is difficult for exporters to anticipate likely export tax liabilities, adding to the overall investment uncertainty in a sector that is, by its very nature, relatively risky.

Other factors impacting the export performance of Cambodia's rubber sector is the difficulty of meeting international standards. Until recently, the lack of an internationally accredited testing and certification laboratory in Cambodia impeded broad market access for the sector, which instead relied on sending samples to international laboratories in order to secure certificates (an expensive and time-consuming process). Since 2011, the international accreditation of the National Specific Laboratory House (NSLH) in the Cambodia Rubber Research Institute (CRRI) has helped ease the burden of export certification for rubber exporters. However, the Cambodian Specified Rubber (CSR) grading system/standards remains relatively obscure in international markets and significant government and industry effort will be needed to promote the standard to ensure CSR becomes more widely accepted.

[297] Phalla, Ly, Director General of GDR, interviewed in the Phnom Penh Post, *Rubber smuggling concern*, February 2011.

Export Prospect

As recent rubber plantations mature and come into production, average yields and export capacity will increase significantly. The recent accreditation of Cambodia's natural rubber testing laboratory should allow for broader market access and enable local processors to take greater advantage of increased natural rubber production that can be certified domestically against international standards. Further, a number of large rubber importing countries – especially China – are located in close proximity to Cambodia, providing an opportunity to divert current semi-processed exports to Vietnam in favor of exports of higher-value products to more lucrative markets. In this context, Cambodia will need to improve the quality of rubber processing to meet the demands of China's market at competitive prices. Strategic investments in processing capacity coupled with modernization of the local supply chain will be needed to ensure Cambodia makes the most of this opportunity to boost significantly its exports of natural rubber products.

World Market Conditions

Trade in natural rubber products exceeded $25 billion worldwide in 2012, with the industry's fortunes and supply chains heavily geared toward the global auto industry.[298]Trade in natural rubber products can be differentiated by the form in which it is manufactured. Technically specified natural rubber (TSNR) accounts for almost two-thirds of global trade in natural rubber and is graded by technical standards (as opposed to visual standards) such as the levels of dirt and content present, as well as plasticity and color.

The other categories of natural rubber trade – smoked sheets, latex, and 'other forms' – each account for roughly 10 per cent of global natural rubber trade. Again, these products are graded although often by visual inspection. Each of these categories has wide-ranging end-use. Lower quality grades are often acceptable to the tire manufacturing industry, while high quality grades can have various industrial, medical, and consumer good uses.

Market Access Conditions

Cambodiabenefits from tariff-free access for natural rubber exports to China, the US, EU, Japan, Malaysia, and Korea – all major global importers.[299] However, this does not equate to any meaningful tariff preference as the major global exporters of natural rubber products enjoy the same tariff free access in these markets. India applies a tariff of 19.2 percent to Cambodia's natural rubber exports (in TSNR form), representing a very marginal tariff preference over exports from key competitors Thailand and Indonesia that are subject to a 20 percent tariff.

Overall, tariff duties are not a significant barrier to Cambodia increasing its exports of natural rubber products. Rather, the needs to meet international standards and promote Cambodian Specified Rubber

[298]TradeMap data
[299] TradeMap Market Access Map data: assuming trade is conducted in Technically Specified Natural Rubber (TSNR) form, which is the form in which most natural rubber is traded globally.

(CSR) as an internationally accepted certificate for natural rubber exports are key factors in sustaining Cambodia's future export growth. In addition, the imposition of an export tax of $50 – $300 per MT on Cambodia's natural rubber products, in effect, acts as a universal "tariff" as high as 7.5 percent (AVE) on all exports.[300] The continuation of this export tax regime should therefore be reviewed in light of wider government efforts to promote export-led development in Cambodia's rubber sector.

Major Competitors

The main exporters of natural rubber are in South East Asia. Thailand and Indonesia, in particular, dominate global tradewith $8.8 billion and $7.8 billion worth of exports in natural rubber products respectively in 2012. This represented more than 64 percent of total world trade in this category.[301]Other key exporters include Malaysia, Vietnam, and Cote d'Ivoire.

However, both Thailand and Indonesia operate in different segments of the global rubber market and so do not necessarily compete directly with each other. Thailand is the dominant exporter in three natural rubber categories: natural rubber latex, natural rubber in smoked sheets, and natural rubber in other forms. Conversely, Indonesia is the world's largest exporter of technically specified natural rubber (TSNR), which is the largest segment of global rubber trade.

World Market Prospect

Overall, the outlook for global natural rubber trade is strong and is backed by growing demand from global auto and tire manufacturers. China and India in particular will continue to support global demand for natural rubber with each having ambitious plans to expand respective auto sectors.[302] This will not translate necessarily to higher international prices, with the peak natural rubber prices enjoyed in 2011 forecast to continue a steady decline out to 2025.[303] Consequently, it is important that investment decisions take a long-term view toward future export growth in Cambodia's rubber sector – especially as new rubber plantations take six to seven years before maturing and coming into production.

Domestic Supply Conditions

Producers

In Cambodia there are three categories of rubber producers: private-owned plantations, economic land concessions (ELC) companies, and smallholder rubber plantations. Table 14.5 provides a snapshot of the current industry structure of natural rubber production in Cambodia.

[300] An export tax of $300 per MT is applied on natural rubber exports where export prices are $4,000 per MT and above. This specific duty represents a 7.5 percent ad valorem equivalent (AVE): $300 /$4,000 = 7.5 percent.
[301] TradeMap Data
[302]International Rubber Study Group 2012.
[303] World Bank, *Commodity Price Forecast Update - January 2013*, Washington DC: World Bank, 2013.

Table 14.5:Cultivation and Production of Natural Rubber in Cambodia, 2012							
Type of Producers	**Mature area (ha)**	**Immature area (ha)**	**Total area (ha)**	**Production (MT)**	**Export (MT)**	**Export ($)**	**Avg $/MT**
Private	24,062	30,146	54,209	28,531	29,917	87,760,129	2,933
ELC	-	118,449	118,449	-	-	-	-
Smallholders	31,298	76,398	107,696	35,993	30,000	87,000,000	2,900
Total	**55,361**	**224,994**	**280,355**	**64,524**	**59,917**[304]	**174,760,129**	**2,917**
Source: GDR,*Annual Report*, 2012							

Privately-owned plantations include the seven previously state-owned rubber estates that were privatized by the RGC in 2008-09. In 2012, there were ten privately-owned plantations in operation with more than 24,000 ha of rubber trees available for tapping, with production reaching 28,500 MT. With more than 30,000 ha of immature trees already in the ground, the production capacity of privately owned plantations is set to more than double over the next few years. These private plantations typically have processing plants co-located on the plantation estate.

The RGC has provided areas no greater than 10,000 ha as economic land concessions (ELCs) to local and foreign investors to develop rubber and other industrial crops. As of 2012, 94 ELC companies had planted close to 120,000 ha of rubber trees, but these were not yet mature for tapping. When these plantations come into production the next few years, Cambodia's natural rubber production will increase dramatically.

Household-owned rubber plantations have been operating in Cambodia for more than two decades and, more recently, have increased significantly in number due to the RGC's policy of providing parts of state-owned plantations to farmers. The tapped area by smallholders in 2012 was 31,000 ha – representing more than half of Cambodia's current total tapped area. Most rubber smallholders have plantations of one or two plots, averaging 2.8 ha in size.[305]According to GDR, there are more than 21,000 smallholder families in Cambodia producing an estimated 36,000 MT of natural rubber in 2012.

Smallholder producers typically transform liquid latex into a coagulated dry rubber on the farm using chemical additives (usually acid.) This helps preserve the latex, making it easier to store and handle. Smallholders then sell coagulated latex to intermediary collectors and traders who typically pay spot prices in cash, take ownership of the coagulum, and resell to processors.[306]

In the past, many of the processors on former state-owned rubber estates (now privately-owned) processed almost exclusively liquid latex. As a result, there has been for a long time an over-capacity for processing latex and an under-capacity to process the dry rubber coagulum sold by smallholder

[304] Note GDR estimates for natural rubber exports are slightly higher (at 59,917 MT) than those provided by the Ministry of Commerce (at 54,520 MT). For the purposes of this report and to ensure, as far as possible, consistency of data sources, MoC data is been quoted as official export data.
[305] Hing V. & V. Thun.,*Agricultural Trade in the Greater Mekong Sub-Region: The case of Cassava and Rubber in Cambodia*, Phnom Penh: CDRI Working Paper Series No. 43, 2009.
[306] Ministry of Commerce, *Rubber Sector Profile*, Value Chain Unit, Phnom Penh: MoC, 2012.

plantations.[307]These processed latex products are relatively high-grade and suitable for light-colored consumer articles such as elastic bands, teats for baby-bottles, bottle stoppers, and sports shoes. In global terms, the market for these products is relatively small and competition is intense with trade favoring established exporting countries with sophisticated marketing practices.[308]Conversely, the dry rubber coagulum produced by smallholder plantations is well suited to processing for low and mid-grade TSNR– which accounts for the overwhelming majority of global trade in natural rubber products with strong and growing demand for end-use in the tire manufacturing industry.

In short, therehas been an historical disconnect among the dynamics of the global natural rubber trade, the structure of Cambodia's rubber processing facilities, and production by smallholder plantations. Current efforts to modernize Cambodia's rubber supply chain should lead to a structural realignment across each of these participants. However, it is likely smallholder plantations in particular will need additional support to integrate into a more export-oriented supply chain. Overall, the diverse interests and capacities of each of these producer groups will need to be carefully managed by RGC in supporting export-led development efforts of Cambodia's rubber sector.

Production Capacity

Cambodia currently has 225,000 of immature rubber plantations coming into production in the next few years and this will lead to an exponential growth in natural rubber production.Table 14.6 outlines the upward trend in production capacity over the 2005 to 2012 period and, importantly, also shows improvements in overall yields. The total planted area in Cambodia is expected to continue growing, particularly as Cambodia's relatively open FDI environment with lower cost (and more available) land are attractive attributes compared to traditional rubber exporters such as Malaysia.

[307]Ministry of Commerce, *Rubber Sector Profile*, Value Chain Unit, Phnom Penh: 2012.
[308] Agricultural Development International, *Key Regulatory Constraints in the Marketing of Processed and Unprocessed Rubber in Cambodia*, Prepared for Ministry of Agriculture, Forestry and Fisheries, Phnom Penh: MAFF, 2007.

Table 14.6:Trend in Natural Rubber Production & Yields in Cambodia, 2005-2012					
Year	**Total planted** (ha)	**Immature area** (ha)	**Mature area** (ha)	**Production** (tons)	**Yield** (kg/ha)
2005	60,406	30,004	30,402	29,464	960
2006	69,994	37,604	32,390	32,077	991
2007	82,059	51,568	30,491	32,975	1,082
2008	108,510	74,197	34,313	37,050	1,082
2009	129,920	95,785	34,135	37,380	1,097
2010	181,433	143,027	38,406	42,466	1,099
2011	213,104	167,942	45,162	51,339	1,135
2012	**280,355**	**224,994**	**55,361**	**64,524**	**1,094**
Source: MAFF,*Annual Reports*, 2011 and 2012; GDR,*Annual Report*, 2012					

Rubber trees usually take six to seven years from planting to maturing and yielding rubber latex. However, once mature, rubber trees typically offer reliable yields for 25-30 years, subject to proper plantation management and disease control. Table 14.7 below compares natural rubber production yields in 2007 and 2012 in Cambodia with other natural rubber producing countries. A number of countries, such as Thailand, Vietnam, and India, enjoy yields that are 50 percent higher than Cambodia.

Cambodia can expect its average yields to improve as recent plantations mature in coming years (yields are usually higher in the first few years after maturing). However, there is still scope to further improve yields – most likely through improved selection of seedlings and better utilization of fertilizers and pesticides.

Table 14.7: Average Natural Rubber Production Yield, in kg/ha, 2007 and 2012								
Year	**Cambodia**	**China**	**India**	**Indonesia**	**Malaysia**	**Philippines**	**Thailand**	**Vietnam**
2007	1,082	1,168	1,767	993	1,420	1,567	1,723	1,603
2012	1,094	1,242	1,815	1,159	1,520	1,324	1,636[e]	1,707
Source: GDR,*Annual Report*, 2012								

Adopting best practice in tapping and general plantation maintenance would also support efforts to improve yields and Cambodia's overall production capacity. Overall, extension or other training services at the plantation-level are likely to be needed to achieve these improvements – especially for family-run smallholder plantations that do not have access to the same level of external assistance and technical support as larger operations. Facilitating stronger linkages between the rubber processors and smallholder plantations may be a means of improving extension and support services.

Quality of Product

The quality of Cambodian exports of natural rubber – and potential export earnings – are directly correlated to the quality of each of the production factors that make up the supply chain. Starting at the plantation level, cultivation techniques (e.g. selecting seedlings, utilizing fertilizers and pesticides, relying on intercropping), tapping, and post-harvest handling practices (e.g. minimizing tree damage, contamination, and water content) all impact yield and latex quality. Smallholder plantations in particular have limited access to market information on best practices in rubber cultivation or latex handling and would benefit from government and private sector initiatives to improve potential returns.

Improving the quality of latex and dry rubber products supplied by plantations will also benefit rubber processors. However, it is important processors are familiar with international trade practices and are able to meet the designated technical standards sought by international buyers. Importantly, now that Cambodia has an internationally accredited testing and certification body – the National Specific Laboratory House (NSLH) – there is increased scope for the local supply chain to re-align production and processing methods to meet international demand. To support these efforts, a monitoring system to register quantities of natural rubber produced by grade and prices received for corresponding exports would help encourage the production of higher value products for export markets. Overall, continued investment in the quality of Cambodia's natural rubber products would significantly add to the sector's profitability and export capacity.

Availability & Quality of Labor Force

No current estimates of employment in Cambodia's rubber sector are available, although a 2007 study concluded, at the time, that the sector employed around 27,000 people directly and up to 40,000 indirectly when taking into account seasonal workers and sub-contracted workers.[309]However, given the significant expansion in production capacity and exports since 2007, it is likely these estimates under-estimate the current size of the sector's workforce.

Cambodia's relatively low-cost labor is a significant competitive advantage for local rubber plantations considering that tapping and collecting latex are labor-intensive activities. However, an expected shortage of experienced and skilled labor may constrain the industry particularly as more plantations mature and come into production. For example, rubber tapping requires training and is a delicate process by which latex is collected from a small incision made in the bark of a rubber tree. Consequently, a shortage of skilled tappers could lead to rubber plantations being left "untapped." Conversely, the use of inexperienced or unskilled tappers could result in damage to the bark of the tree – leading to a fall in yield.[310]

In this context, efforts by both government and the private sector to boost production of natural rubber need to take account of the likely increase in demand for labor. This should include a strategy for

[309] Economic Institute of Cambodia *Export Diversification and Value Addition for Human Development*, Phnom Penh: EIC, 2007.
[310] Ministry of Commerce, *Rubber Sector Profile*, Value Chain Unit, Phnom Penh: MoC, 2012.

harnessing semi-skilled labor such as tappers whose efficiency and competency can have a profound effect on the productivity of a rubber plantation.

Level of Processing Technology

The level of processing technology for natural rubber production is very limited in Cambodia. This is due to a lack of investment in modern processing facilities that can process natural rubber products in sufficient quantity and at an acceptable standard for export. The high cost of energy also acts to deter investment in processing facilities and contributes to the current situation where semi-finished products (e.g. dry rubber coagulum) is exported to Vietnam for onwards processing and then re-exported to key markets – especially China.

There are emerging reports, however, of new investments in Cambodia's rubber processing capacities. For example, a new processing plant was recently opened in Stung Treng province. It was funded by a $7million investment by a local ELC operator and has the capacity to process eight tons of dry rubber per hour.[311] Such investments are encouraging and it will be important for government and the private sector to collaborate to ensure smallholder plantations are able to benefit from having access to the sector's growing processing capacity and closer integration with export markets.

Cost and Quality of Infrastructure

Many Cambodian rubber plantations and processing plants are located in remote areas far from major urban centers. Access to reliable infrastructure – whether road and rail infrastructure, information, or communication technology – is important to lowering logistics costs and facilitating closer integration with regional and global markets. Given the overall importance of infrastructure services and costs to developing an export-oriented rubber supply chain, a more strategic approach to supporting the sector's export-led expansion is required. In this context, improving access to infrastructure should be considered as part of the formulation of a national policy platform for the rubber sector.

Efficiency of Domestic Support Industries

Limited access to institutional finance for many of Cambodia's smallholder rubber plantations impedes efforts to encourage export-led development. Unfavorable credit conditions such as high interest rates, limited loan size, and onerousconditions prevent many smallholders from purchasinghigher-quality inputs or expanding and investing in rubber production.[312]

Sector-wide, limited access to finance is compounded by the risky nature of the industry: strong price fluctuations, large upfront costs, and a long term investment with little prospect of meaningful income for at least five to seven years after planting. Given the priority the government has attached to the modernization and development of the sector, government and the private sector should assess the

[311] China – ASEAN Legal Cooperation Center, *Cambodian PM Inaugurates Rubber Processing Plant in far Northern Province,* May 2013.
[312] Ministry of Commerce, *Rubber Sector Profile,* Value Chain Unit, Phnom Penh: MoC, 2012.

potential for introducing innovative financial schemes and lending instruments that are tailored to the dynamics of the rubber industry.

Domestic Demand

While precise estimates of domestic demand are not available, there is currently very little domestic use in secondary or tertiary industries for Cambodia's natural rubbers products.[313]However, other rubber products (such as vulcanized rubber goods) are utilized in the garment and footwear manufacturing industries in Cambodia and there may be scope for local rubber processors to target an import-substitution production strategy to supply these large and growing industries. See discussion in Chapter 8 (Footwear.)

Prospect for Domestic Supply Conditions

Nearly all inputs for both rubber plantation and processing are imported into Cambodia. At the plantation-level, fertilizers, pesticides, tools and bowls for tapping are all imported – mostly from Thailand and Vietnam. Similarly, inputs for processing natural rubber are imported. For example, coagulation chemicals are imported from Vietnam, while capital equipment such as processing lines is often sourced from Malaysia.[314] Demand for these inputs is set to rise in parallel with the significant production capacity for natural rubber that is set to come online in the next few years. While it is not realistic for Cambodia to become self-sufficient across the rubber supply chain, in light of the expected strong growth there might be opportunities for some import-substitution production to be development locally to help minimize outflows from the sector.

Policy and Regulatory Framework

Government Initiatives and Sector Policy

The RGC has set a national target of reaching 290,000 MT of dry rubber production by 2020. To achieve this target, the RGC plans for the total area of rubber plantation to reach 400,000 hectares by 2020, with 300,000 hectares being tapped. In recent years, the RGC has also enacted a series of reforms – including the privatisation of state-owned rubber plantations. The overall aim has been to help stimulate Cambodia's natural rubber industry, create employment opportunities in rural areas, and promote poverty alleviation through export-led development of the rubber supply chain.[315]

According to the General Directorate of Rubber (GDR), a division of the Ministry of Agriculture, Forestry and Fisheries, a number of key strategies have been identified to promote the development of the rubber sector over the 2011 – 2020 period.[316] These strategies include: providing improved farm

[313]According to the ANPRC,*Statistical Profile of Rubber Industry in Cambodia*, there has been no domestic consumption of natural rubber products from 2009-2011.
[314] Development Alternatives Inc, *Cambodia SME Development in Selected Agro-Sectors/Value Chains, Final Scoping and Design Report*, Washington: July 2008
[315]H.E. Mr Phalla, Ly, Opening Remarks,*Global Rubber Conference 2011*, Phnom Penh: November 2011.
[316]MAFF, *Annual Report for Agriculture, Forestry and Fisheries 2010-2011*, Phnom Penh: MAFF, 2011

extension services and rubber seedlings; assessing the suitability of land for rubber cultivation; examining opportunities for providing tailored technical support and access to finance for smallholder plantations; granting economic concessions and incentives to encourage development of smallholder plantations in proximity to large private estates; and, promoting product quality across the rubber supply chain.

While this strategy by GDR provides a possible framework for developing Cambodia's rubber sector, a national policy platform and action plan for export-led development is urgently needed.

The successful implementation of other sector-specific policies – including in relation to garments, tourism and, most recently, rice – underscores the value of developing policy platforms backed by strong public-private sector engagement. For Cambodia's rubber sector, a sector-specific national policy is needed to drive export-led development. This policy will need to address important cross-cutting issues relevant to both large-scale commercial estates as well as the needs of smallholder plantations. This should include issues such as the overarching FDI regime (particularly in relation to rubber processors), environmental impact, farm extension services, access to finance, disseminating export market information, training guidelines for tapping rubber trees and maintenance of plantations, promotion of Cambodian Specific Rubber (CSR) standards, and access to reliable and cost-effective infrastructure and energy.

The formulation of a more cohesive and strategic national approach to export-led development in Cambodia's rubber sector should also take account of ongoing regional collaboration efforts. Specifically, the three governments of Cambodia, Laos, and Vietnam (CLV) have agreed to work together to accelerate economic growth, poverty reduction, social and cultural progress in the CLV Development Triangle Area. This area encompasses 13 border provinces, four of which are in Cambodia: namely Mondulkiri, Ratanakiri, Stung Treng and Kratie.[317]

Recently, the three governments agreed to make the development of the rubber industry in the CLV Development Triangle Area a priority.[318] A joint taskforce has been charged with undertaking a detailed study and preparing an action to promote rubber production in the Development Triangle Area. To support the broader goals of economic growth, poverty reduction and social inclusion in area, improvements in cross-border infrastructure and logistics will needed in order to ensure large-scale processing and value-adding activities also take place in the region – thereby maximizing the welfare and social benefits of rubber production. Efforts to promote the recruitment and training of local populations should also be prioritized in establishing the "rubber" Development Triangle Area.

Business Associations

A Working Group on Agriculture & Agro-Industry does convene under the Government-Private Sector Forum (G-PSF). However, no single national business association currently exists in Cambodia that represents the full rubber supply chain. The Phnom Penh-based Association for Rubber Development of Cambodia (ARDC) might serve as a useful platform for launching a suitable public-private sector

[317] Each of these provinces, and the adjoining provinces in Laos and Vietnam, are significant rubber productions zones.
[318] *Joint Declarationon Strengthening Cooperation in the Cambodia - Laos - Vietnam Development Triangle Area*, 7th CLV Leaders Summit, Vientiane: 12th March 2013.

discussion forum for the sector. The ARDC is a member of the International Rubber Association and, in this context, actively monitors and engages industry on developments in global rubber markets.

As the private sector in the industry gets structured, it will be particularly important that any national sector association is able to represent also the interests of the thousands of family-run smallholder plantations that have a stake in the sector's future.

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

The most recent estimate of employment in the rubber industry was 27,000 direct employees, and a workforce of up to 40,000 when taking into account indirect employment such as seasonal workers and sub-contractors.[319]However, these estimates date from 2007 and given the industry's expansion – especially in tapped area – the current size of the workforce is likely to be significantly higher. Rubber plantations are labor-intensive operations and the sector's future expansion could lead to significant employment creation. Increased exports of natural rubber products will make the sector an even more important contributor to poverty alleviation in rural communities.

Impact on Development of Disadvantaged Regions

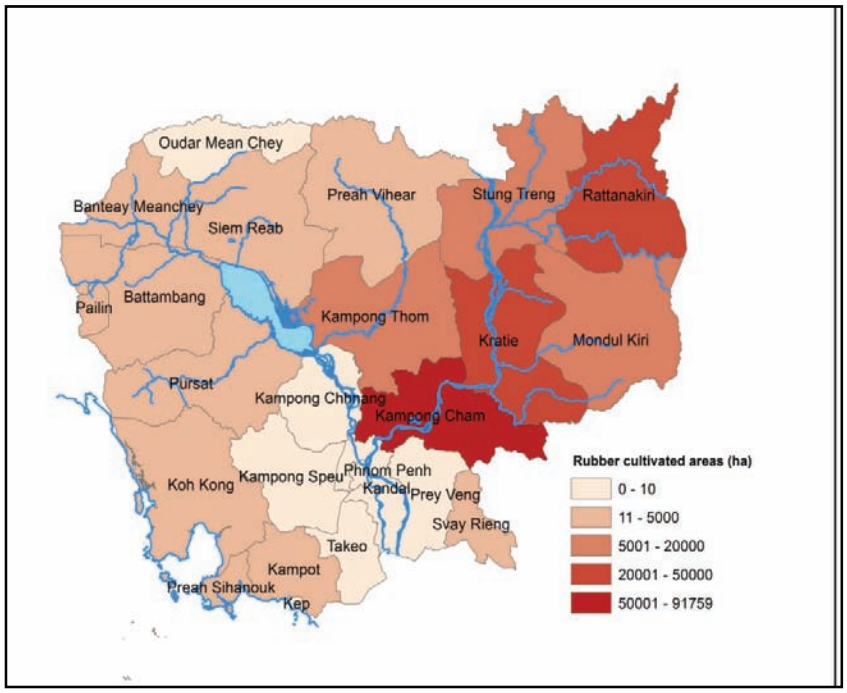
Rubber production is a major agricultural activity in six provinces: Kampong Cham, Kratie, Ratanakiri Stung Treng, Kampong Thom, and Mondulkiri. Kampong Cham in particular is a major rubber production province, with more than 90,000 ha of rubber plantations in 2011.[320] In addition to the rural employment opportunities the rubber sector provides, the prevalence of family-run smallholder plantations is a key attribute of the sector and contributes to important rural development and poverty reduction outcomes. As the sector continues to expand, it will be important that the interests of larger commercial rubber estates are not pursued at the expense of smallholder interests. Instead, the industry's export-led development should seek to maintain the current diversity of producers groups in order to further contribute to poverty reduction and rural development goals.

In addition, smallholder plantations should be encouraged to take full advantage of the opportunity to intercrop with newly planted rubber trees as an additional source of income and to help offset high setup costs. However, it is important that smallholder owners are well informed of the appropriate crops to use for intercropping. For instance, the widespread use of cassava for intercropping should be discouraged given its adverse and potentially long-term impacts on rubber yields.[321] As part of farm extension services, information on more appropriate crops to use for intercropping, such as rice, maize, banana, and pineapples, should be disseminated to smallholder plantations.

---

[319] Economic Institute of Cambodia, *Export diversification and value addition for human development*, Phnom Penh: EIC, 2007.
[320] MAFF, *Annual Report*, Phnom Penh: MAFF, 2011.
[321] Cassava crops leach substantial quantities of nutrients and water from the soil, delaying rubber tree reaching maturity and pose potential disease risks to the plantation.

Map 14.1: Main Rubber Areas, 2012



Source: Ministry of Agriculture, Fisheries and Forestry

Contribution to Skill Development

Efforts by both government and industry to boost production of natural rubber need to take account also of the likely increased demand for labor– especially in rural areas on plantations. This should include a strategy for harnessing semi-skilled labor such as tappers whose efficiency and competency can have a profound effect on the productivity of a rubber plantation. Similarly, empowering owners of rubber plantations, especially smallholders, with the right tools to access and interpret market information and identify new opportunities will need to be a key component of Cambodia's strategy for export-led development of the rubber sector. For processors, access to skilled labor such as technicians and managers to oversee plant operations will also be important to developing an efficient supply chain capable of competing effectively on international markets.

Energy and Water Constraints and Environmental Impact

Electricity prices in Cambodia are considered the highest in the ASEAN region.[322] Consequently, the price of electricity is a major deterrent to foreign investors and undermines Cambodia's ability to compete with neighboring countries such as Thailand and Vietnam. Bilateral electricity supply agreements with Vietnam and Laos have, to some extent, alleviated pressure on Cambodia's more remote electricity

[322] Sotharith, Chap, *Industrial Readjustment in Cambodia*, BRC Research Report No.7, Bangkok Research Center, Bangkok: IDE-JETRO, 2012.

network, and provided access to more affordable and reliable energy supplies for some of the rubber-producing provinces.

It will be important that Cambodia's continued expansion of rubber plantations is met with strong government oversight. In particular, conversion of forestland to rubber cultivation when unchecked can lead to significant long-term environmental damage, including on Cambodia's vast waterways. In this context, it is also important that cultivation practices on plantations are best practice in terms of fertilizer and pesticide utilization.

Box 14.1: ASEAN & Regional Integration

The ASEAN region is renowned for as large producer and global supplier of rubber products. Of the top five global exporters of natural rubber, four are ASEAN countries – Thailand, Indonesia, Malaysia, and Vietnam.[323] A number of countries within the wide Asia region are also key global importers of natural rubber – including China, India, Malaysia, Japan and South Korea. Consequently, there are strong robust natural rubber trade links firmly established on Cambodia's doorstep.

While in comparison to these countries Cambodia's rubber sector is still in its infancy, the potential for Cambodia to emerge as a significant producer and exporter is real. More than 200,000 ha of immature plantings will start yielding rubber latex in coming years offering considerable scope for Cambodia to significantly increase export volumes. Cambodia's key partners within ASEAN can therefore offer real insights into how to structure the local rubber supply chain in order to improve product quality and strategically position itself as a reliable supplier of natural rubber on world markets.

More broadly, it is important that export-led development of Cambodia's rubber sector benefits rural livelihoods and poverty reduction efforts in a lasting way. In this context, the Cambodia-Laos-Vietnam (CLV) Development Triangle Area encompasses 13 provinces: including four in Cambodia, four in Laos, and five in Vietnam. The four Cambodian provinces included in the CLV Development Triangle Area are Ratanakiri, Stung Treng, Kratie and Mondolkiri – all of which are major rubber producing provinces.

The purpose of the CLV Development Triangle Area is for the three respective governments to collaborate and accelerate economic growth, poverty reduction, social and cultural progress in the area. Closer regional integration of Cambodia's rubber supply chain within the CLV Development Triangle Area could act as a catalyst toward achieving these economic and social objectives. As such, the formulation of a national policy platform by RGC for the rubber sector in Cambodia should take into account how the development of a CLV "rubber triangle" can contribute to wider poverty reduction and social inclusion goals in the region.

[323]TradeMap data 2012.

Conclusion

The main findings from this chapter are summarized in the SWOT analysis that follows.

Strengths	Weaknesses
• Sector has strong government backing with Cambodia's climate, soils and pest and disease profile presenting favorable conditions for rubber plantation. • Employed 40,000, mostly in rural communities, in 2007 (possibly double that number by 2012). • An estimated 21,000 smallholder families provide the bedrock of Cambodia's rubber sector. • Mature rubber trees typically offer reliable yields for 25-30 years, subject to proper plantation management and disease control. • Option of intercropping between newly planted rubber trees as an additional source of income and to help offset high setup costs. • Cambodia's LDC status affords it tariff-free access for natural rubber exports to the EU, US, Japan, Korea—all major importers. • As recent plantations mature and come into production, yields and export capacity will increase exponentially. • Attractive FDI environment with lower cost (and more available) land compared to traditional rubber exporters such as Malaysia. • Relatively low cost labor a competitive advantage.	• High entry barriers to industry given large financial outlay over several years with leadtime of 5-7 years before trees mature and begin to yield latex. • Limited knowledge of modern cultivation techniques, pest management and post-harvest handling leading to low yields and quality. • Majority of smallholder rubber plantations rely on 25+ year old trees with poor yields • Weak R&D, absence of extension services and poor access to market information inhibits farmer's capacity to make informed decisions in an inherently risky business. • Reliance on imported inputs often leads to shortages of fertilizers and pesticides. • Shortage of skilled tappers, while use of unskilled labor damages trees. • Vulnerable to price fluctuations and limited access to credit to re-invest in sector. • Rubber processing industry is overly focused on latex products—representing a highly competitive, yet very small, segment of the global rubber trade. • Cambodian Rubber Standards (CRS) not trusted by international buyers, often requiring exports to be independently tested by Singapore laboratories.
Opportunities	**Threats**
• This is a labor-intensive sector leading to large employment creation. Increased exports of natural rubber products will make the sector an even more important contributor to poverty alleviation in rural communities. • Strong outlook for global natural rubber trade backed by reliable and growing demand from global auto manufacturers. • Close proximity to China—world's largest importer of natural rubber products. • Improving the quality of processed rubber would significantly add to the sector's profitability and farm-gate prices. • Encouraging processors to diversify away from latex to other natural rubber forms may create new market opportunities. • Recent accreditation of Cambodia's rubber testing laboratory should allow for broader market access and domestic export certification against international standards.	• Serious long-term environmental issues if expansion of industry dependent on deforestation. • Fluctuating world prices for natural rubber makes investment decisions difficult and risky. • Shortage of skilled tappers in a period where the number of mature trees is increasing rapidly, leading to substantial losses from untapped hectares. • Increasing cost of land—especially where close to main arterial roads. • Cambodia's industry overshadowed by regional competitors that dominate global production and trade in natural rubber—Thailand, Indonesia, Malaysia, China, and India. • Limited experience in marketing and export. • Failure to significantly increase yields despite recently planted areas reaching mature age. • Continued perceptions of Cambodia as a supplier of low grade, poor quality natural rubber products.

Recommendations

Cambodia's impending "boom" in rubber production presents the local sector with an important opportunity to restructure toward a more export-oriented supply chain. More than 200,000 ha of immature plantings are set to come into production over the next few years resulting in an unprecedented increase in the overall size of the industry.

In this context, it is important the supply chain is well-organized to take full advantage of the increased production capacity and takes a strategic approach to more closely integrating with global markets. A national policy platform – backed by both RGC and private sector – would provide the much needed framework and action plan to facilitate export-led development. This will require close public-private sector collaboration. It will be important the interests of all relevant stakeholders (both large and small) are considered.

The significant increase in production capacity also provides an opportunity for the rubber sector to further diversify its export markets, with diminishing reliance on Vietnam, and improve the quality of natural rubber products. This will require all stakeholders (producers, processors and exporters) to have a better understanding of the dynamics of global rubber trade and recognize the importance of meeting designated technical standards in the production chain.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #14.

Chapter 15

TOURISM

Background

Tourism is a leading source of employment and economic growth in Cambodia, contributing around 9.6 percent of GDP in 2012. A strong tourism sector contributes in multiple ways to the development of the local economy.It raises national income, improves the country's balance of payments, and encourages investment in related hospitality (hotel, restaurants, leisure services, and sporting facilities), transport, and finance sectors. Tourism revenue also has important social benefits for Cambodia and can help preserve historical, cultural, and environmental assets.

Cambodia is ideally placed to draw on the strong growth in international tourism, particularly in the Southeast Asia region. The UNESCO World Heritage site Angkor Wat is renowned internationally and a major draw card for Cambodia. Tourism revenues are generated primarily around the Siem Reap–Phnom Penh–Sihanoukville triangle, though there are signs of early diversification towards other regions of the country.

Export Performance

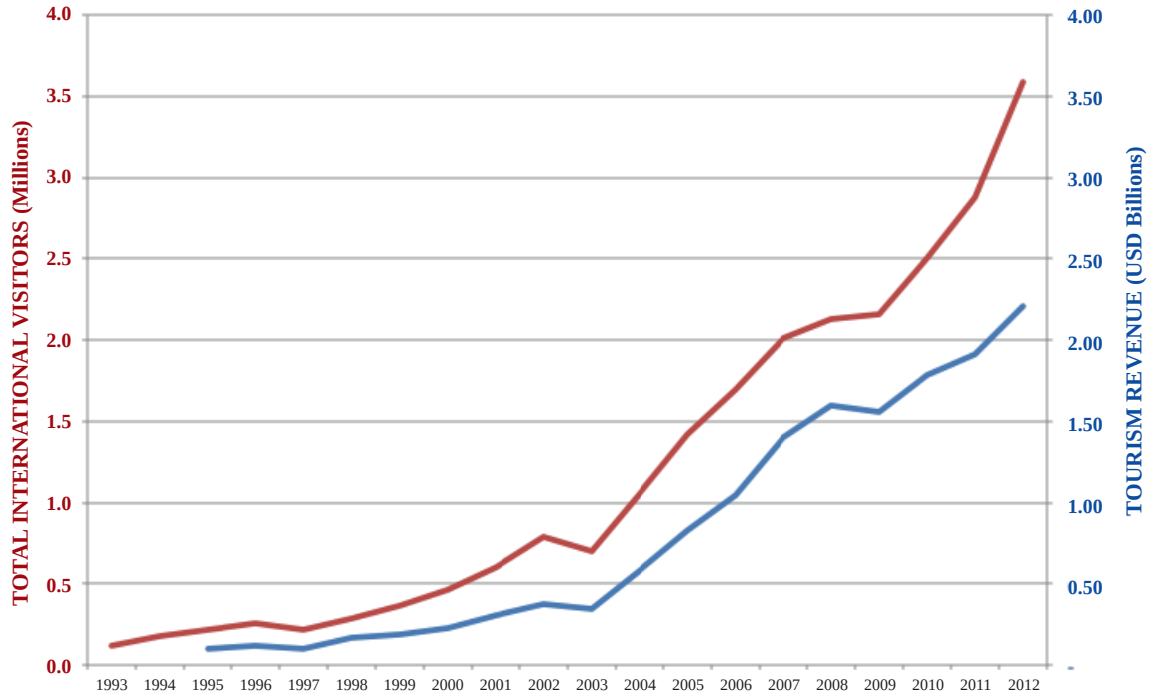
Export Value

International tourist arrivals in Cambodia increased from 290,000 in 1998 to 2 million in 2007 and nearly 3.6 million in 2012.[324] The Ministry of Tourism estimates that tourism generated export earnings of $2.2 billion in 2012, equivalent to approximately 20 percent of total export earnings.

Types of Services

Cambodia's tourism sector is overwhelmingly reliant on the holiday and leisure market, with business visitors accounting for less than 5 percent of international arrivals in 2012. The temple experiences of Cambodia – particularly at the UNECSO World Heritage site Angkor Wat – are unique and unquestionably the major national tourist draw-card. Cambodia's coastal resorts and casino's are also popular although compete directly with similar offerings from elsewhere in the region. While Cambodia may present a lower-cost option, this is often at the expense of the quality of tourism services being offered, including in areas such as sanitation, infrastructure – including transport infrastructure, and customer service.

Figure 15.1: International Visitors & Tourism Revenues



Source: Ministry of Tourism, *Tourism Statistics Annual Report 2012*

Current Export Destinations

Cambodia has been able to attract a mix of visitors from both distant and regional source countries (see Table 15.1). The traditional source markets of North America, Europe and North Asia remain important, accounting for 39.8 percent of visitors in 2012, but down from 53.3 percent in 2007. Slower growth in visitor arrivals from these countries has been offset by strong growth in arrivals from GMS countries (primarily Vietnam and Laos) as well as China. These markets accounted for 34 percent and 9 percent of international visitors respectively in 2012, up from 12.3 percent and 5 percent respectively in 2007. Attracting international visitors from these emerging markets helped Cambodia's tourism sector weather external shocks from the global economic downturn of 2008-2009. However, it also exposes Cambodia's tourism to a possible regional economic slow-down. In addition, it is a likely contributing factor to the decline in visitor's average length of stay.

Table 15. 1: Selected Tourist Source Markets			
Visitor Numbers (Share of Total Int'l Visitors)	2007	2012	Relative Change
Greater Mekong Sub-Region (GMS) *Thailand* *Vietnam* *Lao PDR*	250,092 (12.3%) *101,590 (5.0%)* *125,422 (6.2%)* *23,060 (1.1%)*	1,218,580 (34%) *201,422 (5.6%)* *763,136 (21.3%)* *254,022 (7.1%)*	⬆
Europe	410,643 (20.4%)	611,359 (17.1%)	⬇
South Korea	329, 909 (16.4%)	411,491 (11.5%)	⬇
China	118,417 (5.9%)	333,894 (9.3%)	⬆
North America	171,547 (8.5%)	220,905 (6.2%)	⬇
Japan	161,973 (8%)	179,327 (5%)	⬇
Total International Visitors	**2,015,128**	**3,584,307**	
Source: Ministry of Tourism, *Tourism Statistics Annual Report 2012*			

Potential Export Destinations

While there is some scope to diversify further the source countries for inbound tourist arrivals, there is substantial opportunity to generate increased tourism revenue by changing the mix of visitors. This could include attracting high-spending business visitors as well as encouraging longer leisure stays by offering more diverse tourism products beyond the traditional Siem Reap–Phnom Penh–Sihanoukville triangle. Attracting higher-spending visitors will be challenging given the associated higher expectations with regard to personal safety, hygiene, comfort, and customer service.Regions identified as future tourist draw-cards include the expansive waterways of Tonle Sap and the Mekong River, the North East as an ecotourism base, and the southern coastal zones.

Trade Balance

Outbound Cambodian tourists were estimated at around 790,000 in 2012 compared with 3.58 million international arrivals. Overall, tourism is an important net contributor to foreign exchange earnings and national income for Cambodia.

Dynamism of Exports

Cambodia's tourism sector is seasonal with the number of international arrivals falling as much as 30 percent from the December-January high season. Cambodia is generally perceived as a "low-cost" destination. While this can be positive in attracting budget travelers, it can impede efforts to grow

premium tourist services. There are several five-star internationally branded hotel chains operating in Cambodia, however many report very low occupancy rates and rely on heavy discounting. As a result, return on investments (ROI) can be close to 20 years for international hotel chains leasing local facilities. This compares to a ROI of ten years in other markets.

Cambodia is often seen as a "side-visit" to tourists visiting neighboring countries. There are also a large number of short-stay visitors from the GMS region who principally visit casinos. While the revenue from such visits tend to be very localized, casino tourism is a highly competitive (and potentially lucrative) segment of the ASEAN tourism market and it is important that Cambodia ensures it can offer quality services that attract such casino "visitors" in addition to mainstream tourists. The potential risks associated with casino operations should also be understood and mitigated, particularly in relation to possible criminal activities that can emerge alongside casinos.

Growth in tourism revenue has not kept pace with growth in international arrivals. From 2007-12, international arrivals increased 78 percent while tourism receipts grew by just 58 percent. Had revenue growth kept pace with arrivals, the tourism sector would be generating an additional $280 million in potential revenue each year. This is reflected in the decline in average daily expenditure per tourist from $107 in 2007 to $98 in 2012 as well as the decline in visitors' average length of stay from 6.5 days to 6.3 days over the same period. These trends are, at least in part, due to the changing mix of international visitor profiles and the rising portion of visitors from GMS countries. While it is important for Cambodia to be an attractive destination for visitors from within its own region, offering new world-class tourism products will also be important to reverse the trends in average length of stay and average expenditure.

Export Prospect

Southeast Asia remains one of the fastest growing inbound tourist markets in the world. Growth in international arrivals is likely to continue to rely on regional markets, especially GMS, China, North Asia, and ASEAN visitors. However, stronger revenue growth will require a concerted effort to target higher-spending business travellers as well as encouraging leisure tourists to stay longer. This will require improvements in the tourism products being offered – especially in relation to the quality of tourism infrastructure – as well as a diversification beyond from the traditional Siem Reap–Phnom Penh–Sihanoukville visitor triangle. It is more than adding destinations; it is also about developing service infrastructure: sporting facilities such as golf or tennis, hiking facilities, kayaking, scuba diving, restaurant business, circuits to visits pagodas (a very rich, largely unknown and unadvertised resource), eco tourism, etc.

World Market Conditions

International travellers surpassed 1 billion for the first time in history in 2012, with total tourism receipts exceeding $1,075 billion. Fuelled by intra-regional travel, Southeast Asia was the best performing region with tourist arrivals increasing 9 percent in 2012 to 88 million.[325]

[325]World Tourism Organization, *Tourism Highlights 2012*, Madrid: UNWTO2012.

Market Access Conditions

Increased number of regional low-costs airlines flying to Cambodian airports and the simplification of visa procedures has encouraged growth in international tourist arrivals. No substantial external barrier exists preventing further growth in international tourist arrivals. The proposed common ASEAN visa for non-ASEAN visitors would greatly enhance business mobility and tourism.

Major Competitors

Neighboring South East Asian markets such as Thailand and Vietnam are the principal competitors to Cambodia's tourism sector, drawing larger number of tourists who stay longer and spend more. However, these markets are also complementary as visitors incorporate Cambodia into a broader GMS itinerary. Despite strong growth in international arrivals, Cambodia attracts just 4 percent of the total number of visitors to South East Asia each year.

The challenge for Cambodia is to attract visitors that will spend more and stay longer. Compared to Thailand and Vietnam, Cambodia's Meeting, Incentive, Conference, Exhibition (MICE) sub-sector is largely under-developed and missing out on opportunities for growth in the arrivals of higher-valued business travellers. In addition, Cambodia needs to be mindful of emerging competitors in Southeast Asia. Myanmar experienced a surge in arrivals of 52 percent in 2012, equivalent to 200,000 more tourists from the year before. Interest in this destination has risen greatly across all major source markets as the country modernizes and opens up with political, economic, and administrative reforms.

World Market Prospect

The global tourism sector is expected to remain strong with growth forecasts of 3 to 4 percent over the medium term. This is despite the uncertain global economic conditions and relatively high unemployment in many developed countries. The sector's resilience is driven in large part by the rising purchasing power of the growing middle class in many developing economies. By 2020, the total number of international travellers worldwide is expected to reach 1.6 billion. At the regional level, tourism in South East Asia is expected to grow even more strongly, typically at around 6 to8 percent per year.[326]

Domestic Supply Conditions

With Cambodia forming part of a regional itinerary for many visitors, the quality of local tourism products and services are easily compared to neighboring markets, especially Thailand and Vietnam. Drawing on the World Economic Forum's *Travel &Tourism Competitiveness Index,* Cambodia's relative strengths in the tourism sector relate to: the prioritization of the sector in government and industry; the price competitiveness of the sector, and; the overall openness of the sector. Areas where the sector scores

[326]World Tourism Organization, *Tourism Highlights 2012,* Madrid: UNWTO, 2012.

poorly include: the regulatory environment; health and sanitation; human resources, and; tourism infrastructure.[327]

Tourism Infrastructure

Cambodia is best known for the temples of Angkor, a UNESCO World Heritage site. There are additional though lesser-known temple sites mostly concentrated in the North and North West of the country. Cities and towns like the capital Phnom Penh and Battambang in the North West also retain some historical and colonial sites. The southern coast boasts beaches and the South West and North East of the country still have vast areas of dense jungle, home to endangered flora and fauna. The Mekong River cuts through the country entering from Laos in the north, winding its way south and then east through Vietnam.

Siem Reap (the gateway to the temples of Angkor), the capital Phnom Penh, and the coastal town of Sihanoukville are the most accessible and developed centers from a tourism perspective. As of 2009, around 60 percent of all hotel rooms and guest houses in Cambodia were located in Siem Reap.[328] While the coastal area and tracts of the Mekong are accessible, tourism infrastructure like hotels and restaurants is more limited. Other areas of the country are harder to access and, as of today, have very limited tourism infrastructure. Conversely, in Siem Reap unprecedented investment in tourism infrastructure is leading to over-crowding and over-development. The temples of Angkor Wat are close to reaching visitor capacity and – if not carefully managed – will lead to significant damage to the UNESCO World Heritage site. In this context, the narrow focus of tourism activities on Siem Reap is not sustainable.New destinations are needed – such as beach resort and eco-tourism.

Equally important is the need to address Cambodia's hotel and restaurant infrastructure, particularly in regards to food hygiene and sanitation. A new ADB program will draw on experiences from similar work in the region to improve food safety in Cambodian through training for the private sector, government officials, and food safety inspectors, as well as by promoting GHP and GMP on the basis of an enterprise-level scorecard and grading system. These efforts will be complemented through a new PPP initiative to establish the Royal Academy of Culinary Art (RACA) to train Cambodian chefs and staff in food preparation and cooking. Central to the school curriculum will be training in and adoption of best practice in food hygiene and sanitation in the hotel and restaurant sectors.[329]

As identified in Cambodia's*Tourism Development Strategic Plan 2012–2020,* these challenges reflect a clear need to diversify product offerings by opening up these new destinations with supporting infrastructure and services that meet international standards and are of suitable quality for international tourists. The strategic plan suggests a wide range of short-term and long-term measures to help address some the challenges facing the tourism sector and will need strong public-private sector collaboration to achieve the RGC's goal of 8 million international arrivals per year by 2020.

---

[327] World Economic Forum, *Travel &Tourism Competitiveness Index*, Davos: WEF, 2012.
[328]Ministry of Tourism, *Tourism Statistics Annual Report 2010*, Phnom Penh: MoT, 2010
[329] ADB, *Kingdom of Cambodia Trade Facilitation: Improved SPS Handling in GMS Trade Project*, Project Administration Manual, Phnom Penh: ADB, June 2012 and Ministry of Commerce, *CEDEP II Project Document Submitted to the EIF Board,* Phnom Penh: MoC, May 2013.

Box 15.1: MICE Tourism

The MICE (Meetings, Incentives, Conventions, and Exhibitions) segment of the international tourism market is worth hundreds of billions of dollars each year. For example, according to the global Incentive Research Foundation (IRF), the median group size for incentive events worldwide is around 125 participants with average per-person expenditure of $2,600 in 2012. Further, the global corporate meeting sector was valued at $31.8 billion in 2010.

Singapore leads the MICE sub-sector in ASEAN followed by Malaysia and Thailand, reflecting the need for large conference and event facilities, ample accommodation choices, world class ICT, well coordinated ground transport and frequent, as well as direct and cost-effective air travel connections.

While Cambodia has hosted some regional conferences and summits, its ASEAN partners tend to be preferred destinations for major large-scale international MICE events.However, Cambodia does offer an attractive mix of cultural and historical sites in close proximity to premium hotels, urban centers and international airports and has an increasing capacity to target hosting small-to-medium size conferences. Cambodia is also able to target the Incentive market, which can be accommodated through the use of existing high-end leisure facilities.

To achieve the RGC's goal of attracting 8 million international visitors per year by 2020, an expansion of Cambodia's MICE capabilities will be critical. This will also require significant investment in transport infrastructure and urban development as means of reducing traffic congestion around major cities and improving travel connections between airports, tourist attractions, conference and exhibition centers and hotels.

Labor Force

Tourism is a labor-intensive service sector activity with strong sub-sector linkages to a large number of other service industries, such as accommodation, restaurant, banking, and transport services. The tourism sector is estimated to employ directly around 620,000 people in 2012.[330] While wages in Cambodia are lower than the competing markets of Thailand and Cambodia, many hotels, restaurants, and tour operators see this as being offset by the lower level of skilled labor and weaker productivity.The relatively large number of public holidays in Cambodia further weighs heavily on labor productivity and makes it harder and more costly for operators to offer services with a full complement of staff during holidays. In addition, the lack of staff during holidays forces many services (e.g. restaurants, sightseeing sites, others) to close down during holidays, which goes against the needs of tourists.

The strong growth of the tourism sector over the past decade has placed significant pressures on the availability and quality of skilled labor able to service the sector. As a result, important attributes such as customer service, food quality and safety in Cambodia lag behind regional competitors and inhibit efforts to attract higher-spending visitors. To counteract this, many of the major hotels are recruiting management and mid-level staff from elsewhere in the region – including the Philippines and Malaysia.

This shortage of skilled personnel affects business confidence and limits the expansion of Cambodia's tourism industry. In particular, it inhibits efforts by both government and tourism operators to diversify

[330] World Travel and Tourism Council, *Travel& Tourism Economic Impact 2012 – Cambodia*, London: WTTC, 2012.

the sector's product offerings. For example, hotels have reported reluctance by staff to re-locate from major urban centers to more remote areas where new tourism facilities are being established. Such a lack of mobility within the labor force adds to the pull factors whereby Cambodian businesses rely on migrant labor to secure skilled workers.

Despite the many higher-education training programs available, there is a need to strengthen curriculums to improve employment opportunities in the sector and reduce reliance on sourcing skilled labor from offshore. Insufficient skilled labor is a critical bottleneck in the hospitality and restaurant industry at the moment and efforts to address this key need will help improve Cambodia's tourism competitiveness. There is a clear need for Cambodia to invest heavily in Technical and Vocational Education and Training (TVET) programs that meet international standards and ASEAN Minimum Competency Standards for Tourism. This will require close collaboration between RGC and the private sector, such as through PPP investments in hospitality training and hotel management.

Transport Infrastructure

Air and road transport infrastructure is crucial to the quality of tourism products Cambodia can offer and the diversity of experiences available to visitors. As seen in Table 15.2, more visitors arrive in Cambodia via land border crossings compared to international airports. This reflects the practice of tourists combining Cambodia with a wider regional visit as well as the growing importance of Vietnamese, Laotian, and Thai tourists in the Cambodian market. Road infrastructure and traffic congestion, are therefore inextricably linked to the visitors overall experience and length of stay. Every moment a visitor is delayed is a lost opportunity for Cambodia to increase tourism revenue.

Table 15.2: Mode of Arrival, 2012	
Siem Reap International Airport (SRIA)	20 percent
Phnom Penh International Airport (PPIA)	28 percent
Land Borders	50 percent
Waterways	2 percent
Source: Ministry of Tourism, *Tourism Statistics Annual Report 2012*	

Upgrades to Siem Reap and Phnom Penh international airports have improved visitor experiences and the introduction of e-visa arrangements has simplified arrival procedures. Cambodia has not been able to retain long-haul air carrier services and instead many visitors rely on connections from regional hubs.This particularly impedes Cambodia's ability to market itself in the package tour segment despite being 10 percent less expensive (excluding airfares) than neighboring countries.[331]Attracting a European or Middle Eastern air carrier that services Cambodian airports would lower the perceived costs and inconvenience to air passengers from these important markets.

[331] Ministry of Tourism, *Tourism Development Strategic Plan 2012–2020*, Phnom Penh: MoT, 2012.

Despite recent advances in competition, airfares to/from Cambodia remain expensive compared to other regional destinations – especially during the high season. This has been identified in the RGC's *Tourism Development Strategic Plan 2012-2020* as a particular barrier to Cambodia hosting large conferences, exhibitions and fairs, and other premium business events more regularly. The proposed launch of a second national airline would increase competition on both domestic and regional routes and attract both business and holiday visitors. The reliance on charter flights (instead of scheduled air services) between Phnom Penh and Sihanoukville is an example of where higher cost and less reliable transport linkages undermine efforts to further expand Cambodia's tourism sector and increase visitor's average length of stay.

Efficiency of Domestic Support Industries

The hotel and restaurant sectors are highly competitive and contribute to Cambodia being a "low-cost" destination. In the absence of regular inspections and enforcement of regulations, issues around the quality of mid-range accommodation and concerns relating to food hygiene and sanitation will persist.[332]The absence of a robust and independent star-rating system makes it harder for premium hotel and accommodation operators to charge premium prices and also makes it harder to manage visitors' expectations due to self-rating by accommodation providers. Growing traffic congestion, especially in Phnom Penh and Siem Reap, and inadequate transport infrastructure also adversely affects visitor experiences.The transport sector, including domestic aviation, is a significant competitive disadvantage for Cambodia's tourism sector. Leakage of tourism revenue is estimated to be around 25 percent due to the reliance on imported inputs – including agro-food products.[333]

Private sector development has long been a key priority for the RGC. To enhance export-led, pro-poor growth through trade diversification, Cambodia has liberal FDI policies in relation to the tourism sector although scores poorly on a number of *Doing Business* indicators relevant to tourism operators – including in the areas of starting a business, enforcing contracts, registering a property and dealing with construction permits.The investment climate in Cambodia is generally positive although low occupancy rates for five-star hotels discourage further investment in high-end accommodation and conference facilities. Overall, total investment in the tourism sector accounts for 14 percent of total national investment in 2012.[334]

Prospect for Domestic Supply Conditions

The diversification of Cambodia's tourism products beyond the traditional Siem Reap-Phnom Penh-Sihanoukville triangle would help to ease the pressure on existing infrastructure. Diversification is a central theme of Cambodia's *Tourism Strategic Development Plan 2012–2020* (see below) which looks to improve the overall product quality and offerings that international visitors experience.

[332] See chapter 4 for additional discussion.
[333]Ministry of Tourism, *Tourism Development Strategic Plan 2012–2020,* Phnom Penh: MoT, 2012.
[334] World Travel and Tourism Council, *Travel & Tourism Economic Impact 2012 – Cambodia,* London: WTTC 2012

Policy and Regulatory Environment

Government Initiatives

The success of the *Cambodia: Kingdom of Wonder* marketing campaign has contributed to strong growth in tourist arrivals. RGC recently launched the *Tourism Strategic Development Plan 2012–2020*, which prescribes the development of new destinations to deepen the tourism product offering, encourage longer stays, and increase Cambodia's competitiveness. The RGC has set a target of 8 million international tourists by 2020 and recognizes significant reforms and modernization will need to take place to reach this target.

In particular, the national strategy identifies diversification of tourism products as being a major priority. This will be achieved partly by enlarging the tourism footprint around the three main urban centers (Siem Reap, Pnom Penh and Sihanoukville) including by establishing new destinations within easy reach of these cities (such as day-trips to villages and less explored temples.) However, major new tourism development in the North West provinces (e.g. eco-tourism) and along Cambodia's vast waterways (e.g. Tonle Sap and the Mekong River) will also encourage both longer visits and increased international arrivals to Cambodia.

The RGC has also identified issues such as transportation infrastructure and related services (both road and air) as needing further investments to facilitate development and expansion of the tourism sector. Urban infrastructure will also need development and improvement, including to alleviate traffic congestion. Similarly stronger consumer protection laws and consumer safety (including in relation to sanitation and food hygiene) also need to be raised to international standards to improve the overall quality of Cambodia's tourism services. This will require major investment in hospitality and training as well as stronger monitoring and enforcement of agreed standards.

Given the highly competitive tourism sector in the ASEAN region, the RGC recognizes a clear need to better market and promote Cambodia both to holiday/leisure tourists as well as the premium business traveller segment. In addition to targeting tourists from neighboring ASEAN markets, other major source markets such as India, China, Russia and the Middle East will also be targeted along with the traditional North American and European travelers.

Business Associations

Cambodia's tourism sector is highly fragmented – from small family run businesses to major international chains – and crosses over to many other sectors of the economy, especially transport. While some industry associations do exist, such as the Cambodia Hotels Association, the Cambodia Restaurants Association,or the newly form Cambodia Tourism Council, they tend to represent larger establishments. The private sector still has difficulties to speak with a unified voice, articulate priorities, and influence government decision-making. In this context, a reliable public-private sector forum will be needed to both aid industry collaboration and ensure public sector agencies work together in support of a competitive, diversified and modern tourism sector in Cambodia.

The private sector has a key role to play to support the effective implementation of the *Tourism Development Strategic Plan 2012–2020* and long-term development goals of the sector. But to be effective, the private sector must strengthen its coordination and be more pro-active in engaging directly with the Government to achieve common objectives. Ongoing discussions among MoT, private sector associations, and Development Partners to establish TVET institutions on a PPP-basis to support skill development in the hospitality sector are an important move in that direction.

Socio-Economic and Environmental Impacts

Current Employment and Job-Creation Prospect

The tourism sector is estimated to employ around 620,000 directly and 1.5million indirectly in 2012. Employment growth in the tourism sector is estimated at 2.5 to 3 percent per year over the next decade.[335]While there is no reliable data available on women employed in Cambodia's tourism sector, the majority of people employed in tourism worldwide are women.[336]Consequently, tourism has the potential to contribute to greater gender equality and the empowerment of women in Cambodia through income-generation and entrepreneurship.

Contribution to Skill Development

The tourism sector demands semi-skilled and skilled professionals, ranging from chefs, hotel managers, ICT technicians, accountants, travel guides, drivers, or interpreters. In general international language and customer-oriented service skills are in high demand. Forecast growth in international arrivals will further increase demand for skilled labor in the hospitality and travel industries. At present, several local universities provide training in hotel management while training at the vocational/technical level is very limited. At most 200 to 300 trainees graduate each year from vocational programs operated by NGOs, focusing mainly on kitchen staff and other hotel services. However, most such NGOs programs focus on providing training and employment to school drop-outs or youths from a very poor background and most graduates still lack the levels of qualification required to be employed in quality hospitality establishments. Absent some drastic steps being taken to remedy the lack of formal TVET to support the sector, the current shortage of skilled labor is likely to increase.

The recent initiative by the RGC and the private sector to establish the Royal Academy of Culinary Art (RACA) to train Cambodian culinary staff is an important milestone and will help Cambodia meet one of the fast growing needs of the sector. The public-private partnership approach chosen for RACA may also serve as a template for similar training and skill development initiatives elsewhere in the sector, including ongoing discussions with the private sector and AgenceFrançaise deDéveloppement (AFD) to create a TVET program to target other skills in the hospitality sector. In addition to addressing current skill shortages, the goal must be to improve the overall quality and standards of the sector.

[335] World Travel and Tourism Council, *Travel & Tourism Economic Impact 2012 – Cambodia*, London: WTTC, 2012
[336] World Tourism Organization, *Background on Gender and Tourism*, Madrid: UNWTO2012

Impact on Development of Disadvantaged Regions

Tourism activity is heavily focused around the three major urban centers – Siem Reap, Phnom Penh and Sihanoukville –with linkages to the rural poor predominantly achieved through income remittances from urban employment. While this is an important means of ensuring at least some wealth distribution from Cambodia's tourist sector reaches rural areas, more formal linkages between rural communities and tourism activities would be ideal.[337]This underscores the importance of diversifying Cambodia's tourism products and destinations beyond the three major urban centers to create a more resilient sector and provide more broad-based and geographically dispersed poverty reduction benefits.

The social risks associated with increased tourism also need to be understood and addressed.

The tourism and hospitality sector, by nature, is a large buyer of fresh fruit and vegetable produce to supply hotel kitchens and restaurants and can give rise to a robust, domestic horticultural sector to meet such needs. Cambodian restaurants and hotels, however, remain very dependent on fresh fruit and vegetable produce imported from Vietnam and Thailand. Opportunities to develop such a domestic supply chain remain under-developed and further improvements are needed.

Efforts by some boutique hotels to invest in organic fruit and vegetable plantations in Cambodia as a means of becoming self-sufficient for produce needs highlights the value and importance of being able to reliably source quality local produce for international tourists. Overall, there are strong backward linkages opportunities between the tourism sector and primary industries, including horticulture and silk handicrafts, many of which have a production base in disadvantaged regions in Cambodia. This underscores the importance of reducing the leakage of tourism revenue due to an unnecessary reliance on imported inputs and the potential benefits that can flow to other sectors and regions from tourism expenditure. Further, the tourism sector can serve as a useful 'test market' to gauge whether locally produced products are 'export-ready'.

Energy and Water Constraints and Environmental Impact

The high cost of electricity for tourism operators and frequent brown outs in major tourist centers weighs heavily on the sectors' competitiveness. The concentration of tourism activities in a few areas (particularly Siem Reap) leads to significant congestion and amenity issues (water shortage.)

As far as energy consumption is concerned, Cambodia is endowed with perfect sun exposure to encourage use of passive solar energy for production of hot water in hotels or photovoltaic for production of electricity.[338] Much greater incorporation of sustainable energy resources by hotel investors could be written in Cambodia's Building Code and/or be made a condition of investment project approvals by CDC or provincial authorities.

[337] UNDP, *Tourism and Poverty Reduction Strategies in the Integrated Framework for LDCs*, Geneva: UNDP, 2011
[338] Production of hot water is one of the largest, if not the largest, source of energy consumption in the hotel and restaurant sectors.

Box 15.2: ASEAN & Regional Integration

Tourism is a priority sector for ASEAN.

For several years, ASEAN has been the best performing region in the world in terms of growth in international visitors. In 2012, international arrivals to ASEAN destinations reached 88 million (an annual increase of 9 percent.) Almost half of these visitors originated from other ASEAN countries. Intra-regional trade is therefore vital to growth in ASEAN tourism and is a key factor in growth rates in international arrivals to the region forecast to reach about 6 to 8 percent over the medium term, roughly double the global average. The introduction of the proposed common ASEAN visa for non-ASEAN visitors should enhance greatly business mobility and promote tourism in the region.

ASEAN Member States have also signed the ASEAN Mutual Recognition Arrangement (MRA) on Tourism Professionals, which is a key ASEAN initiative to support the establishment of the ASEAN Economic Community in 2015. The purpose of this MRA mechanism is to facilitate mobility of tourism professionals within ASEAN and improve the quality of services delivered by tourism professionals.

Box 15.3: Skill Gaps & Skill Issues

The tourism sector demands semi-skilled and skilled professionals, ranging from chefs, hotel managers, ICT technicians, accountants, travel guides, drivers, or interpreters. International language and customer-oriented service skills are in high demand. Employers in the hospitality sector in Cambodia report difficulties in securing qualified staff. As a result, important attributes such as customer service and food quality and safety in Cambodia lag behind regional competitors. This shortage of skilled personnel affects business confidence and limits the growth of the Cambodian tourism industry.

Despite the many higher-education training programs available, there is a need to strengthen curriculums to improve employment opportunities in the sector and reduce reliance on sourcing skilled labor from offshore. The proposed free flow of services and skilled labor under the ASEAN Economic Community presents further challenges for managing Cambodia's labor force. To minimize the risk of leaking skilled labor to higher-wage countries elsewhere in the region, there is a clear need for Cambodia to invest heavily in Technical and Vocational Education and Training (TVET) programs that meet international standards and ASEAN Minimum Competency Standards for Tourism. This will require close collaboration between RGC and the private sector – such as through PPP investments in hospitality training and hotel management.

Box 15.4: Progress Since 2007

Followingthe 2009 global financial crisis, the world economy endured significant turmoil leading to higher rates of unemployment and low levels of consumer confidence in many developed economies. This turmoil led to contraction of the global tourism economy in 2009, which saw the number of international arrivals drop 4 percent and total tourism receipts fall by almost 10 percent.[339]

During that time, strong growth in visitors from within ASEAN contributed to Cambodia bucking the global trend with international arrivals still growing by a modest 1.7 percent. The changing mix of arrivals and the fall in arrivals from North America and Europe, however, did lead to total tourism receipts falling 2.1 percent in 2009. Subsequently, the sector has recovered strongly, with arrivals and revenue increasing by an average of 19 percent and 12 percent respectively over the period 2010–12.[340]

While investments in modernizing Cambodia's international airports and the simplification of visa procedures has improved access for some international visitors, the primary source of growth in the tourism sector has come from increased arrivals from the Greater Mekong Sub-Region (GMS). Because of the nature of demand from such visitors, growth in tourism revenue (58 percent) has not kept pace with growth in international arrivals (78 percent) over the 2007-12 period. Had revenue growth kept pace with arrivals, the tourism sector would be generating an additional $280 million in revenue each year.

Visitors from GMS are typically short-stayers and often don't travel beyond border regions. This is evident in the decline in the average length of stay by visitors from 6.5 days in 2007 to 6.3 days in 2012. Strong growth in visitors from one region should therefore not be viewed as a substitute for slowing growth in visitors from another region.

Looking ahead, the RGC has a target of attracting 8 million international arrivals by 2020. To deliver a lasting development impact with widespread poverty-reduction benefits, it is important to be mindful of the need to target higher-spending visitors – including business visitors, high-end leisure tourists, and longer stays through more diverse product offerings.

[339] World Tourism Organization, *Tourism Highlights 2012*, Madrid: UNWTO, 2012.
[340] Ministry of Tourism, *Tourism Statistics Annual Report 2012*, Phnom Penh: MoT, 2012.

Conclusion

The main finings of this chapter can be summarized in the SWOT table that follows

Strengths	Weaknesses
• Tourism is a leading source of economic growth and employment in Cambodia. • The UNESCO World Heritage site Angkor Wat is high profiled, internationally renowned and a unique draw card for Cambodia. • Tourism revenue encourages the preservation of historical, cultural and environmental assets. • Success of *Cambodia:Kingdom of Wonder* tourism marketing campaign has contributed to strong growth in tourist arrivals. • Southeast Asia remains one of the fastest growing tourist markets in the world with Cambodia also benefiting from 'side-trips' from Thailand and Vietnam. • Strong growth in regional tourists from Asia has more than offset slower growth in tourist arrivals from traditional markets (especially Europe and North America). • Increased number of regional low-cost airlines flying to Cambodian airports and the simplification of visa procedures has encouraged tourist arrivals. • Modernization of major airports has enhanced arrival/departure experience.	• Shorter average stays than Thailand and Vietnam. • Cambodia perceived as a 'low cost' destination—making it harder to encourage growth in premium tourist services. Average daily expenditure per tourist was $107/day in 2007; $98/day in 2012. • High concentration of tourism activities in few areas (particularly Siem Reap) leading to significant congestion and amenity issues. • Higher-spending business stays accounted for just 5% of total international arrivals in 2012. • Low occupancy rates for 5-star hotels discourage further investment in high-end accommodation and conference facilities. • Weak consumer protection laws and no policing to prevent false advertising of hotel accommodation, particularly in relation to Internet sales. • Weak food hygiene and sanitation • Despite recent advances in competition, airfares to/from Cambodia remain more expensive than other regional destinations. • Severe skills shortages across the hospitality sector, including in culinary and hotel management. • Limited infrastructure and very limited domestic air connections further exacerbates concentration of tourists in small areas.
Opportunities	**Threats**
• Strategic marketing and promotion campaigns to target specific sub-sectors of international arrivals. • A national marketing campaign to attract business to the largely under-developed Meeting, Incentive, Conference, Exhibition (MICE) sub-sector. • Interest from Gulf carriers in servicing Phnom Penh airport would assist in attracting international arrivals from Middle East and European markets. • A proposed common visa scheme for ASEAN would facilitate increased international arrivals. • Proposed launch of second national airline would increase competition on both domestic and regional routes and attract both business and tourist arrivals. • Increased skilled labor in the hospitality and restaurant industry would help solve a current bottleneck • Development of new destinations within the country, as prescribed in *Cambodia Tourism Strategic Development Plan 2012,* as well as a deepening of the service offering would add to	• Forecast growth in international tourist arrivals will further increase demand for skilled labor in the hospitality industry. • Tourism sector exposed to downturns from global / regional economic and political crises, natural disasters and outbreaks of pandemic diseases. • Over-emphasis on attracting large volume of tourists rather than targeting more valuable tourists with higher expenditure and longer stays. • Failure to attract highly-prized medium-large size business events under the MICE sub-sector where the cost and availability of airfares is a key determinant in selecting host city. • Income-generating benefits of tourism activities not being dispersed more evenly across Cambodia. • The free flow of services and skilled labor under the ASEAN Economic Community may effect the availability of skilled labor in Cambodia given the higher wages available elsewhere in the region.

Cambodia's competitiveness and encourage longer stays. • Diversification of tourism products and destinations would not only create a more resilient sector but provide more broad-based poverty reduction benefits.	

Recommendations

Tourism has been a strong contributor to Cambodia's economic development over the past two decades and recent shifts toward attracting more and more regional tourists has helped buttress the sector for weak global economic conditions. Despite the impressive record of growth and export earnings, Cambodia's tourism sector faces a number of headwinds.

In such as competitive regional tourism market, Cambodia will need to invest heavily in modernizing its tourism infrastructure and laying the framework for delivering tourism services that meet future consumer expectations, including in areas of sanitation, food hygiene, and customer service. Significant investment in human resources will be required – including by offering vocational courses and training programs of international standards. This will likely require ongoing public-private co-investment over the medium term in order to create a workforce that can sustainably service the sector.

In addition, Cambodia will need to diversify its tourism product offerings beyond the Siem Reap – Phnom Penh – Sihanoukville triangle to ensure the industry remains relevant and competitive to international travellers. It will also require a more sustained effort to target and attract high-revenue business travellers to Cambodia – including through successfully implementing a MICE sector strategy.

The launch of Cambodia's *Tourism Development Strategic Plan 2012–2020* was an important moment in identifying the key challenges currently facing the sector and laying down a strategy to ensure tourism continues to help drive economic development and poverty reduction. In this context, possible Actions to address some of the issues and opportunities identified in the chapter are shown in the Trade SWAp Roadmap under Outcome #15.

Chapter 16

HIGH VALUE SILK PRODUCTS

Background

Silk production in Cambodia dates from the 13th century when villagers started to breed silkworms along the banks of the Mekong and Bassac rivers. Villages now breed a yellow silkworm variety that feeds on mulberry tree leaves for threeweeksand then spins a "golden" cocoon. The silk yarn that forms the cocoons is washed, dyed and eventually woven.

Silk yarn production and weaving are important village-based activities offering significant rural employment, especially for women and individuals with disabilities. Breeding of silkworm requires particular skill and knowledge and the sector's existence supports the preservation of important traditions passed on from generation to generation. In addition, weaving utilizes traditional handloom techniques and maintains practices of historical and cultural importance to Cambodia.

The industry now directly contributes an estimated $25 million to GDP each year, with current efforts to modernize the supply chain offering significant potential to increase export revenue, rural employment and national income.[341]

Export Performance

Export Value

Cambodia's silk sector is domestic-oriented, with exports of finished silk products estimated to have increased from $4million in 2004to $7million in 2012.[342]Exports have been gaining strength in recent years, accounting for up to 30percent of silk product sales according to some estimates.[343]

Type of Exports

Finished silk products that are exported include hand-loomed plain silk fabric, scarves, ties, handbags, cushions and other accessories. Table 16.1 below indicates the type of silk yarn used for each market segment and highlights the sector's dependence on imported silk yarn.

[341] International Trade Center, *Institutional Aspects for Silk Promotion in Cambodia*, Geneva and Phnom Penh: ITC, 2011.
[342] International Trade Center: *Sector-wide strategy for the Cambodian Silk Sector*, Geneva and Phnom Penh: ITC, 2006, and interview with International Trade Center Interview, Phnom Penh: May 2013.
[343] International Trade Center, *Activity Completion Report: Cambodian Sector-Wide Silk Project*, Phnom Penh: ITC, 2012.

Table 16.1: Silk Products Market Segments	
Market Segment	**Type of Yarn**
Local Khmer	Almost 100percent made from imported yarn.
'Low-end' Tourist	Mostly imported silk from Thailand and Vietnam and occasionally mixed with synthetic yarn.
'High-end' Tourist	A limited number of Golden Khmer Silk yarn products available, with the rest made from imported white silk yarn.
Boutique Exports	A limited number of Golden Khmer Silk yarn products exported in small volumes to high-value export markets, all other exports made from imported silk.
Source:*Cambodian Sericulture Stock Taking Report*, 2008	

Current Export Destinations

Key markets for current exports include the US, EU (mainly France, Italy, Germany and Switzerland), Singapore, and Australia. Distribution channels for exports include local retail, internet sales, as well as exports to individual foreign retailers. Direct sales to international visitors, predominantly through local markets and retailers in Phnom Penh and Siem Reap, are also important sources of export revenue.

Potential Export Destinations

Those markets that offer the highest earnings potential for Cambodia's silk industry are those already open to Cambodian exports—albeit in very small quantities. This includes the EU, US, Japan, and South Korea. Substantial investment in boosting export capacity, product design, meeting international standards and understanding consumer preferences will be required to compete in these major markets in the future.

Trade Balance

Cambodia is a significant net importer of raw silk and silk fabric products – equivalent to approximately 400 MT each year (valued at $10million.) These inputs are sourced from China as well as Vietnam(with imports from the latter often being informal.)In total, 99 percent of Cambodia's silk products are manufactured from imported white silk yarn.[344]Other inputs, such as dyes are also imported, mostly from Thailand.

[344] International Trade Center, *Activity Completion Report: Cambodian Sector-Wide Silk Project Phase II*, Phnom Penh: ITC, 2012.

Dynamism of Exports

Cambodian silk products are known for their fine handmade quality and are sold in both domestic and export markets. International visitors to Cambodia account for the majority of export sales.[345] The tourist market can be divided into two segments: low-end tourist markets and high-end tourist markets. Tourists in the high-end segment buy Cambodian silk products from boutiques in Phnom Penh and Siem Reap, while those in the low-end segment buy mostly cheap silk imports at Phnom Penh markets.[346]

Export Prospect

Increasing both the volume of locally produced ('Golden Khmer Silk') yarn and overall weaving output (including from imported silk fabric) would greatly improve the export prospects of Cambodia's silk sector. To avoid being over-shadowed by the larger silk producers and exporters in the region, Cambodia will need to invest heavily in improving the availability and quality of its silk products, as well as in product design and marketing, in order to expand export markets. Better organized and more formal supply chains – especially in relation to imported silk yarn – will improve the overall traceability of Cambodia's silk products and facilitate greater access to high-value markets that require Country of Origin certificates.

World Market Conditions

A large portion of worldwide silk production is consumed domestically, although there is significant trade in each of the components of the global silk supply chain. For instance, silkworm cocoons are exported to producers of silk yarn, silk yarn is exported to producers of silk fabrics, and silk fabrics are exported to producers of garments. Most large producers of silk products, with the exception of China, import silk yarn.[347]

Market Access Conditions

There are few tariffs or other import restrictions imposed directly on global silk trade, although trade in finished garment products can often be subject to tariffs and quota restrictions. However, Cambodia's handmade silk exports often enjoy duty free access (as "handicraft" instead of garment and textile) into many key markets – including the EU, US, Singapore, Hong Kong, Australia, and Japan.

In addition, as international visitors account for a large portion of Cambodia's silk product exports, many of the conditions and transaction costs associated with global trade(such as freight packaging, export finance and customs processes) are bypassed by the sector. However, as the sector looks to increase export revenue, greater knowledge in branding, marketingand international trade practices will be needed.

[345] International Trade Center, *CEDEP I Analysis Of Company Survey Data*, Phnom Penh: ITC, 2013.
[346] Ministry of Commerce, *CEDEP I Project Document*, Phnom Penh: MoC, 2011; Cambodian Silk Value Chain (www.cambodiasilksector.org)
[347] World Bank, *Value Chain Study – Cambodia*, Phnom Penh: World Bank, 2012.

Major Competitors

Global production of raw silk averages 120,000/130,000 MT per year, with China and India accounting for about 70 percent and 20 percent of world production respectively.[348]Vietnam and Thailand are also significant exporters of silk products – with Thailand competing directly with Cambodia's traditional handloom silk products. China and Vietnam also compete with Cambodia's silk products through mass-produced machine-made silk garments, fabrics, and accessories.In this context, Cambodia's silk exports face competition in both the high-end segment and, in particular, the mass-market consumables.

World Market Prospect

The global sericulture industry is in general decline with raw silk production falling around 15 percent over the past five years.[349]While this is partly due to the global garment industry favoring cheaper substitutes – such as cotton and synthetic textiles – it also reflects the fact that silk is used increasingly for high-end, boutique garments, fabrics and accessories. As such, silk is a high value, low volume product totaling 0.2 percent of the world's total textile production.[350]Global trade in silk (including yarn and fabric) was estimated at around $2.5 – $3billion in 2012.[351]

Domestic Supply Conditions

The silk supply chain includes a number of productive activities such as sericulture, processing, external sourcing of inputs, product design and marketing (as shown in Table 16.2). The first three tasks are conducted at the village-level either by individuals or cooperatives. These are concentrated in the North West of Cambodia where local yarn is weaved and incorporated into the final product. In the South East, imported yarn issourced for weaving.

[348] International Sericulture Commission,*Statistics Database,* 2007–2011.ISERCO, 2012
[349] International Sericulture Commission,*Statistics Database,* 2007–2011.ISERCO, 2012
[350] Karnataka Global Agribusiness & Food Processing Summit 2011
[351] TradeMap & Comtrade

Table 16.2 Silk Supply Chain		
Activity	**Examples of Tasks**	**Skill Required**
Sericulture	Mulberry Cultivation, Raising Silkworms, Cocoon Production	Farmer/Breeder
Processing yarn	Sorting, cooking, reeling, warping.de-gumming, bleachingand dyeing	Artisan
External Sourcing	Importing Raw Silk	Importer
Fabric Production	Weaving	Artisan
Finished Goods	Cut, Make, Trim (CMT)	Semi-skilled labor
Marketing	Product Designs	Designer
	Selling to Markets	Entrepreneur
Source: The World Bank, *Improving Trade Competitiveness in Cambodia*. 2012		

Given the small scale of the local sericulture industry, the principal participants in the silk supply chain are importers and suppliers of silk yarn, weavers, traders (both pre- and post-weaving), firms that produce finished goods, local retailers and local buyers for export markets.Overall, the silk supply chain in Cambodia is particularly fragmented and better coordination has been recognized as a key determinant of the sector's future prospects.

The production of most finished goods for export take place at factories near Phnom Penh who also take responsibility for design and marketing. The challenge for these manufacturers is to produce designs that highlight the uniqueness of Cambodia's silk handicrafts while also offering styles that appeal to international buyers. A number of local distributors and exporters (such as Artisan d'Angkor) have sought to create unique brands that build on Cambodia's silk heritage while coordinating outbound supply activities such as design and marketing. However, Cambodia will need to produce larger volumes of silk products in order to be of interest to large international retailers and distributors.

Producers

While domestic production of mulberry and silk yarn is centered mostly in the North West of the country, Cambodia's relatively large weaving sector is based mostly in the South. It is the weaving sector, with approximately 20,000 silk weavers, that offers the scope in the short and medium terms to boost export earnings.

To support the expansion of the weaving sector, cooperation among weavers and across the supply chain is being encouraged through the establishment of purchasing units. These purchasing units are village-based and are run by weavers to help ease some of the constraints that many face in accessing reliable supplies of raw materials (such as yarn, dyes and chemicals) at completive prices. Purchasing units are able to link directly with suppliers of raw material and but in bulk, enabling weavers to bypass the need to source smaller quantities through an intermediary trader. This has led to real cost-savings for weaving communities. For example, it is reported purchasing units have been able to reduce weaver's imported

silk yarn costs by 5-10 percent from bulk purchasing activities.[352] Purchasing units also facilitate collaboration between weaving communities to fulfill larger orders.

It is important for purchasing units to be managed by skilled weavers with appropriate training in business management to ensure they remain profitable village entities. In 2012, 14 purchasing units were operational across Cambodia and are expected to continue to enhance the independence of weavers, increase their number, as well as strengthen their negotiating power.[353] This will require continued public and private investment in the silk sector supply chain, including through ensuring purchasing units have access to adequate finance in order to increase each unit's purchasing power and long-term viability.

Similarly, the value of vertical integration between weavers and exporters is being recognized in order to improve the overall quality, design, and consistency in silk production. While some individual private companies (such as Artisan d'Angkor) are taking a lead o this by coordinating the outbound supply chain internally, there is a need for greater market awareness across the supply chain. The Government is planning the formulation of a "Silk Sector Export Strategy" and a corresponding "Action Plan" to help the sector position itself better in the competitive global silk market. To support both the formulation and the implementation of the sector strategy, the Government is also planning to create a Silk Board comprising Government officials and industry representatives to organize sector stakeholders as well as help implement the export strategy and coordinate the supply chain effectively.

Production Capacity

Sericulture is a very small industry in Cambodia with just 1 MT of high-value golden silk produced in 2012 from 40 hectares of mulberry plantations.[354]No white silk was produced locally in 2012. The small size of the sericulture industry stems from a protracted decline in production and is in stark contrast to the 1940s when annual production typically averaged 150 MT from 6 000 hectares of mulberry plantations.

The decline in Cambodia's production of silk yarn is due to a number of factors: the limited supply of healthy silkworm eggs;outdatedsilkworm-breeding activities at the farm level; and, susceptibility to disease and heat stress that have resulted in silkworm mortality rates of around 50 percent and smaller cocoons. Recent FAO-backed initiatives to breed and distribute more robust hybrid varieties of silkworm, combined with training workshops on silkworm rearing, might help reverse the long-term decline in sericulture production. Realistically, however, expanding yarn production is a long-term challenge that may take many years and will be influenced in part by issues of land utilization and international market prices.

Consequently, much of the strategic focus of government and industry has, and should be, on increasing the scale of the Cambodia's weaving sector by sourcing high quality imported yarn. This approach could service increased domestic demand from population growth as well as grow export capacity – especially where Cambodia's silk exports can be marketed as unique, high-quality handicrafts through the use of

[352]ITC, *Mid Term External Evaluation – Cambodia Sector-Wide Silk Project (Phase II)*, Geneva: ITC, 2011.
[353]ITC, *Cambodian Sector-wide Silk Project: Khmer Silk Village (KSV). Final Report*, Phnom Penh: ITC, 2012.
[354] Interview with Mey Kalyan, Project Manager for FAO Cambodian Silk Program, in *Cambodia on the Rise*, Textiles World Asia, June 2013.

handlooms in villages. An advantage of targeting this high-end segment is that consumers are likely to be less price-sensitive. In addition, this would avoid direct competition with the low-cost mass-produced silk exports from Vietnam and China.

Quality of Product

Golden Khmer Silk products are produced from the yellow silkworm that is traditionally found in Southeast Asia and particularly in the Northwest provinces of Cambodia. Golden Khmer Silk products are recognized as having superior qualities to the mass-produced white silk products from China and Vietnam. Current efforts to increase the supply of Golden Khmer Silk yarn could greatly improve export earnings and provide an opportunity for Cambodia to market itself as a supplier of high-value fine quality silk products. In the short-term, the silk weaving sector can boost the integrity and reliability of its supply chain by sourcing high quality imported silk yarn that meet the international standards and Country of Origin requirements of key export markets. This would also enable Cambodia's weavers to produce more premium silk products that attract higher prices.

Availability and Quality of Labor Force

As the silk industry supply chain is heavily organized around village-level yarn production and weaving enterprises, there is an ample supply of labor to support the sector. As the silk industry supply chain is heavily organized around village-level yarn production and weaving enterprises, there is a reasonable supply of labor to support the sector. However, the higher wages offered in neighboring Thai provinces encourages labor emigration and weakens the workforce available to support export development in Cambodia's weaving operations.

Furthermore, under-skilled workers lack the capacity to offer consistent products and product quality that meet market specifications. There is also a shortage of design capabilities and capacity to translate new design into production. In this context, Government initiatives and support to industry will need to focus on downstream activities of the value chain, specifically marketing, design, and export promotion, and on ensuring the weaving communities become "export-ready."

Level of Processing Technology

Cambodia's sericulture and weaving sector continue to rely on traditional and manual production methods. While "golden" silk yarn production is unique to Cambodia and highly valued, the silk processing and weaving industry competes directly with large regional producers that utilize modern and more efficient technologies. For example, reliance on manually reeling silk yarn in Cambodia typically leads to a courser silk fabric, which does not typically meet the standards of high-end or "luxury" silk markets.[355]

Investment in more modern silk processing technologies that complement the unique qualities of Cambodia's silk heritage could aid efforts to open markets for high-value silk exports.

[355] FAO Fact Sheet, *Supporting Sericulture Rehabilitation in Cambodia,* Phnom Penh: FAO, 2012.

Cost and Quality of Infrastructure

With the sericulture and weaving components of the silk sector predominantly located in rural areas access to quality and affordable infrastructure is paramount to modernizing the supply chain. Future investments in transport infrastructure and energy supply would greatly enhance the prospects of the industry. Village-level infrastructure and access to community services (including health and education) are also important to retaining skilled labor in rural areas.

Efficiency of Domestic Support Industries

Silk yarn producers and weaving enterprises often have limited access to competitive finance to cover operating expenses and lack access to capital to expand production scales. Current initiatives that seek to demonstrate Cambodia's potential as a high-value silk producer may spark greater interest in the sector from investors and credit providers.In particular, access to micro-finance may support entrepreneurship by weavers and enable village-based operations to expand and develop.

Domestic Demand

While the local silk industry is heavily reliant on imported inputs, Cambodian's maintain a strong preference for purchasing locally woven silk products. Domestic demand from locally woven silk products is therefore expected to increase in line with population growth. However, modernizing the supply chain will still be important and will help the local silk industry remain cost-competitive (compared to important finished products) in order to maintain this advantage in the domestic market.

Prospect for Domestic Supply Conditions

Theexpansion of existing capacity building initiatives and the development and implementation of export-led growth strategies will greatly enhance the future prospects of Cambodia's silk sector. While a sericulture industry of any significant scale – built around the unique attributes of Golden Khmer Silk – should be a long-term objective, there is real scope to increase exports of Cambodian silk handicrafts over the short-to-medium term by drawing on imported supplies from the region. This will require increased investment in training initiatives for rural weaving communities as well as a more strategic approach to how the outbound supply chain designs and markets the finished products.

Policy and Regulatory Framework

Government Initiatives & Sector Policy

The Royal Government of Cambodia has identified silk as one of ten priority export sectors to receive focused attention over the next five years. In 2010 the Government acted to support the growth of the silk

sector by suspending import and value-added taxes on imported silk yarn – equivalent to a 7 percent to 10 percent cost saving for Cambodia's silk weavers.[356]

Further development of the Cambodian silk value chain will require strong engagement of the Government – particularlyin the form of a sector roadmap and policy framework. In the absence of a national policy the sector is likely to develop haphazardly.Consequently, the formulation of a National Sericulture and Silk Sector Policy by RGC is seen as a necessary catalyst for the sector's export growth and expansion. Similarly, an appropriate public-private mechanism – such as the National Silk Board under discussion – seems warranted given the need to drive a closer partnership between the sector's stakeholders.

Business Associations

There are no formal industry organizations that engage with the Royal Government of Cambodia on silk policy matters. There are, however, community associations that work at the village-level to promote rural livelihood through skills development and trade. For example, Khmer Silk Villages (KSV) was established in 2005 and has a membership base of 700 silkworm farmers/breeders in the North West and 800 weavers in the South. The KSV association focuses on enhancing technical skills and improving the production of breeders and weavers by linking international buyers with local community products.[357]

While such community-based programs are certainly valuable and should be supported, the fragmented nature of the silk supply chain continues to undermine the Royal Government of Cambodia's policy objective of export-led development. Current efforts to establish a National Silk Board should be prioritized. A Board would help drive much needed public-private dialogue on modernizing Cambodia's silk supply chain, formulating a national silk policy and export strategy and would enable the sector to speak with a stronger, more unified and representative voice.

Socio-Economic Factors

Current Employment and Job-Creation Prospect

Cambodia's silk sector in Cambodia accounts for over 1,000 silkworm breeders and over 20,000 weavers. The vast majority of weavers are women in rural areas who carry out the craft on a part-time basis. It is estimated that a further 25,000 additional jobs could be created if Cambodia reduced its dependence on imported silk yarn.[358]This underscores the importance of current efforts to modernize Cambodia's silk industry supply chain – from silkworm breeding, to weaving, design, and marketing.

[356] UNESCO, *Operationalizing the Rectangular Strategy for Growth: Towards Better Business Processes*, Presentation of Findings SNEC, Phnom Penh: UNESCO, February 24,2011
[357] Khmer Silk Villages (www.khmersilkvillages.org).
[358]ITC, *Institutional Aspects for Silk Promotion in Cambodia*, Phnom Penh: ITC, 2011.

Impact on Development of Disadvantaged Regions

Mulberry trees are typically planted on small family-run lots of 0.5 to 2.5 hectares and can be inter-cropped with other agricultural activities, such as with rice cultivation, providing a supplementary source of farm income. The most famous area for golden silk is Phnom Srok (in Banteay Meanchey Province), on the hills above Tonle Sap in Northwest Cambodia.

Weavers are largely located in the following nine provinces: Siem Reap, Takeo, Prey Veng, Banteay Meanchey, Kampong Cham, Kampong Thom, Kandal, Phnom Penh and Stung Treng. Weaving is the sole source of income for many rural families.

Overall, an expansion of the silk yarn production and weaving industries is likely to be welfare enhancing for many rural communities in Cambodia and, especially, for women. A recent survey found that women accounted for two-thirds of workers in the Cambodia's sericulture sector and 98 percent of silk weavers.[359]

Contribution to Skill Development

Cambodia's silk sector currently relies on traditional silkworm breeding and manual weaving skills. Current efforts to boost the technical skills and production capacity of the sector will need to continue to create a sustainable and profitable silk sector that offers important new income-generating opportunities to many of Cambodia's rural communities. These skills will need to be complemented by developing important downstream value chain attributes – such as product design, marketing, and export promotion – in order to make the sector "export-ready." Private retailers and cooperatives that interface with international consumers and distributors will need to continue to be prepared to co-invest in such skill development. Given the priority the RGC has placed on securing the silk sector's future, private investors and retailers should be given the necessary confidence and backing to make these important investments.

Energy and Water Constraints and Environmental Impact

High-cost electricity undermines efforts to automate many aspects of silk processing in Cambodia. The use of chemicals and dyes in silk production also poses risks to Cambodia's environmental assets and waterways. The sector has, however, sought to introduce higher-quality dyes, including through phasing out the use of 'azo' (synthetic) dyes that are a major pollutant and still in use worldwide.[360]These steps toward more environmentally friendly production processes have also helped to maintain duty-free access to the key EU market, which prohibits use of synthetic 'azo' dyes in consumer goods.

[359] Survey conducted as part of the *Cambodian Export Diversification and Expansion Program I* and published by the International Trade Centre in April 2013.
[360]ITC, *The Export-led Poverty Reduction Program in Cambodia – A Case Study*, Phnom Penh: ITC, 2006.

Box 16.1: ASEAN & Regional Integration

While today more than 60 countries in the world produce silk, most production is located in Asia, which accounts for around 90 percent of mulberry silk production and almost 100 percent of non-mulberry silk.[361] The prevalence of silk production in the Asia region presents both a competitive challenge to Cambodia's relatively small silk industry as well as an opportunity to position itself as a supplier of high-quality premium silk products. As a first step, Cambodia's silk sector will need to re-assess where it fits in the regional silk supply chain and what strategy is needed to drive its export-led growth in the sector.

Currently, a collector based in Vietnam typically aggregates silk yarn (often of mixed quality) while a trader receives an order from a Cambodian wholesaler. The yarn is shipped informally across the border to the wholesaler in Cambodia who stores the yarn and then sells it to weavers. There is a clear opportunity for Cambodia to become more closely (and formally) integrated into the silk supply chain in the region – especially in relation to sourcing quality inputs such as yarn, fabrics and dyes – and bypass intermediaries that only add to inefficiencies in silk production. A better organized and more formal supply chain will also improve the overall traceability of Cambodia's silk products and facilitate greater access to high-value markets that stipulate Country of Origin certificates.

Cambodia will need to look to the region in modernizing its silk supply chain and increasing production efficiencies while identifying and preserving its silk heritage traditions that attract a premium price from international consumers.

Box 16.2: Progress Since 2007

Significant effort has been made since 2007 to improve the future prospects of Cambodia's silk sector. Wide ranging training opportunities have been provided to weavers – from warping preparation and installation, advanced natural dyeing, fly shuttle loom weaving, and semi-automatic weaving, to using digital scales and calculating unit measurements to aid accuracy and conformity with international standards.

Similar training programs have been provided to enhance traders' understandings of the silk market, including in areas such as quality assurance, enterprise management and export requirements. The purchasing units established in many villages are run by weavers and have helped to ease some of the constraints that many communities face in accessing raw materials – such as yarn, dyes and chemicals. Purchasing units link directly with suppliers of raw material and buy in bulk, enabling weavers to bypass the need to source smaller quantities through an intermediary trader. This has led to real cost-savings for weaving communities – including a reported reduction in imported silk yarn costs by 5 percent to 10 percent from bulk purchasing activities. These costs-savings are in addition to those secured in 2010 when the Government suspended duties and value-added taxes on imported silk yarn – equivalent to a 7

[361] World Bank, *Value Chain Study – Cambodia*, Phnom Penh: World Bank, 2012.

percent to 10 percent cost saving.

Further cost-savings, supply chain efficiencies and skills development will be needed to modernize and secure the future of Cambodia's silk sector.

Conclusion

Information analyzed in this chapter can be summarized in the SWOT table that follows.

Strengths	Weaknesses
• Yarn production and weaving is an important village-based activity offering significant rural employment especially for women and individuals with disabilities. • In some households weaving is the sole source of income for many rural families. • Utilizes traditional handloom techniques and maintains practices of historical and cultural importance to Cambodia. • Preservation of traditional techniques passed on from generation to generation. • Village-based and hand-woven silk production is a natural complement to growing tourism sector. • Characteristics of native golden silk yarn are well suited to differentiating finished product from competition. • Strong consumer preference in domestic market for locally woven silk fabrics. • Sericulture can offer farmers higher per hectare revenue than cassava or rice cultivation.	• Small-scale yarn production and lack of recognition of Cambodia as a quality supplier in international markets. • Returns from sericulture *perceived* as being too low by Cambodian farmers to encourage increased silk yarn production. • Tiny portion of locally produced silk products is exported. • Tourists cannot easily access information on local silk sector or observe looming and weaving practices. • Smaller silk producers constrained by cost and availability of high-quality yarn. • Lack of interest from investors constrains growth in sericulture production. • Lack of export market experience.
Opportunities	**Threats**
• Increasing the volume of yarn and weaving production at village level likely to be welfare enhancing. • Scope to develop high-value local product using golden silk yarn. • Improvements in the quality and availability of finished silk products will open markets. • Few tariffs or other import restrictions imposed in global silk trade. • Village life and hand looming and weaving processes could be marketed to tourists. • Growth in production of silk fabrics using imported yarn. • Growth in production of high-end fabrics using 'Golden Khmer Silk' targeting high-value consumers (both tourists and for export). • Creation of national Silk Board may improve sectors' capacity to coordinate production chain and develop a uniform supply structure.	• Increasing prices of imported inputs, such as yarn, dyes and processing materials. • Key suppliers of imported silk yarn—such as Vietnam—cutting production, exposing Cambodia's weaving sector to silk yarn shortages. • Domestic demand for silk fabric likely to stagnate due to changing consumer preferences and availability of substitutes. • Global sericulture production in general decline. • Significant competition in international markets from Thailand for traditional hand-woven silk products. • Cambodia fails to improve the quality and availability of finished silk products. • Cambodia fails to preserve production of local golden silk yarn (just 1 MT produced in 2012). • Capacity to market Cambodia's silk product exports may be overshadowed by the larger silk suppliers in the region. • General reluctance and lack of interest to maintain or support local sericulture sector.

Recommendations

Cambodia's silk industry is at a cross-road. Sericulture output is in decline and, in the absence of a national silk export strategy, silk weavers and retailers are wedged in a region dominated by large silk producers, manufacturers and exporters. The silk industry's future requires strong public-private sector engagement backed by a roadmap and a national policy framework to guide investment in both sericulture and silk production. Capacity building and technical support across the supply chain is also required to ensure Cambodia emerges as a reliable supplier and exporter of quality silk products to the world.

Given the fragmented state of the silk supply chain, a national body – such as the proposed Silk Board – is a much needed mechanism to drive closer collaboration between the sector's stakeholders. The establishment of purchasing units in key weaving communities has proven to be a useful model for sourcing inputs and lowering costs for weavers. However, greater integration in the regional supply chain is needed to ensure traceability of finished products and to target high-value export markets.

Possible Actions to address some of the sector's current limitations and opportunities for further significant progress are identified in the Trade SWAp Roadmap under Outcome #16.

Chapter 17

SKILLS FOR EXPORTS

Introduction

The Youth Employment Challenge

Cambodia has a young population. Nearly 60 percent of the population is younger than 25. With an estimated 300,000 to 400,000 young job seekers entering the Cambodian work force each year, the size of Cambodia's labor market might nearly double in ten years. While up to date and accurate unemployment and under-employment data are hard to come by, it is quite likely that youth unemployment (15 – 24 years) is significantly higher than overall unemployment and that under-employment is likely significant across all age ranges. Clearly, ensuring youth have access to good jobs with solid wages to young people is possibly the most significant challenges for Government in the coming years. In the words of a Senior Government Official, "We are entering a new phase in Cambodia. Young people don't want decent jobs. They want good jobs and high wages. We need strategies that are sustainable and relevant to Cambodia."[362] To ensure that young people can compete in the new workplace and in the ASEAN Economic Community, Cambodia's education system must make sure it prepares youth with both the **occupational qualifications**they need in their future job and the **foundation soft/core skills**, including literacy, numeracy, communication, team work, and other skills that will enable life-long learning. Life-long learning is critical to maintaining a competitive workforce as a whole and to ensuring that each individual can grow in the workplace.

Skill "Shortages" and Skill "Gaps"

Despite this large new labor supply, paradoxically Cambodian employers and investors are facing **labor shortages (**also referred as "**skill shortages**" or **"occupational shortages"**in this chapter.) Employers are often hard-pressed to find and recruit enough individuals with the set of occupational skills required for the jobs they need to fill. This is compounded by high labor turnover rates in industries, in particular in low and medium skilled jobs. There is increasing competition among employers to find workers. While competition should inherently lead to better wages and working conditions to fill the shortage of labor and, in turn, lead to a lowering of labor turnover, this does not appear to be happening systematically. This suggests that wages are simply being raised slightly to attract workers, in the absence of considering broader challenges and the need to retain workers. Employers also refer to attractiveness of industry, work place environment, and working schedules as a challenge to attract workers to their industry. This suggests a lack of information as well as vulnerability of individual sectors to general news and publicity on sectors and their stability.

In addition to **labor (or "skill") shortages**, firms are confronting a **"skill gap."** The skill gapis simply the distance between the skills brought by the individual recruited by the firm or already employed by the firm and the skills demanded by the position the individual occupies. This skill gap reflects the mismatch between the full set of skills required from the individual to master his or her job and the set of "hard" ("occupational") skills the individual has acquired through technical/vocational or higher education training or simply on the job as well as the "foundation soft/core skills" acquired through education, from earlier work experience, or even from life experience. In that regard, robust, hard (occupational) skills are a challenge, but foundation soft/core skills – e.g. problem solving ability, ability to use common sense and take initiative, work ethics, intrinsic motivation, numeracy, literacy, communications, etc. – are possibly even more of a challenge. Cambodian employers stress that soft/core skills, in particular, are those that enable the workforce to flourish in an industrial environment. While these skills are essential in high skilled jobs (supervisory and management positions, etc.) where problem solving and decision making have a direct impact on business, they are found lacking also even at lower rungs of the labor market. Absent those, the ability of employers to train individuals in occupational skills they may lack and to promote young people into more senior positions will be limited. Soft/core skills are the key to life-long learning and training.

Education and Training

Cambodia's workforce starts out with what can be described as "an improving, but still weak educational foundation." To truly compete in a global and ASEAN environment, Cambodia needs to take both a medium term and long term view of skills building. It must ensure versatility of the workforce including addressing health and nutrition challenges. As a priority, the focus on ensuring continued improvement in primary and secondary education is essential including improving foundation soft/core skills such as literacy and numeracy, communications and team work skills, or language skills. This will have a marked impact on employability of young people and their ability to be trained and retrained in the future.

In addition, access to relevant training and diversified education pathways are very much needed and currently largely lacking. This is true both before entering the labor market and once in the labor market. Traditionally, employers have built their workforce through on the job training and internal training mechanisms and have not relied on public or private training services whether higher education or others, to provide them with a supply of trained workers. The workforce has gained experience and skills as industries have grown. However, this leaves workers at a disadvantage in terms of skills flexibility and adapting to new industries and technologies, as they are limited to the industry or enterprise they work in. There is a need to make available and disseminate new and more diverse training institutions and providers more broadly to industry.Furthermore ensuring quality of those new and more diverse training institutions and providers is critical. ASEAN standards should be used as benchmark for a minimum level of quality that should be expected from new TVET institutions or from strengthened university, TVET, or grade-school educational institutions in Cambodia.

As suggested in the previous chapters, Cambodia's export sectors are among the leading job-creator sectors. Going forward, the challenge to ensure their continued development is to make sure they are not held back by **skill shortages** and **skill gaps** and that they can indeed create the "good jobs and high wages" demanded by the younger generations.

The following main sections in this chapter consolidate what has been learned about the skill challenge confronted by employers in each of the ten priority export sectors through a field survey of employers in each sector. The skills need survey was conducted during June and July 2013 using a detailed structured questionnaire instrument with the five to ten largest employers in each sector. The focus of the survey was on identifying skill gaps and bottlenecks and how to overcome challenges. Specifically, it identified skill shortages and skill gaps at the low-, medium-, and high-skilled levels, current training resources including on-the-job training (OJT), vocational and technical education (TVET), university education, as and how individual sectors are addressing their needs. Additionally, published studies were reviewed to complement the survey findings. In this chapter, skills are broadly classified using the internationally accepted ISCO 88 major occupational groupings.[363]

Thereafter, the chapter highlights skill needs and possible responses to meet the challenges identified in the ten sectors. Possible actions to respond to the challenges are identified in the Trade SWAp Roadmap.

A short Annex follows the main body text of the chapter. It looks briefly at issues of Industrial Labor Relations, Working and Living Conditions, and Productivity and their linkages to the skill issues addressed in the chapter. Some conclusions and possible actions are also drawn from the Annex and reflected in the Trade SWAp Roadmap.

Garments and Footwear

Employment

The garment and footwear sector together employed approximately 440,000 production line workers, supervisors, and professionals in the formal exporting sector and in subcontracting factories: approximately 65,000 in footwear and 373,000 in garments. Ninety percent of the workers in the garment sector are women, most of them coming from rural areas. The same applies to footwear sector, although there are a growing number of young men working in footwear factories, given the nature of work and machinery used. The garment and footwear sectors are covered by minimum wage and agreements negotiated with the Garment Manufacturers Association of Cambodia (GMAC.) If 2012 and 2013 are any indication, employment in the sector will continue to grow at a robust pace.[364]

363

ISCO 88 major occupational groups	Skill level	For this study
1. Managers	3+4	High
2. Professionals	4	
3. Technicians &associate professionals	3	
4. Clerical support workers	2	Medium
5. Service and sale workers		
6. Skilled agricultural, forestry, and fishery workers		
7. Craft and related trades workers		
8. Plant and machine operators, and assemblers		
9. Elementary occupations	1	Low

364 See chapters 7 and 8

Sector Structure

GMAC is the umbrella organization for garment and footwear manufacturers/exporters. According to the Association there are around 428 garments exporting factories and 47 footwear factories. Exporting factories are highly unionized.

Subcontractors, which are generally not members of GMAC, are estimated to be around 37 although the numbers might be higher. Generally these factoriesare not unionized; however they will follow trends in the exporting factories. Subcontractors are not organized in an employer group at present; however they are represented through different business associations.

Cambodia has approximately 2765 unions, 76 Federation of Trade Unions and 12 Union Chambers registered. The majority of the unions are active in the garment sector. The sector has been plagued by strikes and industrial unrest in 2013 after a relatively peaceful 2012. The union movement in general remains young and unstructured, but is becoming more organized.

Sector Vulnerabilities

The sectors are vulnerable to external economic and general political stability. For example, following the July 2013 elections, around 20 percent of the workforce did not return to work immediately after elections leaving the garment sector in particular with lags in filling orders. To a lesser degree, such loss of workers can also occur during harvesting season or other agriculture seasonal needs, during key national holidays, or because of some other external factors. For example, during the financial crises, a large portion of workers were laid off and returned home. Some found employment in the hospitality and entertainment sectors and never returned to the garment sector.

Workers on the production floor in particular, are generally not very versatile in their skill and have difficulty in adapting to other types of industrial environments.

Working Hours and Wages

General working hours are eight hours a day with two hours overtime, up to 48 hours per week over a six-day working week. Minimum wage in the sector is $81 and reaching just around $100 with mandatory benefits. The $81 dollar minimum wage is an increase of 35 percent on the previous minimum wage of $60 dollars in 2012. While wages are set and agreed at the Labor Advisory Committee (LAC) which is tripartite in nature, a new committee has been established to investigate wage levels in Cambodia. It is estimated that wages will increase again in 2014. Unions are targeting a $150 to $200 dollar minimum wage, which would be nearly double the current minimum wage.

Table 17.1 compares wages in the Cambodian sectors with those available in neighboring countries.

Table 17.1: Monthly Wages in Garment and Footwear Sectors, Cambodia vs. Neighbors, 2012	
Cambodia	Minimum wage $80/month plus allowances and bonuses nearly **$100**/month for a production worker excluding productivity pay. Supervisory and other production staff, from $150 to $300. Other clerical personnel from $220 to $350. Management personnel $800 and up.
Thailand	As of January 1, 2013, the minimum wage in Thailand is set at $10.34 per day. Based on a 26-day work-month, **$268.84** per month.
Indonesia	Minimum wages across all provinces, increased by an average of 18 percent in 2013 and 20 percent in 2012. Minimum wages currently range from **$226.50**per month in Jakarta to **$85.45** per month in Central Java.
Vietnam	Minimum wage increased 26.8 percent on average in the years 2006-2010. The minimum wage ranges from **$79.12** per month in remote areas to **$112.68** per month in the key cities of Hanoi, Haiphong, and Ho Chi Minh City.
Laos	The national minimum monthly wage for private employees in Laos nearly doubled from **$43.50 to $78.15** in 2011, with the government also requiring employers to provide each employee **$1.10** as a meal allowance per day.
Myanmar	There is no general minimum wage in Myanmar, yet standards exist for certain sectors. For example, public employees are paid a minimum of **$56.80** per month and day laborers are required to be compensated at least **$2.30** per day. Discussions with employers note that factory workers earn around **$35.00** to **$45.00** per month.
Source:*http://www.aseanbriefing.com/news/2013/04/16/minimum-wage-levels-across-asean.html*Posted by *ASEAN Briefing*, April 16, 2013	

Labor Standards

All exporting garment and footwear factories are monitored by the Better Factories Cambodia (BFC) program. It is a mandatory requirement for exporting. The program monitors factories according to the Cambodian Labor Law, which reflectsinternational labor standards.

Occupational Shortages and Skills Gaps

Table 17.2 provides a summary of current occupational shortages and soft skill gaps in garment and footwear manufacturing.

Table 17.2: Occupational Shortages and Foundation Soft/Core Skill Gaps in the Garment and Footwear Sector			
	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	Sewing machine operators Multiple machine operators Shoe makers Laborers	C&T workers Compliance staff Electricians and mechanical technicians Mechanics Health and safety compliance officers Markers & pattern makers Multi-skilled operators Pattern makers Quality control and assurance officers Shoe makers Technical supervisors Production line supervisors	Accountants Compliance officers Industrial engineers Industrial relations professionals Merchandisers Sourcing Buyers Mechanical and electrical engineers Middle managers Production managers Technical managers and controllers
Reasons for Labor Shortages	Difficulty in accessing and attracting labor to sector is the overwhelming challenge Lack of industry-specific training and education Lack of industry attractiveness as perceived by workers Unrealistic expectations of potential entrants with low skills and education levels Lack of career growth prospects as perceived by workers Low wages, as perceived by workers, and migration to higher wage jobs Long working hours and difficult work place environment Competition among employers Access to housing and support facilities an issue		
Foundation Soft/Core Skill Gaps	Lack of cross cultural understanding Maturity Common sense Literacy/numeracy skills Lack of team working skills Manual dexterity Lack of flexibility in attitudes and approaches Ability to communicate effectively General language proficiency Communication skills	Lack of cross cultural understanding Maturity C common sense Literacy/numeracy skills Problem solving skills Weak decision making capacity Lack of initiative Public speaking Lack of team working skills General language proficiency (multiple languages) Communication skills	Lack of cross cultural understanding for business purpose Maturity Common sense Literacy/numeracy skills Problem solving skills Weak decision making capacity Lack of initiative Public speaking General language proficiency (multiple languages) Communication skills
Source: CTIS Skill-Need Survey of Employers, 2013 and, National Employment Agency and International Labor Organization Survey.			

Expected Occupational Demand

Table 17.3 shows expected skill demand over the coming five years based on the assumptions that the

Table 17.3: Expected Occupational Demand in Garment and Footwear Sectors, 2014-2018			
	Low Skill	**Medium Skill**	**High Skill**
Very low growth	--	--	--
Low growth		--	Low growth
Medium growth	Medium growth	--	--
High growth	--	High growth	--
Very high growth	--	--	--
Source: Chapters 7 and 8			

Light Manufacturing Assembly and SEZs

Employment

Light manufacturing sector was estimated to employ 10,000 in 2012 of which 7,000 worked in SEZs. SEZ employment and light manufacturing jobs can be expected to grow significantly and quite rapidly in the coming five years.[365]

Sector Structure

In the absence of an appropriate census, the number of factories in the sector, inside and outside SEZs, is not available. There are 45 light manufacturing facilities in the eight SEZs in operations. A number of factories are unionized. There is no employer association for this sector. Some investors are members of the Cambodian Federation of Employers and Business Associations (CAMFEBA) and other business associations. In addition, SEZs managers have their own association.

Sector Vulnerabilities

Most firms in the sector are tied to global or regional production chains. Work orders are influenced by global and regional consumer demand for the final product. Image of the sector is not tainted by strikes at present.

Working Hours and Wages

Working hours and wages in the sector are pegged on those prevailing in garments.

Occupational Shortages and Skills Gaps

Table 17.4 provides a summary of current occupational shortages and soft skill gaps in light manufacturing assembly.

[365] See Chapter 9

Table 17.4: Occupational Shortages and Foundation Soft/CoreSkill Gaps in Light Manufacturing Assembly			
	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	Machine operators based on the nature of enterprise	Multi-skilled machine operators Compliance staff Electrical and mechanical technicians Health and safety officers Mechanics and maintenance operators Quality control and assurance officers Technical supervisors Production line supervisors	Accountants Compliance officer Industrial engineers Industrial and labor relations Middle managers Production and planning managers Logistics personnel and managers Technical staff (based on nature of enterprise – drafting, design, etc.)
Reasons for Labor Shortages	Difficulty in accessing and attracting labor to sector is the overwhelming challenge Poor basic education foundation Lack of industry-specific training and education Lack of industry attractiveness as perceived by workers Unrealistic expectations of potential entrants with low skills and education levels Lack of career growth prospects as perceived by workers Low wages, as perceived by workers, and migration to higher wage jobs Long working hours and difficult work place environment Competition among employers Availability of housing facilities nearby SEZs can be a problem		
Foundation Soft/Core Skill Gaps	Poor work ethics Poor education foundation Lack of cross cultural understanding Maturity Common sense Literacy/numeracy skills Weak manual dexterity Lack of technical and practical skills Lack of team working skills	Lack of cross cultural understanding Weak communications skills (reading and writing) and limited ability to follow instructions Foreign language ability General language proficiency Maturity Common sense Literacy/numeracy skills Weak manual dexterity Problem solving skills Weak technical skills Lack of initiative	Lack of cross cultural understanding Maturity Common sense Literacy/numeracy skills Lack of problem solving skills Lack of initiative Foreign language ability General language proficiency
Employer Comments	Employers perceive that the causes for occupational shortages and skill gaps are inappropriate link of the education to the industry needs and no training facility to supply the skilled labor for the industry as well as poor general quality of education from the primary education and unrealistic expectations of new entrants with the realities of the workplace. Employers see a commitment by Government to improving the quality of TVET education and curriculums as critical to meeting the demand for skills required by the industry. Public Private Training Partnerships are seen		

	as appropriate ways to resolve the skill development problem. Employers see the need for industry linkages with universities and TVET programs to enhance the quality of current education. Improving the quality of general education in Cambodia is essential. Basic general education among youth is perceived as poor and work ethics as very weak.
Source: CTIS Skill-Need Survey of Employers, 2013	

Expected Occupational Demand

Table 17.5 shows expected skill demand over the coming five years based on the assumptions that the sector will continue to grow very rapidly.

Table 17.5: Expected Occupational Demand in Light Manufacturing Assembly, 2014-2018

	Low Skill	Medium Skill	High Skill
Very low growth	--	--	--
Low growth		--	Low growth
Medium growth	--		--
High growth	High growth	High growth	--
Very high growth	--	--	--
Source: Chapter 9			

Agro-Processing and Fisheries Sectors

Employment

In 2010 there were more than 31,400 registered SMEs (capital less than $3,000 – many household operations) in Cambodia's processed food, beverage, and tobacco sector, employing more than 93,700 people. In contrast, there were only 56 large investments registered with MIH (30 Processed Food Factories; 15 Beverage factories; 11 Tobacco Factories – employment number in those unavailable.)[366]

FiA statistics for 2009 suggest that over 420,000 people were generating some earnings from the fisheries sector on a part-time or full-time basis. However, inland fish catching and processing is an activity often combined with others by farmers that might also be growing rice, corn, cassava or other crops. The labor force involved in the marine fishery sector, including fishing, gathering, processing, and marketing, is estimated to be only 20,000 people (20 percent of the coastal inhabitants).[367]

[366] Chapter 10
[367] Chapter 11

Sector Structure

The two sectors are not well structured on the private sector side. Larger actors will be members of the Phnom Penh Chamber of Commerce. The sectors are largely outside the reach of labor unions. Community fisheries are one element of structuring among small inland fisheries.

Sector Vulnerabilities

The constraints and weaknesses of the industry include the lack of supporting industries, food processing technology and skills, sanitation and hygiene knowledge, market analysis and marketing information, as well as the lack of high quality infrastructure especially for storing and packaging, an unreliable supply of raw materials, and low level of competitiveness due to high operating costs.[368]

Working hours and Wages

Because the sectors are dominated by individuals and small scale processors, earnings and working hours vary greatly.

Occupational Shortages and Skills Gaps

Table 17.6 provides a summary of current occupational shortages and soft skill gaps in the agro-processing and fisheries sector.

Table 17.6: Occupational Shortages and Foundation Soft/Core Skill Gaps in Agro-Processing and Fisheries

	Low Skill	Medium Skill	High Skill
Occupational Shortages	Low skilled operators of basic machinery Low skilled workers with basic understanding of hygiene and cleanliness	Health, hygiene, and safety technicians Electrical and mechanical technicians Operators of food related machine Mechanics Operators of steam machinery and boilers Quality control officers Qualified personnel in storage methods for freshness and loss minimization Qualified personnel in packaging	Chemical and food safety technicians Chemical engineers Personnel specialized in products and production health and safety Business managers Factory managers Electrical and mechanical engineers Process control technicians Technical supervisors Production line supervisor Quality control supervisors Advertising and marketing professionals Research and Development professionals

[368] See Chapters 10 and 11

Reasons for Labor Shortages	Competition among employers Lack of sector-specific training and education Difficulties in finding individuals with basic training in food preparation and hygiene Institute of Technology of Cambodia (ITC) has a food technology course with few graduates Lack of industry attractiveness as perceived by workers Lack of career growth prospects as perceived by workers Poor basic educational foundations Low wages, as perceived by workers, and migration to higher wage jobs Difficult work place environment and long working hours **Need for supporting infrastructure including housing, health care, transportation etc. to attract workers to work in agro-processing or fisheries plants.**		
Foundation Soft/Core Skill Gaps	Lack of understanding of basic food hygiene, cleanliness, storage, and packaging Lack of understanding of loss minimization Weak basic literacy and numeracy Work ethics Lack of cross cultural understanding Maturity Common sense Weak manual dexterity Weak technical and practical skills Lack of team working skills	Lack of understanding of basic food hygiene, cleanliness Lack of understanding of packaging, storage and loss minimization Basic education poor Lack of cross cultural understanding Weak communication skills including reading and writing and ability to follow instructions General language proficiency Foreign language ability Maturity Common sense Literacy/numeracy skills Weak manual dexterity Weak problem solving skills Weak technical and practical skills Lack of initiative	Weak cross cultural understanding for business purpose Weak communication skills Foreign language ability General language proficiency Maturity Common sense Literacy/numeracy skills Weak manual dexterity Weak problem solving skills Weak technical and practical skills Lack of initiative

Source: CTIS Skill-Need Survey of Employers, 2013 and, National Employment Agency and International Labor Organization Survey.

Expected Occupational Demand

Table 17.7 shows expected skill demand over the coming five years based on the assumptions that the sector will grow at a medium rate.

Table 17.7: Expected Occupational Demand in Agro-processing and Fisheries, 2014-2018			
	Low Skill	**Medium Skill**	**High Skill**
Very low growth	--	--	--
Low growth	--	--	--
Medium growth	Medium growth	Medium growth	Medium growth
High growth	--		--
Very high growth	--	--	--
Source: Chapters 10 and 11			

Milled Rice

Employment

Estimates of numbers of workers employed in rice mills are not available. That is also true of modern rice mills targeting export markets. It is estimated that a rice mill employs around nine to15 full-time people. Rice millers, as well as supporting transportation, freight forwarding, and service sectors, also employ large numbers of part time workers during harvest seasons. Large employment is at the farm level, accounting for millions of jobs during peak harvest seasons.

Sector Structure

Rice millers have a large number of associations. The largest millers are also organized under the Federation of Cambodian Rice Exporters (FCRE.) The sector is not unionized.

Sector Vulnerabilities

Sector is vulnerable to weather conditions and international food prices.

Working Hours and Wages

Salaries in mills are adequate for full time professionals however but at the minimum wage level for part-timers and laborers. Working hours vary based on the season and are not monitored.

Occupational Shortages and Skills Gaps

Table 17.8 provides a summary of current occupational shortages and soft skill gaps in the milled rice sector.

Table 17.8: Occupational Shortages and Foundation Soft/CoreSkill Gaps in Rice Mills			
	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	Laborers are hard to recruit	Milling machine operators Electrical and mechanical technicians Machine mechanics Quality control and quality assurances technicians to control variety of rice SPS assurance officers Semi-skilled logistics personnel	Engineers Experienced general managers Marketing and sales professional with international business understanding Operations managers Professionals with training in quality control, SPS, standards
Reasons for Labor Shortages	Although all skill levels are difficult to recruit, access to medium skill talents is a special challenge for the sector. Very difficult to find trained and experienced workers in this area. The causes for high, medium, and low skill occupational shortages are often attributed to poor educational or vocational training of candidates, difficulties in attracting people to the sector due to wages level that are often not competitive with other sectors, irregular working hours and schedules in the industry. Surveyed rice millers are unaware of the existence of educational/training programs and providers that could supply the sector with the appropriate supply of entry level talents or retrain current staff. Their perception is that there is an overall shortage of skilled labor force to staff the sector. Employers and workers lack access to information on labor market and employment opportunities.		
Foundation Soft/Core Skill Gaps	Basic and simple skills and competencies for industry Weak basic communication Weak common sense Very poor educational foundations: weak literacy and numeracy skills Simple problems solving skills Weak team working skills. Lack of maturity	Poor educational foundations Weak communication skills Weak literacy and numeracy skills Limited computer literacy Weak common sense Weak problems solving skills Team working skills General language proficiency Foreign language ability Maturity Lack of initiative	Lack of cross cultural experience and international business experience Unrealistic expectations General language proficiency Foreign language ability Weak problem solving skills and exposure Lack of initiative Weak maturity
Source: CTIS Skill-Need Survey of Employers, 2013			

Expected Occupational Demand

Rice milling continues to attract investors and its impact on GDP will continue to grow in the future. However, the milled rice sector is not a large employer, even if larger, modern mills may have larger number of employees. The main area of employment in the rice sector is rice farming.

The primary areas for job growth in rice milling are likely to be among mechanics that can repair modern machinery, electricians and mechanical technicians, staff associated with sales and logistics, and staff dealing with quality and hygiene/SPS.

Table 17.9: Expected Occupational Demand in Exporting Rice Mills, 2014-2018			
	Low Skill	**Medium Skill**	**High Skill**
Very low growth	--	--	--
Low growth		--	--
Medium growth	Medium growth	Medium growth	Medium growth
High growth	--	--	--
Very high growth	--	--	--
Source: Chapter 12			

Cassava

Employment

While the bulk of employment in cassava is among growers, there is a large amount of semi-processing done at the farm level or small scale level.

Sector Structuring

The sector is largely unstructured and there is no organization large enough to structure the sector around points of common interest.

Sector Vulnerability

The sector is nearly 100 percent export-focused and highly vulnerable to international prices and demand. It is also vulnerable to possible environmental degradation of soil and water unless systems are put in place to mitigate those risks. Sustainability is in focusing on formal export markets (China, Korea, others) but those markets have strong SPS requirements.

Working Hours and Wages

Working hours are highly influenced by harvest requirements. Wages are a function of international market prices for cassava.

Occupational Shortages and Skills Gaps

Table 17.9 provides a summary of current occupational shortages and soft skill gaps in the cassava sector.

Table 17.10: Occupational Shortages and Foundation Soft/CoreSkill Gaps in Cassava			
	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	Laborers	Trained farmers Machine operators for processing plants Electrical and mechanical technicians Machine mechanics QC/QA technicians with focus on SPS Logistics semi-skilled personnel	Mechanical and electrical engineers Managers Marketing and sales professionals Professionals with international business understanding Operations managers Professionals with training in quality control, SPS, standards
Reasons for Labor Shortages	Lack of sector attractiveness as perceived by workers Low wages, as perceived by workers, and migration to higher wage jobs Difficult work place environment and long working hours High dependency on Thai and Vietnamese expertise to fill gap		
Foundation Soft/Core Skill Gaps	Weak common sense Very poor educational foundations: weak literacy and numeracy skills Lack of simple problems solving skills Lack of understanding of very basic principles of hygiene/SPS Lack of knowledge of very simple environmental mitigation measures	Poor educational foundations Weak communication skills Weak literacy and numeracy skills Weak common sense Weak problems solving skills Lack of initiative Lack of knowledge of basic principles of food hygiene/SPS Lack of knowledge of environmental mitigation measures	Lack of international business experience in the cassava sector Weak communications skills Unrealistic expectations General language proficiency Foreign language ability Weak problem solving skills and exposure Lack of initiative Maturity Lack of knowledge of principles of food hygiene/SPS
Source: CTIS Skill-Need Survey of Employers, 2013			

Expected Occupational Demand

Occupational demand in the sector is hard to predict because prospects for expansion might be determine largely by fluctuating global demand. In addition, sustainability of the sector will be determined in large measure by Government's efforts to establish and implement a policy to support the sector's transition from informal exports (dominant at present) into formal exports.

Table 17.11: Expected Occupational Demand in Cassava, 2014-2018			
	Low Skill	**Medium Skill**	**High Skill**
Very low growth	--	--	--
Low growth	--	--	--
Medium growth	Medium growth	Medium growth	Medium growth
High growth	--	--	--
Very high growth	--	--	--
Source: Chapter 13			

Rubber

Employment

The sector employed approximately 40,000 in 2007, including 18,500 smallholder families. Given the very rapid growth in output since then, employment might have nearly doubled since then and is expected to grow very fast in the medium term as large quantities of new trees already planted are expected to start producing. In the coming years, the majority of the sector's output will be generated by large plantations operating in land concessions.

Sector Structuring

There is no employer organization. The sector is not unionized.

Sector Vulnerability

The sector is highly internationalized as natural rubber is sold to clients in countries with processing capacity. It is vulnerable to global demandand international prices.

Working Hours and Wages

Working hours tend to be long. Information on wages is not available.

Occupational Shortages and Skills Gaps

Table 17.12 provides a summary of current occupational shortages and soft skill gaps in the natural rubber sector.

Table 17.12: Occupational Shortages and Foundation Soft/CoreSkill Gaps in Natural Rubber			
	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	Laborers	Workers with tapping skills Workers with experience in planting and tree maintenance Machine operators Electrical and mechanical technicians Machine mechanics QC/QA technicians with focus on grading	Mechanical and electrical engineers Managers Marketing and sales professionals Professionals with international business understanding of the natural rubber sector Operations managers Professionals with training in quality control, grading, semi-processing, packaging
Reasons for Labor Shortages	Lack of sector attractiveness as perceived by workers Low wages, as perceived by workers, and migration to higher wage jobs Long working hours High dependency Vietnamese expertise to fill gap		
Foundation Soft/Core Skill Gaps	Weak common sense Very poor educational foundations: weak literacy and numeracy skills Lack of simple problems solving skills Maturity	Poor educational foundations Weak communication skills Weak literacy and numeracy skills Weak common sense Weak problems solving skills Lack of initiative	Lack of international business experience in the rubber sector Weak communications skills Unrealistic expectations General language proficiency Foreign language ability Weak problem solving skills and exposure Lack of initiative Weak maturity
Source: CTIS Skill-Need Survey of Employers, 2013 and, National Employment Agency and International Labor Organization Survey			

Expected Occupational Demand

Occupational demand in the sector will be driven in good part by the Government's success in formulating and implementing a sector policy within the framework of the Rubber CLV Development Triangle. If it does, this could lead do robust growth over the next five years

Table 17.13: Expected Occupational Demand in Natural Rubber, 2014-2018			
	Low Skill	**Medium Skill**	**High Skill**
Very low growth	--	--	--
Low growth	--	--	--
Medium growth	--	--	Medium growth
High growth	High growth	High growth	--
Very high growth	--	--	--
Source: Chapter 14			

Tourism

Employment

The tourism sector was estimated to employ directly around 620,000 people in 2011 (around 8.1% of the total workforce.) According to the Ministry of Tourism, there 476 hotels (26,484 rooms) and 1,142 guesthouses (16,752 rooms), 1,024 restaurants, 589 travel agencies and tour operators in 2011, and 3,230 licensed tour guides (including 422 women) in 2010.

In addition, there are approximately 14,000 Tuk-Tuk drivers; 6,000 in Siem Reap (50 percent are migrants from nearby provinces such as Kampong Thom, Oddar Meanchey, Kampong Cham) and 8,000 drivers in Phnom Penh (almost all migrants from provinces such as Prey Veng, Takeo and Kampong Cham.) There are 32 tourist transport companies registered with Cambodia MoT and many more, unregistered. There are eight waterway transport companies. Twenty one "scheduled" airlines serve Cambodia, including one domestic airline. There is one "chartered" airline.[369]

Through linkages and indirect multiplier effect, the sector may impact the earnings of about 1.5 million people.

Sector Structure

Employers are organized in a Cambodia Hotel Association, Cambodia Restaurant Association, and a Cambodia Travel and Tour Agency Association. There is also a newly formed Cambodian Chef Associations. Part of the sector is unionized and there are instances of strikes, but limited at present.

Sector Vulnerability

The relative importance of international visitors from Northern countries has declined. Visitors from neighboring countries (Vietnam, Lao PDR, and Thailand) and other Asia (China, South Korea, Japan) now dominate the market. Tourism is highly dependent on broader trends in consumer demand in the

[369] Ministry of Tourism, *Annual Report*, Phnom Penh: MoT, 2011 and www.Khmerbird.com, September 19, 2011

global economy. The recent slowdown in Asian markets may have some impact on the rate of growth of the Cambodian sector.[370]

Working Hours and Wages

There are no minimum wages in the sector. Monthly salaries can start as low as $45 to $60 for trainees or entry level workers with limited skills. Most establishments need to service 24 hours, particular hotels. In larger and formal establishments, shift work prevails; in informal or SME sectors, workers may be asked to work extended hours.

Occupational Shortages and Skills Gaps

Table 17.14 provides a summary of current occupational shortages and soft skill gaps in the tourism sector.

Table 17.14: Occupational Shortages and Foundation Soft/CoreSkill Gaps in Tourism

	Low Skill	Medium Skill	High Skill
Occupational Shortages	Housekeeping workers Helpers Bell boys Concierge Security guards	Cooks and culinary staff Food and Beverage staff Front office staff Booking, sales and marketing positions Supervisory positions in all functions (front desk, housekeeping, restaurant) Mechanics and maintenance staff Waiters and waitresses	Chefs Engineers Electricians Mechanical technicians General Managers Sales and customer services
Foundation Soft/Core Skill Gaps	Very poor educational foundations Basic and simple skills Maturity Weak common sense Weak problem solving	Weak common sense Weak communication skills Limited knowledge of General language proficiency Foreign language ability Lack of experience Maturity Weak problem solving Lack of initiative Customer services	Weak educational foundations and outsized expectations Weak cross cultural experience General language proficiency Foreign language ability Weak life experience Limited problem solving skills Weak ability to take initiative Maturity General language proficiency
Reasons for Labor Shortages	Particularly difficult to access medium skills talent in the sector. Labor shortage and insufficient skills are the biggest constraint to growth of the sector. Lack of number of graduates graduating from good training institutions, from TVET particularly. Employers would prefer hiring better trained candidates from TVET with a realistic understanding of industry than from universities. Potential workers have outsized expectations from the sector and are reluctant to work long schedules and hours.		

[370] See chapter 15

	Current workers migration to other sectors expecting to find higher wages Lack of access to good labor market information The NEA ILO survey notes that 20 to 23 percent of employees in the hospitality sector were considered to have a skills gap (meaning the skills they brought to the position were insufficient to meet employers' requirements.) Skill gaps were reported the most in occupations such as cleaners and helpers (18 percent of total occupations with skill gaps), waiters (17 percent), cleaning supervisors (14 percent), and hotel receptionists (9 percent.) Collectively they accounted for 58 percent of all occupations with skill gaps. Reasons for the skill gaps included (1) primarily the lack of employee motivation and/or lack of experience; and. (2) general language proficiency, including foreign languages which is a crucial in the hospitality sector. The survey also noted the largest occupational shortages were among Chefs, tour guides, customer service professionals, tour operators, and marketing and sales personnel.
Source: CTIS Skill-Need Survey of Employers, 2013; and, National Employment Agency and International Labor Organization Survey	

Expected Occupational Demand

If the industry is to meet the six million international visitors target by 2018 it could nearly double in size from its 2012 level. However, this is likely to be dependent on the ability of training institutions to deliver the quality and quantity of required skilled workforce. Most likely, the most critical needs area will be staffing of hotels and restaurants. The knock on effect of growth in the hotel and restaurant sub-sectors may be significant on other home based industries that caters to tourists, especially if the length of stay of visitors start rising again.

Table 17.15: Expected Occupational Demand in Tourism, 2014-2018

	Low Skill	Medium Skill	High Skill
Very low growth	--	--	--
Low growth	--	--	--
Medium growth	--		--
High growth	High growth	High growth	High growth
Very high growth	--	--	--
Source: Chapter 15			

High Value Silk Products

Employment

The sector employs approximately 1,000 silk work breeders and over 20,000 weavers. The great majority of weavers are women.

Structuring of the Sector

The sector is organized in communities of breeders of weaves. There are 39 communities of silk weavers. There are some associations such as Khmer Silk Village (KSV.) A number of the communities have organized purchasing units to help them with securing yarn at a reasonable price and of good quality. Middle-persons and agents, working for buyers, contract for work and often provide design.

Sector Vulnerability

The sector relies on international visitors and exports of silk products. So it is influenced by trends in the tourism sector and in global consumer demand. Capacity for design and innovation remains limited. Exporters and retailers need to develop their marketing skills. There is a need protect Cambodian designs.

Working Hours and Wages

Working hours for weavers can be long when they are busy with orders. But it is a function of orders. Wages of weavers vary but monthly income can be a little higher than the prevailing minimum wage in the garment sector. The tendency is to follow the trend in the garment sector. Typically, weavers will be provided with lunch.

Occupational Shortages and Skills Gaps

Table 17.16 provides a summary of current occupational shortages and soft skill gaps in the high-value silk sector.

Table 17.16: Occupational Shortages and Foundation Soft/CoreSkill Gaps in High-Value Silk Product Sector

	Low Skill	**Medium Skill**	**High Skill**
Occupational Shortages	--	Weavers Purchasing personnel to staff purchasing units Sales staff in retail establishments	Designers Marketing and promotion professionals Sales professionals Sales managers in retail establishments
Foundation Soft/Core Skill Gaps	--	Passing down traditional skills to new weavers is becoming an issue General language proficiency Ability to take initiatives Creativity -	Communication and networking General language proficiency Foreign language ability
Reasons for Labor Shortages	Migrating for better wages in the region, in particular the weavers at family level. At high skill level, the sector needs entrepreneurs, the sector needs promotion		

Source: CTIS Skill-Need Survey of Employers, 2013

Expected Occupational Demand

Although the silk sector can bring significant, hard-to-quantify value in terms promoting Cambodia's cultural heritage and while the sector should be able to increase its output and value through design and innovation excellence, it is unlikely to see high growth in the near future.

Table 17.15: Expected Occupational Demand in High Value Silk Product Sector, 2014-2018

	Low Skill	Medium Skill	High Skill
Very low growth	--	--	--
Low growth	--	Low growth	Low growth
Medium growth	--		--
High growth	--	--	--
Very high growth	--	--	--

Source: Chapter 16

The State of the Training Infrastructure in the Ten Export Sectors

Table 17.16 below provides an overview of the training infrastructure in the ten export sectors. The main lessons are quite obvious. Cambodia's sector-specific training infrastructure is extremely weak in all ten sectors. Most sectors continue to depend on limited OTJ training for low and medium skill and "make do" with higher education graduates for higher positions even though their skills are often quite limited. While the absence of a strongly supportive training environment may have placed few limitations on Cambodia's ability to grow most of its export sectors until now, this is unlikely to be the case going forward. As competition intensifies, Cambodia needs to move up the value chain in nearly all sectors so as to improve productivity and capture greater value and, in so doing, be able to match gain in value and productivity with earnings growth of workers. Baring that, competitiveness will decline.

Table 17.16 : Analysis of Training Capacity in the Ten Sectors							
	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	**Number of TVET**	**Quality of Curriculums**	**Strengths**	**Weaknesses**	**Opportunities**	**Threats**
Garments and Footwear	No technical higher education programs, but general business degrees with no sector- specific focus.	No formal TVET provision to garment sector A few individual training and private providers. GMAC has obtained a loan to set up a National Training Center for Garments	The Society for Human Resource Management and Productivity (SHRM&P - www.shrmp.com.kh) has good basic programs but is not an institution. No higher education curriculum specifically focused on the sector. University education is improving, but TVET graduates are considered to be better prepared for the work place with more practical skills and better understanding or expectation of the workplace.	Factories are training their own workforces. Some factories have a training division. O-T-J training is strong in the sector compared to others GMAC has taken a $5 million loan to develop a national training institute	Lack of formal vocational training results in workers losing opportunity for greater earnings as they must train on the job. Secondary school completion rates remain a challenge. Large segments of the workforce illiterate or semi-literate. No higher education programs for the sector, but accounting and management with no sector- specific focus. University education is improving, but TVET graduates are considered to be better prepared with more practical skills and better	Industry-led TVET would address acute labor shortages and build a flexible workforce The industry seems willing to support training PPPs Opportunity to train garment workers through ASEAN accreditation	Workers leaving for higher wages in the region. Industry unable to move up the value chain and while losing competitiveness to countries that have lower labor and production costs (e.g. Myanmar)

Table 17.16 : Analysis of Training Capacity in the Ten Sectors

	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	**Number of TVET**	**Quality of Curriculums**	**Strengths**	**Weaknesses**	**Opportunities**	**Threats**
					understanding or expectation of the workplace.		
Light Manufacturing Assembly and SEZs	No higher education programs that are industry focused. Higher education has only general business and management degrees lacking sector-specific focus Few engineers graduate every year.	The sector is new to Cambodia. Lack of formal training institutions.	No higher education curriculum specifically focused on the industry. University education is improving, but TVET graduates are considered to be better prepared with more practical skills and better understanding or expectation of the workplace.	Availability of land in SEZs to attract training providers. Some SEZ factories have training centers training around 100 – 200 workers/ month, e.g. Bavet. OTJ training is strong or foreign investors use their regional training centers to train Cambodians	Lack of formal TVET training for light manufacturing assembly No formal training centers in the SEZs to support investors No higher education programs for the sector No higher education curriculum focused on the sector	Create PPPs to support training services and TVET inside or outside SEZs Industry seems willing to support training PPPs SEZ training centers could service the region and overseas workers	Lack of motivation and leadership in SEZs to set up supporting services for industry leaving the full burden on investors. Continued shortages of skilled labor has deleterious impact on further integration in regional production networks
Agro-Processing and Fisheries	Only *Institute of Technology of Cambodia* (ITC) focuses on chemistry and food engineering, and Royal University of Agriculture (RUA) has some	Lack of formal TVET training focusing on food processing and engineering FiA extension services have very limited resources	In general, lack of educational and training programs focusing on food hygiene and SPS management (see chapter 4.)	Limited	Lack of universities (except ITC and RUA) or TVET with courses relating to food processing, engineering, hygiene, sanitary controls and related	Invest in R&D and training center for food innovation	Lack of investment in training and processing factories in sector means increasing imports of processed food into Cambodia as

Table 17.16 : Analysis of Training Capacity in the Ten Sectors							
	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	**Number of TVET**	**Quality of Curriculums**	**Strengths**	**Weaknesses**	**Opportunities**	**Threats**
	relevanteducation programs relating to food processing but weak in hygiene and SPS (see chapter 4.)	and capacity to provide training in fisheries processing			lab work. RUA is undertaking a curriculum review and upgrade in plant health, animal health and food safety with TA support from ADB		standard of living increases.
Milled Rice	Small number of universities, including RUA, provide courses relating to rice growing, plant pest and disease control program, capacity to undertake risk assessment, rice milling etc.	No TVET providing training for milling machine operation, post-harvest management, safe storage etc. NGO's working in the sector provide training but no institutionalization (and risk of no sustainability) MAFF extension services lack resources and capacity to provide training	In general, lack of educational and training programs focusing on food hygiene and SPS management (see chapter 4)	Limited	Few training institutions and inadequate training coverage needed by sector. No higher education curriculum specifically focused on the sector. RUA is undertaking a curriculum review and upgrade in plant health, animal health and food safety with TA support from ADB	Create a R&D lab for developing seed and crop varieties and building expertise in this domain	Lack of leadership and strong focus on training and importance of SPS/hygiene training to foster excellence in the sector. Rice Millers unable to meet SPS requirements of importing markets.
Cassava	No formal higher education regarding	No formal vocational training		Very Limited	Shortage of training institutions/courses	TVET and higher education training	Lack of policy, including training

Table 17.16 : Analysis of Training Capacity in the Ten Sectors							
	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	**Number of TVET**	**Quality of Curriculums**	**Strengths**	**Weaknesses**	**Opportunities**	**Threats**
	cassava growing and processing	regarding cassava growing and semi-processing MAFF extension services lack resources and capacity to provide training			for proper training to workers for pest and disease control, post-harvest storage, semi-processing and management (see chapters 4 and 13) No formal higher education and TVET programs focusing on cassava	could help reduce the very large percentage of post-harvest losses TVET and higher education training could help the sector address threats associated with environmental degradation. Failing that, yield will decline.	policy for the sector, put cassava farmers at large risks in the short to medium term. Sustainability of the sector will require moving into formal export channels (e.g. to China, Korea, others.) But those markets have strong SPS requirements that can only be met through training of farmers and processors.
Rubber	No formal higher education focusing on rubber planting, harvesting, and processing	No TVET focusing on rubber planting, harvesting, and processing		Very limited	Lack of technical training focusing on modern cultivation techniques, pest management, and post-harvest handling, or processing OTJ training, provided by processing plants is	Cambodia has great opportunity to become major producer and processor of rubber including through the rubber development triangle. To succeed will require strengthened sector training to improve	With no significant investment in training Cambodia may not be able to meet Government targets for development of sector

Table 17.16 : Analysis of Training Capacity in the Ten Sectors							
	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	Number of TVET	Quality of Curriculums	Strengths	Weaknesses	Opportunities	Threats
					limited because employers face high turnover and are reluctant to invest.	quality at every step from planting to processing.	
Tourism	Higher education institutions have very theoretical hospitality degrees that lack relevance and practical application.	Several TVET institutions that offer the needed skill training for hospitality sector (hotels and restaurant) however with varying degree of strengths among institutions Lack of training institutions for tour operators, guides. MoT has a program to certify tour guides in Siem Reap (public sector provided and accredited) A few NGOs train disadvantaged and poor people for hotel and restaurants but	Higher education training is not practical enough and graduates have unrealistic expectations of hospitality and tourism sector. NGO training lacks consistent, good quality training. Most NGO graduates unable to work in quality establishments MoH will roll out training program to support introduction of Good Hygiene Practice (GHP) rating system for restaurants University education is improving, but	OTJ dominates especially for low and medium skills	Various NGO TVET provides skill training that can be strengthened and more publically accessible Existing programs run by NGOs have limited scope, limited enrollment, do not implement well- established curriculums University education does not prepare youth for the realities of the workplace.	Industry council to inform and coordinate training Two TVET PPPs under development (for Culinary Institute and Tourism Management) but not materialized yet Cambodian people have a strong ability to learn foreign. Develop General language proficiency for tourism. Develop and implement Customer Service Strategy for tourism.	Serious shortage of medium and high skill labor for the sector may lead to further hiring of expat staff from other Asian countries to help grow the sector. Shortage of skill labor slows down the rate of new investment and Cambodia does not meet Government targets for growth in tourism.

Table 17.16 : Analysis of Training Capacity in the Ten Sectors

	Training Institutions			SWOT of Training Institutions			
	Number of Higher Education Institutions	**Number of TVET**	**Quality of Curriculums**	**Strengths**	**Weaknesses**	**Opportunities**	**Threats**
		very small number trained	TVET graduates are considered to be better prepared with more practical skills and better understanding or expectation of the workplace.				
Silk	RUFA (Royal University of Fine Arts) but not focused on silk weaving	No formal TVET training institutions for weaving and silk. Weavers lack formal education. Weaving training is handed down from generation to generation.	Limited knowledge transfer from one generation to the next. Some books document the history of weaving, arts and design	Very limited	No formal TVET No higher education curriculum specifically focused on the industry. Available training is donor-funded with no long term sustainability Women Development Centers have very basic sewing training, but no training for silk weaving	Introduce sericulture program in RUA Create an institution of weaving excellence and design innovation	Weaving occupation declines due to insufficient incomes and women migrating to other better paying jobs. Knowledge transfer disappears

Source: CTIS Skill-Need Survey of Employers, 2013

Conclusion

The skills challenge is a universal one and pertinent to all ASEAN countries, not isolated to Cambodia. There is no question that the employability and competitiveness of the workforce is linked not only to education levels, but, in particular, to the demonstrated occupational skill ability (hard skills) of the individual as well as to his or her interpersonal and soft skills, that in turn enables her or him to compete in the work environment.

The field work and research carried out in conjunction with the preparation of this chapter suggest that, for Cambodia's export sectors to continue diversifying and moving up their respective value chains, there is a clear need to address labor shortages and skills gap through deliberate interventions in a number of strategic areas:

- **First,** there is a needto ensure future competitiveness through *continued improvement in "foundation" education*. Primary and secondary educations are essential in building the soft/core foundation skillsthat the new generation will need to compete in an already diversified economy. Further attention is needed to provide young people as early as primary and secondary education with solid foundation skills ranging from robust literacy and numeracy to communications (including foreign languages), problem solving, or team working skills. Young people leaving secondary education need to be equipped with foundation skills to be able take on employment in the formal sector, be able to re-enter the formal education sector at a later date, and/or benefit from other opportunities of life-long learning which will influence greatly their ability to get ever better jobs as they gain in experience and maturity.

- **Second,**there is a need for immediate, deliberate efforts by Government and employers to *develop a robust, sector-specific TVET infrastructure*to provide young people with more diversified education opportunities that enable them to gain access to good jobs. From discussion with and interviews of employers, such infrastructure will be best received if it develops through public-private partnerships in many of the sectors. Partnership with private sector is arguably essential to leap-frog TVET provision in Cambodia. TVET training needs to be supported through appropriate levels of financing and with private sector inputs. Quality is very important to ensure sustainability and relevance to industry. International and ASEAN standards should be used as benchmarks when developing relevant curriculums.

  The kind of partnership required to build a successful TVET system in Cambodia requires a change in mindsets on both the Government and the Private Sector sides. For the private sector, it means a commitment to getting involved in the process of starting and maintaining TVET programs including through shaping curriculums, providing training internship opportunities for young people, possibly financing some aspects of the programs. For Government, it means accepting to share governance of programs with the private sector, possibly on an equal footing, through Skill Councils, Boards of individual TVET institutions, etc. which is a significant departure from the way Government institutions are used to operatetypically. The recent experience with efforts to establish TVET programs on the basis of Public-Private Partnerships in the two leading export sectors – Garments and Tourism – demonstrates the difficulty in getting the two stakeholders to develop education and training, governance, and financing models that are acceptable to the two key stakeholders.

There are many models of successful TVET infrastructures. Surely, Cambodia will need to find its own model. Box 17.1 presents the experience of Korea in building up its TVET infrastructure. One important point from Korea's own experience is that TVET needs not start after completion of secondary education. Indeed, both the Korean model and some of the best European experiences suggest that successful TVET can begin in the very fabric of secondary education, and then go beyond it.

TVET, as it is known today in Cambodia, is not valued by young people. There is a need coordination and leadership from the Government, including relevant stakeholders such as NEA, MoEYS, and MoLVT to raise the image and value of TVET education. Again, quality of education provided through TVET schemes is critical in that respect. But better information and explaining among young people is also critical. Students should be provided with career counseling throughout secondary and upper education so they can make appropriate decisions on selecting university courses or to enrolling in the TVET programs that will enable them to secure good jobs and find jobs where labor market demand is.

Box 17.1: TVET in the Republic of Korea[371]

The Republic of Korea provides a shining example of how TVET can fuel stellar economic growth. While no model should ever be fully emulated, the South Korean experience offers some key lessons.

First, the government took a sequenced approach to education.Money didnot start flowing into TVET until the country nearly achieved universal primary education. By design or accident, major investing began in the early 1980s, just as labor shortages started to pinch the economy. To make the "big push" into export-oriented manufacturing, construction, and service-oriented sectors, the country needed a new stream of skilled workers.

At the same time, Korean policy-makers were beginning to be alarmed by a growing appetite for higher education and the risk that young people's education would become out-of-step with an economy thirsting for new sources of skilled labor for its manufacturing and emerging service-sectors. By expanding TVET, the government planned to satisfy its forecasted labor needs while reducing pressure on universities to enroll more students.

Today, about 40 percent of secondary students are enrolled in TVET. Yet it is still perceived as a second-class education. So the government is also opening pathways to higher education. First, TVET students are now getting a healthy dose of academic subjects so that they can continue on to university. In some schools, academic and vocational students share as much as 75 percent of a common curriculum. The government is also channeling public and private investment into new post-secondary training institutions to counter the myth that TVET is an academic "dead-end."

The ultimate challenge lies in keeping abreast with technological change. To keep curricula relevant, the plan is to tighten links to the private sector. For example, the Republic of Korea is now experimenting with their own version of Germany's famous "dual system", which traces its roots back to post-war reconstruction. It is opting for a "2+1" program, combining two years of classroom studies at higher secondary education level with a year of apprenticeship.

[371] http://www.unevoc.unesco.org/tvetipedia.0.html?&tx_drwiki_pi1%5Bkeyword%5D=Republic%20of%20Korea

- **Third,** Cambodia's National Employment Agency (NEA) has been established recently to facilitate labor market matching as well as provide much needed information to young people and employers about labor market trends and developments. The agency has a job website that advertises a host of different job opportunities as well as provides advisory services to help young people get prepared for the workplace and access relevant training providers. The NEA should play an increasingly important role in supporting diversification and development of the Cambodian economy as it generates labor market information and data that facilitate greatly matching jobs with candidates and bring industry and education systems closer together.The expectations of young people need to be managed by ensuring that they have access to appropriate information regarding employment opportunities, career growth, and training to enhance their skills and abilities. Today's younger workforce or future workforce has significant access to social media and general news. More innovative mechanisms for information sharing and education should be pursued.*The information developed by NEA can play a critical role in helping career counselors and professionals of TVET programs in better guiding young people* and explaining to them the future world of work and opportunities within it. Of course, better labor market information is also essential to investors. The NEA has an important role in providing potential investors with such.

- **Fourth,**along with strengthened primary, secondary and TVET education, there is a need *to ensure the quality and relevance of higher education*. While higher education is the type of education most desired by youth with the goal of obtaining a good job post graduation, it is essential to ensure the relevance and quality of higher education. Industry skills councils could be developed to address closing the skill gap in curriculums and to provide youth with better opportunities when they enter the work place. Quality of higher education should be genuine so that its full value is recognized by employers. There is a great opportunity for higher education to incorporate shorter certificate-based education to enable young people to get quicker access the job market while studying.

- **Fifth,** there is a need to ensure that all education systems, in general, *support lifelong learning and access to lifelong learning* whether such learning is through TVET providers, higher education and university providers, or private sector trainers. With Cambodia boasting a young workforce, re-skilling, up-skilling and flexibility in the total employment skill-set are important in ensuring that young people can adapt quickly to a changing economic environment. To support a lifelong learning approach, it is necessary to develop a vision of the future Cambodian workforce and actively promote such a vision to foster improvement.

In addition to re-focusing the educational and training systems to ensure they are more responsive to the needs of individuals and employers, there is a need for Cambodia to address some issues in the workplace and living environment that are linked to the skill shortages and gaps issues and that have a direct impact on the country' competitiveness. Those are explored in the Annex to this chapter. From the Annex, two additional conclusions can be drawn:

- **First**, the *growing number of industrial actions is having a negative impact on the economy's competitiveness.* Cambodia's balanced management and enforcement of labor policies will be arguably a very critical element in moving forward to continue attracting FDI as it needs to diversify its economy. While Cambodia has benefited from low wages, pressure on wages and an immature and disruptive union movement are likely to impact investors' perceptions on the investment climate.

- **Second,**as a result of an excessive number of disruptive industrial actions coupled with *the very large number of public holidays and need for overtime to meet production schedules*, Cambodia could find itself in a trap of low productivity, long work hours, and inability of providing additional time off to employees for training which is the basis for productivity enhancement.

  The role of tripartite partners in Cambodia's pursuit of industrial and economic diversification cannot be underestimated as to their impact and contribution towards productivity development, skills enhancement and coordination with government. Cambodia's industrial relations can be classified as young, often resulting in losses for both employers and workers and the economy as a whole. Better proactive management of industrial relations is needed, including leadership and vision from Government. The role of the Labor Arbitration Council in resolving conflicts should be deepened. Tools such as Collective Bargaining Agreements could be introduced. And the negative impact of excessively high numbers of public holidays on productivity and factory operations needs to be addressed.

Box 17.2: ASEAN, Cambodia, and Skills

Cambodia's labor pool includes, primarily, low skilled or unskilled workers. There is a growing pool of medium-skilled individuals that have rather limited, practical hard skill qualifications and little work experience. To compete truly in an ASEAN environment, Cambodia needs to take both a medium term and long term view of skills building and ensuring versatility of the workforce including addressing health and nutrition challenges. Educational foundations are essential to ensure a more competitive future generation of workers and to ensure Cambodia continues to benefit from its growing youth population.

Labor productivity is the key to sustaining growth and growing jobs and income.Labor productivity varies greatly among ASEAN nations. Cambodia has one of the lowest productivity levels (output per worker) within ASEAN. Access to relevant training and diversified education pathways to up-skill or learn new skills are critical to sustaining continued labor productivity gains.

A workforce vision and development strategy is essential for the industrial diversification of Cambodia and needs to be tailored by sector and consider regional developments. On the one hand, ASEAN integration poses threats for Cambodia in losing workers who may be able to earn higher wages in other countries. On the other hand, it will also provide opportunities for higher skilled work and earnings which in turn, through remittances, can have a significant positive impact on rural and household incomes as well as on the development and exposure of the Cambodian workforce. ASEAN integration can also help "leap frog" innovative education and training developments by drawing on regional frameworks and focusing Cambodia specific education and training developments on regional integration and regional workforce needs. A workforce strategy and vision must therefore include external migration policies and how to manage better internal migration, in other words to manage the supply of workforce and skills needs within Cambodia with the leveraging of the oversupply of skills within the region that can contribute to Cambodia's diversification.

ASEAN Labor Ministers have a clear vision to foster employment creation and promote development of productive, competent, and capable workforce by investing in training education and skill upgrading. This vision includes sharing knowledge and policies, sharing regional experiences in training, establishing close coordination of programs related to human resource development planning among ASEAN members, and fostering overall regional cooperation and collaboration in HRD and skills upgrading. Among those efforts, ASEAN is promoting the development of mutual recognition agreements (MRAs) on skill frameworks and standards as well as bodies to coordinate sector specific human resource development matters. Some of these include creation of ASEAN accredited standards for training of workers in garments under AFTEX (ASEAN Federation of Textiles Industries) as well as the development of a recognized standards and competencies for tourism including the ATPRS (ASEAN Tourism Professionals Registration System.)

Cambodia could greatly benefit by setting a trend in harnessing innovative education ***models and methods*** that not only benefit Cambodian workforce, but position Cambodia as leading provider of training and education services for selected sectors. These could be fostered through Public-Private Partnerships (PPPs) that would be of a high quality and meet ASEAN standards and recognition as well as PPPs that bring in regional players or "flagship institutes" that could spearhead the development of a training sector in Cambodia. With the development of national training institutes in the garments and in the culinary or hospitality sectors, Cambodia could be an emerging destination of training excellence. Political leadership in promoting innovation and excellence will play a key role in harnessing the benefits of ASEAN integration and creating a niche where Cambodia plays an important role in skill development in the region.

Positioning the Cambodian workforce for ASEAN integration is essential. Not as a labor excess country, but as a skilled and competent workforce that is consistent and intelligent, that evolves with industrial developments in the region, and that becomes the preferred hiring choice of domestic and regional employers. The importance of the National Employment Agency and dissemination of information is critical to the success of positioning and informing the Cambodian workforce for opportunities, development, and economic changes in the region.

Appendix to Chapter 17

SOME OBSERVATIONS ABOUT INDUSTRIAL LABOR RELATIONS AND THE WORKING ENVIRONMENT IN CAMBODIA

This short appendix complements information presented elsewhere in the report focusing on skills, human development impact of trade development, and trade sector competitiveness by focusing on the working environment in Cambodia, including industrial labor relations, and its impact on productivity.

The Need for Managed and Harmonious Industrial Labor Relations

Whenever discussing industrial labor relations and actions in Cambodia, it is important to note that Cambodia, together with the Philippines and Indonesia, are the only three countries in ASEAN that have ratified all eight fundamental international labor conventions as shown below:

Freedom of Association Conventions

1. Freedom of Association and Protection of the Right to Organize Convention, 1948 (No. 87)
2. Right to Organize and Collective Bargaining Convention, 1949 (No. 98)

Force Labor Conventions

3. Forced Labor Convention, 1930 (No. 29)
4. Abolition of Forced Labor Convention, 1957 (No. 105)

Child Labor Conventions

5. Minimum Age Convention, 1973 (No. 138)
6. Worst Forms of Child Labor Convention, 1999 (No. 182)

Discrimination Conventions

7. Equal Remuneration Convention, 1951 (No. 100)
8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

Myanmar has ratified C87 and C98 listed above while Malaysia and Singapore have ratified C98. Coupled with being the first country to introduce a Better Work program, known as Better Factories Cambodia (BFC), the country has subscribed to the highest standards in labor management and protection. Investors from the region do stress the good protections that employees enjoy in Cambodia.

They were 2,765 unions in Cambodia as of 2012, up from 1,725 in 2010; 76 federations of trade unions, up from 41; seven confederations; and, twelve union chambers, up from one.

Industrial Actions

The growing number of actions initiated by unions in the garment sector in particular are becoming a concern. The number of strikes increased by 255 percent in 2012 from 2011 and lost work days by 289 percent.[372] The vast majority of unions are active in the garment sector alone. Still, while the union movement can be characterized as young and immature, its often disruptive and violent practices appear to be growing. A recent, well publicized strike in 2013 shows unions requesting a garment factory to double minimum wage as well as terminate a shareholder. Such demands which, by any international standards, would be considered unusual show that factory managers are dealing with a complex and challenging workforce.

A new wage committee has been established to investigate the minimum wage level in Cambodia. This has created confusion among private sector stakeholders. Minimum wages are traditionally negotiated through the Labor Advisory Committee (LAC) which is tripartite in nature. Concerns have been raised by investors as to the need for a new committee, when LAC is responsible for such decisions. It is important that the operations and legitimacy of established mechanisms that play an important role in decision-making be not over-ruled or disregarded simply because of reacting to a strike action.

In parallel to this concern, it must also be noted that, over the years, there have been several cases of intimidation against unions. The killing of union leader Chea Vichea remains unsolved and has led to a challenge at international levels regarding Cambodia's ability to prevent serious violations of human rights. Continued reports of threats against unions as well as physical harm, remain pertinent challenges in the sphere of labor relations.[373]

To preserve legitimacy and good governance, the authority and credibility of a given system cannot be undermined to satisfy any one party. It is essential that there is leadership and careful management of industrial relations in Cambodia to ensure that investors who can contribute to economic diversification are not deterred because of industrial actions and repeatedly disrupted work schedules.

Harmonious Industrial Labor Relations

The management of industrial labor relations must be careful and proactive in its pursuit for industrial harmony as the economy diversifies. Tri-partite constituents need also to play an active role in communicating decisions and requests from Government. Proper enforcement of decisions and rulings by competent authorities and proper enforcement of the law must remain a top priority of industrial labor relations. This will play an increasingly important role as Cambodia pursues diversification and bringing in new types of investment into the country.

In addition, there is a need to ensure that established mechanisms such as the LAC are respected or improved upon, and not overruled so as to ensure increased confidence in the systems and mechanisms in place, within Cambodia and abroad. If specific mechanisms are no longer relevant, they should be removed through consensus, not replaced arbitrarily by a single party. Expanding the role and

[372] CAMFEBA remarks at ILO Committee of Applications of Standards, June 2013.
[373] See Phnom Penh Post, *Unionists Remain in Hospital*, August 30, 2013, p3

representation of the Labor Arbitration Council can assist in managing disputes better because the mechanism already commands respect as an independent, established, and credible organization. Overall, there is a need to ensure that unions acts responsibly and reasonably and that employers' representatives play their part in peaceful industrial relations.

Introduction of industrial relations tools such as a collective bargaining agreement (CBA) arguably need promotion and capacity building so that they can function and be useful in the Cambodian context. In that regard, government leadership and vision are essential.

Working Time, Training Time, and Productivity

Average Working Time

Working time is a sensitive matter but deserves attention in the light of the need to address the skill gap in export sectors. In the context of closing the skills gap, working time available is critical. The concept of working time is not as "simple" as calculating the number of days available to work. It should consider more broadly productivity, skill levels, wage levels, social security coverage, and other matters related to the quality of overall employment.

Cambodia's productivity is low. There are many reasons and arguments for low productivity: (1) low wages are a disincentives towards higher productivity; (2) management/supervisions mostly by the foreigners causes misunderstandings on the production floor and possible resentment; (3) equipment and technology are typically old and out of date; (4) the workplace environment is poor; etc. Also, for the most part, Cambodia's industrial workforce is rural, with little education, and starting from a very low skill base.

Cambodia's social security system is very new and includes contributions to the fund by employers to cover liability associated with work place injury. Medical contributions will be introduced in 2014 and, later, contribution to a pension fund.

Figures 17.1 and 17.2 show work time available in Cambodia. They take into account public holidays, annual leave allowances, and weekly day off.All ASEAN countries require a day off per week as does Cambodia.

1. Based on a 6-day work week, average working days per month are 22.42.
2. Based on a 5.5-day work week, average working days per month are 20.25.

Typically, factories operating on a 6-day workweek organize their production schedules around 26 work-days per month; those operating on a 5.5-day work week, around 24 work-days per month. Because of the reality of shorter worker schedules, they must use overtime to make up for the shortfall.

A vast majority of the current industrial labor force is made up of young women. Cambodian Labor Law states that women shall be entitled to 90 days of maternity leave plus one hour per day for breastfeeding from the date of the child delivery.[374] Generally it is difficult for a woman to take two thirty minute breaks or a one hour break from work to breast feed, particularly if working in a factory. Hence, the one hour break is not included in the calculation in Figures 17.3 and 17.4

1. Based on a 6-day work week, a woman that gives birth works an average of 16.54 working days per month.
2. Based on a 5.5-day work week, average working days per month are 14.92

These average available working days raise pertinent questions for policy makers and business managers as to how to manage training time in order to reduce the skills gap, promote the workforce, and increase productivity. These calculations highlight the complexity of managing production in labor intensive industries that must operates on short turn-around and go a long way in explaining why most factories use overtime to get longer work weeks. These calculations also suggest that, while employers at present provide on-the-job training, any additional time spent training and not working is likely not feasible or may have a negative impact on firm's performance.

[374]See Article 182 and Article 184 of the Cambodian Labor Law. For one year from date of child delivery, mothers who breast feed are entitled to one hour per day during working hours to breast feed their children. This hour may be divided into two periods of thirty minutes each. Article 185 further states that breaks shall not be deducted from normal breaks provided in the labour law, in internal regulations or collective agreements or local custom

Figure17.1: Average Available Working Time in Cambodia, based on 6-day work week

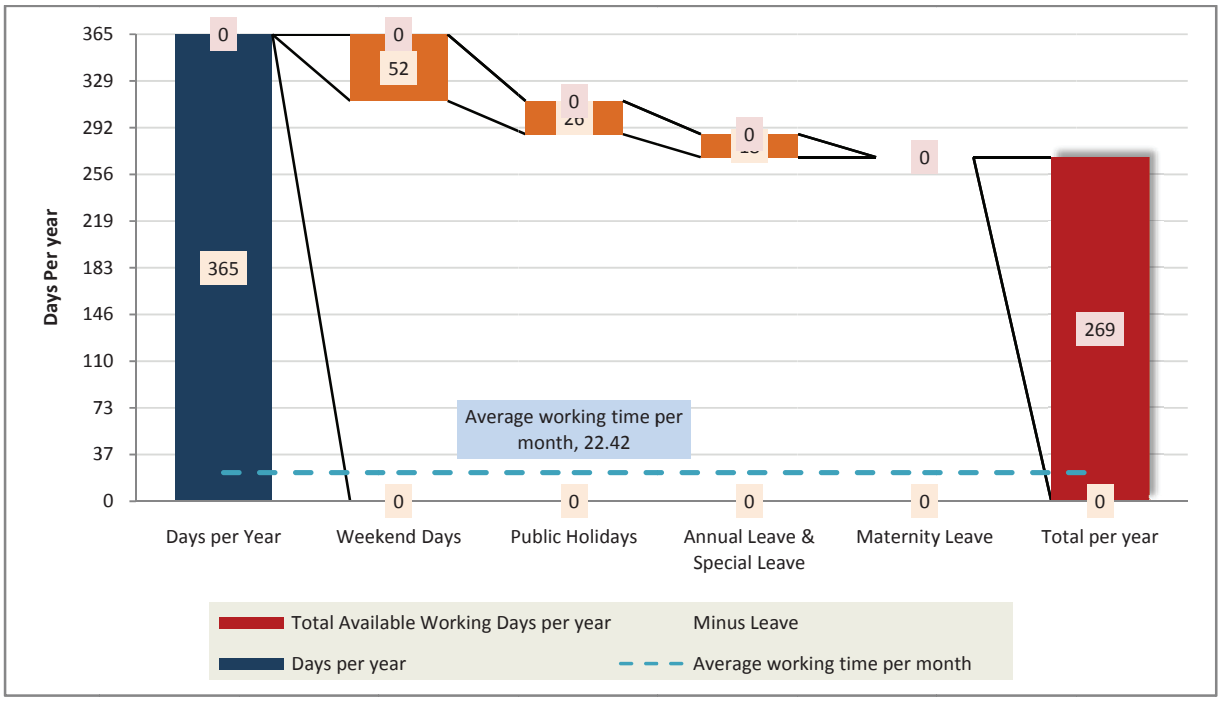


Figure 17.2: Average Available Working Time in Cambodia, based on 5.5-day work week

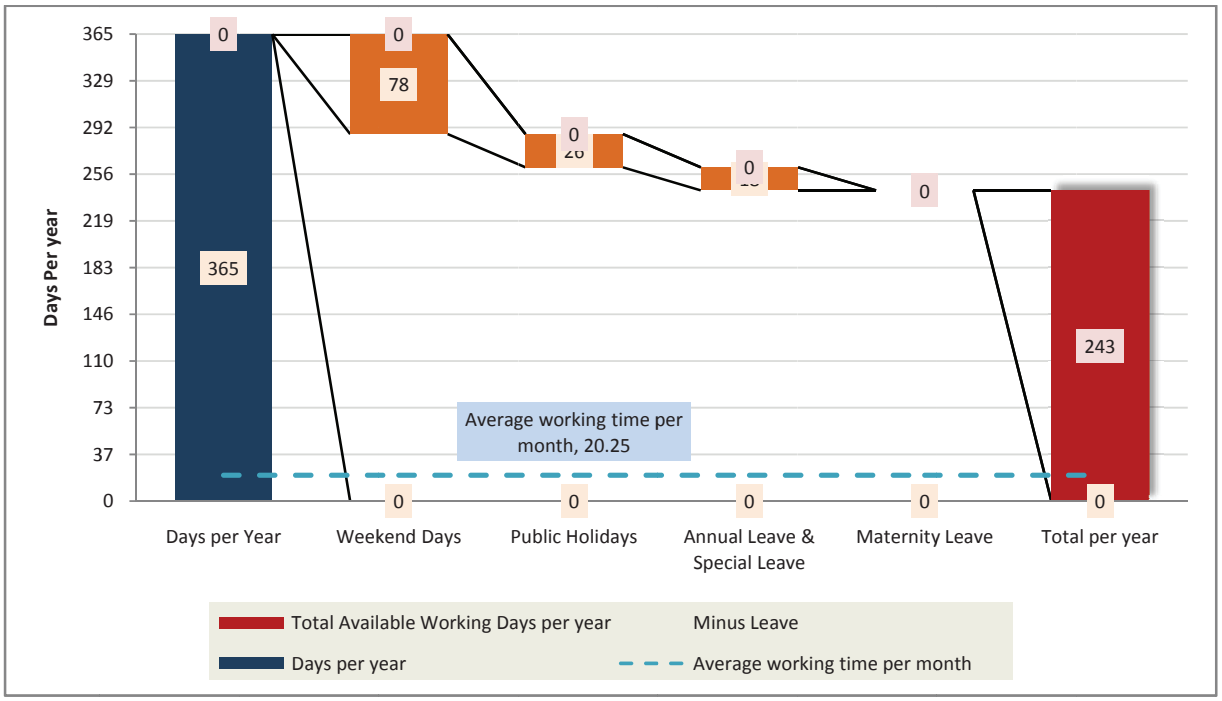


Figure 17.3: Working Time Available for Woman Taking Maternity Leave, based on 6-day work week

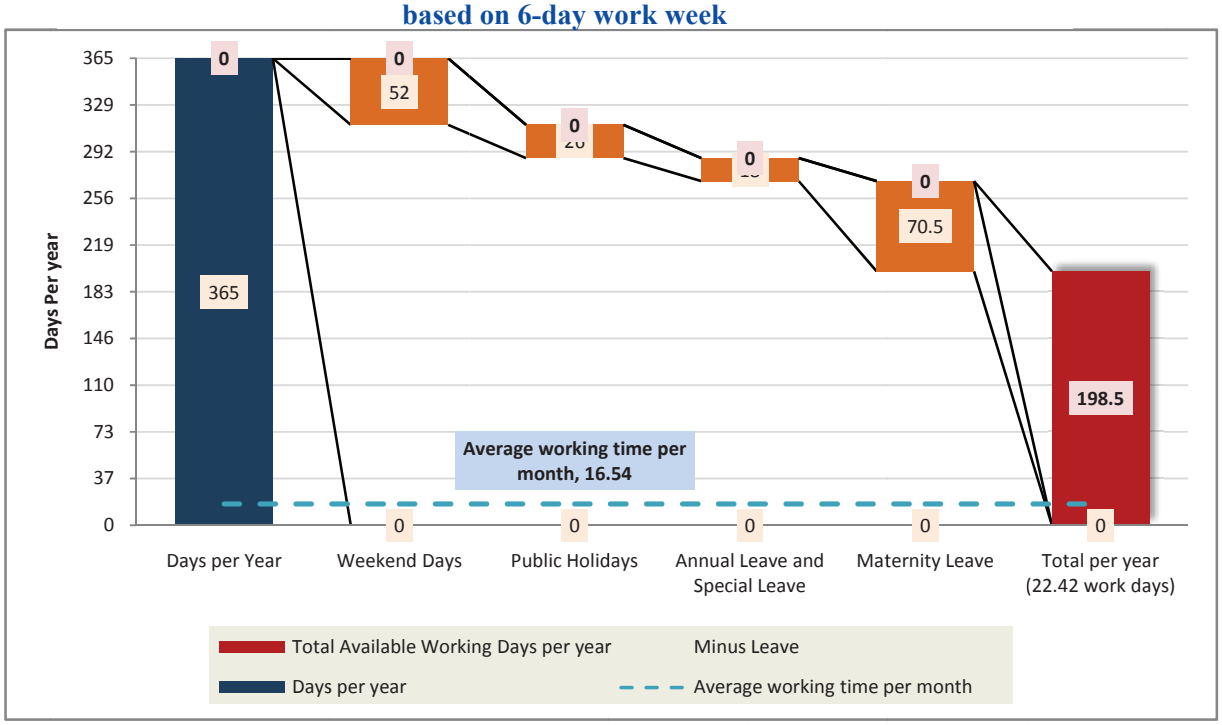
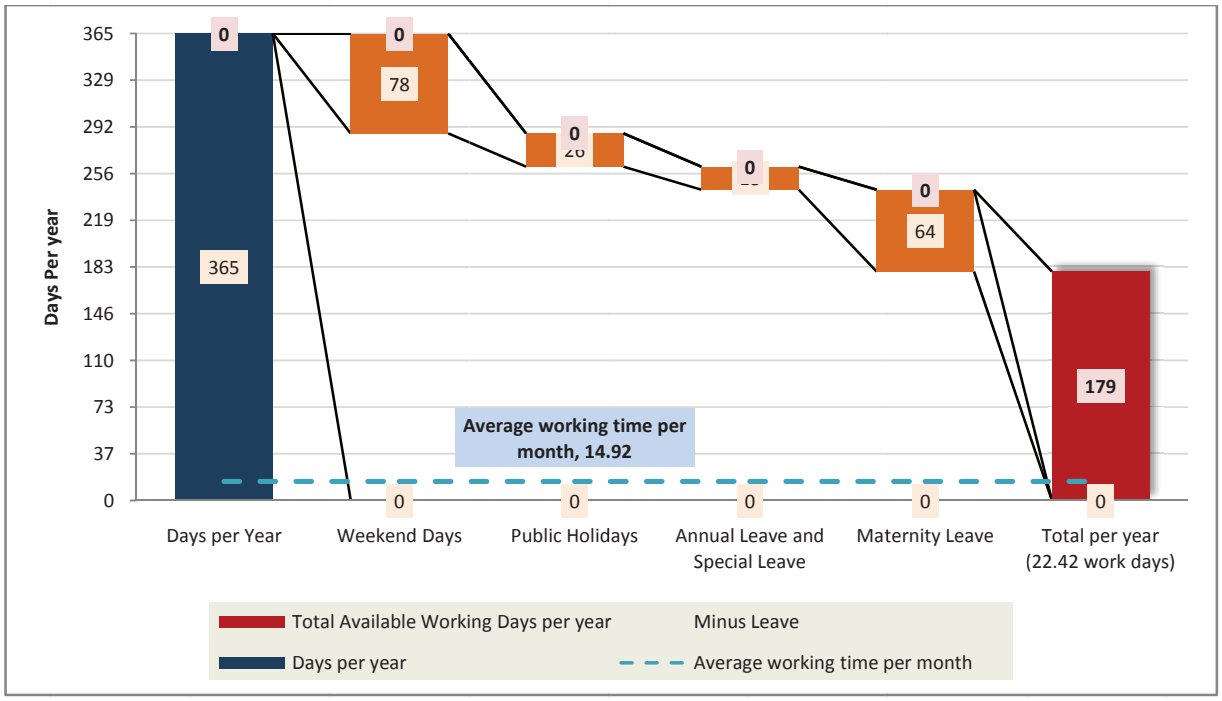


Figure 17.4: Working Time Available for Woman Taking Maternity Leave, based on 5.5-day work week



Holidays and Leave Days in Cambodia vs. Selected ASEAN Countries

Table 17.17 compares public holidays and annual leave days between Cambodia and selected ASEAN countries.

Table 17.17: Comparison of Public Holidays and Annual Leave Days, Cambodia and Selected ASEAN Countries

Country	Public Holidays	Annual Leave Days	Total Days
Thailand	13 – 15 days per year	Not less than 6 working days.	19 – 21 days in total
Singapore	10 days per year	Progressive based on seniority starting at 7 days per year up to 14 from 8th year of service onwards	17 – 24 days per year if with the company for 8 years or more.
Malaysia	17 days per year	Progressive based on seniority starting at 8 days per year, 12 days for (2 to <5 years continuous employment, and then 16 for 5 years or more continuous services	25 – 33 days per year if with a company for 5 years or more
Indonesia	13 days per year	12 days per year	25 days per year
Philippines	12 - 16 days per year	No legal obligation, general 5 days with an incentive for working after continuous services	17 – 21 days per year
Vietnam	14 days per year	10 – 16 if highly hazardous work	24 – 30 days per year depending on type of work
Myanmar	19 - 24 per year	No data source found	At least 19 days per year
Laos	13 – 17 days per year	15 days per year[375]	28 – 32 days per year
Cambodia	25 – 26 days per year If working only a 5 day week, public holidays on a weekend are given an additional day off.	18 days per year and increase 1 day each 3 years term of service	43 days minimum per year

Source: Multiple country sources available through internet

[375] http://jclao.com/the-basic-rules-of-employment-in-laos/

The number of non-worked days in Cambodia stands out when compared to other ASEAN members. Businesses, particularly in the garment and manufacturing sectors, note that it is becoming increasingly difficult to manage production schedules with the "exorbitant number of holidays." To make up the time needed for production, it is necessary to work extended 2 hours overtime per day, stretching the working hours of a worker and leaving little free time for the employer as well as the employee, to pursue training and education.

Low averages in regular work time impact competitiveness in at least three ways. First, it raises costs as employers must make up a significant amount of production time using over time. Second, overtime tends to raise the level of fatigue in individual workers, hence lower their productivity. Third, the disincentive towards using some of the limited production time for training also hinders productivity gains.

As a footnote to this discussion, observe that Malaysia and Singapore have progressive annual leave days that coincide with seniority in a company rather than blanket coverage. China follows the same approach with five annual leave days granted for one to nine years seniority, ten annual leave days for ten to 19 years seniority, 15 annual leave days for 20 years seniority and onwards[376]. In South Korea, employees, except for agricultural and forestry workers, are provided one-day-per-month of leave with pay. Maternity leave is mandated, and employees are excused from overtime work, and, if requested, must be provided lighter workloads. Maternity leave pay is required for up to 60 days after childbirth with a minimum of 30 days.[377]

In sum, the social cost of holidays in Cambodia is significant. It creates an additional, significant challenge in closing the skills gap as time that would be needed for training conflicts head-on with time needed by employers to ensure that they meet their production schedule.

Supporting Social Infrastructure and Urban Planning

A great deal of manufacturing activity remains centered on Phnom Penh and, to a lesser extent, Sihanoukville. Access to decent housing, safe transportation, affordable and quality medical care, clean food, clean water, and similar amenities is critical to ensuring the well-being of the workforce. It is well documented that living conditions of garment workers are poor, with many workers sharing a small room to cut costs and save money. It is also well known that when wages rise, the cost of accommodations also rises, not necessarily with additional services and improvements in accommodation.

Workers productivity is, in part, a function of urban planning and the supporting social infrastructure that are critical to their well-being and safety.

[376] http://berl.co.nz/economic-insights/global/asia-and-pacific/china-planning-to-enforce-paid-annual-leave/
[377] http://www.ehow.com/list_6636119_south-korean-labor-laws.html

Chapter 18

TRADE MAINSTREAMING, AID-FOR-TRADE, AND THE ROLE OF THE PRIVATE SECTOR IN TRADE SWAp

Introduction

As shown in Chapter 1, Cambodia's trade sector has developed rapidly since the validation of *Cambodia Trade Integration Strategy 2007* (DTIS 2007) five years ago and the subsequent launch of its Trade Sector-Wide Approach (Trade SWAp) as a mechanism to enhance the role of trade in national development policy, strengthen coordination of Aid-for-Trade, and deepen its impact and effectiveness. Whereas credit for robust economic growth, significant trade diversification, and sustained Aid-for-Trade flows cannot be attributed solely to the Trade SWAp, it certainly has contributed greatly, if unevenly, to better inclusion of trade and trade-related issues in national development policy, improved coordination between the Royal Government of Cambodia and development partners, and to a lesser extent stronger dialogue between Government and the private sector.

Still, and notwithstanding progress, it is useful for Cambodia to look back at what has been achieved or where expectations have fallen short so as to draw lessons for enhanced "trade mainstreaming" and implementation of Trade SWAp in the coming years. In particular, through Trade SWAp, Government and Development Partners have sought to put in place tools and mechanisms intended to ensure that trade development objectives and trade-related technical assistance become key drivers of national development objectives and national capacity development. Strengths and shortcomings of some of those tools and processes call for closer examination and should lead to recommendations for improvements wherever necessary.

The first main section of this chapter review steps taken since 2007 to put in place the Governance, Planning, and Implementation mechanisms of Cambodia's Trade SWAp to support deeper and more effective mainstreaming of trade. The section also review the extent to which selected AfT support has been helpful in building the capacity of some of those mechanisms and the limitations of the capacity built thus far.

The second main section draws from the first one to recommend areas of improvement and possible changes to strengthen Trade SWAp mechanisms. This is done bearing in mind decreasing Aid-for-Trade resources globally as well as changing patterns of Aid-for-Trade disbursement channels and monitoring tools.

Trade Mainstreaming Progress Since 2007

Trade Mainstreaming

There is no broadly-agreed definition of trade mainstreaming.[378] For the purpose of this chapter, we define it as the integration of trade in national development strategy – including poverty reduction goals – and sector policies, the implementation of trade-development actions supportive of the country's strategic and policy objectives, enhanced dialogue with development partners around the use of AfT, and enhanced dialogue with trade-oriented private sector and civil society actors.

Accordingly, trade mainstreaming can be seen as happening at a minimum of four levels:

- Integration of trade in national and sector policies
- Institutional framework and processes intended to support trade mainstreaming in the implementation of national and sector policy objectives
- Strengthened dialogue with Private Sector stakeholders and Civil Society as key partners in trade development
- International cooperation with development partners to enhance Aid-for-Trade effectiveness

At the **policy level,**trade mainstreaming involves enhancing the understanding and awareness of how trade can contribute to the broader good and ensuring that trade is taken into account in setting national and sector priorities. Since trade is a crosscutting issue, integrating it into the policy process requires interaction with nearly every government entity at national and sub-national levels—a complex task. However, trade on its own cannot deliver development objectives; complementary policies are required and must be properly sequenced.

At the **institutional level**, leadership of the main Government body responsible for trade is vital in mainstreaming trade. Closely related to this is also the dynamic engagement of the main stakeholders by the lead trade Ministryas required: other line ministries, pertinent Government agencies, and local Government, private sector, civil society stakeholders such as academia, trade unions, vulnerable groups, youth and women organizations, etc. Management and analytical capacity is also needed in the lead trade Ministry as well as key line ministries to conduct the necessary analyses, facilitate coordination, implementation, monitoring and review. Capacity in the overall institutional set-up is particularly important for ensuring that the vision and priorities defined at the policy level are effectively resourced, implemented, and monitored.

At the **dialogue level with the private sector and civil society**, Government needs to recognize it is ultimately responsible to ensure good cooperation from the private sector that, ultimately, provides much of the investment required for trade expansion and that is responsible for ensuring that trade development is used to reach broader socio-economic development objectives.

[378]See UNDP, *Practical Guide to Trade Mainstreaming*,Geneva and New York: UNDP, 2011 and EIF, *Compendium of EIF Documents: A User's Guide to EIF*, Geneva: WTO page 13

At the **internationalcooperation level**, the development partner community has an important role to play in mainstreaming trade. It must systematically integrate trade into its country and sector analyses and strategies, assistance programs, and activities.

In short, trade mainstreaming involves articulating trade-related priorities to stimulate economic development, reduce poverty, and attain the MDGs, translating policy statements into operational objectives and action plans, linking strategies to resources and following through with implementation, monitoring and evaluation of results.

There is no blueprint or template for successfully mainstreaming trade into national development strategies and policies. Still, mainstreaming trade is not new to Cambodia. Cambodia's decision to go forward with accession to the World Trade Organization (completed in 2004) was also a deliberate decision to place trade liberalization and trade development as key drivers of the country's economic development strategy. Throughout preparation for accession and immediately thereafter, Cambodia received a significant amount of AfT. However, following the 2007 first update of the DTIS, the convergence of views between the RGC, the development partners -- in particular the EU, UNDP, and the Integrated Framework -- led to the development of a more integrated approach to trade development and trade mainstreaming, leading to the successful launch of a Trade SWAp in 2008.

It is through the lenses of the Trade SWAp that trade mainstreaming progress, successes and shortcomings should be viewed, as Trade SWAP constitutes the overarching umbrella and institutional mechanism for trade sector development in Cambodia

Trade Mainstreaming and Cambodia's Trade SWAp

Cambodia's Trade SWAp constitutes a new, deeper dimension of trade mainstreaming. Its formulation encompasses aspects of policy formulation, institutional arrangements, and dialogue mechanisms more far-reaching than those which existed prior to its introduction.

Cambodia's Trade SWAp is a set of mechanisms put in place by the Government under the leadership of the Ministry of Commerce for improving the Government's capacity to formulate and implement a vision for trade sector development, using Government and increased AfT resources from Development Partners, and to strengthen Aid Effectiveness, in line with the principles of the 2005 Paris Declaration of ownership, alignment, harmonization, management for results and mutual accountability.

A SWAp is first and foremost a planning and management instrument for Government, which, in turn, can be supported by donors. Where it is donor supported, a SWAp offers Government an effective tool for donor coordination. Traditionally, a Sector Program is the implementation vehicle for the Sector-Wide Approach with a minimum of three core elements:

1. The sector policy and strategy;
2. The sector budget and Medium Term Expenditure Framework (MTEF); and,
3. The sector coordination framework for implementation.

.
Cambodia Trade Integration Strategy 2007 identifieda number of priority areas for reform and development that became the basis for the three "Pillars" of the Trade SWAP. The Pillars replaces the traditional "action matrix" typical of a DTIS by making it a planning tools rather than a list of desirable projects to be funded by development partners. The Pillars, therefore, constitute the basis for the implementation of DTIS recommendations through the mechanisms of Trade SWAp.[379]

Pillar 1focuses on "Cross Cutting Legal and Institutional Reforms for Trade Development", with priority areas including, among others, (1) completion of the legal reforms and commitments associated with WTO accession, (2) lowering of the costs of trade facilitation, (3) improvements in the investment environment, (4) enhanced use of intellectual property protections, (5) development of the legal and institutional environments for SPS and technical standards;

Pillar 2 focuses on "Developing a Competitive Export Supply" with an emphasis on diversifying Cambodia's export basket through new products and services and new markets, with priority areas including (1) development of information on export value chains and trade opportunities, (2) strengthening of trade support institutions at the product association level and in the provinces, and (3) strengthening of export supply capacity in the 19 priority potential sectors identified in CTIS 2007;

Pillar 3 focuses on "Building RGC's Capacity to Lead Trade Sector Development and Manage Aid for Trade" including, among others, (1) capacity building in a newly created MoC Department of International Cooperation to serve as the Secretariat for the Trade SWAp, the TDSP, and the EIF Tier 1 and tasked to lead the day-to-day coordination of AfT programs, (2) capacity building in line Ministries engaged in the implementingTrade SWAp actions, (3) development of trade policy research capacity; (4) strengthening of trade negotiation capacity.

The priority objectives, benchmarks, and targets of the three pillars were subsequently consolidated in three roadmaps that are providing guidance to the Trade SWAp stakeholders,including the donors supporting the SWAp -- the Multi-Donor Trust Fund's Trade Development Support Program (TDSP), the EIF Tier 1, EIF Tier 2 CEDEP I and II and other ongoing AfT programsfunded by multilateral or bilateral development partners such as ADB, IFC, AusAid, USAID, AFD, JICA, and others. In EIF parlance, the Trade SWAp Pillar Roadmaps serve as basis for Cambodia's Medium Term Program and AfT Medium-Term Plan.

The Pillar structure was adopted in 2007 as the main vehicle for Trade SWAp implementation, with the creation of individual task teams for each focus areas, includingGovernment officials and Development Partners interested in the area. A Prakas (Ministerial Circular) was signed, assigning specific objectives to each Pillar and appointing officials across Ministries and Agencies to contribute to individual pillars. To kick-start the proposal formulation process under

[379] For more information, see Ministry of Commerce, *Trade Sector Development & Aid for Trade in Cambodia,* Phnom Penh:MoC, 2011

each pillar, three development partners were appointed to act as "Pillar Shepherds" until the government had acquired the capacities to lead the pillar works.

The main sub-sections that follow analyze in details where trade mainstreaming has progressed over the years, where Trade SWAp may have helped in deepening trade mainstreaming, and where limitations remain.

Box 18-1: Trade SWAP Independent Review, 2013

"Cambodia Trade SWAp has been through a long learning curve and struggle for acceptance. But it has emerged intact and strong in concept. It needs greater linkage with upstream national policy and sector policies and strategies and requires a stronger analytical capacity to articulate the linkages between trade and poverty as well as sector links. The concept of mainstreaming is well understood and accepted by Government agencies but the private sector and CSOs have limited understanding or appreciation of benefits for them. Stronger linkages between a policy and performance indicators and monitoring for the SWAp are needed and linked to clear implementation plans and responsibilities. Donors and stakeholders need to be more inclusive and awareness and visibility improvements are required."

Source: Ministry of Commerce,*An Independent Review of the Trade SWAp*, Phnom Penh: MoC, 2012

Trade Mainstreaming at Policy Level: NSDP, Rectangular Strategies, and Sector Policies

At the policy level, the National Strategic Development Plan (NSDP) provides the country's essential policy context for mainstreaming trade. NSDP-IV (2014-2018) under preparation will be no exception. The four main components of the current NSDP-III were configured around Cambodia's "Rectangular Strategy Framework-Phase II," which served as the Government strategy until the July 2013 elections. Main focus included (i) enhancement of the agriculture sector, (ii) rehabilitation and construction of physical infrastructure, (ii) private sector development and employment, and (iv) capacity building and human resource development.

The responsibility for formulating, updating and evaluating progress of the five-year NSDP falls with the General Directorate of Planning of the Ministry of Planning, while formulation of the Government platform or "Rectangular Strategy" is under the responsibility of the Supreme National Economic Council (SNEC) a government think-tank that reports to the Ministry of Economy and Finance.

The NSDP formulation is based on contributions from individual ministries, including the ministry of commerce. The contributions are usually in the forms of indicators tracking the level of implementation of specific targets mentioned in previous NSDP or mid-term reviews as well as the provision of new indicators for the next five years.

Individual ministries generally use their own five-year strategic plan or master plan as a basis for their inputs to NSDP. Several meetings and checkpoints between MoP and individual ministries take place until a draft NSDP is prepared and circulated to the Council of Ministers for endorsement.

NSDP-I (2001-2005) held just a few references to trade, namely in the chapters dedicated to the Integration of Cambodia into the region and the world. Trade was expected to play a role in overall economic growth as well as transportation and infrastructure development. NSDP-II (2006-2009) followed the same approach by integrating trade related issues in the broader narrative, against the background of the Rectangular Strategy Framework.

NSDP-III (2009-13) went further. Three out of the five priorities are directly linked to trade, while the remaining two are indirectly linked, showing more explicit recognition of the role of trade as a key driver of development. The section on "Integration of Cambodia into the Region and the World" provides for cooperation with neighboring countries, regional entities and the WTO. Integration within ASEAN and formulation of WTO-compliant legislation were highlighted as focus areas. Ministry of Commerce (MoC) is featured in its role in strengthening the private sector and attracting investment, complete with indicators and a corresponding set of actions. Indicators include export volumes, improvements in market access, and other trade-specific performance measures. This said, NSDP III highlights the role of private sector development to support growth, rather than trade specifically, and focuses on attracting investments, SME promotion, employment creation, and social welfare of workers.

Despite the country's robust GDP growth, strong export increases, and good poverty reduction records as indicated by its remarkable progress in attaining MDGs, trade contribution is not yet accurately reflected in national development plans,in strategy documents, and through the budgeting process.

The trade priority formulation efforts led by the Ministry of Commerce in order to prepare for the NSPD and RS updates show that critical issues need to be addressed including relying on accurate, timely and easily accessible data, increasing the participation of private sector in the formulation on sector objective and policies, increasing the contribution of the private sector to the design of corresponding projects, and linking trade development to objectives of poverty reduction.

Trade not being reflected accuratelyin national development strategies may lead to under-investment by Government and development partners in areas of needs including infrastructures and productive capacities. In addition, itmay mean missing out on the leverage trade can provide to increase employment, improve revenue generation, empower disadvantaged groups including women, youths and others, and,*in-fine*, reduce poverty.

This is compounded further by a current structural weakness in the public sector budgeting process. Cambodia's trade sectorand Trade SWAp prioritiesarepoorly integrated within a medium

term expenditure framework (MTEF) that matches expected Government and donor resources to expenditure plans like is the case for other sectors. This is due, in part, to the cross-cutting nature of trade. Thelack of a system to integrate fully trade sector priorities into the overall RGC budgetary cycle limitsthe sector's access to public funding. This is the case especially to the extent thatindividual Ministries may have in place their own frameworks, themselves integrated in the MTEF, but often under-estimating the importance of trade development. Furthermore, absence of closer integration gives the impression that trade sector development and Trade SWAp should be entirely donor funded and, consequently, donor-driven. Instead,Government's contribution to the SWAp, besides MoC's support as a Secretariat, should be viewed as important and increasing.

Another risk is that expenditures will be expanded with development partner support at a level that is not sustainable in the medium to longer term when that development partner support is phased out and must be replaced by Government support.

The RGC budget process should include direct contributions to Trade SWAp. The current process lacks sufficient consultation between the donor community and Government to reviewGovernment spending plans and indicate Government requirements for future donor commitments.

The Trade SWAp programplanning and review process can add value to the overall government budget planning process. Sector policies and priorities only become meaningful when they are linked to some forecast of the level of resources available to fund them.

New elements have been introduced in the NSDP-IVformulation process to address some of those limitations. Chief among those has been the request for individual ministries to share their inputs to NSDP with the relevant Donor-Government Technical Working Group for comments. The rationale behind this is to improve the alignment of future donor support with the Government strategy, in a partnership mode, therefore avoiding that donors be consulted only once the policies have been drafted and approved. It is expected that this new approach will increase the quality of policy making and resource mobilization through a stronger dialogue with development partners on Government needs.

Looking back at the NSPD-III and the ongoing NSDP-IV formulation processes, several lessons can be drawn as to why trade, so far and in spite of its driver role in the economy, has not featuredas prominently as it ought to in the NSDP:

1. ***Lack of sound and reliable data and research capacity***: Despite recent improvements in data gathering through ASYCUDA (GDCE) and Certificates of Origins (MoC) among others, very little reliable and accurate statistics are produced by MoC, MEF or other line Ministries to inform policy making. Whatever data is available is often not comparable from one source to the next. Estimates of informal trade, which plays an important role in some sectors, are very difficult to develop and not highly reliable. The Ministry of Commerce and other key line ministries are seldom cooperating with academic or research institutions that might have better technical capacity to address the gap in trade data and information. The lack of strong

data and research capacity renders the process of identifying key policy priorities more difficult.

2. ***The cross-cutting nature of trade***: The responsibility for trade development cuts across multiple Government bodies. Information on its contribution and impact on growth and development is scattered across various ministries that do not cooperate easily making the process of formulating policy priorities more complex. They include the Ministry of Economy and Finance (MEF), the Ministry of Industry and Handicrafts (MIH), the Ministry of Agriculture, Forestry and Fishery (MAFF), the Council for the Development of Cambodia (CDC), the National Bank of Cambodia (NBC), the Ministry of Planning (MoP), among others

    - MEF is responsible for macroeconomic policies as well as integration within regional (including ASEAN) and global markets. It administratively oversees revenue collection, including customs (GDCE.)

    - MIH coordinates and manages Government interventions in industrial and technological development, development of natural resources, and the production and supply of electricity and water. The Institute of Standards is also hosted by MIH.

    - MAFF plays a key role in promoting the development of agricultural commodities and outputs that are becoming large sources of exports.

    - NBC is responsible for monetary and exchange-rate policies. It licenses, regulates, and supervises banks and financial institutions.

    - CDC deals with donor coordination and serves as Secretariat of the Government-Donor Coordination Committee (GDCC). DCC also plays a key role in promoting and licensing private investment projects, including foreign investment.

    - MoP undertakes two main functions. The first one is national socio-economic planning, including overseeing the implementation of the NSDP as well as preparation of tri-annual public investment programs. The Ministry also oversees the National Institute of Statistics.

3. ***Limited consultation with the private sector***: The fragmented nature of Cambodia private sector, the limited understanding by private sector representatives of the benefits of participating in policy formulation, the absence of a clear timetable with milestones that often accompanies the preparation of NSDP add up to the fact that, all too often, the trade inputs provided by the Ministry of Commerce to NSDP lack private sector buy-in. When it happens, the dialogue is limited to a few issues of interest to particular economic groups that do not always represent the main business actors.

4. ***Division of labor among Ministries and Government agencies on policy formulation, policy updates and policy review***: There is no clear-cut, step-by-step methodology and template for NSDP formulation (with timetable, deadline, responsible bodies), making the process unclear even at Ministry level. Many Ministries lacking research and analytical capacities for policy-making relies heavily on donor support to support individual sector analysis. As a consequence, the production of robust analysis to inform policy making is left to the

availability of experts. There is also a lack of continuity between the formulation, implementation, and review process, making NSDP formulation a one-time rather than a continuous exercise.

5. ***Limited role for SWAp committees to provide inputs for key policy formulation***. Key sector policies, such as the rice policy, are formulated by SNEC on behalf of the Council of Ministers and the Ministry of Economy and Finance with limited inputs from line ministries. Line ministries become involved at the implementation rather than the formulation stage. This limits possibilities the Sub-Steering Committee and the Pillar Working Groups to provide direct inputs to policy formulation.

6. ***Lack of trade-related indicators in most sector policies***: Line ministries often do not always see trade as a key dimension of their own development strategy, even though a few sector strategies are beginning to include trade-related indicators (e.g. Fisheries Master Plan, Rice Policy). In addition, no tools are provided to line ministries to enable them to mainstream trade in their own strategies.

7. ***Timing and*** *modus operandi* ***of DTIS update***: The DTIS is the main strategic document available for trade policy formulation. Traditionally, the DTIS is prepared under the leadership of the Ministry of Commerce but with inputs from line Ministries and includes a set of targets, indicators, and corresponding activities that can feed into the national development plans and strategies. However, the timing of the DTIS updates has yet to be better aligned with that of the NSDP so it can better feed into it. In addition, much more must be done to develop domestic know-how and national capacity to participate in the updating process order to reduce dependency on international experts who may not always have a deep knowledge of Cambodia's particulars.

8. ***Need for a stronger budgeting approach to Trade Mainstreaming and Trade SWAp***: As mentioned earlier, there needs to improvement in the mechanisms through which trade mainstreaming priorities are financed through the Government budget so that it is not totally dependent on donor support.

Mainstreaming of Trade at the Institutional Level: Trade SWAp's Mechanisms

As mentioned earlier, following the 2007 DTIS update, the RGC, with support from Development Partners put in place a SWAp to strengthen implementation of the Government's vision for trade through enhanced coordination and effectiveness of technical assistance in the sector. Institutional mechanisms are now in place in line with the core principles of the Paris Declaration on aid effectiveness.

The governance, design and monitoring, and technical (implementation) arrangements for Cambodia's Trade SWAp framework is shown in Figure 18.1 within the broader context of Government-Development Partners' consultation and dialogue mechanisms. They include:

Governance Level:

- Sub-Steering Committee on Trade Development and Trade-Related Investment (100 Members)
- The Private Sector Development Technical Working Group (Donor-Government)
- The EIF Focal Point (Secretary of State, MoC)
- The Donor Facilitator (ADB since 2012)

Supervision and Coordination Level:

- The SWAp Implementation Committee (20 members from line Ministries participating in SWAp, chaired by an MoC Secretary of State)
- The SWAP Pillar Working Groups (120 members, from line Ministries and public institutions, appointed through Prakas)
- The Tier 1 and Tier 2 Appraisal Committees "TAC 1" and "TAC 2": TAC1 and TAC2 include the EIF Focal Point, the EIF Donor Facilitator, and representatives of the S-SC TD&TRI and key line Ministries (upon invitation by the EIF Focal Point).

Technical Level:

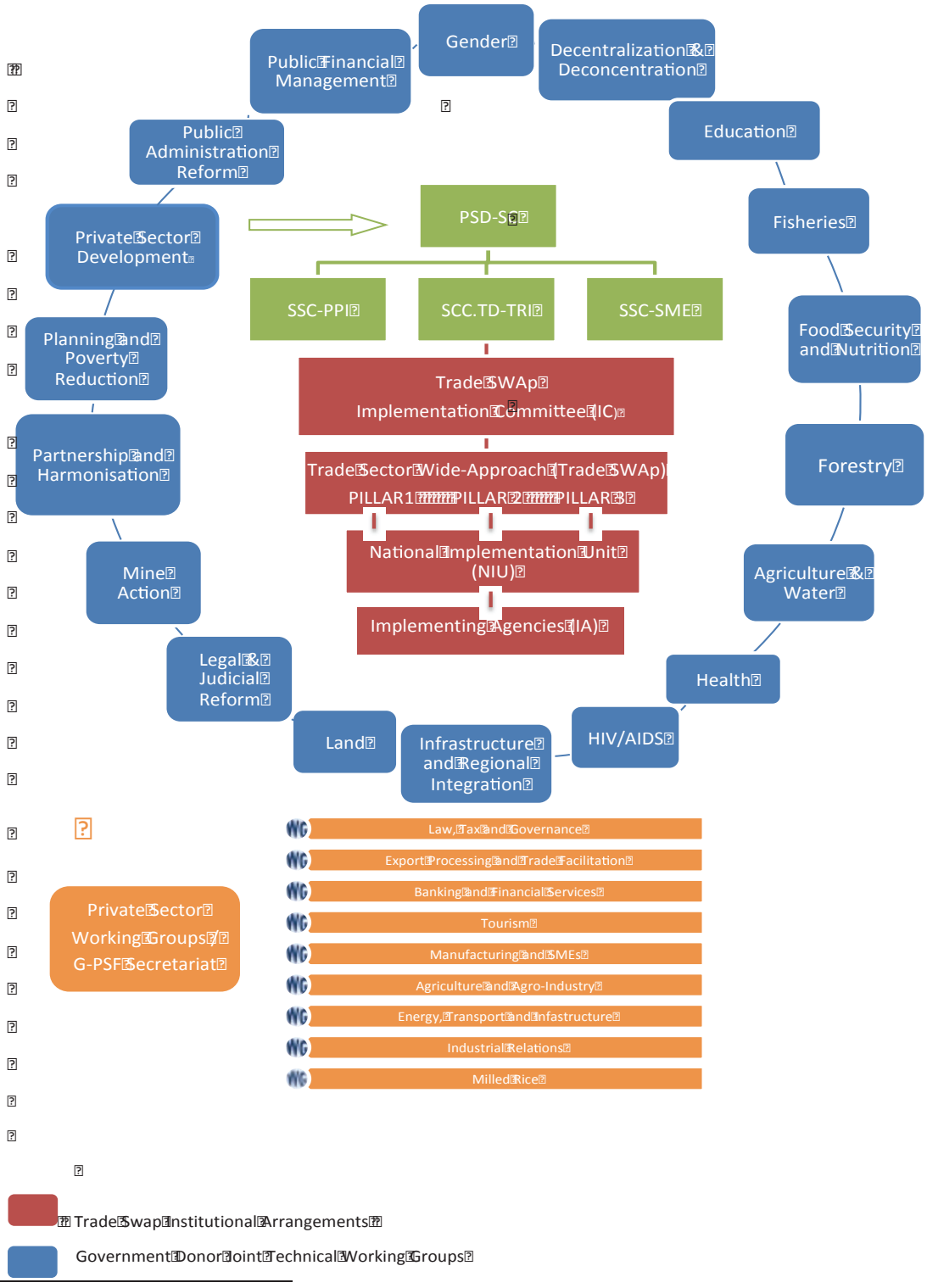
- The Trade SWAp Secretariat (DICO), a department in MoC staffed with 20 government officials and supported by national and international consultants.[380] Secretariat for Trade SWAp, TDSP, and EIF
- The TDSP implementing agencies (IA) (line Ministries implementing project funded by the MDTF)

While the PSD-TWG and the S-SCTD&TRI were created before the Trade SWAp was launched, their mandate has evolved since 2008 to take into consideration the SWAp mechanisms.

The EIF Focal Point and EIF Donor Facilitator are key elements of the National Implementation Arrangementsfor the EIF program. UNDP was the EIF donor facilitator until October 2012 when it was replaced by the ADB.

[380] The Department of International Cooperation of the Ministry of Commerce was created as a result of MoC's thorough internal reforms in 2007-2008. While its role was primarily to focus on international relations, its selection as the Trade SWAp Secretariat profoundly changed its mandate.

Figure 18.1: Institutional Map[381]



[381] Adapted from UNDP, *National Trade Mainstreaming Agenda for Cambodia*, Geneva: UNDP, 2012

Table 18.1: Review of Trade SWAp's Institutional Performance		
Governance Level		
Committee/ Position/Institution	**Role in Trade SWAp**	**Performance 2008-2013**
S-SC TD&TRI	1. Overall guidance for Trade SWAp implementation and AfT strategy, including review of progress and impact on trade sector development 2. Highest level decision making body on new projects under EIF and TDSP 3. Consultative body with participation of all stakeholders	1. Chair by the Minister of Commerce has given weight and credibility to the S-SC 2. Effective in providing guidance to MoC and Implementing Agencies on EIF and TDSP projects 3. Weak private sector participation limits dialogue 4. Thus far, too much focus on project level (operation, finance) and too little on M&E, outcomes and impact at program level, compounded by the lack of capacity of Technical Level to monitor Trade SWAp as a program.
PSD TWG	1. Forum to organize Development Partners' support to PSD 2. Forum for Government and DPs to review policy issues and Technical Assistance needs on PSD 3. Bridge between G-PSF and Trade SWAp	1. Weak Government participation has limited quality and quantity of dialogue 2. Trade tends to be diluted in wider PSD agenda 3. Limited "bridging" between G-PSF and Trade SWAp, compounded by a recent weakening of the G-PSF process
EIF Focal Point	1. Political level representation of EIF programme in Cambodia 2. Final decision-maker on technical and strategic issues for EIF Tier 1 and Tier 2 projects 3. Leads TAC1, TAC2, Trade Development Update meeting, and Cambodian delegation on AfT issues	1. Stability over the years has provided visibility to the position 2. Effective in bridging the gaps between the global EIF program and its implementation in Cambodia 3. On occasions, the EIF FP had to deal with operational issues rather than strategic ones, highlighting the need for effective delegation of power within MoC on AFT management issues
EIF Donor Facilitator	1. Leads donor discussion on trade issues 2. Supports EIF program implementation in Cambodia 3. Promotes participation of donors and stakeholders in trade SWAp	1. Effective "promoter" of Trade SWAp and EIF-related activities 2. Moderate success in increasing other DPs' interest in coordinating their support (especially bilateral) through Trade SWAp, compounded by a lack of clear mechanism to allow some degree of overall monitoring of assistances other than TDSP and EIF through Trade SWAp.
Coordination and Supervision Level		
Trade SWAp IC	1. Provides operational guidance to Trade SWAp stakeholders and MoC on design, monitoring, and implementation of trade development Technical Assistance 2. Ensures that projects proposed by EIF and TDSP are supportive of Government policies and objectives	1. Effective in ensuring regular inputs of line Ministries in trade-related matters 2. Ensures increased participation of line ministries in Trade SWAp through project formulation and implementation financed under TDSP and EIF 3. Lacks a mechanism to ensure greater coordination between TDSP or EIF funded

	as well as line Ministries strategies 3. Ensures that duplication and overlap among AfT projects are avoided or minimized 4. Endorses projects considered under TDSP funding for S-SC TD&TRI final approval	projects and Technical Assistance funded outside TDSP and EIF (mainly bilateral basis) through MoC or other line Ministries 4. Focus of project review is at disbursement and activities level. Lack of result-monitoring information on impact of projects limits the usefulness of participating in IC meetings
SWAp Pillar Working Groups	1. Propose, formulate, and evaluate projects submitted by Implementing Agencies 2. Ensure that project proposals contribute to Pillar Roadmap 3. Support the formulation, review, and update of Pillar Roadmaps 4. Make recommendations to SWAp IC and S-SC TD&TRI on possible project proposals	1. The participation into Pillar work has differed among Pillar (high in P1, low in P2, and moderate in P3) 2. Most active pillar WG are those where funds are accessible for projects 3. No or minimum DP participation in meetings of Pillar WG, limiting opportunities for coordination among project ideas submitted to Pillar WG, projects formulated by Implementing Agencies for submission to TDSP, and projects formulated directly by DPs with line Ministries 4. The slow process of formulating Pillar Roadmaps has limited the capacity of Pillar WG to M&E project implementation and contribution to roadmaps.
TAC 1 and 2	1. Appraises project proposals and project extension requests submitted to EIF Tier 1 and Tier 2	1. Effective and transparent mechanisms to appraise locally developed project proposals, including ensuring strong coordination with other donor-funded projects to avoid duplication and ensure synergies 2. Effective leadership by EIF FP and EIF DF has increased visibility of the TAC works
Technical Level		
DICO	1. Serves as Trade SWAp Secretariat, EIF National Implementation Unit, and TDSP Executing Agency 2. Procures goods and services for TDSP and EIF-Tier 1 projects 3. Monitors and evaluate projects under TDSP and EIF 4. Provides outreach and communication services for SWAp	1. Staffing of Trade SWAP Secretariat, EIF NIU and TDSP Executing responsibilities through DICO has increased ownership of Trade SWAp implementation 2. Limited capacity development efforts by DPs and MoC has restricted absorption capacity 3. Absenteeism has increased following termination of salary supplement scheme 4. Lacking capacity, DICO's M&E has focused on project level disbursement and implementation of activities rather than on project results and impact, let alone on Trade SWAp results and impact as a program 5. The absence of M&E capacity in DICO has limited its capacity to provide information that the S-SC TD&TRI would need to carry out its overall Monitoring and Governance of the Trade SWAp and trade sector development

Implementing Agencies (IA)	1. Formulates and implement project funded under TDSP and EIF 2. Collaborate with Development Partners to formulate and implement trade development projects outside TDSP and EIF	1. Though limited capacity delayed smooth implementation of the TDSP, there has been a significant increase in the capacity of Implementing Agencies to formulate and manage projects as a result of their involvement in TDSP and EIF. 2. Within line Ministries, there is a lack of communication between IA departments, IA project teams and their representatives on the IC limiting the capacity of the latter to speak for the needs of their Ministries

A number of lessons can be drawn from the experience with implementing the Trade SWAp mechanism since 2008:

1. ***Government buy-in***: Notwithstanding the current limitations of the Trade SWAp mechanisms, they have resulted in clear and resounding support for the Trade SWAp and its continuation. In particular, opportunities for consultation and dialogue among line Ministries through several of the Trade SWAp Governance or Monitoring mechanisms – including the S-SC TD&TRI and the Implementation Committee – as well as opportunities opened up by TDSP and EIF for funding individual projects proposed by various line Ministries and agencies have helped strengthen the notion of a shared vision for trade sector development among line Ministries.

   Despite the success of Trade SWAp in bringing about a sense of shared vision within Government, Trade SWAp could have benefit from high profile visibility, outreach, and communication including as a means to more fully bring other Cambodian actors – including the private sector and civil society – as stakeholders in the results and success of the trade development strategy.

2. ***Sequencing of technical assistance and capacity of Implementing Agencies***: In a perfect world DTIS 2007 should have led to the Trade SWAp strategy and Pillar Roadmap first; then, projects should have evolved from this process. However both the TDSP and the EIF programs were supporting the establishment of the Trade SWAp, which, in turn was supposed to be coordinating with the help of the programs. Hence a particularly complicated order of priorities surfaced.

   In hindsight, a tiered-staged approach might have been developed focusing initially on assessing the management and related capacity needs and gaps of IAs and DICO according to the DTIS and action matrix, then identifying the resources to strengthen the weaker IAs, and then developing projects based on the implementing strengths of individual IAs. Most IAs still find the process of developing a basic project document demanding, somewhat alien to the process which they were used to in the past when development partners carried most of the work of project preparation. In addition, at this stage, many IAs are yet lacking sufficient project implementation capacity to meet the requirements requested from DICO for procurement requests, reporting, etc.

   A positive feature of the Trade SWAp is that it has abandoned the model of using (a) Project Management Unit(s) (PMU) outside the main government structure in favor of building capacity in core project management functions through a single National Implementation Unit – in this case DICO – which is itself a government department.

3. ***Sequencing of technical assistance and alignment with the Roadmaps***: Some of the Projects and interventions that were developed out of TDSP before the Trade SWAp Roadmaps were finalized are not always fully aligned with the Pillar's objectives and building blocks.

4. ***Monitoring results and impacts:*** Trade SWAp, thus far, has been weak in the critical area of M&E. Many of the initial project proposals under TDSP did not include a monitoring framework or indicators of success. Much of the monitoring carried out by DICO remains at the level of tracking disbursements and implementation of activities.

   But even more importantly, the original Trade SWAp mechanism has lacked a clear set of tools and processes focusing on measurement and monitoring of results of trade-related technical assistance – not only focusing on technical assistance disbursed through TDSP or EIF, but through other multilateral or bilateral funding mechanisms. The absence of such clear mechanisms and tools, compounded by the lack of M&E capacity within DICO which should be tracking and preparing such information (as Trade SWAp Secretariat), have limited the ability of the S-SC TD&TRI to fulfill its mandate as true overseer of the progress made against the Government's trade development strategy. The absence of such mechanisms and tools have also made it difficult for technical assistance provided outside the framework of the TDSP and EIF to fit in and/or convenient to remain somewhat outside the purview of the S-SC TD&TRI as a "Governor" and "Owner" of Cambodia's trade development strategy.

   The Pillars were initially expected to provide a place for dialogue among IAs, private sector and development partners, including generating project ideas that could be financed either through TDSP or EIF or through other donor funding as well as ensuring synergies and elimination of possible overlaps among projects. To a certain extent, the Pillars have failed to provide such a forum and mechanism. Absent a working process at the Pillars level, EIF TAC-1 and TAC-2 have probably provided some of the strongest forum for exchange and coordination among IAs and development partners. In the end, what the current mechanisms have failed to do is to provide clear processes through which development partners can link more strongly their other trade-related assistance programs to the Trade SWAp, including ensuring the objectives of those other assistance are consistent with the priorities identified by the Government.

Overall, this key weakness in the original Trade SWAp mechanisms has led to a nearly exclusive focus on monitoring the implementation of individual projects at all levels of the Trade SWAp structure at the expense of monitoring the progress of an overall strategy and asking questions about technical assistance needs in light of gaps identified through overall monitoring. This is a key limitation that needs to be addressed in the coming years. Possible ways to remedy this weakness are suggested in the next major section of the chapter.

The Participation of the Private Sector in Cambodia's Trade Development Vision

The Government's Rectangular Strategy and NSDP are based on a vision of private-sector-led growth. The reform agenda is led by a steering committee, chaired the MEF with other relevant Ministries and agencies participating.

Robust mechanisms have been put in place in the past ten years to ensure that private sector does contribute to the implementation of the country's development vision, at different levels, as described below:

1. ***Strengthening G-PSF:*** Firstly, a Government Private Sector Forum (G-PSF) was put in place as a public-private sector consultation mechanism. G-PSF is chaired by the Prime Minister. It provides a framework for private sector advocacy and inputs on business and trade-related policies and measures through business associations such as the Cambodia Federation of Employers and Business Associations (CAMFEBA), the Garment Manufacturers Association in Cambodia (GMAC), the Cambodia Hotel Association (CHA), and the Freight Forwarders Association (CAMFFA). With support from IFC and under the auspices of the Cambodian Chamber of Commerce, eight thematic working groups were established to facilitate engagement with policy issues. The groups were instrumental in enabling the private sector consultation in the 2000s but weak capacity in many business associations has constrained involvement in substantive policy discussions since the responsibility for managing the G-PSF was transferred from IFC to the private sector in 2010.

2. ***More effective TWGs:*** Second, 19 Government-Development Partner Joint Technical Working Groups (TWGs) operate under the CDC to provide a means for government-donor coordination on a sectoral basis (e.g. Technical Working Group on Forestry and Environment). Although there is no dedicated trade TWG, trade- related matters often come up in the sector TWGs and in the Private Sector Development (PSD) Group. The Secretary General of CDC is Secretary General of the PSD Committee, which is co-chaired by the World Bank and the Asian Development Bank. Discussions in the PSD TWG may, at times, include review of issues raised in individual G-PSF working groups.

3. ***Other ad-hoc committees:*** Finally, a number of Government-led steering committees work with the G-PSF and TWGs in an effort to strengthen coordination within government. This includes committees on WTO and ASEAN, on Intellectual Property, or on Standards that benefit from private sector inputs on a need basis.

In spite of these mechanisms, the capacity of the private sector to engage fully in the policymaking process and participate in Aid for Trade project design, implementation, or monitoring has remained weak. Participation of private sector representatives in Trade SWAp committee meetings has been erratic, limited to a few BMOs, and seldom includes participation from foreign Chambers of Commerce or provincial chambers of commerce.

In addition, there appears to be a continued disconnect between the three dialogue forums – namely the G-PSF, the PSD TWG, and the Trade SWAp. Opportunities for joint funding or joint project formulation are either not known or ignored by the private sector. Information on Trade SWAp progress, in particular when it comes to cross-cutting issues (e.g. Intellectual Property, Investment Environment, Trade Facilitation) is not readily available and often insufficiently advertised. Several attempts have been made to bridge the gap and establish more formal relationship between the Ministry of Commerce and private sector representatives through meetings or joint workshops, but with little impact on the depth and quality of the public-private dialogue when it comes to trade issues. In the end, private sector representatives are

reluctant to comment or provide feedback to draft policies and strategies as they reckon that their views were not sought earlier and therefore do not expect much from dialogue.

Mainstreaming at International Cooperation Level

Cambodia has benefited from substantial inflows of Official Development assistance (ODA) over the past two decades. Yet, despite the very broad and comprehensive set of recommendations emerging from the first DTIS, the focus of technical assistance during the first half of the 2000s remained limited – reflecting partly priorities of the Government, absorption capacity of Cambodian institutions, and somewhat unclear commitment of traditional development partners towards trade sector development.

Much of the focus of ODA in the area of trade during those years was on WTO Accession and related legal reform and on strengthening the dialogue between Government and the Private Sector. The launch of the Aid for Trade initiative in 2005, the momentum created by the 2005 Paris Declaration on Aid Effectiveness, the launch of the Enhanced Integrated Framework (EIF) in 2007, as well as renewed interest of development partners for trade development helped provide new opportunities for Cambodia to mobilize AfT for trade mainstreaming.

Learning from previous shortcomings, theDTIS 2007 moved away from the typical DTIS action matrix to develop the basis for a Trade SWAp. The Trade SWAp was launched in early 2008 by the RGC in consultation with development partners to implement the objectives of DTIS 2007 and help strengthen RGC's ownership and management of AfT.

The launch of the TDSP under a Multi Donor Trust Fundsupported by the EU, DANIDA, and UNIDO and administered by the World Bank was organized to provide Government with resources to support the Trade SWAp. Other donor-funded programs – e.g. UNDP TRADE, ADB, IFC, EIF Tier 1, USAID, others – were largely or partly aligned with the Trade SWAp to ensure they would support the shared objectives.

Table 18.2: Aid for Trade Disbursements to Cambodia, $ millions, 2002 – 2011										
	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Sector(s)										
II.1. Transport & Storage	4.81	71.18	43.93	30.53	83.26	51.42	94.72	156.69	310.92	77.41
II.2. Communications	0.73	1.42	1.68	28.87	3.21	1.92	2.14	1.70	3.41	1.83
II.3. Energy	17.02	41.37	55.35	62.05	33.03	51.82	19.46	4.60	16.90	1.68
II.4. Banking & Financial Services	9.80	7.69	1.185	7.72	3.12	5.34	63.09	9.81	45.57	38.20
II.5. Business & Other Services	0.11	1.02	6.02	2.99	0.21	5.05	7.32	4.43	4.11	1.83
III.1.a. Agriculture	1.77	24.51	63.88	87.36	35.27	25.23	20.27	41.18	54.54	123.79
III.1.b. Forestry	0.15	1.18	1.58	1.71	1.37	1.61	1.78	1.41	1.182	2.78
III.1.c. Fishing	0.05	11.87	0.55	1.37	1.53	1.98	2.23	12.06	1.26	2.04
III.2.a. Industry	6.90	5.39	5.88	2.24	16.60	6.71	42.85	7.12	12.15	2.54
III.2.b. Mineral Resources & Mining					0.01	0.02	1.69	1.81	1.96	1.416
III.3.a. Trade Policies & Regulations	0.02	0.31	2.22	10.31	9.90	5.23	8.86	1.94	8.10	1.21
III.3.b. Tourism		16.53	0.05	0.02	0.55	0.65	1.01	1.01	1.17	1.66
Total	41.39	182.52	182.37	235.19	188.11	157.03	265.45	243.81	461.32	256.46

Source:OECD/DAC, *CSR Database*, 2011 (http://www.oecd.org/dac/aft)

While the bulk of AfT as defined by OECD/WTO is recorded outside the Trade SWAp, withannual commitments around $250 million since 2008 (exceptionally, $461 million in 2010) according to OECD/DAC data (table 18.2), the role of Cambodia'sTrade SWAp in coordinating aid delivery focusing on needed trade reforms and institutional strengthening should be noted, as it has helpedprovide better alignment of donor assistance to national priorities.[382]

The distributionof AfTdisbursement by sector has remained relatively stable since 2002 as shown in table 18.3 above, with agriculture and transport towering over other AfT categories. In addition, asignificant amount ofAfT has been allocated recently to the banking and financial sector.

The top four AfT donors operating under the OECD/DAC systemin 2011, in terms of commitments,were Japan, the Asian Development Bank, South Korea, and the World Bank. Together they made up 74 percent of Cambodia's total AfT.

In terms of resources more directly supporting areas of focus under Trade SWAp (primarily Item #III.3.a, Trade Policy and Regulations, in table 18.2 and some, but more limited contributions under other Items III as well as II.1) severaltechnical assistancemechanisms have contributed the bulk of resources:

- The Multi-Donor Trust Fund (the umbrella program for the TDSP) has provided $16 million between 2009 and 2013 financed by EU, DANIDA and UNIDO, with an extra $5.8 million from EU earmarked for 2013-2015. The MDTF is divided in two different segments, the TDSP or Recipient-Executed Trust Fund ($12.35 Millions) administered by the World Bank and executed by MoC/DICO and the Bank-Executed Trust Fund ($3.65 Millions) solely executed by the World Bank. The TDSP is used to support project formulated by Implementing Agencies in support of the Pillar Roadmaps and or the Program Development Objectives, with a principal focus on Pillar 1 and Pillar 3 projects.

- The Enhanced Integrated Framework Trust Fund provides funding through two windows: The EIF Tier 1 (2010-2015) provides assistance up to $1.5 million for building capacity in DICO and strengthening the SWAp institutional framework. This includes financial support for the current DTIS update. Current Cambodian projects under the Tier 2 category focus on Pillar 2 and promotes export diversification and expansion in five key sectors, for an approximate total of $6 Million over the period 2013-2016. The sectors selected are in line with those targeted for export diversification by the Government of Cambodia.

- The UNDP TRADE Project, which was completed in 2010, provided approximately $5 million worth of assistance to build the foundations of the SWAp. Funding came primarily from UNDP core funding, complemented by Window 2 funding from the Integrated Framework, the 1997-2005 precursor to the EIF.

- Various assistance from bilateral and other multilateral donors including support for building export supply capacity (AFD, USAID, AUSAID, ADB, JICA, GIZ, NZAID, EU, DANIDA, IFC), for legal reform (USAID, ADB, UNCTAD), for trade facilitation (WB, JICA, AUSAID, EU, IMF, WICO), for Intellectual Property Rights (WIPO, EU, AFD), for SPS (ADB, NORAD) and others.

Issues affecting the mobilization and coordination of AfT resources around Trade SWAp include:

[382] See http://www.oecd.org/dac/aidofrtrade/aid-for-tradestatisticalqueries.htm

1. ***Lack of monitoring***: The absence of a robust monitoring framework in the original Trade SWAp mechanisms has limited the ability of the Governance structure to provide greater leadership at the Trade SWAp program level and made more difficult to demonstrate results. Several factors have played into this: the absence of a clear M&E framework itself; the late adoption of the Pillar Roadmaps in 2012 has limited the possibility of measuring progress in achieving trade development outcome and impact results against clear benchmarks and targets; and, the lack of capacity within DICO to develop M&E information. This shortcoming is now fairly well recognized and early steps have been taken to address it, including building M&E capacity in DICO or using the opportunity of the current DTIS update to update the Trade SWAp Pillar Roadmaps, with clear outcomes, benchmarks and targets, through extensive analytical work and thorough validation with Government officials in key Ministries as well as private sector representatives.

2. ***Hesitant donor support***: Only three donors contributed initially to the MDTF -- EU, DANIDA, and UNIDO. No new donor has shown interest in contributing additional resources to the fund except for some replenishment by the EU. In addition, only EIF has followed in the footsteps of the TDSP and elected to use DICO as its project management unit. Alignment of other supports from trade-focused development partners to the Pillar Roadmaps has been mixed, though several donors have made progress towards aligning some of their focus and result framework with the trade SWAp framework. This is the case, for instance, ADB in areas of legal reform and SPS capacity building, USAID in legal reform, IFC and ADB in milled rice exports, and others as well. As mentioned previously, a main limitation has been the absence and/or failure to establish a working mechanism indicating how a donor financed project funded along more traditional Government-individual donor lines could be designed to capture key Trade SWAp outcomes and actions, could be monitored for such under the Trade SWAp Governance structure, while retaining some greater degree of autonomy. This issue needs to be addressed going forward.

3. ***Absorption capacity***: At least until now, Cambodia has not been constrained by the lack of AfT resource. However, absorption capacity and speed at which institutional change can be achieved have been factors limiting the implementation of AfT resources, hence the ability to mobilize additional amounts of technical assistance.

4. ***Donor short-term expectations***: Short-term expectations at donors' headquarters are often at odds with the long-term nature of change when capacity building is involved. Opportunities for additional assistance, at times, may simply be the result of the inability (political or otherwise) of donors to align their timelines with the realities of development.

5. ***Untapped resources:*** Thus far, Cambodia has been re-active rather than pro-active towards AfT resource mobilization. By doing so, it is overlooking other untapped sources of funding in particular from South-south cooperation providers (in ASEAN and ASEAN +3), from BRICS and possibly by the private sector, including through various forms of public-private partnerships combining resources from Government, development partners, and the Cambodian private sectors. More development partners include a private sector dimension in their TRTA to Cambodia (ADB, AFD, SIDA) allowing much needed public-private partnership to be supported.

Box 18.2: A "PPP" for Tourism

The Ministry of Commerce and the Ministry of Tourism, in partnership with Sida, the EIF and SDC are partnering in2013to develop an ambitious Public-Private Partnership (PPP) to establish Cambodia's Royal Academy of Culinary Arts (RACA) to train food preparation personnel ranging from chefs to cooks or baristas for the Cambodian hospitality sector. Through the establishment of RACA, it is expected that hotel and restaurant operators will be able to improve the quantity and quality of their offering through improvements in the number and quality of trained Cambodian kitchen staff available in the labor market and that a governance and financial model has been put in place to ensure long term sustainability of RACA independent of Development Partners support.This partnership is expected to set the scene for other promising partnerships in trade development.

Trade SWAp Forward: From Aid Delivery to a Sector Development Perspective

This second major section of the chapter draws from the lessons identified in the previous section to develop recommendations in three major areas:

- Strengthening of trade mainstreaming and Trade SWAp mechanisms
- Strengthening monitoring and mobilization of AfT
- Enhancing private sector participation in AfT

Possible Actions to implement the recommendations developed hereafter are presented in the Trade SWAp Pillar Roadmaps 2014-2018 under Outcomes #18, #19, and #20

Deepen Trade Mainstreaming and Strengthen Trade SWAp Mechanisms

The Continued Relevance of Trade SWAp in Cambodia: For full effectiveness of AfT and Government resources in promoting trade sector development in Cambodia, there is need to move beyond the traditional project-oriented aid-delivery focus and embrace an approach to effective trade sector development. Such approach needs to looks at the many institutional and policy interactions that characterize trade sector development and prioritize actions and use of available resources within a comprehensive strategic vision and with support of an institutional framework that brings in all relevant stakeholders. Trade SWAp is an attempt to provide such comprehensive vision and inclusive implementation framework. It remains more pertinent than ever, even if it needs to be improved in light of the experience of the early years.

Trade SWAp should not be about implementing technical assistance under a particular disbursement modality, but implementing a vision under an inclusive approach that can embrace many different modalities -- be they budget support, pooled funding, or funding based on traditional single-donor procedures. Which donor disbursement modalities are used are decisions that should be made on the basis of joint assessmentsby donors and Government, provided there is alignment with sector development

priorities identified by the Government. So far, Trade SWAp has focused on implementing a Trust Fund modalityand has not gone much beyond the project delivery focus.

The current effort to update the DTIS in conjunction with the preparation of NSDP-IV will be a positive development if the result is that the priorities identified for Trade SWAp for the coming years are more clearly embedded into the priorities of the NSDP. This would send a pretty unambiguous message to line Ministries and Government agencies as well as development partners that the Trade SWAp objectives and priorities are also the country's development priorities.

Similarly, the Cambodia Trade SWAp was not designed as part of the governments budgetary and expenditure framework. Ideally a SWAp should also be part of an integrated budget framework matching expected donor and government resources to expenditure plans. This ensures that the government is aware and able to meet its sector commitments. Without such a process of budgeting and expenditure prioritization of total resources available, there is a risk that resources are expanded at a level that is not sustainable once donor funding is phased out.

In the long run (2018 and beyond) the principle of sector budget support should be considered and should help sustain and consolidate Trade SWAp. With appropriate mechanisms in place, funds would be channeled via government budget systems, with a strong emphasis on approval of work plans of the MoC, other line Ministries, and other trade related institutions before allocation of funds.The mechanisms for the approval of work plans would need to be worked out between contributing development partners and the Ministry of Commerce, under the purview of the Ministry of Economy and Finance.

For the current Trade SWAp to move in the broader direction described above, several changes will need to take place:

- The dialogue with development partners on Trade SWAp implementation will need to move away from the current, nearly exclusive focus on disbursement, procurement, and fund availability to a more balanced and mature exchange that also focuses on program outcomes, impacts, and the respective contributions needed from different stakeholders -- Government, private sector, civil society – to achieve such results
- Donors and Government will need to see measurableresults for their investments, requiring well developed monitoring arrangements.
- The scope of donor support and Government funding monitored under Trade SWAp will need to be expanded to include a much broader range of projects and assistance delivered under multiple modalities than those currently monitored under Trade SWAp

Improving Policy Formulation, Governance and Monitoring Framework, under Trade SWAp:
Mainstreaming trade in national development policy promotes policy coherence. Leadership and engagement of stakeholders are key success factors. Integrating trade into national policy cycles requires structured and continuous efforts by governments and stakeholders. Trade must be actively mainstreamed into every stage of the policy cycle, beginning with sound analysis, consultation, and communication.

While the preparation of the 2013 DTIS update, with a much closer linkage to the preparation of NSDP-IV, is a significant improvement from earlier NSDP formulation cycles, there is ample room for further

improvements. More efforts will be required to ensure that priorities identified inthe DTIS through the Trade SWAp Roadmaps are better reflected in other Government policy formulation efforts, including the formulation of sector policies. In addition, there is a need for stronger alignment of Aid-for-Trade mobilization and management to the Government five-year planning and budgeting cycle.

Institutional development appears strongly on the agenda of Trade SWAp, with support provided at present by TDSP and EIF Tier 1. Moving from project-focused Aid to programmatic Aid will require a shift in the focus in the Trade SWAp mechanisms and strengthen national systems and capacity.

Needs for change might be summarized as follows:

a) Improvingcoordination between the formulation of trade development objectives and those of the national development strategy:

- The AfT and public resources needed to implement the priorities identified in the DTIS and Trade SWAp Roadmaps and reflected in the Trade SWAp should be integrated into the national planning and budgeting system, including the Government budget, PIP, and Aid cycles. MoC in partnership with MEF, CDC, and development partners should explore ways to link Trade SWAp resources planning with the Government budgeting and MTEF processes. Introduction of annual and five-year Action plan by MoC would also support this effort.

- Studies should be commissioned in the lead up to NSDP-IV mid-term review and NSDP-V formulation focusing, for instance, on key export sectors and trade-related cross-cutting issues to understand better how the linkage between trade development and national goals (LDC graduation for instance) can be improved.

- MoC's capacity to compile and use statistics and trade data to inform policy-making and formulate appropriate measure for trade sector development needs to be strengthened. Linkages between MoC and national research institutions with capacity to develop trade-related studies should be strengthened. In addition, MoC could develop and maintain a user-friendly and electronically accessible database of available trade-and PSD-related studies, reports, and presentations.

- Continued high-level political commitment to Trade SWAp is required for ensuring sustainability. Current informal arrangements for inter-ministerial consultations on trade and investment-related issues among MoC, MAFF, MIH, CDC, and SNEC could be strengthened by establishing a high-level working group.

- MoC could work with MoP and SNEC to prepare a set of indicators to be used by each ministry to mainstream trade in their own plans and strategies.

- There is a need to develop clear indicators measuring the impact of trade development on poverty-reduction and sustainable human development. In addition to designing such indicators, there would be a need to put in place a tracking system so that impacts can be monitored. This could be a task taken on by MoC Trade Training and Research Institute though formulating and tracking such indicators would likely need some degree of cooperation across several line Ministries. Civil society organizations such as the NGO Forum should also be involved in this exercise.

b) Improving the Trade SWAp Governance and Implementation framework

- The Trade SWAp Governance and Implementation framework needs to shift from the current, dominant focus on individual project implementation and reporting to a greater balance between that and a focus on Governance and results Monitoring and Evaluation of an overall trade development program (as reflected in the DTIS and Trade SWAp Roadmaps)

- To help with the above, the Trade SWAp Pillar Roadmaps must be less instruments to guide and monitor implementation of individual donor projects (with an emphasis on activities and outputs) and more tools to help the Governance structure to monitor progress in the implementation of an overall trade development and AfT program (with an emphasis on impacts and outcomes.) To do so, clear, measurable benchmarks and targets are needed at the outcome and impact levels, not simply at the action/output levels.

- Explicit mechanisms need to be identified so that AfT projects implemented outside the framework of the current TDSP and EIF funding can be monitored under the umbrella of the Trade SWAp Governance mechanism against the benchmarks and targets identified in the Roadmaps. By doing so, their contribution to the implementation of the overall trade development strategy will be better understood and overall Trade SWAp progress better measured. To help with this, at a minimum two changes could be implemented:

    - The current Pillar Working Group structure has proven too static and too bulky to bring about the focused dialogue between IAs and development partners around technical assistance needs, project formulation, and funding mobilization that was expected. To evolve towards a more dynamic and more focused mechanism, it would be better to bring together smaller and more targeted groups of stakeholders and development partners to discuss actions and resources needed at the individual outcome level -- 20 outcomes under the updated Trade SWAp Roadmap 2014-2018 -- using existing project steering committees or working groups that already function under most of those outcomes. Project steering committees are a perfect place to involve key officials from line Ministries associated with the sector and/or issue, representatives from sector associations, as well as the few donors with projects focusing on the particular outcome and to hold more in-depth discussions of progress, needs, synergies and complementarities across technical assistance.

    - An annual meeting of MoC and development partners supporting Trade SWAp with projects others than TDSP could take place so that the development partners could present their program status, proposed/current log frame, and monitor their results (with some working procedure with DICO.) The meeting could take place back-to-back with the Q4 meeting of the S-SC TD&TRI.

c) Strengthening the capacity of the Ministry of Commerce to serve as lead trade agency for Cambodia's Trade SWAp, including meeting its Secretariat's functions

- The creation of a dedicated training and research institute in MoC should be sped up. The institute will need to team up with domestic, regional, and international institutions in the early stages. Additional capacity development modules can be added as the facility develops.

- Additional resources to strengthen further DICO with specialist staff dedicated to the programmatic and monitoring side are needed. Additional resources are also needed to strengthen project

management capacity in IAs. Over the longer term, the goal should be to reduce and then phase out the role of international consultants and advisers in DICO. Retention of the best staff will be an important factor for this capacity switch to happen.

- A comprehensive training program for MoC officials to be implemented by the Government and various external partners such as the Royal School of Administration and focusing on needs identified in the MoC-wide capacity needs assessment carried out in 2008 is still very much needed.

- MoC's internal aid management processes need to be better organized, more rigorous, and independent of donors. Emphasis must be placed on information as a management tool and efforts made to improve monitoring at all levels. The current information flow, requiring up to six layers of decision, is too cumbersome.

- There must be a credible, sustained government commitment to long-term salary improvement linked to public service reform to motivate staff and reduce absenteeism or early departures. Non-salary incentives can also be effective, especially increased delegation of responsibilities and authority with the opportunity for individuals to achieve and be recognized for real improvements to services. The long-term solution to the problem of low incentives depends on economic growth and increased revenue to make higher salaries affordable. Donor-funded salary supplements have created distortions and rigidities in personnel management and face sustainability problems.

- There is a need to move expeditiously with the implementation of MoC's ICT master plan, in order to modernize and automate the processes of MoC and related provincial offices, including linking up with database and trade information portals in other government institutions.

Monitor and Mobilize Aid for Trade

Strengthen M&E:Governments and development partners that work jointly in the context of a well-formulated programwith specific goals to overcome supply-side constraints are likely to get the greatest pay-off. This underscores the importance of government ownership, mutual accountability, and overall alignment and harmonization in Aid for Trade. Countries have varying capabilities to articulate needs, plan, budget, monitor, and evaluate Aid for Trade. Assistance to help governments build this type of results-based management capacity can have a high return for trade.

Weak monitoring capacity in the early years of Trade SWAp has dented the opportunity for the Ministry of Commerce and the Royal Government of Cambodia to better explain its successes in mainstreaming trade. The creation of the Pillar Roadmaps and the National Implementation Unit (DICO) for Aid-for-Trade projects in the Ministry of Commerce has helped bridge some of the gaps between donors' expectations and the RGC capacity.

Efforts deployed in 2013 to enhance the capacities of both the NIU and of implementing agencies on reporting will help improve the dialogue among line Ministries, MoC and development partners on progress achieved under some of the TDSP and EIF projects. But, as mentioned earlier, much additional M&E capacity remains to be built.

Over the next five years, a much stronger monitoring and evaluation system that serves the need for information at project and program levels and enhances results-based management must be put in place to strengthen Trade SWAp and resource mobilization as well as provide RGC with timely monitoring information and statistics that can inform decision-making at the Government and Ministrylevels.

For this to happen, actions will be needed at three different levels:

a) Capacity development on M&E

These actions have been noted previously.

b) Harmonization

- Review experience of other developing countries in developing trade sector development monitoring frameworks. This could include regular 'experience sharing' or joint training sessions with other countries in the region, in particular EIF and recently graduated countries or middle-income economies.

- Develop pro-active strategy to harmonizeGovernment and donor result framework formulation and reporting requirements for all trade-related projects and for Trade SWAp

- Partner with MoP and SNEC on measuring the progress towards NSDP goals

- The procedural system currently used to manage projects arising through Trade SWAp needs to be unified into a common system open to all existing and potential donors. It must be acceptable to all in terms of financial management, procurement, monitoring and evaluation. At present development partners are not clear as to how their potential contribution would fit within Trade SWAp and whether to align with Trade SWAp Roadmap or not, especially if their projects are implemented bilaterally. Hence DICO needs to explain and disseminate the Trade SWAp vision and purpose more effectively

c) Plans and benchmarks

- Organize a 2016 mid-term review of the Trade SWAp Roadmaps2014-2018 jointly with line Ministries and update benchmarks and targets as needed to account for changes since 2013

- Review progress against the Trade SWAp Roadmaps outcomes annually

- Develop and implement an M&E plan including roles and responsibilities, data gathering and management, data analysis, use of information and building of capacities required. The training for M&E unit staff could be provided by the MoC Trade Training and Research Institute, in partnership with local institutions.

- Increase the use of IT-based monitoring systems for Trade SWAp related projects. In the long run, develop a web-based monitoring and evaluation platform emulating the "traffic light" approach used in MDTF reports.

- Finally, the oversight role played by civil society and the media in general can be an effective driver of change and bring better government accountability on actions and results. Those two actors should be included also in ensuring monitoring and evaluation of results.

Box 18.3: How Aid for Trade is Monitored Globally

A recent Organization for Economic Cooperation and Development (OECD) review of accountability in AfT initiatives concluded that the status of M&E in AfT is relatively weak. With increased investment in trade-related initiatives, there is a need to demonstrate that initiatives have been well implemented and that they have reached their development objectives. The last few years have seen an enhanced focus on M&E in AfT initiatives. In the self-assessment conducted on AfT programming in 2009 it was observed that two-thirds of partner countries regularly monitored and evaluated their trade-related programs

To assess progress towards the objectives of the Aid-for-Trade Initiative, the OECD and the World Trade Organization (WTO) have developed a joint monitoring framework. This framework links accountability at the country (or regional) level with accountability at the global level. As outlined in the Paris Declaration on Aid Effectiveness, mutual accountability is designed to build genuine partnerships and focus these partnerships on delivering results.

Three elements are central in establishing mutual accountability: a shared agenda with clear objectives and reciprocal commitments; monitoring and evaluating these commitments and actions; and, closely inter-related, dialogue and review. The Aid-for-Trade Initiative is one of the clearest international examples of how these three elements create powerful incentives to carry out commitments and, ultimately, to change behavior.

The logical framework for assessing the Aid-for-Trade Initiative is based on four main elements identified by the OECD-WTO Task Force:

A) Demand (i.e. mainstreaming and prioritizing trade in development strategies);
B) Response (i.e. aid-for-trade projects and programs);
C) Outcomes (i.e. enhanced capacity to trade); and,
D) Impacts (i.e. improved trade performance and reduced poverty.)

Source: OECD/WTO, *Third Global Aid for Trade Review* and *Fourth Global Aid for Trade Review*

Communicate Results: As more countries compete for decreasing AfT resources world-wide, it is critical for acountry to communicate wisely its progress, using different mediaand focusing on different target audiences.

In the recent past, Cambodia has increased its visibility at the international level, through its WTO accession bid, its participation to international AfT meetings, its successful WTO trade policy review and other events. Several media supports, such as the *Trade Development and Aid for Trade in Cambodia Stories* and the EIF-produced *Cambodia Trading Stories* movie, have contributed to building a different image of Cambodia.

Yet, it sometimes looks as if Cambodia's trade development and AfT successes are better known internationally than nationally. At the national level, dissemination of results and progress has occurred mostly through meetings and outreach workshop, but it has failed to reach private sector or sub-national

Government authorities. There seems to be limited understanding within Cambodia about the linkages amongtrade mainstreaming, poverty-reduction, Government priorities , including among donors, the private sector, and other trade stakeholders.

Trade SWAp needs a more effective, high-visibility publicity, outreach and communication plan. A Trade SWAp communication strategyand action plan were developed in 2010 and updated in 2012 in the framework of the EIF Tier 1 project. The recent addition of a communication cell in the EIF Executive Secretariat in Geneva has accelerated the adoption by Cambodia of dedicated tools.

In line with most of the recommendations included in the Trade SWAp communication strategy, the following actions need to be implemented in the coming years to ensure increased visibility within Cambodia in particular:

- Creation of a SWAp communications unit within DICO, with dedicated staff, with the mandate to implement the Trade SWAp communication strategy and provide MoC with tools, media and access to media to promote trade mainstreaming successes, in both Khmer and English.

- Development of a large-scale public relations activity plan, with support from both TDSP and EIF programs, to be kick-started immediately after the launch of the DTIS 2013 update

- Upgrading and maintenance of the Trade SWAp website to provide meaningful information to all stakeholders, and be linked with project partners own websites. Dedicated corners for Trade SWAp M&E should be developed for transparency purposes.

- Production of a TV documentary highlighting the importance of trade sector development and the Government's strategy, including the use of Trade SWAp, available in Khmer and shared with mainstream media in Cambodia

- Partnership with Cambodia Chamber of Commerce to reach out to their members, followed by increased communication with relevant G-PSF working groups and sector associations

Mobilize AfT: Despite the downturn in OECD countries' aid expenditure, substantial funding remains available, including via South-South cooperation, triangular cooperation, and the private sector. On average, one dollar invested in aid for trade results in an increase of nearly $8 in exports from all developing

Because the trade development landscape is changing, Aid funding, national expenditure, public policies, as well as private investment increasingly need to be examined in an integrated way. While aid for trade has been defined in terms of ODA, other sources of finance can help build trade capacities in LDCs like Cambodia.

Two priorities have become obvious if Cambodia wants to take advantage of new or untapped sources of funding:

a) *The Ministry of Commerce, with support from MoP, line Ministries, and the relevant development partner groups, must deepen the partnership with existing and new development partners*

- A mapping of current development partner's interventions in support of Cambodia's trade development within or outside Trade SWAp must be updated and kept up-to-date by MoC.

- Non-participating development partners must be kept informed of Aid-for-Trade and Trade SWAp achievements through focus group meetings (e.g. the Trade Development Update informal luncheon meetings organized every quarter by MoC with development partners) dedicated communication, and bilateral visits. DICO should organize a campaign of intensive dialogue with donors explaining the Trade SWAP, its objectives, and benefits for development partners. Success stories should be championed. New donors, in particular, should be invited to participate in the Trade SWAp.

- The role of the Donor Facilitator (DF) should be reviewed regularly, strengthened, and improved as needed. This will provide strong linkage and coordination between funding agencies not yet aligning their monitoring framework with the Trade SWAp Roadmap and those that do (EIF and TDSP) and also ensure the SWAp is understood and offered as an umbrella for all trade-related supports. Additional funding can be sourced while the DF can utilize the M&E system to feedback to interested parties.

- Regular high-level meeting between Government officials and development partner should take stock of on-going assistance, funding gaps, and strategize on how to bridge the gaps based on the updated Trade SWAp Roadmap 2014-2018 and an up-to-date TRTA matrix.

- Donors need to articulate their concerns and needs in order to support the SWAp and use it to coordinate all trade related activities. Donor funding in the trade related areas needs to be increased and aligned with the SWAp. Currently many donors are working independent of the SWAp and the pillars roadmaps which is undermining the Trade SWAp. The proposed mechanisms to review annually the logical frameworks of development partners and how their actions contributes to the Trade SWAp's result framework, under the purview of the S-SC TD&TRI would provide steps in the right direction.

- Donors need to adjust their expectations of the time needed for policymaking and program development in order to allow governments to build the consensus essential for successful implementation. Pressure for immediate results must be balanced with the realities of capacity development to avoid disappointment and damage to program.

- The NIU should become more proactive in ensuring a smoother dialogue between MoC – the lead agency on trade – and development partners. So far the NIU has been too reactive, focusing on coordinating existing projects, and not advocating for more support. Regular meetings with non-traditional donors should be organized, under the leadership of the EIF Focal Point, to share progress, constraints, needs and achievements made under Trade SWAp and promote alignment of donor actions to the Trade SWAp Roadmaps.

b) Tap unused Aid-for-Trade resources

The trade agenda of developing countries is increasingly being pursued through regional economic integration and cooperation efforts, a fact noted during the Third Global Review of Aid for Trade in 2011. In this context, regional aid for trade can help boost trade and facilitate movement along value chains.

Support from new regional donors reached its highest ever level in 2012 world-wide. So far, Cambodia has been unable to tap into these resources. The findings of the OECD/WTO monitoring survey suggest that most providers of South-South trade-related cooperation plan to increase their resources in the future.

Regional aid for trade has a critical role to play in boosting the participation of least developed countries (LDCs) in regional production networks, and enabling them to move up the value chain. One of the main motivations of the trend towards regional integration is the need to reduce barriers in regional production networks. Barriers to trade, bureaucratic bottlenecks, and infrastructural deficiencies reduce the competitiveness of countries.

China and India for instance, on top of their non-concessional support, doubled their ODA-like assistance in 2011 to $ 2.4 billion and $ 730 million respectively. South-South trade-related support is becoming increasingly an important complement to aid for trade. Malaysia, Singapore, Thailand, if on a smaller scale are also trying to increase their ODA support.

A targeted approach towards those non-traditional development partners should include:

- A review of current practices, strategies, and resources of non-traditional AfT donors active on trade issues in the region. This can be done by meeting relevant partners representations in Cambodia (China, Kuwait, United Arab Emirates, ASEAN partners) as well as those venturing in trilateral cooperation (Malaysia, Singapore, Thailand)

- Design a dedicated communication and outreach strategies targeting non-traditional donors, starting with their participation in the launch of the DTIS Update, participation to S-SC TD&TRI meetings, and PSD TWG meetings. Link the outreach strategies to recommendations of the DTIS Update for regional integration and expansion.

- Assess the possibilities to target ASEAN funded assistance through the ASEAN Secretariat and increased partnership with ASEAN technical bodies (included ERIA).

Enhance Private Sector Participation in Trade Policy and Aid for Trade

While the focus of the Government-Private Sector dialogue in Cambodia, so far, has been mainly on business environment policy and regulatory issues, such as those addressed in the Government-Private Sector Forum, steps are being taken to expand the scope of the dialogue to “win-win” cooperation as exemplified by the recent flurry of Public-Private Partnerships, some of them including development partners participation.

Clearly, the private sector needs to be involved at different levels of Cambodia’s trade development policy formulation and implementation. Trade-related dialogue between Government and the private sector needs to be part of those processes and MoC should take the lead through ensuring a pro-active private sector is involved in all stages of Trade SWAP.

In the medium term, it should be possible for the private sector to be more involved in Aid-for-Trade project design, formulation, and implementationand to contribute financially wherever appropriate.[383]To that effect, the G-PSF and the PSD TWG could be used as avenues for the formulation and development of more and better public-private partnership schemes to ensure a more balance contribution to trade sector development.

The capacity of BMOs to further engage the government into a productive dialogue must be strengthened. This should start with implementing a few recommendations, such as:

- Raising the profile of the Cambodia Chamber of Commerce (CCC) and selected business organizations vis-à-vis other private sector institutions and development partners. The CCC should become an efficient instrument for reaching out to private sector stakeholders.

- Building the capacity of business membership organizations (BMOs) in identification and analysis of business environment issues and support Public-Private Dialogue at national and provincial levels. Initial efforts have been launched in this direction with TDSP funding of a one-year capacity building project.

- Prepare a strategy and implementation plan and activity and resource schedule with indicators of achievements and deadlines for the CCC. Assess needs for initial funding and technical assistance, consultant studies, equipment, travel and budget plans and longer term self-sustainability and self-financing.

Recent developments among Cambodia's BMOs show the multiplication of parallel business focus groups, such as those initiated by EUROCHAM, in part in response to the feeling by some BMOs that the G-PSF does not speak for the great majority of businesses but tend to be dominated by a few large companies. While the approach is understandable, the fragmentation of the private sector voice could lead to an unhealthy fragmentation of the dialogue with the RGC that will become counter-productive.

Engaging the private sector more closely in Trade SWAp could be achieved at different stages of the Aid-for-Trade project life cycle:

a) *At the stage of policy formulation and implementation strategy design*

- By establishing a calendar for trade policy formulation including "review" meetings with the private sector, inclusive of Cambodian and foreign business associations.
- By including private sector representatives in DTIS update Task Force
- By adapting the mandate and *modus operandi* of the PSD TWG and align it to the DTIS Update as far as trade issues are concerned. Trade-related issues tackled during PSD TWG meetings could be aligned with key reform areas in the Trade SWAp and could make greater use of the Trade SWAp Roadmaps. Meeting could focus alternatively on (1) trade, (2) private sector development, and (3) investment, not diluting trade into broader issues.
- By formally informing G-PSF and PSD TWG of the contents, scope, and timetables of DTIS Updates

[383]Under CEDEP I and CEDEP II projects, the private sector is expected to contribute a share of the costs of technical assistance of direct benefit to investors, such as bearing most of the costs of HACCP or GMP certification in rice milling, fisheries, or cassava processing, or by contributing to the financing of the TVET RACA school for the training of Chefs and other food handling personnel.

- Possibly, by including the DTIS update, trade policy update and progress review into G-PSF and PSD TWG meeting agendas, instead of addressing only those at the end of the mandate for NSDP formulation. Regular "check points" could be set to ensure that progress towards NSDP indicators is monitored.

b) At the stage of identification of the projects

- By increasing the participation of private sector representatives in project steering committees
- Be reviewing recent experiences (constraints, challenges, and need for support) of the private sector associations in provinces.
- By increasing the awareness of BMOs on Aid for Trade and Trade SWAp opportunities through regular focus group meetings with MoC and RGC

c) At the stage of formulation of projects

- By inviting private sector representatives to participate in AfT project formulation team
- By inviting private sector representatives to participate in initial formulation workshop with MoC
- By inviting private sector representatives to make suggestions or submit project proposals to MoC, in support of the Trade SWAp Roadmaps

d) At the implementation stage of the projects

- By increasing participation of private sector representatives in specific project steering committees
- By encouraging private sector representatives to participate more regularly in S-SC TD&TRI meetings

e) *At the stage of evaluation of the projects*

- By increasing participation of private sector representatives in project evaluation, including providing stronger feedback on how private sector benefitted from project activities

Box 12.4: Implications of Regional Integration

The changes required preparing for and adapting to ASEAN Economic Community (AEC 2015) and further regional integration efforts have two direct implications for Trade mainstreaming and Aid for Trade.

First, national development plans and trade development strategies can no longer be thought of in terms of domestic and international trade, but needs to include the regional dimension, be it for complying with commitments made under AEC 2015, ASEAN+3, ASEAN+6 or the GMS, as discussed in other chapters of this study. Regional integration triggers challenges for trade policy formulation that go well beyond negotiating traditional trade agreements, to include a wide range of new issues including liberalization of capital flows (e.g. the ASEAN Comprehensive Investment Area - ACIA - to encourage and facilitate financial flows), freer movement of labor, increased liberalization of services, the removal of temporary exclusion lists for goods from such sectors as manufacturing, agriculture, fisheries, forestry, and mining, as well as reform of non-tariff barriers and further harmonization of intellectual property and other economic practices.

Second, regional integration means also increased "South-south cooperation" and, in particular,

between more mature and newer members of ASEAN as well as with ASEAN dialogue partners. This includes cooperation and dialogue through the Regional Technical Group on Aid-for-Trade spearheaded by ADB and Japan and for which Cambodia is the co-chair. Non-traditional donors such as Singapore, Malaysia, and Thailand have strengthened their regional cooperation with Cambodia through multilateral, bilateral, or even trilateral channels (Germany has for instance set-up two regional trilateral programs, with Singapore and Malaysia respectively, in support of Cambodia's economic development. This is in line with recommendations of the Busan Partnership Declaration on Aid Effectiveness (2011).

Box 12.5: Human and Institutional Resources Development Needs

Program management resources were quite limited when Trade SWAp was launched in early 2008 following completion of *CTIS 2007*. The combined support of the IF, UNDP, and EU early on focused on setting up the basic implementation arrangements and developing core capacity in the newly created Department of International Cooperation (DICO) so that it could take on the functions of a Trade SWAp Secretariat and a National Implementation Unit. Subsequent support provided by the TDSP and EIF since 2010 has allowed further capacity development. A functional structure in DICO is in place, staffed primarily by government officials with some ad-hoc support from international advisors. Project formulation, implementation, and reporting capacity has been built in several departments in line Ministries and in MoC as well so they can operate as "Implementing Agencies (IAs.)

Yet, institutional and human capacity to support Trade SWAp and Trade Mainstreaming remain a challenge. They need to be addressed to allow Cambodia to benefit fully from a more robust trade mainstreaming, from new opportunities offered by south-south cooperation, or resources accessible from non-traditional partners.

First, the capacity of the Trade SWAp mechanism to shift from a focus on individual projects oversight to trade development program guidance and monitoring as well as the implementation of Cambodia's Medium Term Aid-for-Trade strategy have been affected by the lack of M&E capacity, within DICO especially but within individual IAs as well. Without such capacity, DICO, in particular, has been hard-pressed (1) to provide the S-SC TD&TRI with the information it would need to assess the contribution of different TRTA projects to the overall trade agenda or to analyze trade-offs and options for subsequent technical assistance as well as (2) keep development partners and national stakeholders informed of achievements and challenges in implementing the AfT agenda.

MoC and most line Ministries as well remain ill-equipped with the kind of research capacity that is necessary to provide senior level policy makers the information they need to analyze policy and strategy options, be they at the level of the NSDP, the DTIS or sector policies. In that regard, Government institutions remain overly dependent on expertise provided by development partners through ad-hoc experts.

The efforts supported by the TDSP and CEDEP projects under EIF Tier 2 modalities to strengthen the M&E capacity in DICO and IAs is beginning to yield some early results, including the production of regular substantive progress reports and a shift away from reporting exclusively on procurement and disbursements. The creation of MoC Trade and Training Institute will provide a unique platform for training of staff in MoC and line Ministries (central and provincial levels) as well as provide much needed trade research capacity to support policymakers and planners.

Second, the capacity of private sector organizations to be more engaged in a dialogue with Government on trade development, to participate in policy formulation, or to access potential Aid-for-Trade resources is weak. Likewise, the existing consultation mechanisms among public sector, private sector, and development partners started from a low capacity base and have not expanded rapidly enough in past years to cope with the rapid changes brought by regional integration as shown by the insufficient use of the G-PSF mechanisms by the private sector and the absence of a real dialogue on trade in the framework of the PSD TWG. Several efforts are underway under the EIF Tier2-funded CEDEP projects to strengthen capacity in sector business associations, but the MoC Trade and Training Institute could also provide a platform for training and stronger outreach to BMOs.

Box 12.6: Progress Since 2007 and Possible Future Targets

Two years after the launch of the Aid for Trade initiative in Hong Kong and five years after validation of Cambodia's first DTIS (2002), the RGC decided to update its DTIS, launch a Trade SWAp (never tried elsewhere), and strengthen its capacity to mainstream trade into national development.

Considerable progress has been made in the five years to date, as demonstrated in stronger efforts to embed fully trade development priorities in the NSDP, success in increasing Aid for Trade resources, success in engaging many stakeholders in support of the Government July 2010 Rice Policy, significant improvements in trade facilitation, just to list a few examples. Visits by a number of LDC trade delegation to learn from Cambodia's recent experience is also an indirect testimony to the significant progress made in recent years. The November 2011 WTO Trade Policy Review and the Third Global Review of Aid for Trade both highlighted these developments.

Nevertheless Cambodia still has a long way to go as it finds itself at the crossroads of several changes, including full integration in the ASEAN Economic Community and a possible LDC graduation in the near future. To fully benefit from those, further capacity development efforts will be needed over the next five years. Still, as Cambodia's economy developed, so will its relations with its trading partners and with development partners.

Challenges abound: successfully integrating private sector in policy formulation, in project design and project implementation; ensuring equitable growth so that vulnerable groups do also benefit from trade development; increasing the competitiveness of its key sectors and continuing to broaden its economy including diversification of its export base; bridging the skill gap to ensure new entrants into the job market find opportunities commensurate with their expectations and avoid that a new generation be left behind, underemployed or unemployed.

At the institutional level, better coordination within the Royal Government of Cambodia and stronger dialogue between RGC and private sector representatives will be needed. In the context of changing ODA and with a renewed focus for LDC to integrate into regional and global value chains, more and different Aid resources and mechanisms will need to be tapped into, not only from traditional and non-traditional donors, but also from the private sector itself. Finally, progress towards the SWAp goals will need to be better monitored, evaluated, and communicated based on robust result framework at the Trade SWAp and NSDP levels.

Trade SWAp Roadmap 2014-2018

Development Impacts, Strategic Outcomes, and
Short and Medium Term Indicative Actions

With Key Performance Indicators

Acronyms

AfT	Aid for Trade
AFSIS	ASEAN Food Security Information System
AFTEX	ASEAN Federation of Textile Industries
AIDSP	Agro-Industry Development Strategic Plan
ARASFF	ASEAN Rapid Alert System for Food and Feed
ASEAN	Association of South East Asian Nations
ATIGA	ASEAN Trade in Goods Agreement
BFC	Better Factories Cambodia
CAMFEBA	Cambodian Federation of Employers and Business Associations
CARDI	Cambodia Agriculture Research & Development Institute
CBA	Collective Bargaining Agreement
CCIC	China Certificate and Inspection Group, Cambodia
CDC	Council for the Development of Cambodia
CEDEP	Cambodia Export Development and Expansion Program
CIS	Confederation of Independent States
CLV	Cambodia Laos Vietnam
CO	Certificate of Origin
CoM	Council of Ministers
CSF	Classical swine fever
CTIS	Cambodia Trade Integration Strategy
DAC	Development Assistance Committee
DAHP	Department of Animal Health and Protection
DFQF	Duty-Free Quota-Free
DICO	Department of International Cooperation
DP	Development Partner
DTIS	Diagnostic Trade Integration Study
EBA	Everything-but-Arms
EDC	Electricité du Cambodge
FDI	Foreign Direct Investment
FiA	Fisheries Administration
FMD	Foot and mouth disease
FOCC	Footwear & Garment Order Center of Cambodia

FSCC	Food Safety System Certification
GCC	Gulf Countries Council
GDA	General Directorate of Agriculture
GDCE	General Department of Customs and Excise
GDP	Gross Domestic Product
GHP	Good Health Practice
GMAC	Garment Manufacturers Association of Cambodia
GMP	Good Manufacturing Practice
G-PSF	Government-Private Sector Forum
GSP	General System of Preference
INFOSAN	International Food Safety Authorities Network
HACCP	Hazard Analysis and Critical Control Points
IP	Intellectual Property
IPPC	International Plant Protection Convention
IPM	Integrated Pest Management
IPR	Intellectual Property Right
ISC	Institute of Standards Cambodia
ISO	International Standards Organization
LDC	Least Developed Country
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEF	Ministry of Economy and Finance
MICE	Meetings, Incentives, Conventions & Exhibitions
MoC	Ministry of Commerce
MoCFA	Ministry of Culture & Fine Arts
MoEYS	Ministry of Education, Youth and Sports
MoFA	Ministry of Foreign Affairs
MoH	Ministry of Health
MoI	Ministry of the Interior
MIH	Ministry of Industry and Handicrafts
MoPWT	Ministry of Public Works and Transport
MRD	Ministry of Rural Development
MoT	Ministry of Tourism
MoU	Memorandum of Understanding
MoWA	Ministry of Women Affairs
NCIPR	National Committee on Intellectual Property Rights

NEA	National Employment Agency
NGO	Non-Governmental Organization
NIS	National Institute of Statistics
NSW	National Single Window
NTM	Non-Tariff Measure
OECD	Organization for Economic Cooperation and Development
OIE	Office International de l'Epizootie
PPP	Public-Private Partnership
PRC	People's Republic of China
PRRS	Porcine reproductive and respiratory syndrome
PSD	Private Sector Development
RACA	Royal Academy of Culinary Arts
RCEP	Regional Comprehensive Economic Partnership
RDB	Rural Development Bank
RGC	Royal Government of Cambodia
RO	Rules of Origin
RoI	Return on Investment
RSA	Royal School of Administration
RRIC	Rubber Research Institute of Cambodia
RUA	Royal University of Agriculture
SEZ	Special Economic Zone
SNEC	Supreme National Economic Council
SPS	Sanitary and Phytosanitary
S-SC	Sub-Steering Committee
TA	Technical Assistance
TBT	Technical Barrier to Trade
Trade SWAp	Trade Sector-Wide Approach
TEU	Twenty-Foot Equivalent Unit
TRTA	Trade Related Technical Assistance
TTRI	Trade Training and Research Institute
TVET	Technical Vocational Education and Training
TWG	Technical Working Group
VAT	Value Added Tax
WG	Working Group
WTO	World Trade Organization

Development Impacts/Goals Outcomes, Indicative Actions	Key Performance Indicators		Responsible Parties
	Baseline	2016 or 2018 Target	
Trade SWAp Development Impacts/Goals			
Trade SWAp Goal 1: Improved competitiveness contributes to reduce poverty through better and new jobs	During 2005-13 Cambodia narrowed its distance to the best performing country for all indicators combined in Doing Business by 11.1%. Cambodia 2013 ranking was 133 out of 185 countries	Cambodia narrows its distance to the best performing country for all indicators combined by an additional 10% by 2018	n.a.
Trade SWAp Goal 2: Significant increase in the contribution of the trade sector to GDP and deepening diversification of Cambodia's export base	13% yearly average growth of exports of goods and services during 2007-11	11% yearly average growth of goods and services exports during 2014-2018	n.a.
	Garments and tourism represent 80% of total recorded goods and service exports in 2011	Garments and tourism represent 60% or less of total recorded goods and service exports in 2018	n.a.
Trade SWAp Goal 3: Strengthened capacity of RGC to formulate and implement trade policies and strategies	1 sector policy focusing on exports in 2013 (for Rice)	4 additional sector policies focusing on export by 2018	n.a.
Trade SWAp Goal 4: Responsiveness of RGC to Private Sector needs increases as a result of better dialogue	CDC approved $35.5 billion worth of investment projects between 2007-2011	Investment projects approved by CDC doubles to $70 billion (or more) between 2014-2018	n.a.
Trade SWAp Goal 5: Improved planning, implementation, and monitoring capacity of RGC through implementing Trade SWAp	14 of the 20 Outcomes in Trade SWAp 2014-2018 receive TA support as of 2013. Of the 14 outcomes with TA, only 10 have one TA or more monitored through Trade SWAp of which 3 have 2 or more TAs monitored (TRTA matrix)	At least 16 of the 20 Outcomes receive TA support and have at least one TA monitored through Trade SWAp. Of the 16 outcomes, at least 10 have 2 or more TAs monitored through Trade SWAp	n.a.

n.a. = not applicable

Trade SWAp Strategic Outcomes and Indicative Actions by Pillar

Pillar 1: Increasing the Competitiveness of Cambodian Exporters in World Markets Through a Strengthened Export Business Environment

Outcome 1: Trade Policy Reform and Market Access Negotiations			
Outcome 1: Trade Policy Reform and Trade Negotiations Cambodia meets its trade legal reform obligations under WTO and ASEAN; strengthens its access to markets through trade negotiations; enhances the transparency of its trade rules and laws	84 Actions identified in the RGC's *Work Program on WTO Obligations and Related Issues 2012-2015*	75% of the 84 Actions listed in RGC's *Work Program* have been fully completed by 2016	MoC, Line Ministries responsible for individual legal or institutional actions
	RCEP Rules of Origins need to be negotiated	The RCEP rules of origin allow for cumulation across all its members by 2018	MEF, MoC, Line Ministries
Short-Term Actions: 2014-2016			
Indicative Action 1: Favorable Rules of Origin remain in place under EU's EBA and Canada's DFQF	ROs in EBA and Canada's DFQF are favorable but countries graduating from GSP programs can no longer be used for cumulation	Cambodia negotiates with EU and Canada to ensure that graduation of individual countries from GSP programs does not affect Cambodia's cumulation for ROs purpose	MEF, MoC (immediate Action to be taken)
Indicative Action 2: Draft and promulgate Legal Text on Rules of Origins	No draft in 2013	Law approved by Parliament and signed into Law by 2016	MoC, MEF, CoM
Indicative Action 3: Finalize and promulgate Law on Trade Remedies	Draft text exists in 2013	Law approved by Parliament and signed into Law by 2016	MoC, CoM,
Indicative Action 4: Finalize and promulgate Law on SEZs	Draft text exists in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM,
Indicative Action 5: Finalize and promulgate revised Investment Law	Draft amended law exist in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM

Indicative Action 6: Finalize and promulgate Law on Competition	Early draft exists as of 2013	Law approved by Parliament and signed into Law by 2016	MoC, CoM
Indicative Action 7: Amend legislation on Standards to make it WTO-compliant (same as Outcome 4, ST Action 9)	Law on Standards not WTO-compliant.	Laws on standards has been amended and is WTO-compliant by 2016	MIH, CoM
Indicative Action 8: Trade rules and regulations (including tariffs) are freely available online	No website with consolidated presentation of Trade Laws and Regulations (including for SPS and TBT) as of 2013	National information portal at www.ocm.gov.kh fully operational in Khmer and English in 2016. MoC Trade Information (includes ASEAN National Trade Repository) website fully operational	CoM, MEF, MoC
Indicative Action 9: Legal measures to ensure compliance with ATIGA (Art. 56 on Authorized Operators, Art. 62 on Advance Rulings, Art. 61 on Post Clearance Audit, Art. 57 on Customs Valuation) have been adopted	Prakas on Advance Ruling issued by GDCE in January 2013. No or limited action taken elsewhere	Full compliance with ATIGA is achieved by the end of 2015	GDCE, MoC and other line agencies
Indicative Action 10: National Work Program on NTMs in line with ASEAN requirements is in place	Anukret to create Inter-Ministerial Committee on NTMs being drafted under MEF leadership as of mid 2013	Anukret signed by Prime Minister. Committee is up and running.	Line Ministries included in NTM Inter-Ministerial Committee
Indicative Action 11: CLV Development Triangle's focus on rubber sector proceeds as planned with formulation of Action Plan by the three countries (same as Outcome 14, ST Action 7)	The 7th CLV Development Triangle Summit of Heads of State held in Vientiane March 12, 2013 requested preparation of action plan for development of the rubber sector in the Triangle	Action plan fully formulated for the 8th CLV Development Triangle Summit as requested during 7th Summit	MEF, MoC, MAFF, SNEC

Medium-Term Actions: 2016-2018			
Indicative Action 1: Legal framework for food safety upgraded, including adoption and promulgation of modern food law (same as Outcome 4, MT Action 2)	No proper legal framework in place	Legal framework has been adopted compliant with WTO/SPS and ASEAN principles and good international practice by 2018	MoC/Camcontrol, MoH, MAFF, MIH, MoT, MEF, CoM
Snippet_308F659A0.idms ***Indicative Action 2:*** The Process of notification to the WTO is strengthened	Nine notifications as of 2013	All WTO-relevant actions on laws and regulations contained in the RGC's 2012-2015 WTO Work Program or in this Roadmap are notified to WTO	MoC, MIH, ICS, MAFF, MoH
Indicative Action 3: Non Tariff Measures are classified, reviewed, streamlined and notified to the ASEAN Secretariat, as mandated under the ASEAN NTM Work Program.	No action has been taken as of 2013	By 2016, a complete database of NTMs has been set up and notifications are made regularly to the ASEAN Secretariat. By 2018, the current NTM stock has been reviewed and streamlined. By 2018, the impact of all new NTMs is assessed by the Inter-ministerial Committee on NTMs and several NTMs have been lessened or eliminated	MoC, MEF, line agencies
Indicative Action 3: Improved accessibility, compilation and use of statistics and trade data to assist in assessing and formulating appropriate trade support interventions (same as Outcome 18, ST Action 3)	Official Cambodian trade data are extracted from database maintained by GDCE (Customs data), MoC (on COs, import/export, licenses), MEF (trade repository), and MAFF (SPS certificates.) There is no structure to compare and ensure coherence across sources, limited quality control systems, no tool to compare/benchmark Cambodian statistics against mirror statistics	Beginning in 2016, MoC Trade Training and Research Institute (TTRI) produces an annual trade data publication that consolidates and reconciles data extracted from different Government sources and ensure enhanced coherence with Comtrade mirror statistics	GDCE, MoC, MEF. MAFF, National Institute of Statistics
	Some MoC data are difficult to obtain	All MoC data are available up to date through MoC's revamped	MoC

		Website	
Outcome 2: Trade Facilitation Reform			
Outcome 2: Trade Facilitation Cambodia increases its competitiveness through reduced import/export cost	2011 Cambodia import/export cost is 136% ASEAN-6 average (from WB/IFC *Doing Business*)	2018 Cambodia import/export cost reduced to 120% ASEAN-6 average ($552/container in *Doing Business* 2012)	All border agencies
	2011 Cambodia time for cargo release is 24 days compared to 16 days for ASEAN-6 average	2018 time for cargo release reduced to ASEAN-6 average	All border agencies
Short-Term Actions: 2014-2016			
Indicative Action 1: Trade rules and regulations (including Customs tariffs) are freely available online (same as Outcome 1, ST Action 7)	No website with consolidated presentation of Trade Laws and Regulations (including for SPS and TBT) as of 2013	National information portal at www.ocm.gov.kh fully operational in Khmer and English in 2016. MoC Trade Information (includes ASEAN National Trade Repository) website fully operational	CoM, MEF, MoC (2014)
Indicative Action 2: Cambodia progresses towards full computerization of trade related documents	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 3: Establish WTO compliant service fees by all border agencies	GDCE and MoC/Camcontrol have adopted WTO compliant service fees	WTO compliant service fee structure for all remaining border agencies in place by 2016	Relevant border agencies
Indicative Action 4: Cambodia is taking steps to implement the WTO Agreement on Trade Facilitation	An Agreement on Trade Facilitation was approved as part of the "Bali Package" endorsed during the December 2013 WTO Ministerial Conference. The agreement contains special provisions for LDCs	By June 2015, Cambodia has notified the WTO as to which of its trade facilitation reform actions will fall in Categories A, B, and C of the Agreement respectively	MoC, GDCE, border agencies
Medium-Term Actions: 2016-2018			
Indicative Action 1: Updated Trade Facilitation Action Plan has been adopted and implemented	Draft updated Trade Facilitation Action Plan as of late 2013	Updated Action Plan has been adopted and is fully implemented	GDCE, MoC, MAFF and all other border agencies

Indicative Action 2: Cambodia implements its updated Trade Facilitation Action Plan including establishment of a National Single Window	No National Single Window as of 2013. Issuance of key documents partly automated.	National Single Window (NSW) compliant with ASEAN requirements has been implemented by 2018	GDCE, MoC, MAFF and all other border agencies
Indicative Action 3: Cambodia progresses towards full computerization of trade related documents	Sanitary and phytosanitary certificates required for exports are processed manually	SPS certificates can be applied for and processed on line	MAFF
Indicative Action 4: Extend Risk Management System to non-Customs agencies	Risk Management fully implemented by Customs as of 2013. Some progress by non-Customs agencies but risk management underdeveloped	Risk Management Systems is fully implemented by all border agencies and profiles are managed centrally by 2018	GDCE, MoC, MAFF and all other border agencies
Indicative Action 5: Establish an Authorized Economic Operators (AEO) System	AEO regime is not yet implemented	AEO regime in keeping with Cambodian compliance management needs is fully implemented by 2018	GDCE
Indicative Action 6: Cambodia is taking steps to implement the WTO/Bali Agreement on Trade Facilitation	By June 2015, Cambodia has notified the WTO as to which of its trade facilitation reform actions fall in Categories A, B, and C of the Agreement respectively	By June 2017, Cambodia has notified the WTO of the arrangements entered into with DPs regarding TA needed to support implementation of Category C Actions	MoC, GDCE, border agencies
Outcome 3: Enhanced Trade Logistics			
Outcome 3: Trade Logistics Cambodia increases its competitiveness through improved trade logistics	On the two major land trade corridors, average speed for trade logistics is 22.15 Kmh, transport cost is $0.11/MT/Km and logistics cost is $0.2/MT/Km in 2012	2018 Speed for trade logistics rises to 25 Kmh, transport cost decreases to $0.7/MT/Km, logistics cost decreases to $0.15/MT/Km (at constant prices)	MoPWT, MEF, MoC, MAFF
Short-Term Actions: 2014-2016			
Indicative Action 1: A National Transportation Logistics Plan is developed and implemented	No comprehensive plan formulated.	Comprehensive plan has been developed. Plan is linked to existing ASEAN frameworks such as the *"Roadmap for the Integration of Logistics Services"*	MoPWT, MEF, concerned Line Ministries and agencies

Indicative Action 2: Improved cross-border transport agreements (road and waterways) are negotiated with neighbors and regional organization for an integrated transport market	Existing agreements have only partial coverage and are not fully implemented.	Cross-border agreements (bilateral and regional) are fully enacted and implemented, in cooperation with neighboring countries.	MEF, MoC, MoPWT, MoFA, concerned Line Ministries and agencies
Indicative Action 3: Carry out security review of Sihanoukville and Phnom Penh Ports and implement plan to reduce pilferage in line with international security standards	Pilferage is reported as a problem by Private Sector operators	A system to collect pilferage statistics is put in place by 2014 and pilferage is substantially reduced by 2016	Port Authorities, in coordination with other border agencies
Indicative Action 4: Liberalize port fees to increase competitiveness	Port fees are set by the RGC	Cambodian ports offer competitive fees compared to neighboring countries. Sihanoukville costs are lowered	MEF, MoPWT, MoC, Port Authorities
Indicative Action 5: Private Sector participate in ports operation and management	Ports are managed by Government	Private Sector are involved in some or all aspects of ports operations and management	MEF, Port Authorities, MoPWT
Indicative Action 6: Rail link between Phnom Penh and Sihanoukville offers scheduled freight service	Rail link has been rebuilt/renovated and limited scheduled service available	Full, regular scheduled rail freight service between the two cities operates by 2014	MoPWT
Indicative Action 7: Reopen rail connection between Phnom Penh and Poipet to compete with road transport	Rebuilding or renovation of rail link yet to be completed	Some scheduled freight service by rail between Sisophon and Phnom Penh has commenced by 2016	MoPWT
Indicative Action 8: Develop rail link between Phnom Penh and Vietnam border	No rail link	Plan to expand rail link from Phnom Penh to VIETNAM border finalized and financing secured	MoPWT, MEF
Medium-Term Action: 2016-2018			
Indicative Action 1: A National Transportation Logistics Plan is implemented	Comprehensive Plan has been developed	A National Transportation Logistics Plan is implemented with performance indicators. Annual reviews of indicators are carried out	MoPWT, MEF, concerned Line Ministries and agencies

Indicative Action 2: Improve transport regulations on: liabilities, axle loads limits, drivers' qualifications and conditions, safety standards	Most regulations are lacking or need to be reviewed	Regulations in line with international standards are adopted and implemented	MoPWT, GDCE, MoC, MoC/Camcontrol, MAFF
Indicative Action 3: Work with ASEAN to establish a regional third party liability insurance scheme	No third party liability insurance scheme in place	Third party liability insurance scheme in place	MEF, MoPWT
Indicative Action 4: Introduce road fleet modernizing scheme	No policy currently in place to promote road fleet modernization.	A policy for road fleet modernization has been developed by RGC with some clear targets identified	MEF, MoPWT, MoC, Trucking Industry
Indicative Action 5: Increase draft capacity of Sihanoukville Port	Current draft limited to ships less than 1000 TEU. Additional dredging in progress and new facilities under construction	Dredging has been completed and Sihanoukville Port provides access to ships larger than 1000 TEU	MoPWT, Port of Sihanoukville, MEF
Indicative Action 6: Investigate possibility of increasing draft of Phnom Penh Port	Phnom Penh Port can accept barges less than 120 TEU	Study possibility of dredging Mekong river between Phnom Penh and Saigon ports to enable barges larger than 120 TEU	MoPWT, Phnom Penh Port
Indicative Action 7: Improve road between Phnom Penh and Sihanoukville	Large sections of the highway remain two lanes	Four lane highway between Phnom Penh and Sihanoukville completed	MoPWT, MEF
Indicative Action 8: Upgrade highways conditions between Thai and Vietnamese borders	Average road transport of 20’ container between the two borders is 15 hours in 2013	Average road transport of 20’ container between the two borders lowered to 13 hours in 2018 as a result of road improvements	MoPWT, MEF

Outcome 4: Strengthened Capacity of Exporters to Meet Technical Standards and SPS Requirements			
Outcome 4: Technical Standards and SPS Requirements The capacity of Cambodian exporters to meet technical and SPS requirements standards set by importers and importing countries increases	Ratios of formal exports of milled rice, cassava, and corn to total production of each in MT reflect, indirectly, the ability of Cambodian producers/exporters to meet some, if limited, standards 2011Rice ratio: 0.0165 2011Cassava ratio: 0.0085 2011Corn ratio: 0.0497 (MoC for formal MT exports; AFSIS for total MT production)	The three ratios grows by a factor of ten or more by 2018 indicating significant shift from informal to formal exports	Private Sector, MAFF, MoC, MIH
Short-Term Actions: 2014-2016			
Indicative Action 1: Capacity of rice millers to meet basic Hazard Analysis & Critical Control Point (HACCP) or Good Manufacturing Practice (GMP) standards is developed through rice mills certification program	No modern rice mills certified as of 2013 (one plant certified by ISC, but ISC is not internationally accredited as of yet so this certification has no export value)	10 Cambodia rice mills are HACCP or GMP certified in 2016	Private Sector, MIH, MAFF
Indicative Action 2: Implementation of SPS standards (HACCP or GMP) among marine fishery product processors increases resulting in improved export competitiveness	1 marine fishery product processor HACCP/GMP certified in 2013	12 marine fishery product processors HACCP/GMP certified in 2016	Private Sector, MAFF/FiA
Indicative Action 3: Capacity of dried cassava processors to meet basic GMP-based standards developed through certification program	No certification system in place	Certification system in place for processors that produce for demanding export markets in 2016	Private Sector, MIH, MAFF
Indicative Action 4: Cambodia natural rubber value chain produces high-quality products for export markets	No system in place to monitor quality of exported natural rubber	System to register quantities of natural rubber by grade and price in place and implemented by 2016	Private Sector, MAFF, MoC, RRIC

Indicative Action 5: Surveillance of pests and diseases for export crops, pesticides, and fertilizers used in production areas for export	No formal surveillance system in 2013	Formal surveillance system in place for plant pests and diseases and pesticides as required by main importers and compliant with international standards, and regular reporting to IPPC, ASEAN and trading partners by 2016	MAFF/GDA
Indicative Action 6: Surveillance of trans-boundary animal diseases	No formal system in place in 2013, except for Avian Flu	Formal surveillance system in place in targeted regions for FMD (foot and mouth disease), CSF (classical swine fever), and PRRS (porcine reproductive and respiratory syndrome). Evidence of regular monitoring and reporting to OIE by 2016	MAFF/DAHP
Indicative Action 7: Surveillance and testing of food products	No formal system in place in 2013	Formal surveillance system in place for markets, restaurants, and street food with annual report on food safety in Cambodia. Active participation in The International Food Safety Authorities Network (INFOSAN) and ASEAN Rapid Alert System for Food and Feed (ARASFF) by 2016	MoC/Camcontrol, MoH
Indicative Action 8: Legal review and recommendations for improved SPS and TBT legislation	The legal framework for SPS and TBT has many gaps, inconsistencies, unclear mandates, and quality issues. It is neither WTO- nor ASEAN-compliant	An assessment with recommendations for upgrading the legislative framework for SPS and TBT has been completed by 2015	MoC, MAFF, MoH, MIH, MoT, MEF, CoM,
Indicative Action 9: Amend legislation on Standards to make it WTO-compliant	Law on Standards not WTO-compliant	Laws on standards has been amended and is WTO-compliant by 2016	MIH, CoM,
Indicative Action 10: Strategy to support development of regulatory SPS laboratories	No national plan, no coordination	Action Plan for development of regulatory food testing laboratories ready by 2016	MEF, MoC, MAFF, MIH, MoH

Medium-Term Action: 2016-2018			
Indicative Action 1: Legal framework for conformity assessment, accreditation for technical standards and SPS	No proper legal framework in place	Legal framework has been adopted compliant with WTO/TBT and ASEAN principles and good international practice by 2018	MIH, MAFF, MoH, MoC, CoM
Indicative Action2: Legal framework for food safety upgraded, including adoption and promulgation of modern food law	No proper legal framework in place	Legal framework has been adopted compliant with WTO/SPS and ASEAN principles and good international practice by 2018	MoC/Camcontrol, MoH, MAFF, MIH, MoT, MEF, CoM
Indicative Action 3: Surveillance and testing of primary food products at primary production and processing level	No formal system in place in 2013	Formal MAFF surveillance system in place and evidence of regular monitoring with contributions to MoC and MoH for integration in the on-going annual report on the food safety situation in Cambodia and reporting to INFOSAN and ARASFF by 2018	MAFF, MoC/Camcontrol, MoH
Indicative Action 4: Surveillance of residues of veterinary drugs and growth enhancers in meat products and feed	No formal system in place in 2013	Formal annual surveillance system in place and evidence of regular monitoring by 2018	MAFF/DAHP
Indicative Action 5: FiA is upgraded, qualifies as “competent authority” for EU, and can support exports of fisheries products to EU	Export of fisheries products to EU not yet possible. Public management of SPS for fisheries weak	FiA has been recognized as EU “competent authority” and can support Cambodian exporters targeting EU markets by 2018	MAFF/FiA

Indicative Action 6: Effective SPS coordination in place	Capacity of SPS Enquiry Point, Notification Authority, Codex, IPPC and OIE contact points very limited.	SPS Enquiry Point and Notification Authority in place with (i) up-to-date website on SPS legislation and import and export requirements (could be part of National Information Portal), and (ii) notifications of new SPS measures done as required by WTO. National Codex Committee meets regularly for food safety coordination. CODEX, IPPC, and OIE contact points functioning well by 2018	MoC, MAFF, MIH, MoH, Private Sector
Indicative Action 7: SPS standards in kitchen in hotel and restaurant improve through enhanced training of existing and new kitchen staff	Index from baseline survey of SPS standards in hotel and restaurant kitchen to be conducted by the Royal Academy of Culinary Arts under CEDEP-II. Also to use info from voluntary Good Health Practice (GHP) rating to be introduced by MoH	Repeat baseline survey (CEDEP II) by 2016-17	Private Sector, MoH, RACA, MoT
	Restaurant rating system being prepared. No restaurants have passed GHP/GMP audit. Low hygiene standards in sector	A rating system is in place. 200 restaurants have passed GHP/GMP audits by 2018	Private Sector, MoH, MoT
Indicative Action 8: Corn exports can meet SPS standards	No market access agreement in place with SPS-demanding countries	A Cambodia-China MoU on phytosanitary requirements for export of corn in place and implemented by 2017	MAFF, MoC
Indicative Action 9: Capacity of Corn drying, shelling, and storage facilities to meet GMP/HACCP certification	No facilities with GMP/HACCP certification	5 facilities with GMP/HACCP certification by 2018	Private Sector, MIH, MAFF
Indicative Action 10: Quality and traceability of silk yarn imports ensured	Lack of COs on most imported yarn	30% of imported yarn has a clear CO in 2018.	Private Sector, MoC, MoWA,

Indicative Action 11: Safety among food processing exporting facilities enhanced by increased adoption of GMP and HACCP certification	7 large food processing facilities have been certified recently under HACCP, GMP, ISO 22000 or FSSC 22000 standards	Another 20 large food processing facilities are certified against international standards by 2018	Private Sector, MIH, MoH
Indicative Action 12: Risk management for SPS and TBT	No risk-based inspections in place for food safety, plant and animal health, technical regulations, and legal metrology	Risk profiles for products developed and risk-based inspections implemented by 2018	MEF, MAFF, MoC, MIH, MoH
Indicative Action 13: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, MT Action 3)	Sanitary and phytosanitary certificates required for exports are processed manually	SPS certificates can be applied for and processed on line	MAFF
Indicative Action 14: Public funding of SPS and Technical Standards related tasks enhanced	Funding for "public goods", including necessary SPS and Technical Standards tasks is inadequate	An enhanced public funding output-based system, including transparent, advertised, WTO-compatible fees-for-services in place to secure adequate resources for key SPS and Technical Standard functions by 2018	MEF, MAFF, MoC, MIH, MoH

Outcome 5: Improved Investment Environment for Exports			
Outcome 5: Investment Environment for Exports The environment for investment in the ten DTIS 2013 focus export sectors strengthened	2012 net FDI inflows were $1.5 billion	Net FDI inflows grow 25% annual average between 2014-2018 to triple to $4.5 billion	Private Sector, CDC, MIH, MAFF, other concerned Line Ministries
Short-Term Actions: 2014-2016			
Indicative Action 1: Development and initiation of a National Investment Promotion Strategy	Limited strategy and capacity in place to address increased global competition and fragmentation of value chains	Formulation and initial implementation of a comprehensive National Investment Promotion Strategy. Strategy includes proactive and targeted promotion measures, including focus on: *CTIS 2014-2018* ten priority sectors; measures intended to promote investment in clusters of domestic suppliers to support key export sectors; and, capacity development among policy makers. National Investment Promotion Strategy fully aligned with Law on SEZs and Industrial Policy	CDC, MoC, MIH, MAFF, SNEC
Indicative Action 2: Measures developed to strengthen linkages between foreign investors and SMEs/domestic suppliers	No comprehensive Industrial Policy as of 2013, but early draft under preparation. Current policy environment lacks focus on developing linkages between exporters and domestic suppliers as well as between investment promotion and rules of origin	Industrial Policy fully developed and adopted by 2016. Policy includes clear tools to support development of clusters of domestic suppliers in the ten *CTIS 2014-2018* priority sectors. Investment promotion coordinated with Rules of Origin so as to attract producers of inputs used in garments, footwear, bicycles and other emerging manufacturing export sectors	SNEC, MEF, CDC, MoC

Indicative Action 3: Strengthened investment promotion and facilitation capacity of provincial authorities	Little capacity in place and few provincial investment promotion programs	Provincial Business Score Cards are updated every two years and serve as basis for the formulation of provincial investment promotion program	CDC, MoI, MAFF, MIH, MoC, SNEC
Indicative Action 4: Finalize and promulgate Law on SEZs (same as Outcome 1, ST Action 4)	Draft text exists in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM
Indicative Action 5: Finalize and promulgate revised Investment Law (same as Outcome 1, ST Action 5)	Draft amended law exist in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM
Indicative Action 6: Finalize and promulgate Law on Competition (same as Outcome 1, ST Action 5)	Early draft exists as of 2013	Law approved by Parliament and signed into Law by 2016	MoC, CoM
Indicative Action 7: Ensure that all exported goods are exempt from paying VAT on all production inputs, whether imported or purchased domestically	The Anukret implementing the Investment Law provides for duty-free import of materials needed by "supporting industries" in the production of output sold to exporters. There is no provision for VAT exemption but it can be negotiated on a case-by-case basis	Inputs used in the production of exports, whether imported or produced domestically, are exempt from duties and VAT for all exports irrespective of sectors	MEF
Medium-Term Action: 2016-2018			
Indicative Action 1: Implementation of a National Investment Promotion Strategy	Strategy has been developed and the basic elements are in place	Full implementation of the National Investment Promotion Strategy by 2018. Significant increases in FDI in several of the ten priority export sectors in *CTIS 2014-2018*	CDC, MoC, MIH, MAFF, SNEC

Indicative Action 2: Enhanced policy resulting in growing linkages between foreign investors/exporters and SMEs/domestic suppliers	Some emergence of domestic parts suppliers in garments, footwear and bicycles.	As a result of the implementation of the new Industrial Policy, significant new Cambodian and Foreign investment in parts supply serving leading manufacturing export sectors, especially garments, footwear, and bicycle parts, including as a result of focused investment promotion in those sectors	CDC, MEF, SNEC, Private Sector
Indicative Action 3: Leveraging the investment promotion and facilitation capacity of provincial authorities	Capacity and strategies developed, but activities need to be more proactive	Provincial investment promotion activities lead to increased Private Sector investment at provincial-level, growing 25% annually by 2018	CDC, MoI, MAFF, MIH, MoC, SNEC
Outcome 6: Establishing a Trade-Supportive Framework for Intellectual Property Rights			
Outcome 6: Intellectual Property Rights A modern, trade-supportive intellectual property rights framework is established, implemented, and enforced	705 new trade and service marks registered by Cambodian businesses in 2012	Over 1,200 new marks registered by Cambodian businesses during 2018	MoC, NCIPR, Private Sector
	192 industrial designs registered as of 2012, including 25 local designs	60 local designs registered by 2018	MIH, NCIPR, Private Sector
Short-Term Actions: 2014-2016			
Indicative Action 1: Stronger legal system for IP education and enforcement in place	Draft Anukret in CoM	Anukret establishing a Sub-National Committee on IP Education, and Awareness is adopted	NCIPR, CoM
	Draft Anukret in CoM	Anukret establishing a Sub-National Committee on Enforcement of IP laws and rules	NCIPR, CoM
Indicative Action 2: Finalize and promulgate Law on Geographical Indications	Draft text available as of 2013	Law approved by Parliament and signed into Law by 2016	MoC, CoM
Indicative Action 3: Finalize and promulgate Law on Integrated Circuits and Layout Designs	Drafting under way	Law approved by Parliament and signed into Law by 2016	MIH, CoM

Indicative Action 4: Finalize and promulgate Law on Trade Secrets and Undisclosed Information	Draft submitted to CoM in 2013	Law approved by Parliament and signed into Law by 2016	MoC, CoM
Indicative Action 5: Anukret on the Law on Seed Varieties	Drafting under way	Anukret adopted by Government	MIH, CoM
Indicative Action 6: Finalize and promulgate Law on Compulsory Licensing for Public Health	Drafting under way	Law approved by Parliament and signed into Law by 2016	MIH, CoM
Medium-Term Action: 2016-2018			
Indicative Action 1: Align "exhaustion clause" included in key IPR legislation (Copyright, Trademark, Patents and Industrial Design) with needs of AEC integration.	Key IPR legislations covering Copyright, Trademark, Patents and Industrial Design include exhaustion clauses that may be in conflict with principles at the core of AEC integration to which Cambodia is committed	Exhaustion clauses in current legal texts or laws have been aligned, modified, or eliminated, as needed, as they apply to countries within AEC by 2018	NCIPR, MoC, MIH, MoCFA, CoM
Indicative Action 2: Implementation of National IP Strategy for Cambodia well under way	A National IP Strategy for Cambodia developed in March 2013	50% of the 48 Actions identified in the National IP Strategy have been implemented	NCIPR, MoC, MIH, MoCFA, MAFF, MoT, MoEYS, MoH, enforcement agencies
Indicative Action 3: Quality of human and IT resources in IP sector is enhanced	The Anukrets creating the NCIPR's two sub-committees have been adopted	A clear human and IT resources development plan has been designed, is financed, and is implemented in the key IP Offices with a focus on training/retraining three groups of professionals: 1. IP Offices' staff 2. Officers in IP Border Agencies 3. Judges and practicing lawyers The plan includes also upgrading of IT resources	NCIPR, MoC, MIH, MoCFA, IP Border Agencies, Judicial system

Pillar 2: Expanding and Diversifying Cambodia's Export Base Through Strengthening Supply in Current and New Sectors, Entering New Markets, and Moving up Value Chains			
Outcome 7: Garments			
Outcome 7: Garment Cambodia continues to grow and diversify its garment export sector through targeting new markets, increasing domestic inputs, and expanding in higher value products	9% export growth per annum during 2007-2011. Share of US exports was approximately 60% in 2011	12% export growth per annum during 2014-2018. No single market accounts for more than 40% of total exports by 2018	Private Sector, MoC, MIH, GMAC
	24 MT of fabric produced by five local producers. No local production of yarn/thread as of early 2013 (May 2013 MoC Survey)	Domestic production of fabric increases at average annual rate of 20% between 2014 and 2018. Local production of yarn/thread commenced	Private Sector, MoC, MIH
Short-Term Actions: 2014-2016			
Indicative Action 1: TVET programs are established to meet need in technical and engineering personnel in garments, footwear, and SEZ sectors (same as Outcome 17, ST Action 2)	Garment sector requires diversified skills and accreditation of workforce based on AFTEX ASEAN. The sector lacks an established TVET infrastructure. GMAC is in the process of establishing a training institute	GMAC's training institute is operational. Between 100 to 200 garment sector professionals per year are getting ASEAN-accredited (level 1) training in operator training, machine mechanic, pattern making, merchandising and other skills relevant to the sector	GMAC, Training Service Providers, AFTEX
Indicative Action 2: Cambodia is known for the *Better Factories* initiative and its compliance with labor laws	There are 32 *Better Factories Cambodia* (BFC) indicators measuring compliance with legal requirements relating to workers' conditions and rights. Those are reported annually in the BFC Synthesis Report	Compliance remains at 2013 level or better	Private Sector, GMAC, MoC, MIH
Indicative Action 3: Invest in a positive "Made in Cambodia" brand – promoting labor compliance and quality	No industry-wide branding	National manufacturing brand and logo adopted and used on all export shipments by 2016	Private Sector, GMAC, MoC, MIH

Indicative Action 4: Ensure that all exported goods are exempt from paying VAT on all production inputs, whether imported or purchased domestically (same as Outcome 5, ST Action 7)	The Anukret implementing the Investment Law provides for duty-free import of materials needed by "supporting industries" in the production of output sold to exporters. There is no provision for VAT exemption but it can be negotiated on a case-by-case basis	Inputs used in the production of exports, whether imported or produced domestically, are exempt from duties and VAT for all exports irrespective of sectors	MEF
Indicative Action 5: Further improvements in the efficiency and timeliness of Cambodia's export services (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual. CO only issued after shipment and often takes 5 – 10 days, leading to delays in the transfer of documents to buyer and payment to exporter	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 6: Monthly advance profit tax suspended beyond 2015	The May 2009 Prakas 483 issued by MEF suspend the monthly advance profit tax for footwear until 2015	Monthly advance profit tax suspended beyond 2015	MEF
Medium-Term Action: 2016-2018			
Indicative Action 1: Cambodia diversifies its garment product mix with more value-added activities performed in factories	Up to 75% of garment factories operate on a cut-make-trim basis only (GMAC)	Less than 50% of garment factories operate on a cut-make-trim basis only by 2018	Private Sector, GMAC, MoC, MIH,
Indicative Action 2: Enhanced policy resulting in growing linkages between foreign investors/exporters and SMEs/domestic suppliers (same as Outcome 5, MT Action 2)	Some emergence of domestic parts suppliers in garments, footwear and bicycles	As a result of the implementation of the new Industrial Policy, significant new Cambodian and Foreign investment in parts supply serving leading manufacturing export sectors, especially garments, footwear, and bicycle parts, including as a result of focused investment promotion in those sectors	CDC, MEF, SNEC, Private Sector

Indicative Action 3: Garment sector reduces its reliance on imported inputs for production	Imported inputs (aggregate HS 50–60) grew at an average annual rate of 15% over 2007-2011 period (Comtrade)	Average annual rate of growth in imported inputs during 2014-2018 period less than average annual rate of growth in 2007-2011 period	Private Sector, MoC, GMAC, MIH
Outcome 8: Footwear			
Outcome 8: Footwear Cambodia continues to grow and diversify its footwear export sector through targeting new markets and developing new market segments	Cambodia's footwear exports grew by 76% per annum between 2008 and 2011	Cambodia's footwear exports grow by 25% per annum between 2014 and 2018	Private Sector, MoC, MIH, GMAC
	The UK and German markets captured 32% share of Cambodian exports in 2011	Share of UK and German markets is reduced to 20% of Cambodian footwear exports in 2018	Private Sector, MoC, MIH, GMAC
Short-Term Actions: 2014-2016			
Indicative Action 1: The industry develops its promotion and coordination capacity through an appropriate representative body (either GMAC or FOCC)	Very limited promotion of the footwear sector through international events	GMAC organizes participation of the footwear sector to 3 established international footwear-specific events (fairs, etc.) every year by 2016	Private Sector, GMAC, MIH
Indicative Action 2: TVET programs are established to meet need in technical and engineering personnel in garments, footwear, and SEZ sectors (same as Outcome 17, ST Action 2)	Garment sector requires diversified skills and accreditation of workforce based on AFTEX ASEAN. The sector lacks an established TVET infrastructure. GMAC is in the process of establishing a training institute	GMAC's training institute is operational. Between 100 to 200 garment sector professionals per year are getting ASEAN-accredited (level 1) training in operator training, machine mechanic, pattern making, merchandising and other skills relevant to the sector	GMAC, Training Service Providers, AFTEX
Indicative Action 3: Cambodia known for the *Better Factories* initiative and its compliance with labor laws (same as Outcome 7, ST Action 2)	There are 32 *Better Factories Cambodia* (BFC) indicators measuring compliance with legal requirements relating to workers' conditions and rights. Those are reported annually in the BFC Synthesis Report	Compliance remains at 2013 level or better	Private Sector, GMAC, MoC, MIH

Indicative Action 4: Ensure that all exported goods are exempt from paying VAT on all production inputs, whether imported or purchased domestically (same as Outcome 5, ST Action 7)	The Anukret implementing the Investment Law provides for duty-free import of materials needed by "supporting industries" in the production of output sold to exporters. There is no provision for VAT exemption but it can be negotiated on a case-by-case basis	Inputs used in the production of exports, whether imported or produced domestically, are exempt from duties and VAT for all exports irrespective of sectors	MEF
Indicative Action 5: Further improvements in the efficiency and timeliness of Cambodia's export services (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 6: Monthly advance profit tax suspended beyond 2015	The May 2009 Prakas 483 issued by MEF suspend the monthly advance profit tax for footwear until 2015	Monthly advance profit tax suspended beyond 2015	MEF
Medium-Term Action: 2016-2018			
Indicative Action 1: Enhanced policy resulting in growing linkages between foreign investors/exporters and SMEs/domestic suppliers (same as Outcome 5, MT Action 2)	Some emergence of domestic parts suppliers in garments, footwear and bicycles	As a result of the implementation of the new Industrial Policy, significant new Cambodian and Foreign investment in parts supply serving leading manufacturing export sectors, especially garments, footwear, and bicycle parts, including as a result of focused investment promotion in those sectors	CDC, MEF, SNEC, Private Sector
Indicative Action 2: Clusters of suppliers (i.e. tannery, rubber processors) and assemblers are developed in Cambodia so that the Cambodian footwear industry produces more of the final footwear product, in particular for contract manufacturers	The ratio of footwear related export-to-import was 16 in 2011 (TradeMap data.) Imports include footwear components and leather	The ratio of footwear related export-to-import increases to 25 by 2018 (TradeMap data)	Private Sector, MoC, GMAC, MIH

Indicative Action 3: Investment incentives specifically targeting the footwear industry in Cambodia are monitored, extended and improved	Foreign direct investment in the footwear sector in Cambodia in 2012 totaled $137 million	Investment in the footwear sector in Cambodia doubles between 2014 and 2018	MoC, MIH
Indicative Action 4: Increase the availability of finance to support the development of contract manufacturers and support quality and capacity improvements	Cambodia had 47 footwear factories in 2012, and no contract manufacturers	The number of footwear factories in Cambodia increases by 25 percent including a number of contract manufacturers, between 2014 and 2018	Private Sector, MoC, GMAC, MIH
Indicative Action 5: Vocational training targeting the footwear industry is developed in cooperation between the Government, GMAC, FOCC and footwear companies to support the promotion of Cambodian workers to management and mid-management positions	The percentage of foreign employees in the staff of footwear factories was 19% in 2011 (GMAC)	The number of foreign employees in the staff of footwear factories decreases to 10% by 2018	Private Sector, MoC, GMAC, MIH

Outcome 9: SEZs Operations and Light Manufacturing Assembly			
Outcome 9A: SEZs Cambodia's SEZs improve their competitiveness and attract more manufacturing investment to become nodes in regional production networks	2012 contribution of manufacturing to GDP (exclusive of garment and footwear) approximately 5%	The contribution of manufacturing to GDP (exclusive of garment and footwear) increases to 7% by 2018	Private Sector, CDC, MIH, MoC
	69 light manufacturing operators in Cambodian SEZs in 2012	140 light manufacturing companies operators in Cambodian SEZs in 2018	Private Sector, CDC, MoC
	8 SEZs with active investors in 2012	The number of SEZs with active investors doubles to 16 by 2018	Private Sector, CDC, MoC
Short-Term Actions: 2014-2016			
Indicative Action 1: Requirements governing the movement of goods from SEZ factories to sub-contractors outside the SEZ (e.g. wash garments or paint bikes) and back to the SEZ contractor are clarified, streamlined and implemented consistently	It currently takes 2 days for a company to prepare documents and obtain clearance to move goods outside the Manhattan SEZs for treatment by sub-contractors (data from *CTIS 2014-2018* field survey)	All factories in SEZs can engage sub-contractors outside their zone and can freely move goods back and forth between them and their sub-contractors as required	CDC, GDCE, MoC, MIH
	Most Government officials posted in the One-Stop Service Shop located in SEZs do not receive specific training. Quality of service is uneven.	All Government officials posted in One-Stop Service Shops located in SEZs have received specific training. Quality of service to investors has improved (data to be collected through short survey)	CDC, GDCE, MoC, MIH and other border control Line Ministries
Indicative Action 2: Finalize and promulgate Law on SEZs (same as Outcome 1, ST Action 4)	Draft text exists in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM
Indicative Action 3: Finalize and promulgate revised Investment Law (same as Outcome 1, ST Action 5)	Draft amended law exist in 2013	Law approved by Parliament and signed into Law by 2016	CDC, CoM
Indicative Action 4: Training of Cambodian workers in Thailand, Vietnam, China and Japan is supported to facilitate technology transfer	1% of employees in SEZ received training abroad in 2012	5% of employees in SEZ have received training abroad by 2016	Private Sector, CDC, MIH, MoC, MoLVT, MoEYS

Indicative Action 5: The reliability of electricity supply inside SEZs is improved to support the automation of production processes	Companies in Manhattan SEZ face 40-50 power interruptions a week on average	Companies in the four major SEZs do not face any power interruption	SEZs, CDC, Electricité du Cambodge
Indicative Action 6: Vocational training centers in place in SEZs to support increase in number of trained Cambodian tech personnel for SEZ sector (same as See Outcome 17 ST Action 2)	No training facilities in SEZs to assist investors in building a skilled labor force	All SEZs have training facilities (PPP or otherwise) with curriculums that meet ASEAN standards	SEZs, Private Sector associations, NEA, MoLVT
Indicative Action 7: Reopen rail connection between Phnom Penh and Poipet to compete with road transport (same as Outcome 3, ST Action 7)	Rebuilding and renovation of rail link yet to be completed	Some scheduled rail freight service between Sisophon and Phnom Penh has commenced by 2016	MoPWT
Indicative Action 8: Develop rail link between Phnom Penh and Vietnam border (same as Outcome 3, ST Action 8)	No rail link	Plan to expand rail link from Phnom Penh to Vietnam border finalized and financing secured	MoPWT, MEF
Medium-Term Action: 2016-2018			
Indicative Action 1: Access, cost and reliability of electricity in SEZ improves	2011 electricity price from Electricité du Cambodge is $0.23 per Kwh and can reach around $0.40 per Kwh or more when self-generated	Electricity price falls by 1/3 in SEZs, down to $0.16 per Kwh for Electricité du Cambodge by 2018	SEZs, CDC, EDC
Indicative Action 2: TVET and other educational programs, in part linked to SEZ, established to improve workers skills and supply of new technical and engineering personnel	Cambodian managers and supervisors in firms located in SEZs represent 1% of the firms' total workforce in 2013 (*CTIS 2014-2018* - SEZ field survey)	The percentage of Cambodian managers and mid-level managers in firms located in SEZs has risen to 10% by 2018	MoLVT, MoEYS, Private Sector, SEZs
Indicative Action 3: Engineering curriculums strengthened in Universities (same as Outcome 17, MT Action 4)	The number of engineering graduates in Cambodia in 2008 was 514 (World Bank survey)	The number of Cambodian engineer graduates triples from 2008	MoLVT, MoEYS, MIH, Private Sector

Indicative Action 4: Improve road between Phnom Penh and Sihanoukville (same as Outcome 3, MT Action 7)	Large sections of the highway remain two lanes	Four lane highway between Phnom Penh and Sihanoukville completed	MoPWT, MEF
Indicative Action 5: Upgrade highways conditions between Thai and Vietnamese borders (same as Outcome 3, MT Action 8)	Average road transport of 20' container between the two borders is 15 hours in 2012	Average road transport of 20' container between the two borders lowered to 13 hours in 2018 as a result of road improvements	MoPWT, MEF
Outcome 9B: Light Manufacturing Assembly Cambodia emerges as a node in regional production networks	In 2012, the contribution of manufacturing to GDP (exclusive of garment and footwear) was approximately 5%	The contribution of manufacturing to GDP (exclusive of garment and footwear) increases to 7%	Private Sector, CDC, MIH, MoC
	In 2012, Cambodia exported $376 million worth of light manufacturing exports (excluding garment and footwear)	Light manufacturing exports from Cambodia triple to $1 billion by 2018	Private Sector, CDC, MIH, MoC
Short-Term Actions: 2014-2016			
Indicative Action 1: Ensure that all exported goods are exempt from paying VAT on all production inputs, whether imported or purchased domestically (same as Outcome 5, ST Action 7)	The Anukret implementing the Investment Law provides for duty-free import of materials needed by "supporting industries" in the production of output sold to exporters. There is no provision for VAT exemption but it can be negotiated on a case-by-case basis	Inputs used in the production of exports, whether imported or produced domestically, are exempt from duties and VAT for all exports irrespective of sectors	MEF
Indicative Action 2: Further improvements in the efficiency and timeliness of Cambodia's export services. (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 3: The procurement-to-delivery time in SEZs improves to enable Cambodia's integration in supply chains	Average 2012 procurement-to-delivery time is between 3 and 4 months for electronic orders (Survey of Sihanoukville and Manhattan SEZs)	Procurement-to-delivery time in 2016 in all SEZs is on par with Thailand and Malaysia (3 months)	GDCE, MoC, MIH, GDCE, Ports, Airports, MoPWT

Medium-Term Action: 2016-2018			
Indicative Action 1: Enhanced policy resulting in growing linkages between foreign investors/exporters and SMEs/domestic suppliers (same as Outcome 5, MT Action 2)	Some emergence of domestic parts suppliers in garments, footwear and bicycles	As a result of the implementation of the new Industrial Policy, significant new Cambodian and Foreign investment in parts supply serving leading manufacturing export sectors, especially garments, footwear, and bicycle parts, including as a result of focused investment promotion in those sectors	CDC, MEF, SNEC, Private Sector
Indicative Action 2: Clusters of suppliers and assemblers are promoted so that Cambodia can mature from part assembler to producing final products	The electronic and electric component export-to-import ratio in 2012 was 0.02 (TradeMap data)	The electronic and electric component export-to-import ratio in 2018 rises to 0.1	Private Sector, CDC, MoC, MIH
	The bicycle and parts export-to-import ratio in 2012 was 1.11 (TradeMap data)	The bicycle and parts export-to-import ratio in 2018 rises to 5	Private Sector, CDC, MoC, MIH
Indicative Action 3: Cambodia's bike sector continues to grow rapidly	The value of Cambodian bike exports was $109 million in 2011 and $291 million in 2012	The value of Cambodian bike exports triples from 2012 by 2018	Private Sector, CDC, MoC, MIH
Outcome 10: Processed Food			
Outcome 10: Processed Food Cambodia continues to grow and diversify its processed food sector through new export markets, moving to higher value products, and expanding domestic inputs	In 2011 the processed food, beverage, and tobacco industries accounted for 2.3 % of GDP. Exports were estimated at $71.5 million (NIS and Comtrade)	In 2018 the processed food, beverage and tobacco industry accounts for 4% of GDP. Exports reach $200 million or more by 2018	Private Sector, MAFF, MIH, MoH, MoC
Short-Term Actions: 2014-2016			
Indicative Action 1: National policy promoting agro-processing development in Cambodia	Donors have worked in the past with MIH on development of an Agro-Industry Development Strategic Plan (AIDSP)	A national policy is established, implemented, and reviewed annually by 2016	SNEC, MIH, Private Sector, MAFF, MoC

Indicative Action 2: Improved collaboration between government and Private Sectors on processed food sector development	No recognized industry association exists in 2012. A Working Group on Agriculture & Agro-Industry does convene under the Government-Private Sector Forum	National processed food industry association established in 2016 representing medium and large processors with export potential	Private Sector, MAFF, MIH, MoC
Indicative Action 3: A national brand/logo established for processed food industry and used to promote 'Made in Cambodia' on international markets and trade fairs	No national branding exists for local processed food and beverage sector	A national "Made in Cambodia" brand and logo is in use on exported processed food and beverage products by 2016	Private Sector, MIH, MoC
Medium-Term Action: 2016-2018			
Indicative Action 1: Policy and regulatory environment favorable to Private Sector investment in Cambodia's food processing industry	56 large processing factories registered in 2011: Food = 30 Factories Beverage = 15 Factories Tobacco = 11 Factories (MIH)	100 large processing factories registered in 2018 across the food, beverage and tobacco industry	Private Sector, MIH, MoC
Indicative Action 2: Further Private Sector investment in the processed food sector encouraged, with a strong interest from foreign investors	Approved investment projects with total fixed assets of $ 74.7 million between 2000 and June 2010 (CDC)	Approved investment in food processing sector reaches $100 million between 2014-2018	Private Sector, MIH, MoC, CDC
	Of total investment, $21.5 million (or 28.7%) was FDI	FDI accounts for 50% of total fixed assets in food processing sector over 2014-2018	Private Sector, MIH, MoC, CDC
Indicative Action 3: Safety among food processing exporting facilities enhanced by increased adoption of GMP and HACCP certification (same as Outcome 4, MT Action 11)	7 large food processing facilities have been certified recently under HACCP, GMP, ISO 22000 or FSSC 22000 standards	Another 20 large food processing facilities are certified against international standards by 2018	Private Sector, MIH, MoH

Outcome 11: Fisheries Products			
Outcome 11: Fisheries Products A sustainable fisheries sector sees Cambodian exports increase as a result of improved quality, growing production volumes, and strengthened access to markets	21,000 MT of recorded fish exports in 2012.	100,000 MT of recorded fish exports in 2018.	Private Sector, MAFF/FiA, MIH
Short-Term Actions: 2014-2016			
Indicative Action 1: A coordinated and export-oriented value chain	Product-specific processor associations exist in three coastal provinces. "Community Fisheries" organizations participate in co-management of inland water resources. No single national association exists	National fisheries association established by 2015 to drive Private Sector collaboration, investment, and export-oriented industry reform	Private Sector, MoC, MAFF/FiA, MIH
Indicative Action 2: Increased understanding of and compliance with regulatory standards of key importing countries	No clear pathway exists to increase food safety or regulatory compliance with international standards	Trade facilitation and export guidelines published by 2015, including on introducing SPS and HACCP compliance as well as improving industry practice in the Cambodian fisheries sector	Private Sector, MoC, MAFF/FiA, MIH
Medium-Term Action: 2016-2018			
Indicative Action 1: Implementation of SPS standards (HACCP or GMP) among marine fishery product processors increases resulting in improved export competitiveness (same as Outcome 4, ST Action 2)	1 marine fishery product processor HACCP/GMP certified in 2013	12 marine fishery product processors HACCP/GMP certified in 2018	Private Sector, MAFF/FiA
Indicative Action 2: FiA is upgraded, qualifies as "competent authority" for EU, and can support exports of fisheries products to EU (same as Outcome 4, MT Action 5)	Export of fisheries products to EU not yet possible. Public management of SPS for fisheries weak	FiA has been recognized as EU "competent authority" and can support Cambodian exporters targeting EU markets by 2018	MAFF/FiA

Indicative Action 3: A sustainable approach to fisheries activities and industry management	General awareness of environmental degradation and reductions in high-value fish stocks. No action plans or environmental guidelines exist at individual firm level	Fisheries resource management regime established and implemented, environmental guidelines developed for fisheries processors and exporters	Private Sector, MoC, MAFF/FiA, MIH
Indicative Action 4: Ensure that all exported fish products are exempt from paying VAT (same as Outcome 5, ST Action 7)	Government currently charges 10% VAT on exports	All exported fish products are exempt from paying VAT	MEF
Indicative Action5: Development of sustainable fisheries resources, especially in relation to aquaculture	Total aquaculture production (inland and marine) of 74,000 MT in 2012	Total aquaculture production (inland and marine) reaches 200,000 MT in 2018	Private Sector, MOC, MAFF/FiA, MRD
Indicative Action 6: Recorded exports of fish products shipped to a diverse mix of countries, including countries with SPS requirements less rigorous than EU	Fish export to key regional markets are sporadic and inconsistent from year to year	Consistent formal (recorded) fish exports between $5 to $10 million to 5 key markets	Private Sector, MAFF/FiA
Outcome 12: Milled Rice			
Outcome 12: Milled Rice Cambodia achieves the 1 million MT target for export of milled rice set out under the RGC 2010 Rice Policy	Approximately 350,000MT of milled rice exported in 2013	More than 1 million MT of milled rice exported in 2018	Private Sector, MoC, MAFF, SNEC
Short-Term Actions: 2014-2016			
Indicative Action 1: Rice farmer cooperatives established to facilitate technical exchanges, financing, extension services and stronger linkages with rice millers	Negligible amount of paddy delivered to millers under contract farming in 2013	50,000 MT of rice delivered to millers under contract farming by 2016.	Private Sector, MoC, MAFF
Indicative Action 2: Dry-season production improves through introduction of improved dry-season seeds, including high value fragrant seeds	CARDI has de-facto monopoly in seeds production	Allow Private Sector competition in seeds production	MAFF

Indicative Action 3: Effective dialogue between Government and rice sector is in place	Working Group #9 on Rice is organized under G-PSF. However, at least 3 fragmented exporter associations exist, impeding cooperation and public-private dialogue	A single national federation established by 2016 representing all exporters. Private Sector through federation is directly engaged in periodical review of rice policy with Government. G-PSF Working Group #9 is revitalized	Private Sector, MoC, MAFF, SNEC
Indicative Action 4: National brand/logo established to market fragrant rice exports with branding linked to export standards	No national brand/logo exists for fragrant rice exports	Brand / logo adopted by all fragrant rice exporters by 2016. Guidelines published outlining criteria and required standards for millers to be entitled to logo use	Private Sector, MAFF, MIH, MoC
Indicative Action 5: Capacity of rice millers to meet basic Hazard Analysis & Critical Control Point (HACCP) or Good Manufacturing Practice (GMP) standards is developed through rice mills certification program (same as Outcome 4, ST Action 1)	No modern rice mills certified as of 2012 (one plant certified by ISC, but ISC is not internationally accredited as of yet so this certification has no export value)	10 Cambodia rice mills that are HACCP or GMP certified in 2016	Private Sector, MIH, MAFF
Indicative Action 6: Improved cross-border transport agreements (road and waterways) are negotiated with neighbors and regional organization for an integrated transport market including improved third-country transit arrangements and port access (same as Outcome 3, ST Action 2)	Existing agreements have only partial coverage and are not fully implemented	Cross-border agreements (bilateral and regional) are fully enacted and implemented, in cooperation with neighboring countries	MEF, MoC, MoPWT, MoFA, concerned Line Ministries and agencies
Indicative Action 7: Bilateral agreements or MoUs signed with key regional markets as well as other possible growth markets to provide more predictable access to the regional markets	No agreements with other countries in the region, except MoU Cambodia-China on SPS	MoUs with key regional markets Indonesia, Philippines and Malaysia to facilitate reliable rice trade by 2016. MoUs with trading partners in key growth regions, such as GCC states, CIS and West Africa to facilitate reliable trade by 2016	MAFF, MoC, MoFA

Indicative Action 8: Introduce price competition in fumigation	CCIC has de-facto monopoly in fumigation	CCIC de-facto monopoly has been removed	MAFF
Indicative Action 9: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 10: Cost of export procedures reduced	Current trade facilitation cost is $11/MT	Cost of trade facilitation reduced by half	GDCE, MAFF, MoC, other border agencies
Indicative Action 11: Rail link between Phnom Penh and Poipet renovated (same as Outcome 3, ST Action 7)	Renovation of rail link between Poipet and Phnom Penh under way	Renovation of rail between Sisophon and Phnom Penh completed. Scheduled rail freight service between Battambang and Phnom Penh operates by 2016 and offers alternative/competing land transport for agricultural commodities like cassava and rice	MoPWT
Indicative Action 12: Restrictions on daytime truck traffic through Phnom Penh have been eased	Ban of daytime truck traffic through Phnom Penh between 6.00am-9.00pm are deemed costly and excessive by rice millers	Restrictions have been eased by reducing ban to 6.00am-7.00pm and/or establishing one or two daytime corridors for trucks	Phnom Penh Municipality, 2014
Indicative Action 13: Rice millers can produce electricity using rice husk as biofuel	Rice millers can produce electricity cheaper than EDC using rice-husk biofuel. However, RoI is feasible only if generators run 24/7 and EDC buys back excess electricity production. At present, EDC does not buy back from small producers	Policy has been introduced for EDC to buy-back excess electricity produced by small producers	EDC, MEF, Private Sector
Indicative Action 14: Ensure that all exported milled rice is exempt from paying VAT whether exported by rice millers or via third party exporters (same as Outcome 5, ST Action 7)	Government currently charges VAT on exports via third party exporters but not direct exports by rice millers	All exported milled rice is exempt from paying VAT	MEF

Medium-Term Action: 2016-2018			
Indicative Action 1: Access to working capital by rice growers and rice millers improved	Investment in rice sector supported by establishment of risk share facility with local commercial bank, as well as targeted investments, including through microfinance institutions. Limited working capital financial products available	Short-term financial products using movable assets and inventories of rice paddy and milled rice as collaterals introduced by commercial banks to meet working capital needs of rice millers	Commercial Banks, MEF
Indicative Action 2: RGC's Rice Policy is implemented. Capacity of rice millers to export milled rice to new markets is developed	In 2011, 22 countries imported shipments of $1 million or more from Cambodia	35 countries import more than $2 million annual shipments of fragrant, non-fragrant or broken rice from Cambodia by 2018	Private Sector, MoC, MAFF
Indicative Action 3: RGC's Rice Policy is implemented. Rice millers expand capacity in modern mills	400,000MT annual modern milling capacity in 2012 (approximately 280 tons per hour)	Modern milling capacity in 2018 in MT nearly triples from 2012	Private Sector, MEF, Banking Sector, MIH
Indicative Action 4: Facilitate greater investment in paddy storage and drying facilities by establishing a credit scheme. Likewise, insufficient thresher capacity to meet needs of November-December	Credit is provided to investors on a piecemeal basis	A national credit scheme to facilitate investment financing in rice logistics, threshers, other investment is put in place by the RGC in strong cooperation with private Banks	MEF, MoC
Indicative Action 5: Adoption of improved paddy cultivation practices, including dry-season production, resulting in increased productivity and larger supply for millers	Average paddy yield of 3.2 MT per hectare in 2011 (AFSIS.) Irrigated dry-season production accounted for 16% of total cultivated area in 2012 (MAFF+CARDI)	Average paddy yield of 4 MT per hectare in 2018. Irrigated dry-season production accounts for 35% of total cultivated area in 2018	Private Sector, MAFF, MRD

Indicative Action 6: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, MT Action 3)	Sanitary and phytosanitary certificates required for exports are processed manually	SPS certificates can be applied for and processed on line	MAFF
Indicative Action 7: Extend Risk Management System to non-Customs agencies (same as Outcome 2, MT Action 4)	Risk Management fully implemented by Customs as of 2013. Some progress by non-Customs agencies but risk management underdeveloped	Risk Management Systems is fully implemented by all border agencies and profiles are managed centrally by 2018	GDCE, MoC, MAFF and all other border agencies
Outcome 13: Cassava			
Outcome 13: Cassava Cambodia consolidates its exports of Cassava through direct exports to such countries as China and Republic of Korea and lessens its dependency on exports of unprocessed tubers to Thailand and Vietnam	68,000 MT of formal exports of dried cassava chips in 2011	Approximately 3 million MT of formal exports of dried cassava chips by 2018	Private Sector, MoC, MAFF
	Cambodia seventh largest producer of cassava in Asia in 2011	Cambodia fifth largest producers of cassava in Asia (following Thailand, Indonesia, India, and China PRC) by 2018	Private Sector, MoC, MAFF
Short-Term Actions: 2014-2016			
Indicative Action 1: Modern crop management and harvesting and post-harvest practices implemented	Current cassava yields 22MT/ha at provincial level in 2011. (Source: AFSIS). 1 million farmers use IPM.	Yields 20% higher than baseline in 2016. IPM expanded to 3 million farmers	MAFF, CARDI, Private Sector
Indicative Action 2: Strong industry cooperation across value-chain and dissemination of market information	No national sector association	Farmers Association(s) and a National Processor/Exporter Association established by 2016	Private Sector, MoC, MAFF
Indicative Action 3: Quantity and quality of supply to semi-processors and processors improved	Lack of ties between farmer cooperatives and semi-processors and processors	Cassava farmer cooperatives established to facilitate technical exchanges, financing, extension services, contract farming arrangements	MAFF, MoC, Private Sector
Indicative Action 4: RGC develops and implements a national policy for Cassava sector	No formal policy or institutional framework in 2012	Policy is established, implemented, and reviewed annually by 2016	SNEC, MAFF, MIH, MoC, Private Sector

Indicative Action 5: Capacity of dried cassava processors to meet basic GMP-based standards developed through certification program (same as Outcome 4, ST Action 3)	No certification system in place	Certification system in place for processors that produce for demanding export markets in 2016	Private Sector, MIH, MAFF
Indicative Action 6: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Indicative Action 7: Rail link between Phnom Penh and Poipet renovated (same as Outcome 3, ST Action 7)	Renovation of rail link not yet completed	Renovation of rail between Sisophon and Phnom Penh completed. Scheduled rail freight service between Battambang and Phnom Penh operates by 2016 and offers alternative/competing land transport for agricultural commodities like cassava and rice	MoPWT
Medium-Term Action: 2016-2018			
Indicative Action 1: New investment, including FDI, supports increased semi-processing and processing capacity, higher export returns, and transfer of industry know-how	FDI investment in cassava sector during 2005-2012 was $48 million, (2 percent of total FDI Approvals for Agro-Industry – Chapter 5)	Average annual rate of growth of 5–10 percent FDI investment in cassava sector during 2014-2018	Private Sector, CDC, MAFF, MIH
	Total demand (or throughput) from local processors is 920,000MT of fresh root in 2010	Total demand (or throughput) from local processors is 4 million MT of fresh root in 2018. Half (or 2 million MT) is in full processing sector including flour, animal feed, ethanol, other	Private Sector, CDC, MAFF, MIH
Indicative Action 2: Access to working capital for cassava processors improved (same as Outcome 12, MT Action 1)	Limited working capital financial products available for cassava growers and processors	Short-term financial products using movable assets and inventories of cassava as collaterals introduced by commercial banks to meet working capital needs of cassava sector	Commercial Banks, MEF

Indicative Action 3: Production of disease resistant new stems established in Cambodia	Nearly all new stems are imported informally from Vietnam or Thailand and is diseased	New stem reproduction for disease resistant plants established in Cambodia	MAFF, University of Battambang, Private Sector
Indicative Action 4: Capacity of processors and exporters to market overseas is increased	$2.3 million worth of recorded exports of processed cassava in 2011	$150 million worth of recorded exports of processed cassava in 2018	Private Sector, MAFF, MoC
Indicative Action 5: Bilateral MoUs with importing markets signed to ensure predictable market access for semi-processed cassava	One MoU for cassava chips signed between China and Cambodia	Several MoUs for semi-processed chips signed	MoFA, MAFF
Indicative Action 6: Implementation of SPS standards increases among driers and processors	68,000MT of cassava chips exported to countries enforcing SPS standards in 2011 (Source: GDCE data)	1 million MT of cassava chips exported to countries enforcing SPS standards (as reflected in Cambodia's Customs data on recorded shipments to such country as China) in 2018	MAFF, Private Sector
Indicative Action 7: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, MT Action 3)	Sanitary and Phytosanitary certificates required for exports are processed manually	SPS certificates can be applied for and processed on line	MAFF
Indicative Action 8: Extend Risk Management System to non-Customs agencies (same as Outcome 2, MT Action 4)	Risk Management fully implemented by Customs as of 2013. Some progress by non-Customs agencies but risk management underdeveloped	Risk Management Systems is fully implemented by all border agencies and profiles are managed centrally by 2018	GDCE, MoC, MAFF and all other border agencies

Outcome 14: Rubber			
Outcome 14: Rubber Cambodia progresses towards becoming a key producer and exporter of rubber	54,520MT of rubber exported in 2012	Approximately 150,000MT of rubber exported in 2018	Private Sector, MoC, MAFF
Short-Term Actions: 2014-2016			
Indicative Action 1: Modern cultivation techniques adopted	Average yields per tapped hectare: 1,100kg in 2010	Average yields per tapped hectare: 1,250kg by 2016	Private Sector, MAFF, RRIC
Indicative Action 2: Strong industry cooperation to facilitate extension services and exchange of market information	No single national-level industry association exists that encompasses whole value chain	Single national producer / processor / exporter association established in 2016	Private Sector, MAFF, MoC, MIH
Indicative Action 3: Shortage of skilled tappers avoided	No formal means to address skill shortage	Industry-wide guidelines and training manual for best-practice in rubber tapping by 2016. Training program implemented	Private Sector, MAFF, RRIC
Indicative Action 4: Cambodia natural rubber value chain produces high-quality products for export markets	No system in place to monitor quality of exported natural rubber	System to register quantities of natural rubber by grade and price in place and implemented by 2016	Private Sector, MAFF, MoC, RRIC
Indicative Action 5: Sector policy to support development of the sector	Sector targets but no comprehensive sector policy	Sector policy has been set up by 2016 with strong focus on supporting the development a CLV rubber triangle	SNEC, MAFF, MoC, Private Sector
Indicative Action 6: Export tax on rubber reformed to encourage domestic value added	Current sliding-scale export tax encourages export of lower quality rubber with limited value added	Reform export tax to encourage high quality and domestic value addition	MEF, MAFF
Indicative Action 7: CLV Development Triangle's focus on rubber sector proceeds as planned with formulation of Action Plan by the three countries	The 7th CLV Development Triangle Summit of Heads of State held in Vientiane March 12, 2013 requested preparation of action plan for development of the rubber sector in the Triangle	Action plan fully formulated for the 8th CLV Development Triangle Summit as requested during 7th Summit	MEF, MoC, MAFF, SNEC

Indicative Action 8: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, ST Action 2)	Issuance of Certificates of Origin is manual in 2013. CO reform plan introduced by MoC in November 2013	Certificates of Origin can be applied for and processed online by 2015	MoC
Medium-Term Action: 2016-2018			
Indicative Action 1: RGC strengthens and implements its policy targets for natural rubber production.	Approximately 55,000ha planted and harvested. An additional 225,000 ha planted but not harvested in 2012. 64,524MT produced and 54,520MT exported in 2012	200,000ha planted and harvested, more than 200,000MT produced, and 150,000MT exported in 2018. (Government targets for 2020: 300,000ha harvested and a total of 400,000ha planted)	Private Sector, MAFF
Indicative Action 2: Cambodia diversifies its export markets for natural rubber. Export marketing capacity of producers is strengthened	Vietnam accounts for 58% of total recorded Cambodian exports of rubber products (HS 40) in 2011 (TradeMap)	Reduced reliance on Vietnam as export market (to less than 30% of rubber trade) by 2018.	Private Sector, MoC, MAFF, RRIC
Indicative Action 3: Processing sector re-aligned with dynamics of global rubber trade	Most formal exports in low value natural rubber (HS 4001). Small tire manufacturing sector emerging (HS 4011). Tire Exports = 106 MT in 2011 (TradeMap)	Significant expansion of tire manufacturing industry. Tire Exports = 10,000MT by 2018	Private Sector, MAFF, MIH, RRIC
Indicative Action 4: Cambodia progresses towards full computerization of trade related documents (same as Outcome 2, MT Action 3)	Sanitary and phytosanitary certificates required for exports are processed manually	SPS certificates can be applied for and processed on line	MAFF
Indicative Action 5: Extend Risk Management System to non-Customs agencies (same as Outcome 2, MT Action 4)	Risk Management fully implemented by Customs as of 2013. Some progress by non-Customs agencies but risk management underdeveloped	Risk Management Systems is fully implemented by all border agencies and profiles are managed centrally by 2018	GDCE, MoC, MAFF and all other border agencies

Outcome 15: Tourism			
Outcome 15: Tourism Cambodia progresses towards RGC's 2020 target set for Tourism: 8 million foreign visitors	3 million foreign visitors in 2012	6 million foreign visitors in 2018	Private Sector, MoT
Short-Term Actions: 2014-2016			
Indicative Action 1: TVET programs that meet international standards and ASEAN Minimum Competency Standards for Tourism are established and running for the hospitality sector (same as Outcome 17, ST Action 3)	No culinary TVET program that meets international standards and ASEAN Minimum Competency Standards	Royal Academy of Culinary Arts (RACA) fully established as PPP. First full class (2 year curriculum) graduates with internationally recognized diplomas by 2016	MoT, Hotel, Restaurant and Chefs Associations
	No hospitality management and services TVET program that meet international standards and ASEAN Minimum Competency Standards for Tourism	TVET program focusing on hospitality management and services fully established as PPP by 2016. Graduates to receive diplomas that meet international standards and ASEAN Minimum Competency Standards for Tourism	MoT, Private Sector (Hospitality)
Indicative Action 2: Improved and more diverse tourism product offerings	Average length of stay is 6.30 days per visit in 2012 (Marked by slight decline in recent years)	Average stay of 7 days or more per visit by 2016	Private Sector, MoT
Indicative Action 3: Attract high-spending international arrivals in the MICE sub-sector	Business visits account for 5% of total international arrivals	Business visits account for 20% of total international arrivals by 2016	Private Sector, MoT
Indicative Action 4: Traffic congestion in Phnom Penh and Siem Reap has been reduced	Worsening traffic congestion in Phnom Penh and Siem Reap are deterrent to developing MICE sub-sector. No urban transport development strategy adopted	Phnom Penh and Siem Reap municipalities have taken serious steps to reduce car traffic congestion in the two cities. Urban transport development strategies adopted for PP and Siem Reap municipalities to reduce traffic congestion	Municipalities, MoPWT

Indicative Action 5: Level-playing field competition enforced in the hospitality sector	Labor laws and other regulations pertaining to the hospitality sector are not enforced consistently throughout the sector, putting establishments that follow laws and regulations at a competitive disadvantage with those that do not	Labor laws and other regulations pertaining to the hospitality sector are enforced consistently to create level-playing field competition	MoLVT, MoT
Indicative Action 6: Scheduled air service between Phnom Penh and Sihanoukville established	There is no scheduled air service between Phnom Penh and Sihanoukville, only charter flights	Scheduled air service between Phnom Penh and Sihanoukville established	Private Sector, MoPWT
Medium-Term Action: 2016-2018			
Indicative Action 1: The national *Tourism Development Strategic Plan 2012-2020* is implemented	37,522 rooms in hotel and guest houses in 2009 (MoT statistics)	Number of rooms in hotel and guest houses increases to approximately 90,000 by 2018	Private Sector, MoT, MIH, MoH
	25,658 rooms outside Siem Reap in 2009 (MoT statistics)	Number of rooms in hotel and guest houses outside Siem Reap increases approximately to 70,000 by 2018	Private Sector, MoT, MIH, MoH
Indicative Action 2: Increase the number of airlines and frequency of international flights	17 foreign airlines servicing Cambodia's international airports in 2009	20 or more foreign airlines servicing Cambodia's international airports by 2018 including direct services from Japan, Indonesia, the Philippines and India. Sihanoukville airport (KOS) receives daily international flights by 2018	Private Sector, MoT, CCA, MoPWT, MoFA
Indicative Action 3: Dependency of Cambodia on international visitors originating from a very small number of countries is reduced	Top 4 countries provide nearly 50 % of all visitor in 2011	Through proactive promotion intervention, the share of visitors from the top 4 countries is reduced to 35%	MoT, Private Sector

Indicative Action 4: SPS standards in kitchen in hotel and restaurant improve through enhanced training of existing and new kitchen staff (same as Outcome 4, MT Action 7)	Index from baseline survey of SPS standards in hotel and restaurant kitchen to be conducted by the Royal Academy of Culinary Arts under CEDEP-II. Also to use info from voluntary Good Health Practice (GHP) rating introduced by MoH	Repeat baseline survey (CEDEP II) by 2016-17	Private Sector, MoH, RACA, MoT
	Restaurant rating system being prepared. No restaurants have passed GHP/GMP audit. Low hygiene standards in sector	A rating system is in place. 200 restaurants have passed GHP/GMP audits by 2018	Private Sector, MoH, MoT
Indicative Action 5: Quality and quantity of domestically-grown supply of fruits, vegetables, and other food inputs increases	Most large hotel chains buy food inputs at local markets with the understanding that a large quantity of fruits and vegetables are imported from Vietnam or Thailand	Several large hotel chains have arrangements to secure most of their inputs of fruits, vegetables, and other foods locally through contract farming or other schemes	Private Sector, MAFF, MoT
Outcome 16: High Value Silk Products			
Outcome 16: High Value Silk Products A small but growing number of Cambodian producers are able to design and export high-value silk products	Exports (cross-border and sales to foreign visitors) of finished silk products estimated at $7 million in 2012	Exports of finished silk products double by 2018	Private Sector, MoC, MRD, MoWA, MAFF, MIH
Short-Term Actions: 2014-2016			
Indicative Action 1: Silk Board established to coordinate and formalize production chains.	No Silk Board in 2012.	Silk Board established by 2014	Private Sector, MoC, MRD, MoWA, MAFF, MIH
	Silk Sector and Plan of Action need updating	New Silk Sector Strategy adopted by 2016	Private Sector, MoC, MRD, MoWA, MAFF, MIH
Indicative Action 2: In the absence of a sector policy, the sector is unlikely to develop. National sericulture and silk sector policy developed	No sector policy as of 2012	National Sericulture and Silk Sector Policy developed and endorsed by Government by 2016	SNEC, CoM, Private Sector, MoC, MRD, MoWA, MAFF, MIH

Indicative Action 3: Purchasing units in key weaving cooperatives (e.g. Khmer Silk Villages) established to assist with procurement of higher quality yarn. Quality and traceability of silk yarn imports ensured (same as Outcome 4, MT Action 10)	Lack of COs on most imported yarn	30% of imported yarn has a clear CO in 2018	Private Sector, MoC, MoWA
Medium-Term Action: 2016-2018			
Indicative Action 1: Increased Private Sector investment in sericulture.	1MT of golden silk yarn produced in Cambodia in 2012. No white silk yarn produced in Cambodia in 2012. Most current silk production in Cambodia based on imported yarn. Hard to compete with China or Thailand. Cambodia should target high-value products using Cambodian silk	5MT of golden silk yarn produced in Cambodia in 2016. 20MT of white silk yarn produced in Cambodia in 2016	Private Sector, Silk Board, MoC, MAFF
Indicative Action 2: Selected group of producers have broken into foreign markets	Three producers have cross-border export sales in 2011 (approximately $1.5 million)	8–12 producers have cross-border export sales to five overseas markets with sales of approximately $3 million	Private Sector, MoC
Indicative Action 3: Selected group of producers have internalized a product development scheme	Three producers have a product development system in place in 2011	8–12 producers have product development in place in 2018 as reflected in regular product addition to collections and product catalogues	Private Sector, MoC, MoWA, MIH, MRD
Indicative Action 4: Weavers have access to micro-credit	Weavers have limited to no access to credit	Micro-lending to weavers expanded to help develop their business	MEF, RDB, micro-lending institutions

Pillar 3: Strengthening the Capacity of RGC and Cambodian Stakeholders to Manage the Trade Agenda and Trade Challenges (Trade Reform, Trade Policy, Aid for Trade, Bridging Skill Gaps for Trade, etc.)			
Outcome 17: Bridging the Skill Gap for Exports			
Outcome 17: Skill Gap for Exports RGC and Cambodian exporters meet the skill gap through the formal education sector and increased public-private partnership to develop vocational/technical education	No PPP TVET program in 2012 in Cambodia. Most TVET is done through NGOs with inconsistent outcomes for different NGOs	A number of PPP TVET programs have been established to support skill development in export sectors by 2018	Line Ministries, MoLVT, Private Sector
Short-Term Actions: 2014-2016			
Indicative Action 1: A job information system is in place to match supply and demand at local and regional level	National Employment Agency is new and lacks systems. No job information and forecasting systems in place	Job information system is in place in NEA including (1) quarterly labor market information reports; (2) regular dissemination of forecasting results with strong sector focus	NEA, TVETs, Private Sector
Indicative Action 2: TVET programs are established to meet need in technical and engineering personnel in garments and footwear and in SEZ sectors	Garment sector requires diversified skills and accreditation of workforce based on AFTEX ASEAN. The sector lacks an established TVET infrastructure. GMAC is in the process of establishing a training institute	GMAC's training institute is operational. Between 100 to 200 garment sector professionals per year are getting ASEAN-accredited (level 1) training in operator training, machine mechanic, pattern making, merchandising and other skills relevant to the sector	GMAC, Training Service Providers, AFTEX
	No training facilities in SEZs to assist investors in building a skilled labor force	All SEZs have training facilities (PPP or otherwise) with curriculums that meet ASEAN standards	SEZ operators, Private Sector associations, MoLVT, NEA

Indicative Action 3: TVET programs that meet international standards and ASEAN Minimum Competency Standards for Tourism are established and running for the hospitality sector	No culinary TVET program that meets international standards and ASEAN Minimum Competency Standards	Royal Academy of Culinary Arts (RACA) fully established as PPP. First full class (2 year curriculum) graduates with internationally recognized diplomas by 2016	MoC, MoT, Hotel, Restaurant and Chefs Associations
	No hospitality management and services TVET program that meet international standards and ASEAN Minimum Competency Standards for Tourism	TVET program focusing on hospitality management and services fully established as PPP by 2016. Graduates to receive diplomas that meet international standards and ASEAN Minimum Competency Standards for Tourism	MoT, Private Sector (Hospitality)
Indicative Action 4: A more peaceful labor relations environment has been established in industrial sectors through a reduction in the number of illegal strikes and better enforcement of arbitration rulings and agreements in place	The excessive number of illegal strikes that do not respect agreements in force or that result from conflicts that have not gone through appropriate mediation and arbitration channels is having a negative impact on competitiveness	Use of Collective Bargaining Agreement in industrial sectors is promoted (capacity building on CBA needed.) Enforcement of laws, regulations, and agreements in place is strengthened	Private Sector, CAMFEBA, Labor Unions, MoLVT, Arbitration Council
Indicative Action 5: A set of models (templates) has been developed to assist line ministries in developing TVET institutions and programs based on PPP	There is little understanding of how PPPs can contribute to skills development and little understanding of different PPP models that can be pursued. There is also little knowledge and information available as to what is possible in a PPP.	A set of PPP models has been developed, with the assistance of development partners and based on international best-practice, to provide guidance to Line Ministries and Private Sector partners when formulating PPP-TVETs including (1) possible governance structures, (2) development of curriculums, (3) structures for student internships and (4) possible financing structures	MoEYS, MoLVT, CAMFEBA, MEF

Medium-Term Action: 2016-2018			
Indicative Action 1: TVET programs are established for the hospitality sector to address current skill gaps	RACA is operating	A minimum of 100 Chefs, kitchen and food handling personnel is trained yearly based on ASEAN and internationally recognized certification standards through Royal Academy of Culinary Arts (RACA)	MoT, Private Sector, RACA
Indicative Action 2: Greater availability of SPS specialists to support exports and protecting health of crops livestock and consumers	Universities lacks curriculum focusing on plant health, animal health and food safety to train SPS specialists	Specialization stream on plant pest and disease, animal pest and disease, food safety specialization established in RUA with dedicated curriculum for the three areas and associated teaching materials	MAFF, Royal University of Agriculture (RUA)
Indicative Action 3: Higher education systems and TVET develop industry-focused curriculums	No industry-focused curriculums for specialized sectors to meet needs of a diversified economy	At least 2 new curriculums per Indicative sectors are drafted and integrated into relevant Higher Education/TVET programs by 2018. Curriculums to be linked to ASEAN standards where they exist	MoEYS, MoLVT, and Line Ministries
	No industry skills councils to guide development of educational and TVET programs that focus on the needs of specific sectors	Industry skill councils (employers, government, and workers representatives) established to guide development of educational and TVET programs that focus on the needs of specific sectors	MoLVT, Private Sector, NEA, Line Ministries
Indicative Action 4: Engineering curriculums strengthened in Universities	The number of engineering graduates in Cambodia in 2008 was 514 (World Bank survey)	The number of Cambodian engineer graduates triples from 2008	MoLVT, MoEYS, MIH, Private Sector

Indicative Action 5: The number of annual leave and public holiday days in Cambodia closer to ASEAN average	Under Cambodian labor law, individuals are entitled to a minimum of 43 annual public holidays and leave days per year. Cambodia's minimum entitlement is far greater than ASEAN average with a negative impact on competitiveness (it lowers productivity, reduces training time, + a much larger amount of normal work hours has to be paid for as overtime)	Minimum number of annual public holidays and leave days has been lowered to 33 days	MoLVT, RGC
Outcome 18: Mainstreaming Trade			
Outcome 18: Mainstreaming Trade Trade development objectives are fully mainstreamed in national development strategy and in product and service sector strategies	Input Note submitted by MoC to MoP and SNEC for mainstreaming trade in NSDP and Rectangular Strategy	75% of the results identified in Input Note prepared by MoC have been achieved by 2018	MoC, MAFF, MIH, MEF, trade-other related Line Ministries
Short-Term Actions: 2014-2016			
Indicative Action 1: The Ministry of Commerce has established a Trade Training and Research Institute (TTRI) centralizing all trade-related capacity development efforts	Capacity needs assessment of MoC and key trade-related institutions have been produced. Development plans have been formulated. A limited curriculum on trade is available in the Royal School of Administration (RSA)	A full-fledged catalogue of at least 20 courses available in Cambodia and 20 international training courses is available and being used to train officials on regular basis through TTRI	MoC, RSA
	There is no sustained trade-related research in MoC	TTRI has produced three research papers commissioned by MoC for policy-making needs, including in cooperation with independent Cambodian Research Institutions	MoC, Independent Cambodian Research Institutions

Indicative Action 2: The establishment of national and sector level indicators for growth and poverty facilitates comparison of different trade development and Private Sector development approaches in contributing to national poverty reduction goals	No coherent indicator of sustainable human development impact of expansion in the 10 DTIS 2013 priority sector	A coherent indicator of sustainable human development focusing on employment, gender, income, and environment at a minimum has been formulated and measured to measure the impact of development in the 10 DTIS 2013 priority sectors by 2016	MoC, SNEC, MoP
Indicative Action 3: Improved accessibility, compilation and use of statistics and trade data to assist in assessing and formulating appropriate trade support interventions	Official Cambodian trade data are extracted from database maintained by GDCE (Customs data), MoC (on COS, import/export, licenses), MEF (trade repository), and MAFF (SPS certificates.) There is no structure to compare and ensure coherence across sources, limited quality control systems, no tool to compare/benchmark Cambodian statistics against mirror statistics	Beginning in 2016, MoC Trade Training and Research Institute (TTRI) produces an annual trade data publication that consolidates and reconciles data extracted from different Government sources and ensure enhanced coherence with Comtrade mirror statistics	GDCE, MoC, MEF. MAFF, NIS
	Some MoC data are difficult to obtain	All MoC data are available up to date through MoC's revamped Website	MoC
Medium-Term Action: 2016-2018			
Indicative Action 1: Sufficient institutional capacity built to formulate and implement trade-related policies and strategies as well as trade-sensitized sector policies	1 sector policy focusing on exports in 2013 (for Rice)	4 additional sector policies focusing on export manufacturing or agro sectors by 2018 using MoC generated trade-data and inputs	SNEC, MoC, MAFF, MIH, other trade-related Line Ministries
Indicative Action 2: Increased coordination among MoC, MoP, and Line Ministries to include trade-related indicators in NSDP-V	A single template for NSDP provided by MoP not reflecting the contributions of trade and related cross-cutting themes	A revised template and schedule to include trade-related indicators in NSDP and sector policies in use by MoP, MoC and key Line Ministries	MoP, MoC, SNEC, key Line Ministries

Indicative Action 3: Increase coordination among SNEC, MoC and Line Ministries to ensure strong linkages between objectives of Industrial Policy and Outcomes of CTIS 2014-2018	Industrial Policy at the drafting stage	Ensure that implementation of the Industrial Policy takes into account linkages identified in Outcome 6 of CTIS 2014-2018, including linkages between investment promotion and Rules of Origin, the need to promote clusters of domestically-based suppliers to support exporters, etc.	MIH, SNEC, MoC, CDC
Outcome 19: Monitoring and Mobilizing Aid for Trade			
Outcome 19: Monitoring and Mobilizing Aid for Trade RGC's ability to M&E Results or Trade SWAp is strengthened, leading to stronger mobilization of AfT inside and outside SWAp	AfT commitments during 2007-2011 were$1.506 billion; AfT disbursements were $942.766 million (OECD/DAC data)	Expected value of AfT during 2014-2018 grows by 30% from 2007-2011 period	MoC, MAFF, MIH, trade-related Line Ministries
Short-Term Actions: 2014-2016			
Indicative Action 1: Khmer version of 2014-2018 Trade SWAp Roadmap and 2013 Matrix of Ongoing, Pipeline, and Missing AfT adopted by Government and used to mobilize additional interventions	Updated Roadmap and AfT Matrix under preparation as of 2013	2013 Trade SWAp Roadmap and AfT Matrix have been adopted by the Council of Minister	MoC, S-SC on Trade and Trade-Related Investment, CoM
Indicative Action 2: DICO carries out yearly evaluation of progress against Trade SWAp 2014-2018 Roadmap goals, outcome, and expected results. Findings are reviewed with Government and Cambodian stakeholders	The M&E Unit in DICO is able to monitor individual projects but has no capacity as of yet to show contribution of individual projects to program-level objectives and results	The M&E Unit in DICO produces an annual report showing contribution of all TRTA projects to Trade SWAp trade goals, outcomes, and expected results. DICO organizes annual event to present progress to RGC and Cambodian stakeholders	MoC, Trade SWAp implementing agencies
Indicative Action 3: DICO organizes annual meeting with traditional and non-traditional trade Development Partners (BRICS, south-south, philanthropic foundations) pointing to gaps in AfT based on expected outcomes	The implementation of the Aid-for-Trade medium term strategy formulated in the Trade SWAp Roadmap is not monitored or communicated to development partners	Annual event organized by DICO for senior Government officials and DPs to review AfT gaps	MoC

Indicative Action 4: DICO is using different communication tools to raise awareness about the actions, impacts, and achievements of Trade SWAp among a wider audience	A communication strategy for the SWAp has been endorsed, but is not being implemented. Communication actions are not coordinated with DPs and stakeholders and rely mostly on international consultant	A dedicated communication team has been organized in DICO and implements an up-to-date communication and outreach strategy with different media. A minimum of four key events are implemented each year	MoC,
Indicative Action5: Dialogue among Government, Private Sector stakeholders, and Development Partners shifts, in part, from focus on project implementation to program results and effectiveness	The SWAp governance structure for AfT tends to focus mostly on operations of ongoing project and very little on program and outcomes	Mandate of S-SC is reviewed to focus on trade program (*CTIS 2014-2018*) progress and results. Conclusion and recommendations from PSD TWG feeds into S-SC. Monitoring of operations is left at SWAp Implementation Committee level. Relevant Prakas have been amended accordingly	MoC, PSD TWG
Medium-Term Actions: 2016-2018			
Indicative Action 1: The Trade SWAp Management Framework is simplified so as to ensure better and faster AfT resource mobilization and project formulation	Most contributions of trade development partners to AfT in Cambodia is not accounted for and not monitored under Trade SWAp	The number of AfT contributions and DPs contributing directly to Trade SWAp goals, outcomes and expected results that is directly accounted for and monitored through Trade SWAp increases significantly	MoC, PSD WG

Outcome 20: Enhancing Private Sector Participation in AfT			
Outcome 20: Enhancing Private Sector Participation in AfT A better structured dialogue between Private Sector and Government contributes to efficient public-private partnerships for trade development based on AfT resources	Private Sector participation in Government-led project design is limited to individual company participation	At least 3 PPPs are established on an annual basis with participation from government and Private Sector in support of Cambodia's trade development goals by 2018	G-PSF, MoC, CDC, Private Sector
Short-Term Actions: 2014-2016			
Indicative Action 1: New PSD Technical Working Group (DP-RGC) mandate and modus operandi are approved and implemented	Current PSD Technical Working Group is ineffective	PSD Technical Working Group has been re-established with new mandate and new modus operandi	MEF, CDC, PSD TWG
	No comprehensive data base of Value Chain analyses and TA support	A data base of DPs on PSD and Value Chain Analyses and TA support is developed in collaboration between DICO and DPs as an input to PSD Technical Working Group	MoC
Indicative Action 2: Improved efficiency and effectiveness of RGC-Private Sector-donor consultation mechanisms to address business environment constraints through AfT	G-PSF and PSD WG are no longer functioning as effective mechanisms to leverage government support on solving key business constraints	G-PSF and PSD WG meetings are organized twice a year at operational level with clear agendas focusing on solutions to previously identified business constraints issues	G-PSF, MoC, CDC, Private Sector
Indicative Action 3: Increased awareness of Business Membership Organizations (BMOs) on AfT and Trade SWAp through regular focus group meets led by MoC	There is no structured event for MoC to communicate progress on AfT and Trade SWAp implementation with Private Sector	DICO organizes annual information event to inform business sector through BMOs about progress in Trade SWAp implementation and AfT deployment	MoC

Medium-Term Action: 2016-2018			
Indicative Action 1: The trade inputs to NSDP and Rectangular Strategy are jointly produced by government and Private Sector through G-PSF dedicated working group	There is no structured consultation between Government and Private Sector on trade objectives to be pursued under NSDP and Rectangular Strategy	Trade objectives proposed by Government under NSDP and Rectangular Strategy are reviewed and formulated jointly through consultation with BMOs	MoC
Indicative Action 2: Increased Private Sector participation in AfT project design, formulation and implementation	Limited or inexistent involvement of Private Sector representatives in most AfT TA projects	All new AfT TA projects must include activities and outputs involving BMOs by 2018	MoC, Private Sector