CDRI - Cambodia's Leading Independent
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List of Acronyms and Abbreviations

ADB	Asian Development Bank
AFSC	American Friends Service Committee
ASEAN	Association of South East Asian Nations
AusAID	Australian Development Assistance
CC	Commune Councils
CDC	Council for the Development of Cambodia
CPR	Common Property Resources
EEPSEA	Economy and Environment Programme for South-East Asia
FWUC	Farmer Water User Community
FWUCC	FWUC Committees
GDP	Gross Domestic Product
GMS	Greater Mekong Sub-Region
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
ISF	Irrigation Service Fee
LMAP	Land Management and Administration Project
MAFF	Ministry of Agriculture, Forestry and Fisheries
MEF	Ministry of Economy and Finance
MFA	Multi-Fibre Agreement
MLMUPC	Ministry of Land Management, Urban Construction and Planning
MOLVT	Ministry of Labour and Vocational Training
MOPS	Moving Out of Poverty Study
MoSALVY	Ministry of Social Affairs, Labour, Vocational Training and Youth Rehabilitation
MoSAVY	Ministry of Social Affairs, Veterans and Youth Rehabilitation
MOU	Memorandum of Understanding
MOWRAM	Ministry of Water Resources and Meteorology
NBC	National Bank of Cambodia
NGOs	Non-government Organisations
NIS	National Institute of Statistics
O&M	Operation and Maintenance
PDOA	Provincial Department of Agriculture
PDOWRAM	Provincial Department of Water Resources and Management
PPA	Participatory Poverty Assessment
PRSP	Poverty Reduction Strategy Paper
WTO	World Trade Organisation

Foreword

This new edition of CDRI's *Annual Development Review,* for 2007–08, is released at the second Cambodia Outlook Conference, a partnership between CDRI and ANZ Royal, held in Phnom Penh on 28 February 2008. The Outlook Conference, on the theme *Mobilising Cambodia's Resources—Human, Natural, Financial—for Quality, Development, Growth and Prosperity,* again brings together personally invited leaders from government, the private sector, research and civil society organisations, and the international development community to consider Cambodia's achievements and its future. The opening keynote address of the conference by Samdech Akka Moha Sena Padei Techo Hun Sen, the prime minister of the Royal Government of Cambodia, provides the backdrop for the conference discussion.

This is CDRI's third annual review of critical development issues for Cambodia. This year's review focuses on macroeconomic performance, water resource management and irrigation as key elements of agricultural and rural development, land tenure and its role in land management, and the policy implications of increased cross-border labour migration, all issues that play an important role in Cambodia's growth, sustainable development and poverty reduction. The English-language version is accompanied by Khmer language summaries of each chapter contained in a separate volume, to broaden the review's audience and accessibility.

In 2007 CDRI published two major research studies on poverty in Cambodia—*The Moving Out of Poverty Study,* undertaken with the World Bank, and *The Participatory Poverty Assessment of the Tonle Sap,* with the Asian Development Bank. The two studies clearly demonstrate the complex and interrelated factors that cause and entrench poverty, and those that contribute to its alleviation in Cambodia, together with their policy implications—factors such as access to livelihoods and employment, ownership and productive use of land, natural resource management, agricultural productivity and rural development, governance, conflict resolution and labour migration. To supplement the poverty-related content in articles in this ADR, we have chosen to include the executive summaries of these two major poverty studies as appendices.

At CDRI we hope that the annual Cambodia Outlook Conference, along with the *Annual Development Review* and its associated Khmer-language summary materials, will make a significant contribution to the broader dissemination of quality development policy research on issues critical to Cambodia's future, and to enhancing its impact on the development policies of the government of Cambodia and its international and national development partners.

Larry Strange
Executive Director, CDRI
February 2008

Chapter 1

Introduction

By:
Hossein Jalilian

Chapter 1

Introduction

1.1. Background

Cambodia's economic performance over the last decade has been impressive; it has achieved a very high rate of growth and, with it, a notable reduction in the rate of poverty. However, a high poverty rate is still the major challenge the country faces. There are debates as to whether Cambodia could have done better in poverty reduction. Related to the issue is the growing concern that inequality has increased. Although this in not necessarily a worrying sign, it is important to look carefully into the underlying reasons for increased inequality.

Understandably, poverty reduction is at the top of agenda for many parties that are involved in Cambodia's development, including the government. As a leading Cambodian development research institute, CDRI has a profile also heavily biased towards research and policy advice on poverty and well-being. CDRI's mission statement puts emphasis on growth, economic diversification and agricultural development as ways of dealing with the challenges, including poverty, that the country faces. Research at CDRI is conducted in four different units based on subject matter:

- economy, trade and regional cooperation;
- poverty reduction, agricultural development and rural livelihoods;
- democratic governance and public sector reform;
- natural resources and the environment.

Over the last few years, CDRI has produced a number of research reports and working papers on poverty and inequality. Published last year were two major reports: Moving out of poverty: *Trends in community well-being and household mobility in nine Cambodian villages*[1] and *We are living with worry all the time: A participatory poverty assessment of the Tonle Sap.*[2] Both studies[3] provided ample evidence that the poor in Cambodia, for various reasons, have not benefited as much as other income groups from the exceptional growth that the country has

[1] Fitzgerald, Ingrid and So Sovannarith (2007), Phnom Penh: CDRI.

[2] Ballard, B. (ed.) (2007), Phnom Penh: CDRI.

[3] The executive summaries of these two publications appear in appendices I and II at the end of this introduction.

experienced over the last decade. These studies, together with the most recent publication by the World Bank on the issue,[4] also provide statistical evidence of the increased level of inequality found in the case studies. Although the latter finding should not necessarily be alarming given the debate in the literature going back to Kuznets (1955),[5] the causes of inequality in Cambodia should be taken seriously. Various CDRI publications, particularly two on land titling just completed,[6] find increased evidence of inequality in land ownership. If unchecked, this could have considerable implications for the political economy of the country and its future development.

In order to consider factors behind these findings, and particularly the poor performance of Cambodia in poverty reduction relative to some of her neighbours, it would be useful to consider in more detail the interaction between growth and poverty.

1.2. Driving Forces of Poverty Reduction

The starting point in addressing poverty should be the knowledge about the poor and their characteristics. The poor, as Weiss and Khan[7] point out, suffer from multiple disadvantages:

- personal factors including low skills, poor literacy, large family size, lack of assets and possibly ethnic and gender factors;
- locational factors including poor access to physical and social infrastructure such as roads, utilities, health and education;
- structural factors including poorly developed market relationships in terms of information, finance and access to credit.

Disadvantages that the poor suffer are such that most are unable to generate sufficient income to cater for their own sustenance and therefore fall into absolute poverty. More serious, however, is that in the absence of any intervention or improvement in the condition of the poor, poverty becomes a vicious circle; those who are born into a poor family will most likely end up being poor as well. Intervention may be necessary to break the circle. In the majority of cases however, and Cambodia is an example, the standard of living of the country as a whole is too low to be able to assist the large proportion of the population who suffer from poverty. To tackle poverty effectively, it is important that economic activities are increased so that the resources required are generated. In this process, particularly when a country is "trapped" in poverty, external assistance may be required in order to tackle the problem of poverty as well as general economic condition in the country.

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4 World Bank (2007), *Sharing Prosperity,* Phnom Penh: World Bank.

5 Kuznets, S., (1955), "Economic Growth and Income Inequality", *American Economic Review,* 45, pp.1–28.

6 CDRI (2007), *Cambodia Rural Land Titling Baseline Survey Report,* Phnom Penh: CDRI; CDRI (2007), *Cambodia Urban Land Titling Baseline Survey Report,* Phnom Penh: CDRI.

7 Weiss, J. and H.A. Khan (2006), Poverty strategies in Asia, Cheltenham UK and Northampton MA: Edward Elgar.

Cross-country analysis of poverty points to growth in the economy as necessary in order to make a dent in poverty. Sustained economic growth is necessary to push the poor above the poverty line by generating the resources that are required to do this. In general, factors that lead to enhanced growth are also those that are likely to push the poor above the poverty line as well. There is a huge theoretical and empirical literature on determinants of growth. Some important factors include investment in physical and human capital, investment in physical and social infrastructure, financial market development and governance and institutional set-ups. All these factors have direct and indirect impacts on poverty. Through increased economic activities, demand for complementary factors of production, including labour, is likely to go up; this is likely to benefit the poor directly. Investment in physical and social infrastructure is also likely to affect the poor indirectly through improved access to these resources. Improved governance is a key factor that will positively affect the economy as well as the poor.

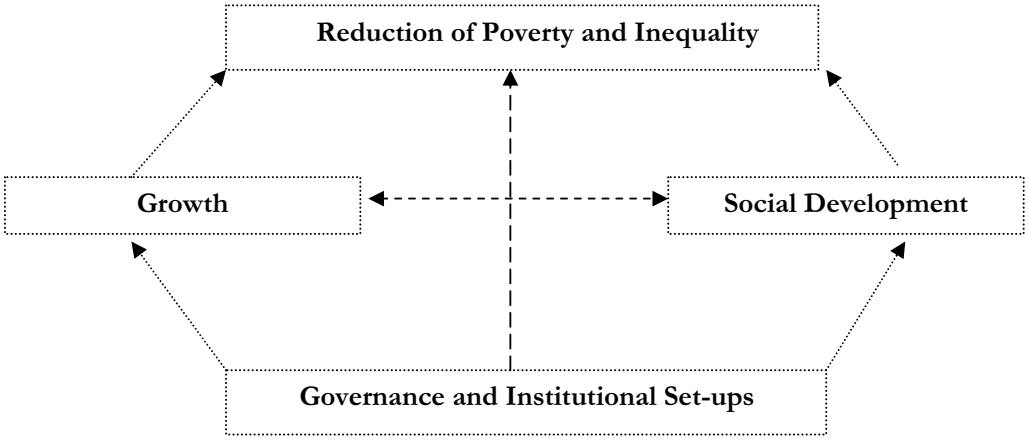
The international environment within which developing countries operate has changed considerably over the last few decades, which needs to be taken into account in any research strategy and development policy. Developing countries now operate within a regional and globalised market environment. Both offer opportunities and challenges. For Cambodia, regional trade blocs in terms of GMS and ASEAN, are likely to have an impact on its growth and prosperity. Cambodia's open trade policy also links the country to a globalised world that further impacts on its economy. These ties, though potentially positive, could also adversely affect the Cambodian economy, at least in short to medium term, if steps are not taken to improve its competitiveness.

Growth on its own, however, is unlikely to address all the causes of poverty. The extent to which growth affects poverty depends on the type of growth. In an "inclusive growth" framework, poverty reduction is likely to be high. Otherwise the poverty effects of growth may be limited. When growth is not 'inclusive', inequality may increase. Changes in inequality would in turn impact on poverty reduction efforts and, more importantly, potentially the political economy and institutional and governance structure, and therefore the long-term development potential of the country is likely to be adversely affected. Whether growth is "inclusive" or otherwise, to a large extent depends on the institutional and governance structure.

Certain disadvantages that the poor face may also call for a closer micro-management of poverty. These include causes of poverty related to ethnicity and gender, locational disadvantages and structural factors. In such a case, macro polices to reduce poverty need to be combined with a more focussed targeting of groups more severely affected by poverty. Micro-research on poverty is useful in order to look at its specific causes. Insight generated from such research should feed into macro policies to make them more effective, not only in expanding economic opportunities for everyone but also in addressing poverty everywhere.

The links between poverty and some of its important determinants are illustrated below. Poverty reduction is very closely linked positively to growth as well as to quality of governance and the state of social development. There is a debate in the literature as to whether it is growth that leads to better governance and social development or whether the latter two cause growth. In terms of the other factors, however, there is general consensus that direction of causation runs from governance and social development to poverty.

Pillars of Development:
Factors that Affect Poverty and Inequality



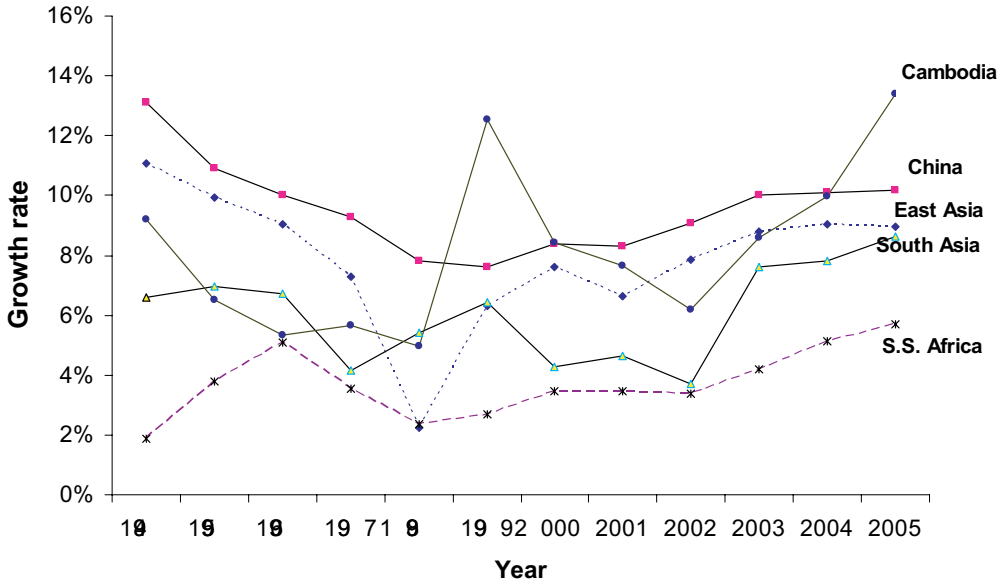
1.3. Nature of Growth in Cambodia and its Comparison with Others

There are a number of limitations in factors that influence poverty and inequality in Cambodia. Here we consider in more detail some of the limitations for growth. To illustrate some of the limitations in this area, we compare the experience of Cambodia with a number of regional blocs and China.

Figure 1.1 shows growth in Cambodia over the last decade compared with some regional blocs and China. Cambodia's growth has been high, comparable to that which east Asia and China have experienced over the period; sub-Saharan Africa performed worst. Figure 1.2 shows performance of the same blocs and China over the same period with respect to the poverty rate. This is where the Cambodian experience compares unfavourably; Cambodia's of rate of poverty reduction over the period was slow and similar to sub-Saharan Africa and south Asia. The best performers in this respect were China and east Asia. One could argue that these differences are in part due to the much higher growth in China and east

Asia; the two have experienced sustained growth over the last two decades, more than doubling their size every decade. The differences could also be attributed to the different nature of growth in different regions and countries.

Figure 1.1: Growth comparisons



The extent to which growth "trickles down", as discussed already, depends on the nature of growth, as well as its sectoral composition and the linkages that exist between different sectors of the economy. A number of cross-country studies conducted recently suggest that on average there is no bias in the sharing of benefits of growth; poor and non-poor equally share the benefits of growth. Individual country case studies, however, indicate that this average picture does not hold for some; specifically, the poor may not benefit as much as others and in exceptional circumstances the link between growth and poverty reduction may not be direct. In Cambodia the poor may not have benefited as much as non-poor from the impressive growth of the last decade. A closer look at the sectoral composition of growth may shed further light on this issue.

Figure 1.2: Poverty Comparisons

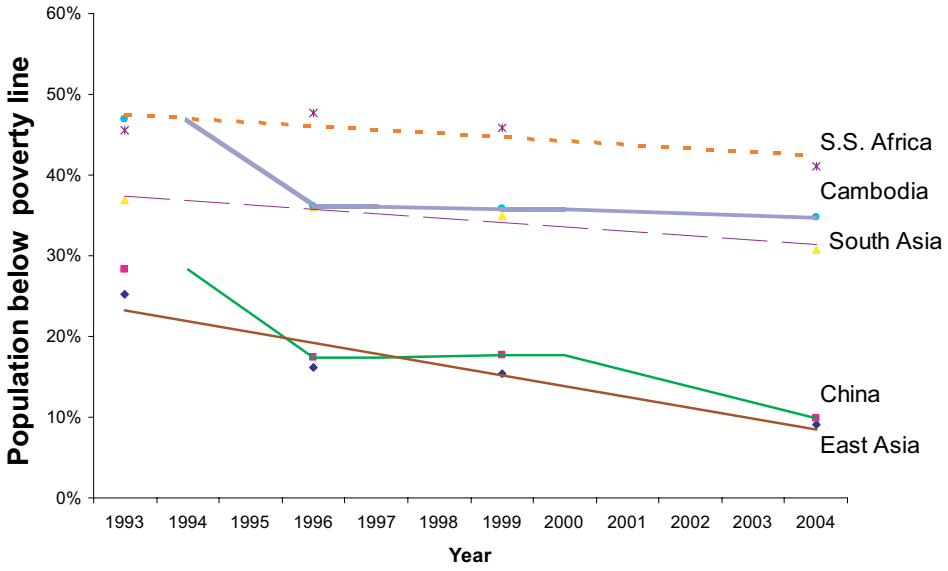
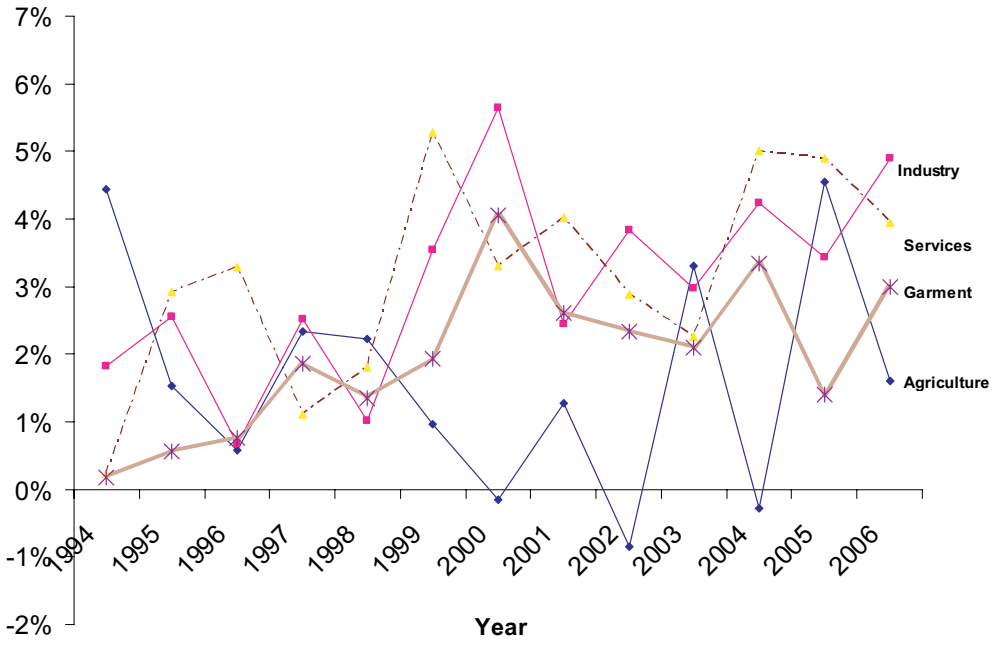


Figure 1.3 shows the rate of change in the level of output of different sectors of the Cambodian economy over the last decade. The sectors that show a sustained and positive growth over the period are industry and services; agriculture had an unstable and at times negative growth rate. Given the concentration of population in rural areas and the relatively poor performance of agriculture over the period, together with its poor linkages with the rest of the economy, therefore one cannot expect that the income level of rural population would have changed much. The way that the benefits of growth have been shared would not have had much impact on the outcome.

The driving force behind growth in the Cambodian economy, as figure 1.3 indicates, has been the industrial and services sectors. The garment sector, combined with construction, has been behind industrial sector growth. Both sectors have very weak linkages with the rest of the economy; their contribution is largely confined to employment generation. Similarly in the services sector, the driving force is the massive increase in tourism. As with garments and construction, tourism has a relatively weak linkage with the rest of the economy, particularly agriculture; its contribution to the economy is mainly through employment generation. A recent CDRI study on the poverty reduction effect of tourism found that this sector does not play any significant role in this regard in Cambodia.[8] These studies indicate that growth in Cambodia has not been "inclusive"; the benefits have been shared by a relatively small portion of the population.

[8] Hing, V. and S. Tuot, "Pro-poor tourism: Siem Reap case study", in CDRI (2007), *Pro-poor Tourism in the Greater Mekong Sub-Region,* Phnom Penh: CDRI.

Figure 1.3: Sources of Growth 1994-2006



Detailed discussion of how to make growth in Cambodia more inclusive will have to be left to another occasion. A summary of some relevant issues is presented here.

1.4. Moving Forward

To make growth more inclusive, it is important that the private sector take a much larger and more meaningful role in economic activities, in the industrial sector in particular. Recent studies suggest that Cambodia is one of least competitive countries in the GMS; the cost of doing business here is very high. This high cost is a reflection of problems in the infrastructure and energy sector as well as high transaction costs due to red tape, rent-seeking and corruption. There is a lot that can be done by the government and donor community to remedy these problems.

The rate of saving and investment in Cambodia is quite high; the latest figures suggest a rate of investment of around 23 percent of GDP. However, there is a question whether these savings are channelled into the right type of investment. A number of empirical studies on the role that different types of investment may have on growth found significant links between growth and investment in machinery and transport. Investment in building, on the other hand, does not seem to play much of a role in stimulating growth. The rate of investment in building in Cambodia appears to be high, as is speculative investment in land.

To reduce poverty, it is important that the growth and productivity of agriculture be substantially improved. As indicated in figure 1.3, agricultural growth has been rather erratic and behind other sectors. One important element in putting agriculture on a sustainable high growth path is to deal with the issue of land. A recently published CDRI study on land titling[9] provided strong support for land titling on the one hand but found evidence of growing inequality in land ownership on the other. To invigorate agriculture, it is important that land titling move ahead more rapidly and that inequality in land ownership be addressed. Evidence from many developing countries suggests that countries that have experienced sustained growth and been able to develop rapidly have had a more equitable land distribution. Land ownership on a more equitable basis has a large number of attributes that are well reported. Land ownership by wide sections of the population in a country in its initial stages of development, such as Cambodia, provides a much needed incentive to improve land productivity, as well as linking the landed peasants to the development and prosperity of the country. However, the positive effects of land distribution is likely to happen only if other incentives and institutional supports are provided as well: for example, clear and well-defined property rights, strengthening the rule of law to increase security of tenure and ownership among farmers, would encourage farmers to improve their land and use it more effectively. So would provision of irrigation, education on the use of improved seeds and better techniques of land use, access to finance, schools and health centres. All are expected to encourage the rural population to take a more active role in production activities and therefore rural development.

Another important area that requires more careful attention relates to institutions and governance. Institutions that strengthen property rights in particular seem to have played an important role in other countries to stimulate growth; in Cambodia they are generally weak and non-existent at times. Land titling falls within this category. Governance also requires careful analysis. To address some of the problems highlighted by researchers and donors in this area, requires policy rules that are clear and transparent. Given the limited capacity of policy makers to deal with a large number of policy issues, a closer look at and prioritisation of policies are also required. At the country's present stage, it would be by far the best option if government efforts were directed to getting growth right; succeeding in this area would resolve most of the challenges that the country is faced with, particularly in poverty reduction.

It is also important to emphasise the heterogeneity of governance and institutions; international donors in particular seem to be pushing for a particular governance structure without considering this heterogeneity. The overemphasis on the role of democracy or anti-corruption measures as a precondition for development does not have strong theoretical or empirical support in the literature. In fact, the experience of many countries in the region suggests that they have arguably succeeded because of strong and autocratic

[9] For details refer to footnote 6.

governments, mostly aligned with the private sector in non-too-transparent relationships that in today's language would be considered "corrupt". This in no way meant to undermine the importance of democratisation and anti-corruption measures that are needed in many developing countries to move forward. But it should equally be acknowledged that in the majority of cases of fast developers, governments have played a key role. What is important to emphasise is the factors that have brought about fast growth and development and the dynamic relationship between institutions and development.

The donor community can play an important role in pushing Cambodia into sustainable growth. Given the limits in the resources available to undertake major infrastructure projects important for the economy, donors can support investment in these areas, importantly in roads, energy and IT infrastructure.

1.5. Structure of ADR

The papers presented in this volume deal with some of the issues that may help our understanding of the nature of growth in Cambodia and therefore of possible solutions to the problems the country faces. The ADR is structured around five main chapters, each dealing with a particular topic.

Chapter 2 discusses macroeconomic performance. The authors write that Cambodia's economy, despite its narrow base, continued to register spectacular growth in 2006, underpinned by expansion in garment manufacturing and a tourism boom. The linkages between these two industries and other sectors remain thin. Given changes in international policies governing trade in textiles and clothing, ongoing efforts to increase productivity and competitiveness of the garment sector, as well as to diversify exports, are essential to promote further economic growth. They argue that Cambodia should strengthen the linkages of the garment and tourism industries with agriculture by investing in supporting industries such as cotton plantations and vegetable and meat supply, which will promote not only competitive advantage but also employment and income generation. They point out that the sources of growth remain narrow. They warn that the economy is exposed to risks arising from changes in the global market. To reduce such vulnerability, more domestic investment, particularly in small and medium enterprises (SMEs), is essential. They add that although economic growth during the past decade has been strong, its link to poverty reduction remains weak. The challenge is to strengthen this linkage. The authors offer a number of recommendations likely to produce a better outcome. To make growth more pro-poor, policies to promote faster agricultural development and generate rural employment are crucial. Such policies should include diversifying agriculture into labour-intensive high-value crops, improved marketing systems, better storage facilities and easier access to credit for small farmers. The employment generating policies may consist of increased off-farm employment opportunities through promotion of SMEs and improved credit access for small entrepreneurs.

The third chapter deals with the important issue of irrigation and water use. The aim is to provide an overview of irrigation in Cambodia, using Takeo province as a case study. The study reveals that many irrigation schemes in Cambodia are not able to function well due to poor technical design and lack of proper maintenance. It also explains why technical design of irrigation is poor and maintenance is not done properly.

The study also documents major problems, focussing on irrigation schemes in Takeo. Existing problems are mainly about (1) financial constraints, (2) low popular participation and (3) poor technical design. There are also two other intangible problems: inappropriate leader selection due to lack of flexibility; and weak institutions and lack of law enforcement, due to limited capacity and cooperation from relevant authorities. These problems are conducive to conflicts, which occur among beneficiaries and different interests within the community and also between communities, depending on the scale of the scheme.

Chapter 4 also deals with irrigation, but from the standpoint of participation in the development and management of systems. The paper discusses theories about participation—its evolution, advantages and loopholes—and some arguments related to the applicability of participation in Cambodia. Looking at irrigation water governance, the article discusses what it means for people to participate in making use of water from the scheme and the main factors behind their decision to do so. The paper also discusses participation in operational decision making.

The article concludes that people's participation in the use of irrigation water is driven largely by economic motives; how much they are willing to make use of water is determined by how much profit they see in doing so. But their decision is constrained by their limited resources, equipment, finance and sometimes labour. In operational decision making, people are participating more actively now, but this still has limited influence on operational policy because farmers are afraid to act against the majority.

Chapter 5 is devoted to the analysis of land marketing, both formal and informal, as well as the broader issue of land tenure. The article identifies five key indicators to assess the rapid development of land markets in urban and peri-urban areas and the use of the official registry to facilitate and validate land transactions. It argues that in many areas where land titles are being issued, customary land rights in informal land markets have worked well enough to govern localised land transactions and disputes, as people have historically and traditionally tended to use local authorities to recognise and validate land transactions and transfers. With the introduction of the Land Management and Administration Project (LMAP) titles, however, government officials expect that transactions and other transfers such as inheritance will be facilitated and validated through the official registry. This suggests that transfers recognised only by local authorities following tradition may not be legally recognised by the government or upheld by the courts. If this is the case, over time transfers of LMAP titles outside the official registry could weaken land tenure security rather than

strengthening it as intended. Such transfers could result in complex land conflicts as well as denying the government much needed tax revenue from land sales tax.

The final chapter deals with the management of cross-border labour migration. Approximately 200,000 Cambodian migrants are working in Thailand, Malaysia and South Korea. Thailand has received an estimated 180,000 workers, most of whom entered the country illegally. To address this problem, as the author points out, the governments of Thailand and Cambodia in 2003 signed a memorandum of understanding that aimed to document and regularise those already working in Thailand and to spell out a legal procedure for new labour migrants.

According to the author, the implementation of the MOU has been problematic for various reasons. Many workers already in Thailand have not been documented and continue to face arrest or having to pay the police not to be arrested. Most new migrant workers still enter Thailand by illegal means because the legal procedure is not accessible or is too costly. Only 6114 workers had been sent to Thailand legally by the end 2007, and a large number of these escaped their legal employment because they found it too much to repay the fee of USD600 to enter and get a job in Thailand, not to mention the USD150 already paid by some to get a passport. Most workers continue to enter Thailand by paying about USD100 to an informal broker, or to re-enter by themselves. While acknowledging the complexities in the issue, the paper suggests that the cost of legal means can be lowered. Among other things, the Cambodian government should improve the issuing of passports and reduce the cost. The author recommends that the government of Thailand find ways either to regularise those already working in Thailand or to shut down the option to employ illegal migrant workers. There are possible win-win solutions for both the Cambodian government and poor migrant workers and for the Thai and Cambodian governments.

1.6. Appendices

Appendix I: Moving Out of Poverty?

Executive Summary

The Moving Out of Poverty Study (MOPS) is a first of its kind in Cambodia, one of 18 studies commissioned by the World Bank to examine poverty dynamics and trends. Conducted in 2004/05, the study revisited nine rural villages in which CDRI had conducted research in 2001, using quantitative and qualitative methods to investigate the extent to which these villages and individual households had been able to move out of poverty and improve prosperity, or had experienced downward mobility and decline.

The study set out to examine: which communities or groups move out of poverty and which remain trapped and why; whether people experience mobility differently in different economic conditions; how and why governance and social networks matter in mobility; what factors explain household and community progress and mobility or decline and stagnation; and the interaction between household and community factors, as well as any variations between villages and types of households.

The study was *longitudinal,* revisiting households that had previously been included in the 2001 study (using a panel survey) and *contextual,* exploring local history, geography and trends and their impact on communities and households, and it employed *mixed methods,* including a household panel survey and in-depth focus group discussions and semi-structured interviews. The nine villages selected for the original 2001 study represent all four of Cambodia's main rural agro-ecological regions—the Tonle Sap plains, Mekong plains, plateau/mountain region and the coast. The 890 panel households drawn from the nine study villages represent a significant data set, from which statistically valid claims can be made about aggregate and village trends. The panel survey was supplemented by qualitative data from interviews and focus groups with 477 participants from the nine villages, including formal and informal village leaders, mobility groups (with participants who moved into or out of poverty or whose situation remained static) and young men and women.

The framework for analysis involved an examination of the main changes and trends that had affected the study villages, including changes in consumption and incomes and village poverty rates, together with an analysis of the factors contributing to or constraining community development and prosperity and household movement into and out of poverty. The analysis included community factors such as the underlying conditions and development and governance contexts that had shaped the experience of each village, and household factors such as strategies for income generation and the specific vulnerabilities that households experience. Although village and household factors accounting for movement out of poverty or decline and stagnation were explored in detail, individual

experience, such as the impact of gender differences on poverty and mobility, was not explored in any depth. As intra-household dynamics are receiving increasing attention in poverty research (Fuwa *et al.* 2000), this could be a fruitful area for investigation in a further round of the MOPS.

The Study Identifies Trends in Well-Being and Prosperity and Factors Contributing to or Constraining Village Prosperity and Household Mobility

Well-being trends varied significantly between villages and households. In the aggregate, income and consumption rose and poverty fell slightly, representing an overall improvement in well-being. However, income rose in all study villages while consumption fell in three of the study villages and rose in the remaining six: the poverty headcount fell in six villages and rose in the villages experiencing declining consumption. Even in villages where consumption and income rose and poverty fell, poverty remained high and was above the provincial average in all but one village in 2004/05. Four villages had consumption well below the village poverty line in 2004/05. Villages were grouped into three clusters for the purposes of analysis: strongly performing villages, which experienced rising consumption and incomes and falling poverty rates; moderately performing villages, which achieved income and/or consumption growth, or poverty reduction, but not both; and poorly performing villages, which were unable to achieve substantial income growth or consumption growth or poverty reduction.

Among panel households, just over half did not change their status between 2001 and 2004/05, remaining very poor, moderately poor or well off. Of the remaining 48 percent, 26 percent moved up and 22 percent moved down, a net gain of 4 percent in upward mobility over the 3.5 years between surveys. Among non-moving households, 24 percent (of the total sample) remained well off (the comfortably rich), 14 percent remained moderately poor (the static middle) and 14 percent stayed trapped in poverty (the chronically poor). Of households that changed status, 14 percent of the total panel were very poor who became either moderately poor or well off by 2004/05 (escaping poverty), 7 percent were moderately poor who became very poor (deepening poverty) and 12 percent became well off (climbing into wealth). Fifteen percent were well-off households that became moderately or very poor (falling into poverty). The seven mobility groups—comfortably rich, climbing into wealth, escaping poverty, static middle, falling into poverty, deepening poverty and chronically poor—and the three village clusters are the main units of the study's analysis.

Taking into account measures other than consumption, including income, assets and socio-political measures such as access to networks, resources and decision making, inequality rose between 2001 and 2004/05. While consumption inequality was static, and land-holding inequality fell, income inequality rose, as did the ratio between the value of assets held by the comfortably rich and chronically poor. Poor households are falling

behind, with consumption falling further below the poverty line. Rising inequality was a concern in all study villages, focus group participants suggesting that the intersection of economic wealth and socio-political power and influence was responsible for this trend, as resources, opportunities and services are increasingly concentrated in the hands of better off households.

Although the end of armed conflict in the late 1990s was an important milestone in village development, the location, accessibility and geographic endowment of study villages were more significant in determining community well-being. Strongly performing villages were located close to national roads and provincial towns with good roads, productive soil and irrigation, while moderately performing villages were more isolated, with poorer soil, less arable land and no irrigation. Productivity was highest in strongly performing villages and those with natural irrigation, while food insecurity was more common in moderately and poorly performing villages. Strongly performing villages also received more development interventions, including agricultural extension, and were more likely to have clean water and sanitation. Availability of human services (health and education) has improved in all study villages, but more isolated communities continue to experience poorer health outcomes, and the quality of health services is variable, while children in the poorest households, in particular girls, continue to miss out on education.

Awareness and understanding about governance and the role of public institutions were low among ordinary villagers. Participation in social and political processes is largely confined to voting in elections, attendance of community meetings and membership of (usually religious) associations. Examples of poor governance and weak institutional capacity were raised in all study villages, with natural resource-dependent villages the most affected by corruption, intimidation and conflict over natural resource use and management. Trust in and satisfaction with authorities are low, in particular in regard to higher-ups such as forestry and fishery officials and police. Local authorities are regarded as more trustworthy, but are considered unable to protect villagers' interests or respond effectively to new forms of insecurity such as drug use, youth gangs, domestic violence and other crimes. While peace and security were once critical issues, rural villagers increasingly expect their leaders to deliver improved living standards and express disappointment and frustration about constraints on development and the slowness of poverty reduction.

Households are more reliant on self-employment and wage labour and less reliant on agriculture and common property resources (CPR), including fisheries and forests. Better off households are earning more from agriculture and self-employment, while poorer households are more reliant on wage labour than in the past. Assets for wealth generation, including agricultural land, credit and inputs for agriculture and business, are concentrated in strongly performing villages and among better off households. Rich and upwardly mobile households have larger land-holdings and generate higher yields and profits than poorer households, which are increasingly unable to make a profit from rice farming, resulting in

land sales and reliance on wage labour. Not all landless households are poor, however, and losing land does not result in poverty when other income sources, such as wage labour and self-employment, are available. Income from off-farm employment is increasingly important in all villages, and most economically active adults have jobs in addition to farming. Women are typically engaged in wage labour and petty trade, and are more likely to sell their labour locally, while men are concentrated in fishing and forestry and are more likely to migrate for work. Migration, including into Thailand, is an important source of income for better off and upwardly mobile households.

Most panel households are indebted, and most continue to borrow from friends or relatives, or from local moneylenders, rather than from MFIs or village banks. While strongly performing villages and better off households tend to use credit for productive purposes, poor communities and households use it to cope with shocks and crises, and often enter into interlocked credit arrangements. A majority of panel households experienced shocks and crises, illness being the most common, followed by crop damage and death of livestock. Better off households were able to mobilise savings and assets to cope with shocks, while poorer households tended to cut consumption or have family members migrate for work, and were disproportionately affected in income lost. Although shocks and life-cycle events are predictable, poorer households do not plan for or insure against them.

Demographic change, including immigration and population growth, is putting pressure on resources, including land and CPR, in all study villages. Immigrating households are more likely to be poor and landless. Marriage of adult children is expensive due to the costs of traditional wedding ceremonies, and typically leads to land atomisation as households divide their land into smaller parcels in order to give some to their children. Poorer households have higher dependency ratios, while better off households have more earners and fewer dependants. Destructive gender-specific behaviours such as domestic violence, alcohol abuse and young men's involvement in gangs are impacting on communities and households. Domestic violence appears to be declining in most study villages but is still a serious problem in at least three; it contributes to movement into poverty due to lost income and assets, the costs of illness and injury and divorce and family breakdown. Alcohol abuse and youth gangs were raised as serious concerns in study villages: better off households are more able to absorb the costs of these activities (including paying off authorities when young men are arrested or cause damage).

The MOPS Provides Answers to Key Questions the Research Set Out to Examine

With the exception of individual experiences of poverty, the key questions the research set out to examine were answered in the study findings. Villages that raised living standards were well located and accessible, with year-round roads, productive soil and natural assets such as irrigation from lakes or streams. Households that improved their status were those with opportunities and resources (including economic and socio-political capital) and

the capacity to generate new income sources and diversify their earnings. Villages that experienced declining living standards are CPR-reliant and more remote, with limited arable land, less fertile soil and no irrigation. Households experiencing stagnation or downward mobility had smaller land-holdings, fewer earners and more dependants and were reliant on one or two income sources, along with those that experienced shocks and crises or that were affected by risky and destructive behaviours of male household members.

As expected, economic growth enabled some households to move out of poverty, with more upwardly mobile households located in strongly performing villages, and more downwardly mobile and poor households in villages experiencing slower growth or decline. In a context of poor governance and weak institutions, the benefits of growth have not been evenly distributed. Inequality (in particular in income and assets) is increasing significantly in villages that experienced economic growth (where aggregate incomes were higher and rose more rapidly between 2001 and 2004/05). Poor governance and weak institutions are a brake on poverty reduction and contribute to rising inequality. Inequality is potentially destabilising for Cambodia, as the poor are increasingly locked out of opportunities, institutions favour the rich over the poor and trust in public officials is declining. Greater attention to the socio-political dimensions of poverty will therefore be critical in future poverty studies and poverty reduction initiatives.

The concept of *khnang* ("strong back") emerged as a central theme in discussions of power and opportunities in focus groups. "Strong back" refers to connections and networks in the "string" *(khsae)* of patronage relationships, in which those higher in the chain provide favours and protection in return for loyalty, labour and other services from those lower down. While traditional forms of social capital such as labour exchange have largely disappeared, patronage relationships are increasingly important in households' upward climb because they provide opportunities, assist households in building wealth and help them to secure favourable outcomes in local decision making, conflicts and legal disputes. The main factors that support households' climb out of poverty include location in a strongly performing village, many adult earners, multiple income-generation opportunities and the capacity to generate savings and invest in assets that can protect households in the event of shocks or crises and fund investment in human capital (health and education). The main factors driving households into poverty include location in a poorly or moderately performing village, in combination with fewer earners and more dependants, exposure to (multiple) shocks and crises and destructive or risky behaviours by individuals within the household. Importantly, households that fall are often those that have not anticipated crises and shocks, or have not accumulated sufficient assets or savings to weather these events. Chronically poor households have different characteristics. They tend to be located in poor and CPR-reliant villages and have fewer earners and more dependants. According to focus group discussions, they are more likely to have old, disabled or single female household heads. They have limited or no land, and are often CPR-reliant. They do not have the capacity to invest in human capital or the resources to seize new opportunities such as wage

labour, and are often locked into indebted labour arrangements. Food insecurity and child labour are common in these households.

Factors that enable households to move out of poverty tend to operate in the village, and include improved access to markets and services, improved agricultural productivity and opportunities for wage labour, and as such are amenable to policy interventions targeting communities (such as road construction and irrigation). However, internal characteristics, such as ambition and risk-taking, and having more adult earners and better health and education services, do enable families to take advantage of opportunities when they arise, as does having connections and "strong back". Factors leading to households moving down or remaining chronically poor are more often internal to the household and include the balance between earners and dependants, exposure to shocks and illness and destructive behaviours. Incapacity to invest in human capital and lack of connections and networks are also important factors keeping households poor and exposing them to corruption costs in everyday transactions. Poor and downwardly mobile households are of course affected by community factors, in particular the location and geographic endowment of the village, together with the natural disasters that affected many Cambodian villages during 2001–2004/05. Their internal characteristics render them more vulnerable to these external factors than other households. The interaction between factors varies significantly in different village settings, as one significant change (such as a rise in land speculation or loss of forest access) can alter the fortunes of an entire community, while a country-wide change (such as a growing youth population) can have quite different impacts in different villages due to their individual characteristics (leading to emigration and rising incomes in some communities, and social problems and frustration in others). It is at times difficult to generalise from the study findings, given the specificity of experience in each community.

Although the study was not able to examine individual gender differences in any depth, it does suggest some important trends in gender relations, such as differences between female- and male-headed households. Female-headed households have quite different characteristics and experience poverty and mobility differently than male-headed households. Female-headed households are not always the poorest of the poor; indeed, some of these households were able to move out of poverty or remain wealthy. Often better off female-headed households had unmarried female heads while female heads with spouses who were unable to generate income or were dependent were more likely to be among the very poor. However, upward mobility among the female-headed households in the study is more likely to be unstable because they consumed more and earned less than male-headed households, leaving them with limited savings and fewer assets.

Policy Implications and Recommendations for Future Research

Rural villages and households are not the same, and policy interventions are likely to have quite different impacts on communities and households depending on their history,

current situation and status. The study suggests that differences between rural villages and households need to be understood and taken into account in order to develop more effective, targeted interventions. It points to a need for greater public expenditure, together with local devolution of expenditure and revenue raising. The study suggests, however, that poor governance and weak institutional capacity require a national response, because local institutions do not have the administrative or financial capacity or the power to effect changes in Cambodia's patronage-based political culture.

The study supports greater investment in rural infrastructure, including roads, as well as in agriculture, including in irrigation and extension services. Since not all villages are primarily reliant on agriculture, it also suggests a need for greater investment in rural employment opportunities, accompanied by basic legal protection. In the case of CPR-reliant villages with limited agricultural land, the need for alternatives to agriculture and CPR collection is particularly pressing: even if natural resources are well managed in the future, pressure on CPR is likely to continue as the population grows.

The study supports more specific targeting of rural households, in particular the poor and very poor. It suggests that interventions targeting rural infrastructure and agricultural productivity will be of most benefit to better off households, as will opportunities for trade and skilled employment and affordable, flexible credit. Although some downwardly mobile households may benefit from these interventions, preventive measures, such as greater public investment in health and education, as well as social and legal protection, including health and weather insurance, health equity schemes and basic labour protection, are required to prevent households from moving into poverty. Chronically poor households require interventions that address poverty traps and help them to cope with current circumstances, such as food security programmes, locally available free or heavily subsidised health care and education, more options for local employment and basic labour protection. Stronger and more accountable local government is essential to protect the interests and address the needs of poorer households.

Considerable investment has been made in the MOPS to date, with two rounds conducted in the study villages in 2001 and 2004/05. The value of panel surveys only really becomes evident with three or more rounds, however, and there is a strong case for continued investment in longitudinal research. Future longitudinal, mixed-methods, contextual studies can make a substantial contribution to national poverty monitoring and analysis, including by providing an understanding of the balance between transitory and chronic poverty and a local perspective on national poverty trends. Future rounds of the MOPS could build on lessons from the current study and align current findings and future research more closely with national poverty monitoring and analysis. As there are few panel studies of poverty dynamics internationally, ongoing rounds of the MOPS can potentially make a significant contribution to Cambodia and other countries as well.

Appendix II: A Participatory Poverty Assessment of the Tonle Sap

Executive Summary

The Participatory Poverty Assessment of the Tonle Sap (PPA) has been undertaken by CDRI in collaboration with the National Institute of Statistics (NIS) and the Asian Development Bank (ADB). The study employed qualitative research methods covering 24 villages in the six provinces around the Tonle Sap Lake. The main objective of the study has been to provide policy makers, donors, and civil society with a deeper understanding of (1) the relationship between poor people's livelihood strategies and their use and the management of natural resources, (2) the gender dimensions of poverty, and (3) the role of local governance in poverty reduction.

The PPA study shows that many of the poor and the destitute in the Tonle Sap region are not benefiting from Cambodia's rapid economic growth, and often appear to be beyond the reach of public policy. This observation poses serious challenges for the government and its development partners in delivering effective poverty reduction outcomes in line with the objectives set out in the National Strategic Development Plan aimed at meeting Cambodia's MDGs.

The study shows that the poor and the destitute are increasingly dependent on land and water based natural resources to sustain their fragile livelihoods. Several years of draught and flooding, along with poor soils and a lack of water management capacity, however, has eroded farming productivity, while people's traditional access to forests and fisheries is increasingly subject to the pressures of a growing population and to conflict with local elites and powerful actors from outside the village. As a result, a greater number of the poor are selling their labour locally or migrating elsewhere within the country or to Thailand and Malaysia in search of employment.

The study also shows that the poor and the destitute lack access to important infrastructure, such as clean drinking water, and are routinely excluded from education, vocational training, and health care services because they are not able to pay for such services. As a result of the high costs associated with informal fees for teachers, the children of the poor, especially girls, tend to stop attending school at an early age. The high costs of healthcare are forcing more of the poor and the destitute into selling assets such as land to pay for health services, thus pushing them closer to landlessness and into deeper poverty. The poor and the destitute are also excluded from social services because they lack information and knowledge about such services and their rights to obtain such services. In this sense, the situation of the poor, and especially the destitute, becomes self-perpetuating.

The study also shows that many people perceive that personal security is fragile and that the poor and the destitute are especially vulnerable to various forms of domestic and public

violence. Women's fear of rape and parental fears associated with the perceived safety risks in sending their daughters to school have been a constant refrain in many PPA villages. In all the villages, people also observed instances of youth and gang violence. In some villages, people have observed drug and substance abuse among youth. In many villages, domestic violence against women is closely associated with poverty.

The study shows that local officials are routinely confronted with inadequate information, scarce resources, and ambiguous authority. Local officials are also frequently under pressure from powerful elites or high-ranking officials for special favours and services. Corruption at the local level is endemic, and prevents the poor and the destitute from obtaining social services and erodes their capacity to improve their livelihoods. The poor and the destitute are also excluded from decision-making processes, and receive little or no response to requests or opportunities for the redress of grievances. They tend to avoid government, while relying on civil society organizations and social networks for support. That the poor and the destitute may view certain government institutions as part of the problem, rather than the solution, should concern government agencies and other development stakeholders.

The PPA study also shows that the commune councils can work effectively in areas such as rural infrastructure involving the construction of roads and bridges. In some villages, the poor have also benefited from collaboration between local governance institutions and non-governmental organizations (NGOs) in areas such as healthcare, extension services and small-scale credit. Such examples demonstrate that many commune councillors and other local officials remain committed to improving the situation of the poor and that improved governance at the local level is clearly possible when various stakeholders are able to cooperate.

Policy Implications

The PPA study has identified several areas where improved governance is required to achieve the government's poverty reduction objectives. The most important priority areas concern the need for (1) more allocation and better targeting of agricultural and rural development inputs, (2) strong and impartial enforcement of laws and regulations governing access to and control over natural resource assets, and (3) more allocation and better targeting of social services, especially clean water and healthcare access for women, as well as expanded education and vocational training opportunities for all youth, with a special emphasis on women and girls. Other priority areas concern the need for laws and regulations that protect migrant workers and the enforcement of laws that promote public security, with particular attention to violence against women and drug use among youth. Overall, there is a real need to reduce the pernicious effects of corruption and strengthen the responsiveness of national policymakers and local officials to the problems and needs of the poor and destitute. Without a strengthening of public sector accountability, efforts

to reduce poverty and improve the well-being of the poor and the destitute in the Tonle Sap region, and elsewhere in the country, will not be effective.

The delivery of services in support of agricultural and rural development is highly fragmented in the PPA villages. There would be a greater impact on well-being and poverty reduction if complementary packages of inputs, including irrigation, secure land titles, extension services and affordable credit, were provided to poor areas along with social services, such as affordable health care. This reinforces the need for better horizontal and vertical planning and coordination of efforts within government and between government, international donors, and NGOs. At the local and commune level, such approaches require that technical support and capacity building must be available from district and provincial offices as well as NGOs. There are now several examples of integrated community development best practices that could serve as models for replication on a wider scale.

Although national polices governing natural resources are designed to promote the sustainable management of land and water assets, poor implementation and enforcement at the local level are promoting the rapid degradation of the natural resource base and undermines people's respect for public institutions. What is urgently required is stronger and more equitable enforcement of the rules and regulations that already constitute the policy framework governing natural resource management. There is also an urgent need to reconsider how conflicts can be managed in ways that provide the poor and the destitute with access to fair and impartial resolutions. This concerns local conflicts at the village level as well as conflicts involving outside interests, including the rich and powerful.

Special provisions need to be designed to promote better access to social services, including health and education, on the part of the poor, especially women. A greater share of the national budget must be urgently allocated for clean water and public sanitation, healthcare, education and vocational training, and public transport. Health insurance schemes for the poor and destitute need to be piloted and education scholarships for boys and girls of poor households need to be expanded. One avenue for channelling increased resources to the local level would be to increase the annual amount of inter-governmental transfers to the commune/sangkhat fund. A certain portion of such transfers could also be specifically designated for certain priority activities, such as clean water.

The ineffectiveness and lack of fairness associated with governance in the Tonle Sap region are largely matters of implementation and enforcement. This suggests that much more attention must be devoted to strengthening governance institutions at the local level in ways that promote better planning and enable more public participation, including women, reduce corruption, and increase public sector accountability and responsiveness. Steps must also be taken to improve dialogue between the people and their governing institutions in ways that build mutual trust and respect.

There are several ways for this to take place. The roles, responsibilities and authority of the commune councils, police and military need to be clarified. Empowering the commune councils to raise own source revenues and plan in response to local needs is another essential component of building stronger governance institutions at the grassroots. Such processes must include a strong capacity building component for local and sub-national officials concerning the planning and implementation of services in response to the needs of the poor and the destitute.

It is clear that the state, private, and civil society sectors all have certain strengths. The challenge for policymakers and other stakeholders in the Tonle Sap region, as in other regions of the country, is how to design and strengthen collaborative arrangements between all three sectors in ways that the comparative advantages of each are complimentary in support of ecologically sustainable pro-poor social and economic development.

Chapter 2

Macroeconomic Performance

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Chapter 2

Macroeconomic Performance

2.1. Background: Growth, Inequality and Poverty in Cambodia

Cambodia has experienced strong economic growth, averaging 8.2 percent per annum during the past decade. During this period, however, inequality has also risen considerably, and poverty remains pervasive. The growth in the past decade has been characterised as one in which the well-being of one group grew rapidly while that of another group did not. Disparities have widened between the rich and the poor and between urban and rural dwellers. This poses greater challenges to meeting the objectives of both equitable and sustainable development.

The gap between rich and poor is widening. While poverty went down from about 45 percent to 35 percent between 1994 and 2004, the income gap between the richest and the poorest quintiles has steadily increased. The Gini coefficient, which measures the inequality of per capita real consumption, rose from 0.35 in 1994 to 0.40 in 2004 (World Bank 2006). Although there are no reliable data, it is understood that inequality of income and assets would rise more sharply. While economic growth has helped to improve average livelihoods and reduce the poverty rate, the benefits have been unevenly distributed. According to the World Bank (2006), the standard of living of the poorest 20 percent of Cambodians has risen on average by 8 percent over the last decade, while that of the richest 20 percent has risen by 45 percent. The widening gap between rich and poor may have many undesirable impacts, weakening social cohesion and threatening sustainable growth, among other things. One impact is environmental destruction because richer groups can afford to over-consume resources, while poorer groups are forced to over-exploit the environment just to survive. Another potential impact is conflict, as wealthier groups fight to keep what they have and those lacking resources struggle to obtain them. This is most likely in the case of land. In the long term, countries with high inequality, such as those in Latin America, face stagnant economies.

The urban-rural disparity is also growing. Cambodia's economic growth has been concentrated in manufacturing, tourism and construction in urban areas. For example, the garment industry, which is the main foreign currency earner and job creator, is largely located in Phnom Penh, while the hotel industry and construction activities are concentrated in Phnom Penh and Siem Reap. By contrast, the main economic activity in rural areas, where

the overwhelming majority of the population reside, is subsistence rice cultivation. One outcome of the income differential between agricultural and non-agricultural areas is migration. Considerable numbers of people are forced to move to the cities or to border areas or beyond the borders in search of work. A quarterly CDRI survey of vulnerable workers in Phnom Penh revealed that about 90 percent came from other provinces to work in the city because they had no or insufficient land to support their families. This migration can lead to overcrowding in cities and other adverse social consequences.

As in many other developing countries, some of the unevenness in growth in Cambodia is a natural outcome of development and is to be expected. Development is unlikely to take place in every part of the country simultaneously. Not every sector grows at the same rate, and rising inequality is not unusual during periods of rapid growth and major structural change. However, weaknesses and imbalances in policy have also been at play. In several cases, slow growth in rural incomes has resulted from inadequate public investment in rural infrastructure and from a policy environment that has discouraged private investment. Meanwhile, growth in urban areas has been insufficient to absorb surplus labour from rural areas.

The rest of this paper is organised as follows. Section 2 discusses sources of growth and implications for poverty reduction by first reviewing theories regarding economic growth through the neoclassical growth model and the endogenous growth model. Then it identifies the factors which contributed to Cambodian economic growth and the constraints that prevented faster growth. It goes on to examine three major sub-sectors—garments, tourism and construction—that underpin GDP growth and discusses the income distribution of each of these sectors. Section 3 summarises Cambodia's recent macroeconomic performance up to 2006. Section 4 concludes and provides a view of economic prospects.

2.2. Sources of Growth and Implications for Poverty Reduction

2.2.1 Growth Theories

The modern concept of economic growth can be traced back to the Physiocrats and Scottish Enlightenment thinkers David Hume and Adam Smith. Their theory was that productive capacity itself, allowed for growth, and that improving and increasing the capital stock was "the wealth of nations". Whereas the Physiocrats stressed the importance of agriculture and saw urban industry as "sterile", Smith maintained that manufacturing was central to the entire economy.

David Ricardo argued that trade was a benefit to a country, because if one could buy one good more cheaply abroad, there was other, more profitable, work to to done within the country. This theory of "comparative advantage" would be the central basis for arguments in favour of free trade as an essential component of growth.

The Solow-Swan growth model expressed growth as increased stocks of capital goods. It showed the relationship between labour inputs, capital goods, output and investment. In this modern view, the role of technological change became crucial, even more important than the accumulation of capital. This model assumes that countries use their resources efficiently and that there are diminishing returns to capital as labour increases. From these two premises, the neoclassical model reaches three conclusions. First, increasing capital relative to labour leads to economic growth, since people can be more productive with more capital. Second, poor countries with less capital per person will grow faster because each investment in capital goods will produce a higher return than in rich countries with ample capital. Third, because of diminishing returns to capital, economies will eventually reach a point at which increases in capital wil not generate economic growth; this outcome is know as a "steady state."

The model also concludes that countries can break out of this steady state to continue growing through the use of new technology. In the long run, output per capita depends on the rate of saving, but the rate of growth of output will be equal to any saving rate. Under the assumptions of this model, countries continue growing despite diminishing returns as the result of "exogenous processes", i.e., the creation of new technology that allows more production with fewer resources. Technology improves, the steady state level of capital increases and the countries invests and grows.

In the 20th century, it became the policy of most nations to encourage growth of this kind. This required enacting policies and being able to measure the results of those policies. This gave rise to the importance of econometrics, or the field of creating measurements for underlying conditions. Terms such as "unemployment rate", "gross domestic product" and "rate of inflation" are part of the measurement of the changes in an economy.

For growth, government policy should encourage economic activity without leading to any increase in the overall level of prices (in other words, non-inflationary GDP growth). This combination is seen at the macro scale to indicate an increasing stock of capital. The argument runs that if more money is changing hands, but the prices of individual goods are relatively stable, then it is proof that there is more productive capacity, and therefore more capital.

Dissatisfied with Solow's explanation, economists worked to "endogenise" technology in the 1980s. They developed an endogenous growth theory model that includes a mathematical explanation of technological advance. This model also incorporated a concept of human capital, the skills and knowledge that make workers productive. Unlike physical capital, human capital has increasing rates of return. Therefore, economies never reach a steady state and growth does not slow as capital accumulates, but the rate of growth depends on the types of capital in which a country invests. Research in this area has focused on the elements that increase human capital, such as education, or that lead to technological change, such as innovation.

Given a global economy of a few very wealthy nations and many very poor nations, the study of the transition from subsistence and resource-based economies to production and consumption-based economies led to growth of the field of development economics.
The long-run path of economic growth is one of the central questions of contemporary economics. In spite of the problems of measurement, an increase in GDP is generally taken to lead an increase in the standard of living of inhabitants, assuming no growth in population. Over long periods of time, even small rates of annual growth can have large effects. A growth rate of 2.5 percent per annum will lead to a doubling of GDP within 28 years, while a growth rate of 8 percent per annum (experienced by some Asian "tigers") will lead to a doubling of GDP within 9 years. This exponential characteristic can exacerbate differences among nations. For example, a growth rate of five percent seems not greatly different from three percent, but over two decades, the first economy will grow by 165 percent, the second by only 80 percent.

A short-run variation of economic growth is usually termed a business cycle, and almost all economies experience periodic recessions. A cycle can be a misnomer because fluctuations are not necessarily regular. Explaining these fluctuations is one of the main focuses of macroeconomics. Oil shocks, war and harvest failure are obvious causes of recession. Short-run variation in growth has generally dampened in higher income countries since the early 1990s, and this has been attributed, in part, to better macroeconomic management.

2.2.2 Major Sources of Growth

Three main sub-sectors—garments, tourism and construction—have been seen as the drivers of growth in Cambodia. An effort will be made to see how the growth of each sub-sector is related to poverty reduction.

Garments

The recent rapid development of Cambodia's garment sub-sector has been pivotal in the remarkably high economic growth of the last decade. The sub-sector value added increased at annual average rate of 40 percent during 1995–2006, lifting its share of GDP from just 1.3 percent in 1995 to 9.2 percent in 2000 and 15.9 percent in 2006. The most prominent benefits brought by the sub-sector to the whole economy have been export earnings, USD3.32 billion in 2006 and employment generation. While the role and significance of the garment industry have been widely recognised, its contribution to poverty reduction remains unclear.

An optimistic view argues that the rapidly growing garment industry has contributed considerably to poverty reduction via employment and income generation, and remittances sent by workers to support their families in rural areas (Lundstrom and Ronnas 2006; Harrison 2005; Marston 2006; Tatsufumi 2006. For example, Lundstrom and Ronnas in

their analysis of employment and growth in Cambodia suggest that the growing garment industry is important for income generation and poverty reduction. Not only did it create employment opportunities for young females, who, typically, would be among the most vulnerable and weakest in the labour market, but it also provided a source of additional cash for rural households, as the young women remitted part of their wages back home. About a third of million Cambodians are employed directly, and approximately 10 percent of the total labour force is employed directly or indirectly by the garment sub-sector.

It is estimated that the garment industry created an average of almost 40,000 new jobs every year during 1997–2001, slowing down to 20,000-25,000 per year since 2002 due to a decline in new investment (EIC 2007). That employment generation was large enough that it not only eased labour market pressure from an increasing labour force but also pulled considerable amounts of surplus labour from the agricultural sector, which many consider the right pattern of development. On the other hand, the majority of people who benefit from garment employment are unskilled and poorly educated young persons, especially women from rural areas. About 85–90 percent of garment workers are women from rural areas aged 18 to 25 years, and more than half have only an elementary education (ADB 2004). Indirect jobs created are concentrated in areas employing non-wealthy people, 22 percent of them in services including transportation, petty trade and restaurants and 18 percent in agriculture (EIC 2007). These statistics lead many to argue that the garment industry has a notably positive effect, especially on women and the poor.

The multiplier effect of incomes from garment work on rural livelihood is also significant, especially through remittances. Ninety percent of workers send a portion of their income (USD10–UD30) to their families in rural areas, and as a result those families have a better life. This argument has been supported by several recent studies. Harrison (2005), for example, suggested that remittances have been an additional source of income for many rural families used not only for daily consumption and expenditure but also for education, health care and improving family living standards. Another estimate by Marston (2006) cited in Hyun (2006) on the significance of employment in the garment sub-sector estimated that , on average, one garment worker supports four to nine people. CDRI's Moving Out of Poverty Study (MOPS) similarly found that people in study communities considered having a family member working in the garment industry as one of the primary factors allowing families to move out of poverty.

> *"Those families that have daughters are lucky because they can get some money from their children's labour in the garment sector. About 70–80 percent of girls aged from 16 to more than 20 have gone to Phnom Penh or other urban areas to work as garment workers or housemaids. They can relieve their family from some burdens because … their parents do not worry about spending on them and … their parents get remittances from them." FitzGerald and So (2007: 175)*

A contrasting view on the relationship between the garment sub-sector and poverty sees the contribution to poverty alleviation as not so significant. The World Bank (2006) suggested that only 13 percent of rural households received remittances from family members working in cities and that the value of remittances averages less than 10 percent of total household consumption. It concluded that while the growth of the garment sub-sector has benefited many rural households, these households have not necessarily been poor and were very rarely the poorest, primarily because the poorest lack both education and the ability to pay informal recruitment fees[1] to get a job. This argument does not denigrate the significance of remittances for rural livelihoods, but emphasises the low participation rate, especially by the poor. Given that the poor lack education, human and capital resources and social networks, it is likely that they lag far behind and benefit less from economic growth in general and from development of the garment industry in particular.

In fact, the garment industry is important and necessary in boosting and sustaining economic growth, but is not sufficient for poverty alleviation. Sound poverty reduction requires a wide range of cohesive strategies not only to develop the private sector but also to improve delivery of public services, e.g. health, education and infrastructure, to promote opportunities for the poor. Human and institutional capacity—national, provincial and communal—is another critically important factor in reducing poverty through more effective implementation of strategies.

Tourism

Tourism in Cambodia has grown rapidly for the last decade and has become the second largest source of economic growth, after the garment sector. According to CDRI's recent study on pro-poor tourism in the Greater Mekong Sub-region, the development of this sector is due to: (1) the attainment of peace and stability since the late 1990s, (2) tourism attractions, especially Angkor Wat, which was listed as a World Heritage site in 1992, (3) an increase in international and domestic travel and (4) the government's policies on tourism development, such as the open sky policy, visas on arrival and visa exemption for Cambodians living abroad. In 2006, the number of domestic tourists was 7.76 million, compared to 1.82 million in 2003 and 260,000 in 1993. International tourists reached 1.7 million in 2006, up from 1.42 million in 2005 and 150,000 in 1993. There has also been a rapid increase in tourism-related facilities and services, including hotels and guesthouses, travel agencies, transportation companies, restaurants and souvenir shops. In 2006, the number of hotels reached 351 (17,914 rooms), guesthouses 742 (9166 rooms) and travel agency offices 382. Tourism is expected to generate USD718.3 million of direct economic activity or about 9.3 percent of GDP in 2007 and to create USD1561.9 million in direct and indirect economic activity. The sub-sector generated 566,444 direct and indirect jobs,

[1] An unrelated ADB survey reported that only 16 percent of employees paid a bribe or commission to secure employment, but it is believed that the real figure is higher.

representing 8.3 percent of total employment in 2004, and is expected to employ 1,108,000 people, or 15.8 percent in 2007, in both direct and indirect activities (WTTC 2007, cited in Hing and Tuot 2007).

Although tourism has been significant for economic growth, its impacts on the local community and poverty reduction have been limited (Ballard 2005; World Bank 2006; Hing and Tuot 2007). These studies concluded with similar findings that the distribution of the benefits of tourism is uneven among social groups, different economic activities and locations, and that the poor benefit the least from tourism due to its weak links to agriculture, in which most poor households are involved, and to barriers including lack of education, of capital and of social networks. Using Puok district in Siem Reap province as a case study on linkages between tourism and employment and agriculture in local communities, Ballard suggested that many people in the area benefited from the rapid growth of tourism, but that the distribution of benefits was uneven, people benefiting more from employment in construction, services and handicrafts than in agriculture. The study also found that those with better education and/or financial resources are able to acquire better paying jobs, while those from poorer households tend to end up in lower income jobs. The World Bank report also discussed the effects of tourism on the local economy in Puok district. It indicated that, although tourism contributed more than a quarter of local income, much of this was due to casual labour in tourism-related construction. The more permanent direct effects on non-construction sectors, such as supplying fresh foods to hotels and restaurants, have not been very significant.

The conclusion of the World Bank study was corroborated by Hing and Tuot's study on the linkage between tourism and local communities and the impact of tourism on the poor in Siem Reap. Based on a survey of 506 households in eight villages of four districts around Siem Reap town, the study analysed the tourism impacts on local well-being through employment, incomes and increasing land prices. The key findings can be summarised as follows. First, tourism has not only brought about significant changes to the city landscape, facilities, infrastructure and livelihoods, but also fuelled economic growth in both Siem Reap and Cambodia as a whole. Second, tourism growth in Siem Reap affects local employment by creating a considerable number of direct and indirect tourism jobs, and by shifting employment from agriculture toward services. More than one-third of local earners are involved in tourism-related activities as their primary work; the poor obtain more tourism jobs than the non-poor, but the majority of the employment is in unskilled and low-paid jobs such as construction, guard or cleaner, making handicrafts or souvenirs and petty trade.

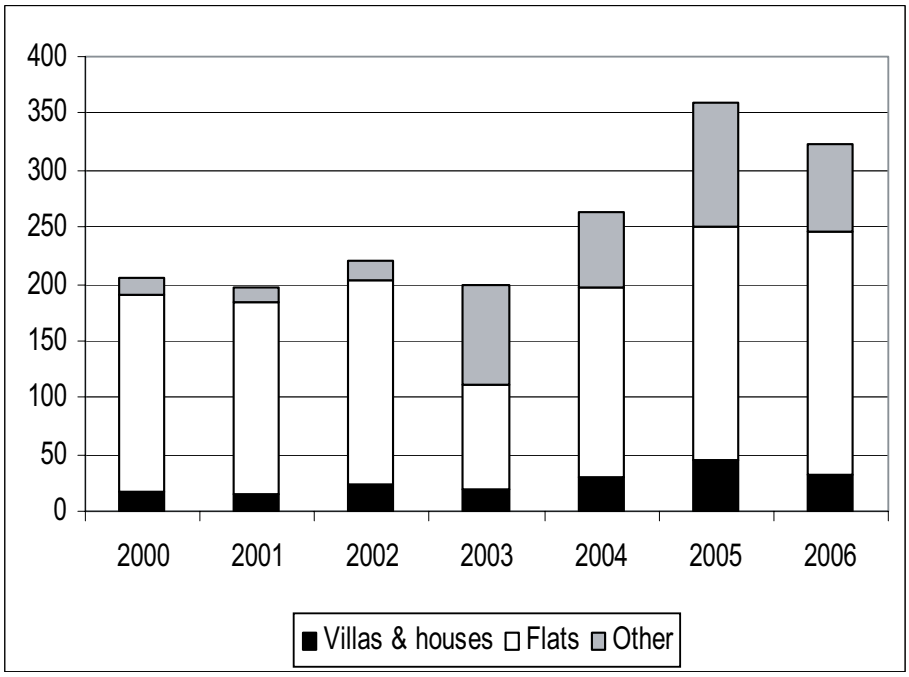
The poor depend considerably on tourism to generate income, but they earn less from tourism, making them highly vulnerable to tourism shocks or family crisis. Finally, the study concluded that although tourism has some positive impacts on local people and communities, not everyone receives equal benefits. Benefits are skewed in favour of the

non-poor. The poor usually face barriers to deriving greater benefits from tourism, including lack of education and skills, lack of capital or social networks and weak family structure. As a result, tourism development in Siem Reap does not appear to have a sufficiently pro-poor character.

Construction

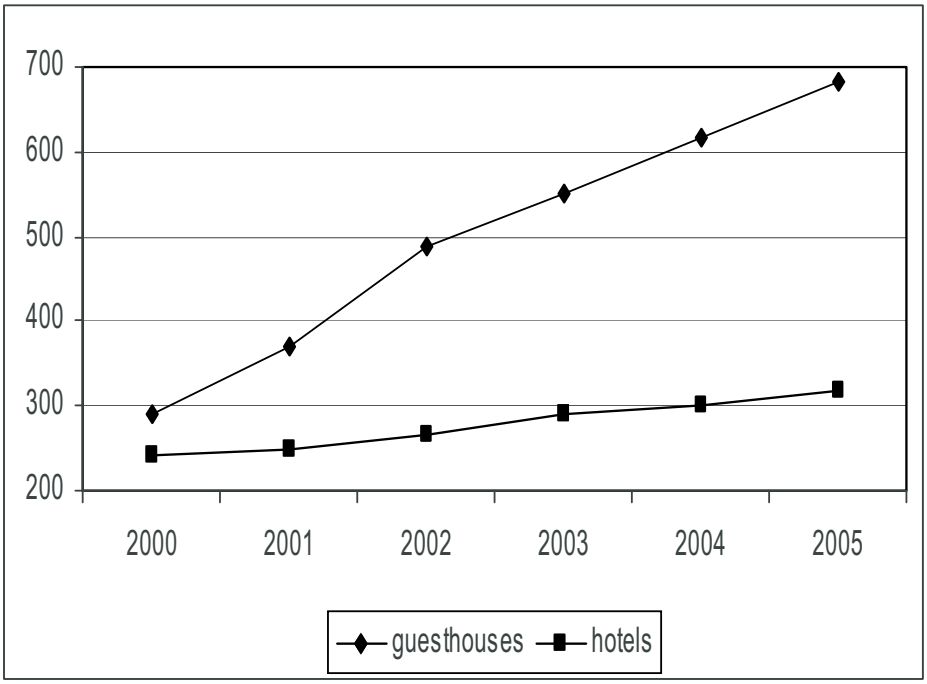
Cambodia's construction industry has expanded rapidly in recent years, thanks to political stability, strong economic performance and continuing assistance from the international community for infrastructure development. Construction is one-third public construction, including infrastructure construction, and two-thirds private, including factory buildings and expansion, hotels and housing. Private construction has been increasing, particularly in urban areas. Much of the increase is in construction of flats and hotels, guesthouses and factories. Figure 2.1 shows that the value of construction in Phnom Penh, especially flats, has been on an upward trend since the third national election in 2003. The number of new flats in Phnom Penh is estimated to be 8000 to 10,000 annually. The number of guesthouses and hotels is also increasing, particularly in Siem Reap, to meet the increase of tourist arrivals.

Figure 2.1: Construction in Phnom Penh (USD m)



Source: Municipality of Phnom Penh

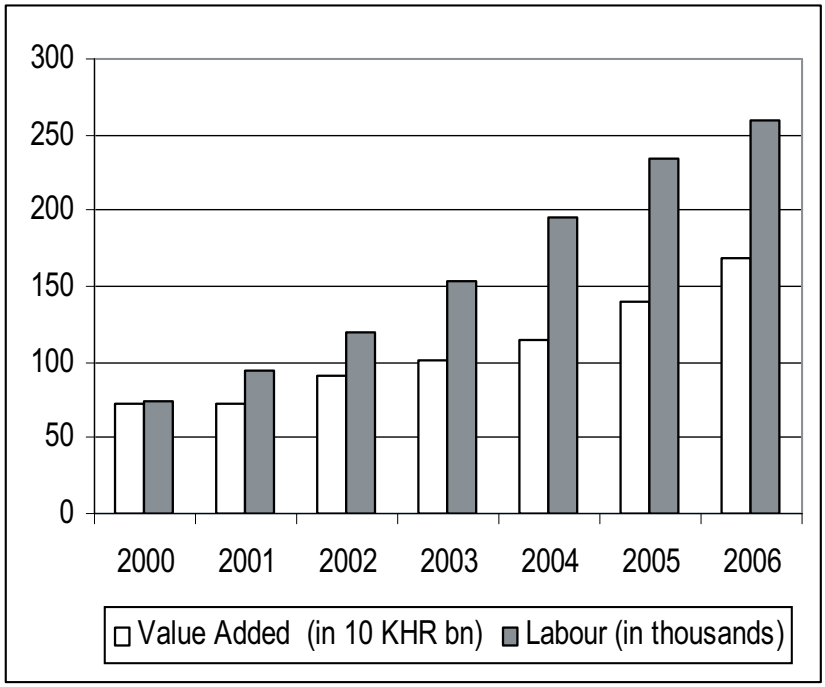
Figure 2.2: Hotels and Guesthouses in Cambodia ('000)



Source: Ministry of Tourism 2006

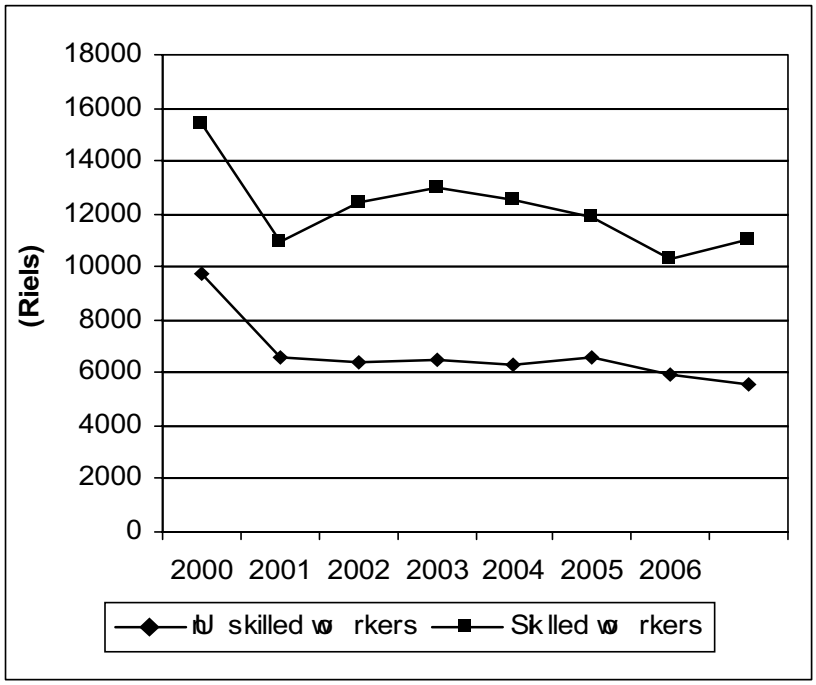
Figure 2.3 shows that the real value added in the construction sector rose from 732 billion riels in 2000 to 1681 billion riels in 2006. During the same period, the number of construction workers increased from 74,000 to 260,000. In CDRI's vulnerable workers surveys, the majority of construction workers interviewed in Phnom Penh came from rural areas and were the family breadwinners. The same surveys revealed that the income of construction workers was declining (Figure 2.4). The daily earnings of skilled construction workers and unskilled construction workers, dropped to 5,918 riels and 10,316 riels in 2006 from 7,686 riels and 15,436 riels in 2000. Given the national average family size of five, the per capita earnings of construction workers (both skilled and unskilled) stood at 1331 riels per day, far below the national poverty line of 1826 riels. It seems reasonable to say that construction workers and their families are poor if they or their family members do not have any other occupation.

Figure 2.3: Value Added and Construction Workers



Source: NIS

Figure 2.4: Real Earnings per Day (riels)



Source: CDRI's Vulnerable Worker Survey

Overall it can be said that the recent construction boom has generated more employment opportunities but has not provided much income for workers. The majority of construction workers are found to earn less than the amount that would meet their family's basic needs. Further, the boom in construction of apartments could peak in the next three or four years; when that happens, construction workers will be out of a job and will have to find new occupations.

2.2.3. Growth Drivers and Constraints

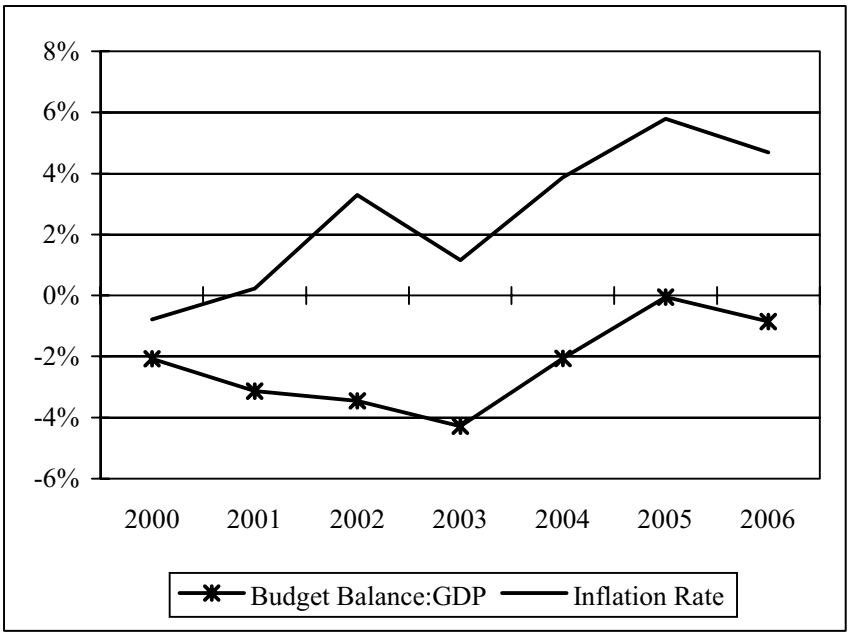
This section aims to identify the drivers and the constraints of Cambodia's economy. It includes two analyses. The first discusses what has contributed to recent economic growth. The second looks at several factors without which the economy would perform much better.

What Contributed to Recent Economic Growth?

Recent economic growth can be attributed to various factors. Adherents of the neoclassical view would stress Cambodia's success in getting the fundamentals right. These include political and macroeconomic stability with limited price distortions and low budget deficits, openness to trade and regional and international integration.

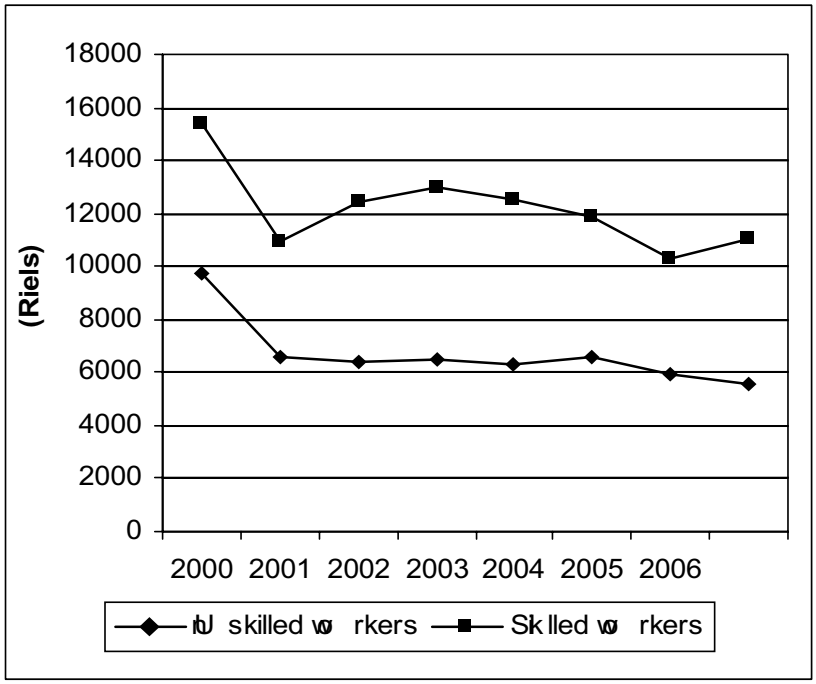
Peace and stability have been restored since 1993. The isolation and internal conflict, which lasted more than two decades, were finally ended. General elections have been held, apparently fairly and peacefully. At the same time, Cambodia achieved a remarkable macroeconomic stability. Inflation remained relatively subdued and has never exceeded 6 percent since 2000.

Figure 2.5: Inflation Rate and Buget Balance



Source: NIS and MEF

Figure 2.6: Investment Approvals (USD m)



Source: CDC

Fiscal policies have been generally conservative, avoiding inflationary financing. The budget deficit has remained less than 5 percent of GDP. Moreover, Cambodia has made considerable efforts to attract investment. Both investment and taxation laws, passed and revised in 2003, give incentives to Cambodian and foreign investors. Political and macroeocnomic stability, combined with the policy framework, created the necessary business-friendly environment that is a precondition for investment, trade and economic growth. As a result, there was a dramatic increase in investment approvals, especially in 2005 and 2006.

The orientation toward international trade and regional and global integration is seen as an important driver of growth. The favourable export conditions granted by the US and the EU helped propel economic growth in the late 1990s and early 2000s. Through effective and managed responses to the opportunities offered by preferential access to North American and European markets, Cambodia's exports, particularly of garment products, increased notably. Cambodia is increasingly integrated into the region and the world, an integration that it has actively pursued. The country's economic growth has kept its momentum thanks to accession to the World Trade Organisation (WTO), which enabled the country to continue exporting textile products after the MFA expired.

A major contribution has been tourism, which mainly stemmed from the abundance of ancient temples, most notably Angkor Wat. Tourist arrivals have risen to 1.7 million in 2006 despite starting from a low base. This was also possible because of peace and order. The

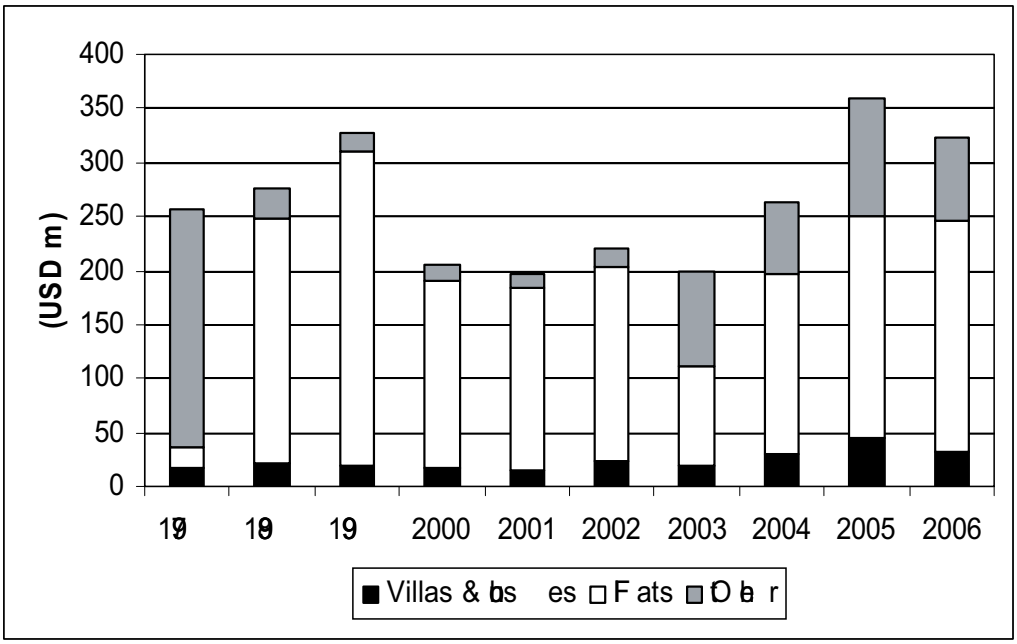
contribution from this sector, however, has been limited by the lack of backward linkages, essentially to production of food and services for tourists.

Overall, Cambodia has been going through a stage of resource exploitation, starting from a very low base after it was brought back into the mainstream of world society following the UN-run elections in 1993. The first wave of resource exploitation was logging, which made billions of dollars from forests that used to cover 70 percent of the country. Recently, with considerable parts of the forests gone, another wave has come to invest in and speculate in land, much of which was severely under-valued. Part of this money may come from deforestation. This has fuelled growth of the real estate sector and raised effective demand for consumption and investment.

The other cheap resource is labour. Seizing the opportunities of cheap, unskilled labour and favourable market access provided by the US and EU, some 250 factories have been set up and more than 300,000 workers employed. This has been such a leading export sector that it raises concerns about the need to diversify exports. It remains to be seen what will happen when it faces fully fledged competition from China and Vietnam.

In general, growth from resource exploitation is short-lived and not sustainable. The challenge is to use natural resources and cheap, unskilled labour to improve productivity and efficiency. This requires productive use of land, raising skills, creating level playing fields to allow free competition and achieve efficiency and striving for technological progress. These are not easy tasks for government but are necessary to sustain growth and development.

Figure 2.7: Exports by Destination (USD m)

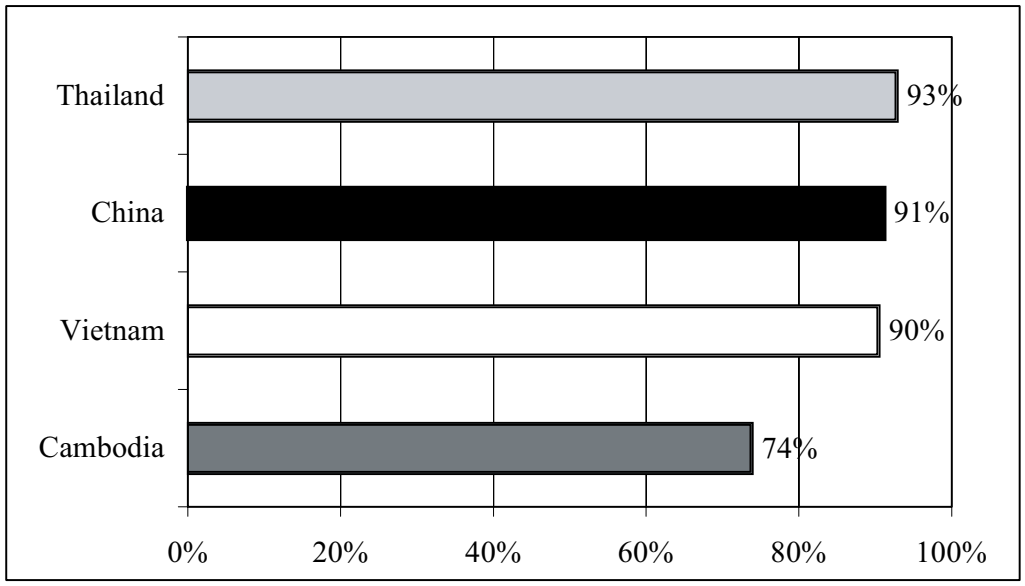


Source: Custom and Excise Department

2.2.4 What Constrained the Economy from Growing Faster?

Education is generally accepted as a basic human right and a contributing factor to economic growth. Despite many efforts by the government, Cambodia's education still face many challenges. These include a relatively low literacy rate and poor quality of education. The situation is especially striking in comparison with other countries in the region. For example, the World Development Report 2007 placed literacy at 74 percent. By contrast, the same report places literacy rates at more than 90 percent in Vietnam, more than 93 percent in Thailand and more than 91 percent in China. This situation makes Cambodia less attractive to the eyes of foreign investors compared to other countries in the region, especially for those who need skilled labour for their industry. This will become an increasingly important constraint as Cambodia will look for efficiency improvements as a source of sustainable growth.

Figure 2.8: Literacy Rate (15 Years Old and Above, 2006)



Source: World Development Indicator 2007

Another constraint was that Cambodia is a relatively difficult country in which to conduct business. A recent study on Doing Business by the World Bank ranked Cambodia 145th among 178 economies in ease of doing business. The formal private sector faces myriad constraints compared to other countries in the region. One of these is the high interest rate on dollar loans for normal businesses; because of this, Cambodian firms receive little external finance, except through informal networks of family and friends. A second significant constraint is associated with starting a business. It takes 86 days to start a business in Cambodia while it takes only 50 days in Vietnam, 33 in Thailand and 35 in China. Business costs are high due to informal fees, input costs (imported raw materials, electricity and diesel fuel) and transportation costs, which are higher than in neighbouring countries. All of these problems lead to less investment and less job creation than would otherwise occur. There is no doubt that investment could be higher if these problems were tackled.

Table 2.1: The Ease of Doing Business, Ranking

	Cambodia	Vietnam	Thailand	China
Starting Business	162	97	36	135
Dealing with Licence	144	63	12	175
Employing Worker	133	84	49	86
Registering Property	98	38	20	29
Getting Credit	177	48	36	84
Protecting Investors	64	165	33	83
Paying Taxes	21	128	89	168
Trading across Borders	139	63	50	42
Enforcing Contracts	134	40	26	20
Closing a Business	178	121	44	57
Ease of Doing Business	145	91	15	83

Source: World Bank 2007

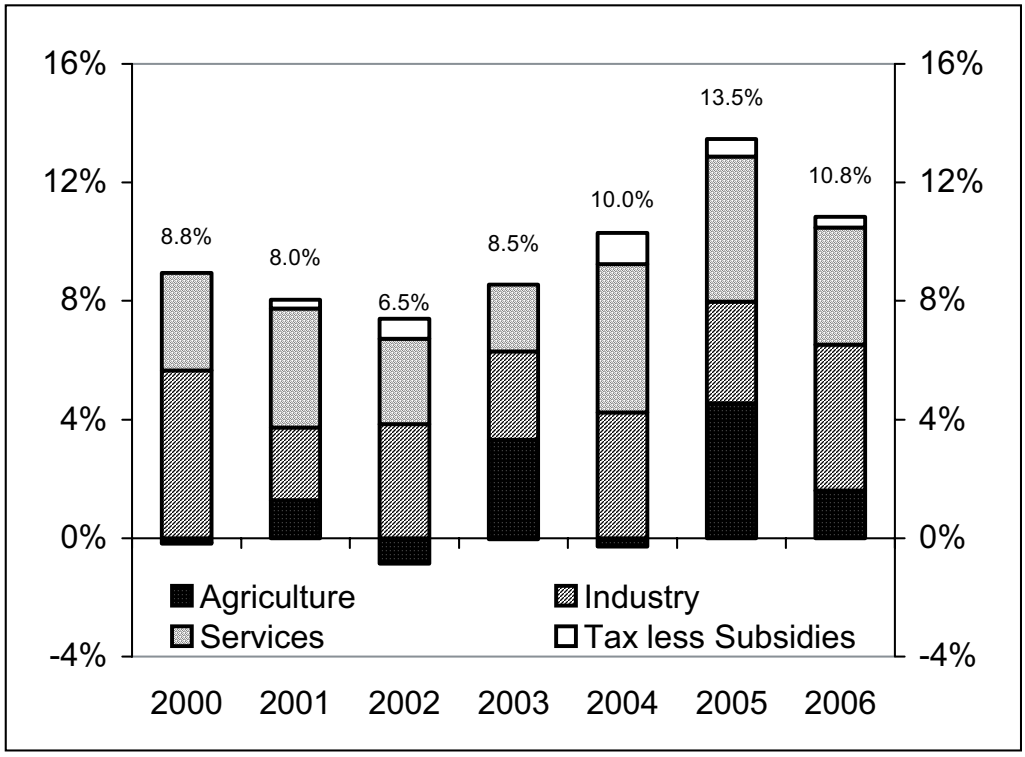
2.3. Recent Economic Performance

This section discusses the 2006 national accounts estimates. It describes some of the key outputs of those estimates and comments on issues arising from them, including the linkages of key sub-sectors to the rest of the economy and the development potential of some sub-sectors.

2.3.1 Overall Real GDP Growth and Sectoral Performance

Cambodia's economy continued to perform remarkably well in 2006. Building on robust growth over previous years, the country's real GDP expanded by 10.6 percent, the third consecutive year of double digit growth (Figure 2.9). The growth came mainly from industry, supported by substantial increases in the garment and construction sub-sectors, and from services, underpinned by significant increases in tourism, real estate and other services. Agriculture also contributed to growth, but to a smaller degree. However, this sector still plays an important role in supporting people in rural areas, where most still depend on paddy cultivation for subsistence.

Figure 2.9: GDP Growth 2000–06

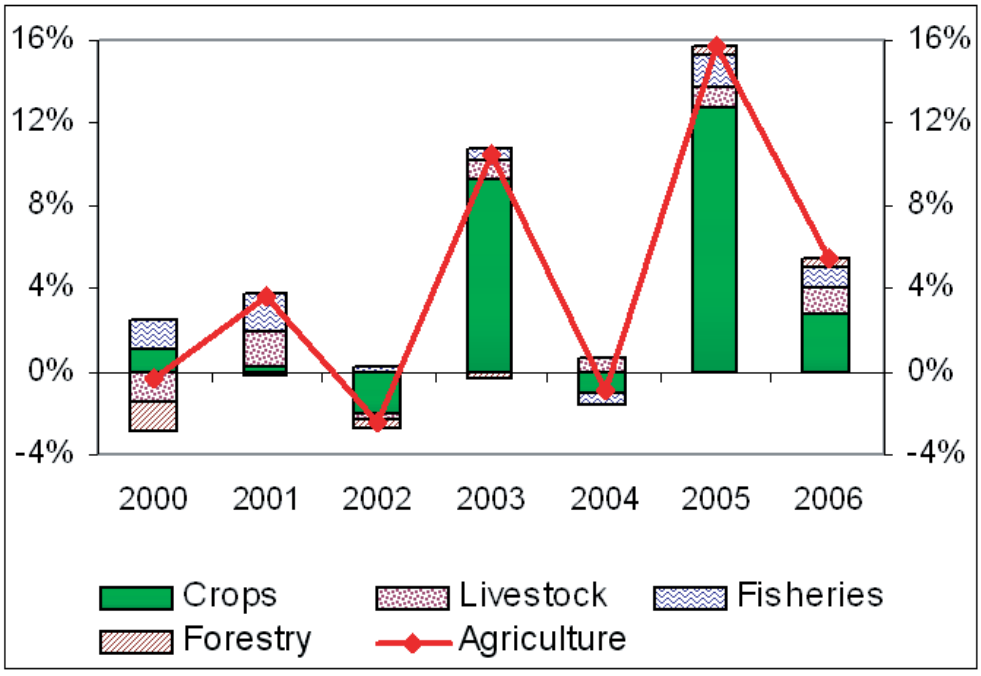


Source: National Institute of Statistics 2007

Agriculture

In 2006, Cambodia's agriculture, comprising crops, livestock, fishing and forestry, accounted for 28 percent of GDP and employed 57.4 percent of the labour force. The real value added of this sector expanded by 5.5 percent and contributed 1.6 percentage points to overall GDP growth in 2006, compared to 15.7 percent expansion and 4.5 percentage points contribution in 2005. This slower expansion and smaller contribution mainly reflected rice production, which jumped extraordinarily in 2005 due to very favourable rainfall. In general, the growth rate of the crop sub-sector remained highly variable, marked by peaks and troughs, reflecting the high reliance on adequate rainfall and susceptibility to adverse weather. More value added would be created if more agricultural products were processed locally before being exported. Diversification of crop cultivation—for instance, growing high value-added crops besides paddy, such as cassava and maize, which have experienced increasing demand from neighbouring countries and China—would also help raise Cambodian farmers' income.

Figure 2.10: Agricultural Growth 2000–06



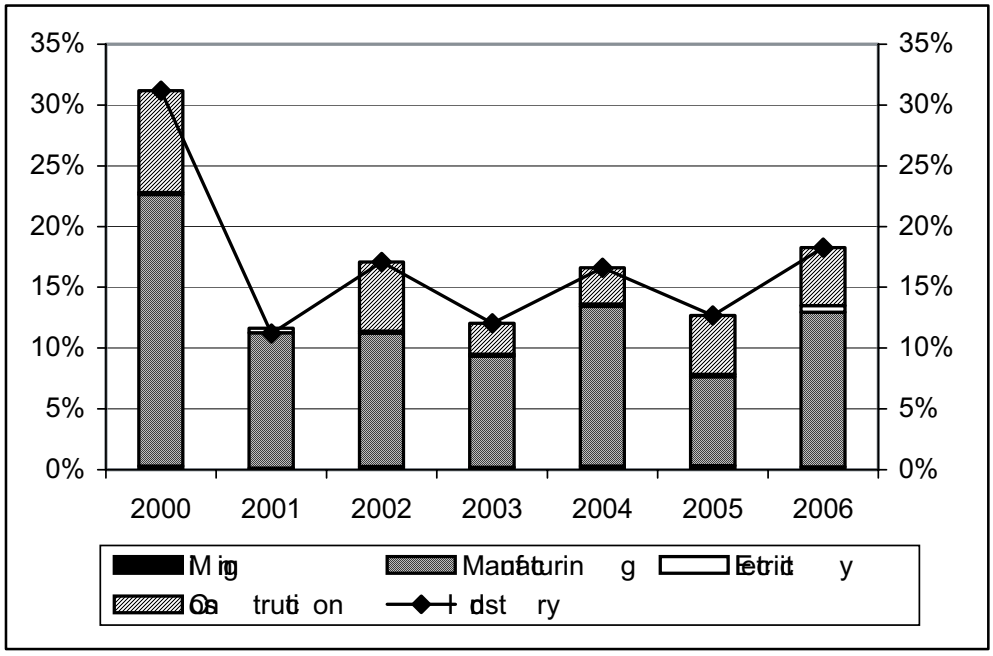
Source: National Institute of Statistics, 2007

The other components of the agricutural sector also rose significantly during the same period. Livestock and poultry production, however, continued to be constrained by infectious diseases and the continued use of traditional farming techniques. According to the Ministry of Agriculture, Forestry and Fisheries, the number of avian influenza outbreaks increased to six in 2006 from only two in 2005, causing 7767 poultry deaths and the culling of 1113 birds. In the fishery sub-sector, small-scale and household aquaculture has increased notably during the past four years. Further efforts to expand and intensify aquaculture would not only augment rural household income but would also help cope with increasing population and over-exploitation. Value added in forestry could be underestimated due to illegal logging and an undercount of the real value of non-timber forest products. A significant number of people living in poverty depend on forests and non-timber products for income generation and nutritional intake as well as firewood. Community pressures on forests, in the form of fuel collection, swidden agriculture and permanent land conversion, are also important causes of deforestation and forest degradation. CDRI studies show that governance of natural resources is critical and must be sustainably managed for poverty reduction (Eng and Phim 2007).

Industry

Industry, which employed about 14 percent of the total labour force and produced 29 percent of GDP, continued to register strong growth of 18.3 percent in 2006. This sector's contribution to overall GDP growth increased from 3.4 percentage points in 2005 to 4.9 percentage points in 2006, largely reflecting expansion in manufacturing, led by the garment industry and construction in urban areas.

Figure 2.11: Industrial Growth 2000–06



Source: National Institute of Statistics 2007

Textile and apparel production continued to grow substantially (by about 13 percent) in 2006. This has been the main driver of growth since the late 1990s, thanks to favourable trade conditions. After the MFA was phased out in January 2005, some predicted that this would hit Cambodia's economy severely, but the latest figures belie the dire predictions. Cambodia's post-MFA garment exports have not yet been affected by the textile giant, China, as some predicted. This was partly due to the additional restrictions on garments imported from China put in place by the United States and European Union in May 2005. These safeguard measures will expire in 2008, and Cambodia will need to make further efforts to enhance the competitiveness of this industry. Moreover, Cambodia's garment industry has earned a reputation for labour standards, which provides a niche market that shields it from full competition from China and should be maintained. Raising labour productivity through training and wages adequate for heathy living is crucially important if the garment industry is to remain competitive

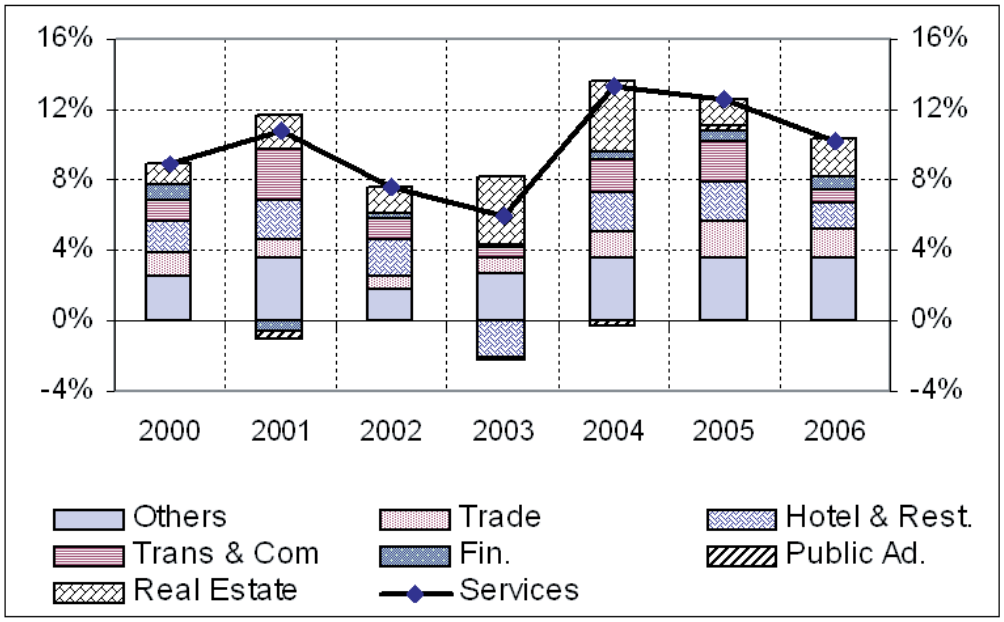
The construction sub-sector has expanded markedly during the past several years. Factors driving this growth include political stability, the robust economic performance, a boom in real estate contributed to by FDI and speculation and continuing assistance from the international community for infrastructure development. However, some concern has been expressed as to whether there is over-investment in housing in Phnom Penh, since the high prices of apartments and the low income of the average Cambodian make it unclear where the demand might come from for the 8000 to 10,000 apartments built each year. Also it is a question whether the high price of housing reflects fundamental factors or is a consequence of speculation. If it is due to speculation, price distortion could create inefficiencies and hamper economic development. As will be elaborated later in this chapter, a related issue is that even though the sub-sector generated more employment, it cannot provide sufficient income for its workers. With a daily wage of USD2–3, construction workers are generally vulnerable and poor.

Other sub-sectors, including mining and electricity, gas and water, also registered gains from a year earlier, but their contributions to the expansion of industry and to overall growth remained minimal. Nevertheless, mining has a significant potential. Geological and mineral surveys indicate that Cambodia has significant minerals, including bauxite, gemstones, solid fuels, metallic and non-metallic minerals and quarry materials (Council for the Development of Cambodia). There has been investment in exploring for these minerals in various areas, particularly in the past two years. There was an improvement in the electrical power supply in urban areas, but residents still suffer from rolling blackouts, especially in the hottest months, April and May. As well, the cost of electricity is still very high compared to Vietnam, Thailand and other countries in the region. That affects all productive sectors and hinders industrial investment and competitiveness. In rural Cambodia, electricity is either non-existent or prohibitively expensive. The solution of importing electricity from neighbouring countries has been implemented at a slow pace.

Services

The services sector, which accounts for 38.2 percent of GDP and employs 26.0 percent of the labour force, grew by 10.3 percent in 2006, compared to 12.7 percent in 2005. All sub-sectors contributed to this healthy growth, but the main contribution came from trade, hotels and restaurants, real estate and business services and other services (Figure 2.12).

Figure 2.12: Services Sector Growth 2000–06



Source: National Institute of Statistics, 2007

Tourism in Cambodia does not have strong linkages to other sub-sectors. For instance, despite strong growth in tourism, local agricultural produce is not used very much in restaurants because the supply is irregular and the quality very uneven. A CDRI study on pro-poor found that the boom in tourism in Siem Reap had little impact on poverty reduction in villages in the province, which surprisingly stood as the third poorest in the country. Contributions to the villages were mainly from the boom in construction of hotels and houses rather than services for tourists. There are opportunities and ongoing efforts by NGOs and donors to strengthen the links between tourism and agriculture, for example, by encouraging regular local supply of high quality food. The results remain to be seen. The beneficiaries of tourism might then not be just the transportation and communications and hotel and restaurants sub-sectors, but also include retail trade and finance and the economy at large.

There remains room to improve the services sector. Facilitating trade through improved infrastructure could generate employment and income for people in rural areas, where poverty remains pervasive. In the finance sub-sector, the cost of borrowing is high compared to neighbouring countries, and formal credit is not always convenient due to unfamiliarity with bank procedures and the limited number of banks in rural areas. Both real estate and business services posted healthy growth, but it was the expansion of the former that contributed most to the growth of this sub-sector. The real estate market has sky-rocketed in the past few years to questionable levels. Other services strengthened impressively, private education and health services, recreational services, community services and personal and other services being key contributors. It should be noted that estimating the value added of services is challenging, because this sector is largely informal and there are few recorded data. Delay in publishing administrative data and difficult access to those data also have adverse effects on the national accounts estimates.

2.3.2. Consumption Expenditure and Investment

Final Consumption Expenditure

According to the NIS (2007), the growth in household final consumption expenditure in constant prices moderated to 6.8 percent in 2006, compared to 12.2 percent in 2005. As a percentage of GDP, household final consumption expenditure declined from 81.9 percent in 2005 to 78.9 percent in 2006. Based on the NIS population projection of 14.163 million for 2006, average annual per capita household final consumption expenditure is estimated at 1,660,000 riels (USD405), up from 1,526,000 riels (USD373) in 2005, showing an improvement in the living standard of the average Cambodian. All major consumption categories registered gains, with food and non-alcoholic beverages, housing, water, electricity, gas and other fuels and transport continuing to account for much of the increase.

Table 2.2: Household Final Consumption Expenditure

Expenditure Items	Real Expenditure (bn riels)		Real Growth Rate (%)		Percentage of HFCE		HFCE Growth Contribution (%)	
	2005	2006	2005	2006	2005	2006	2005	2006
Food & non-alcoholic beverages	6550	6707	2.4	2.4	36.4	34.9	0.9	0.9
Alcoholic beverages & tobacco	449	463	3.5	3.3	2.5	2.4	0.1	0.1
Clothing & footwear	464	486	6.3	4.5	2.6	2.5	0.2	0.1
Housing, water, electricity, gas & other fuels	4590	5094	14.8	11.0	25.5	26.5	3.7	2.8
Household furnishing, equipment & maintenance	246	269	18.5	9.5	1.4	1.4	0.2	0.1
Health	866	898	4.1	3.6	4.8	4.7	0.2	0.2
Transport	1961	2175	33.5	10.9	10.9	11.3	3.1	1.2
Communication	115	130	35.1	13.2	0.6	0.7	0.2	0.1
Recreation & culture	627	741	55.5	18.2	3.5	3.9	1.4	0.6
Education	440	476	11.7	8.1	2.4	2.5	0.3	0.2
Restaurants & hotels	787	865	32.2	10.0	4.4	4.5	1.2	0.4
Miscellaneous services	886	908	15.6	2.5	4.9	4.7	0.7	0.1
Household Final Consumption Expenditure	**17,981**	**19,211**	**12.2**	**6.8**	**100**	**100**	**12.2**	**6.8**

Source: NIS 2007

Food and non-alcoholic beverages, which accounted for 34.9 percent of household final consumption expenditure, grew by 2.4 percent in 2006, an unchanged rate from 2005. The expenditure on this item contributed 0.9 percentage points to the growth of household final consumption expenditure. The average per capita expenditure on these items was 473,000 riels per year, or 1300 riels per day, in 2006, about the same as the figure in 2005.

Expenditure on housing, water, electricity, gas and fuels shared 26.5 percent of household final consumption expenditure and expanded by 11.0 percent in 2006, less than the 14.8 percent growth in 2005. On average, each household was estimated to spend about 1.9 million riels (about USD456) per year, or 158,333 riels (USD38) per month, on these items.

Transport was the third largest household expenditure item. With a share of 11.3 percent and impressive expansion of 10.9 percent, it continued to make a large contribution to the growth of total household consumption expenditure. On average, each household was estimated to spend 800,000 riels (USD195) on transport items. The Cambodian Socio-Economic Survey 2004 showed that the number of means of transportation, including cars, bikes and motorcycles, increased annually by 6.0 percent over 2000–04 and that the vehicle ownership rate rose from 14.4 per 1000 people in 2000 to 29.1 in 2004.

Other expenditures, including household furnishings, communications, recreation and culture and hotels and restaurants, also registered robust growth in 2006. Expenditure on those items had been growing rapidly during the past several years, and their contribution to total household consumption expenditure had been expanding accordingly. The increased spending on these items suggests that more people have access to a higher living standard. In general, growth in this category often encourages more investment and ultimately leads to an expansion of GDP. It is possible, however, that the expenditures are under-reported.

Investment Approvals

Approvals of new business investment continued at a record pace in 2006. According to the Council for the Development of Cambodia (CDC), the value of total investment project approvals in 2006 amounted to USD2633 million in fixed assets, more than double the USD1162 million of 2005. Both domestic investment and foreign direct investment rose dramatically, to USD1145 million and USD1488 million, respectively, up from USD384 million and USD778 million in 2005. China remained the top foreign investor at USD763 million, followed by Russia at USD278 million, Thailand USD102 million, South Korea USD79 million and the United States USD62 million. The CDC statistics also show that investments were mainly in construction, mining, garments, energy and cement. However, in the past not all approved investments have been implemented.

Agriculture attracted only USD506 million, the smallest investment commitment among all sectors. Although the majority of the Cambodian population live in rural areas and depend on rice cultivation for subsistence, the sector remains largely underdeveloped, reflecting the very low private and public investment in the past decade. Despite its decreasing share of GDP, this sector still employs the majority of Cambodians, especially the poor. Investment that increases agricultural productivity would have a huge impact on food security and poverty reduction. The World Bank (2006) concludes that if agricultural growth were sustained at 4 percent per annum, Cambodia would achieve its Millennium Development Goal of halving poverty by 2015.

Industry was the second largest investment sector, with new projects accounting for USD1055 million, about 40 percent of the total. Of this, USD403 million was allocated to mining, followed by garments USD211 million, energy USD167 million and cement USD132 million. Investment in mining has dramatically increased following the recent discovery of oil. Another factor that attracted investment to this sector, especially to the garment industry, is Cambodia's accession to the WTO and compliance with the rules of the International Labour Organisation.

Services were the largest investment sector in 2006. Investment approvals in this sector reached USD1072 million, about 40 percent of the total and approximately five times that of 2005. Construction received the largest proposed investment in 2006; approvals in construction accounted for 86 percent of the services sector, a substantial increase from a year earlier. In terms of fixed assets, approval for hotels was USD77 million in 2006, declining from USD107 million in 2005.

Table 2.3: Investment Approvals by Country and Sector 2000–05 (USD million)

	2000	2001	2002	2003	2004	2005	2006
Total	**270**	**235**	**255**	**318**	**340**	**1,162**	**2,633**
By Country							
Cambodia	61	62	94	201	140	384	1145
China	35	8	24	45	89	448	763
Russia	0	0	0	0	2	0	278
Thailand	26	15	0	12	1	50	102
South Korea	21	3	82	3	8	61	79
United States	10	6	3	4	4	5	62
Others	117	141	52	53	96	214	204
By Sector							
Agriculture	**0**	**5**	**12**	**0**	**9**	**20**	**506**
Industry	**155**	**105**	**62**	**133**	**176**	**931**	**1055**
Building Materials	7	0	0	0	0	0	2
Cement	0	0	0	0	0	181	132
Energy	33	50	5	3	26	289	167
Food Processing	6	3	0	41	1	19	32
Garments	87	32	44	65	135	200	211
Mining	0	0	0	0	0	181	403
Paper	1	1	1	1	3	2	1
Petroleum	1	0	4	0	1	0	5
Pharmaceuticals	1	0	1	7	0	7	0
Plastic	1	2	1	0	1	10	1
Shoes	6	7	0	1	1	2	23
Tobacco	1	4	0	3	5	8	4
Wood Processing	0	1	3	2	1	1	0
Others	10	5	3	11	4	31	45
Services	**114**	**125**	**181**	**185**	**153**	**211**	**1072**
Construction	0	8	0	12	0	30	908
Education	0	0	0	0	0	0	0
Infrastructure	31	22	68	15	40	58	45
Telecommunications	0	0	64	10	0	13	0
Transportation	0	0	0	0	0	0	2
Others	4	15	2	0	0	3	25
Tourism							
Hotel	70	69	47	135	38	107	77
Tourism Centres	9	11	0	13	75	0	15
Others	0	0	0	0	0	0	0

Source: CDC

2.3.3. Balance of Payments and Trade Performance

Balance of Payments

The balance of payments, made up of the current account and capital transfers, the capital account and the financial account and net errors and omissions, registered a surplus of USD202 million in 2006, up from USD74.5 million in 2005. This can be attributed to an increase in official transfers in the form of grants, food aid, project aid and technical advisers' salaries and a surplus on financial and capital accounts in net borrowing and net foreign investment. Thanks to consecutive surpluses in the balance of payments, Cambodia's official reserves have increased markedly. By the end of 2006, the country's foreign reserves had accumulated to USD1101.8 million.

Table 2.4: Balance of Payments, 2003–06 (USD million)

	2003	2004	2005	2006
Balance of Trade	-581.3	-680.6	-1017.6	-1056.1
Exports fob	2086.8	2588.9	2910.3	3693.1
Imports fob	2668.1	3269.5	3927.8	4749.2
Net Services	114.1	290.5	471.1	506.5
Receipts	548	804.9	1118.1	1296.3
Payment	433.9	514.4	647.1	789.8
Net income	-179.3	-221	-254	-290.4
Receipts	43.7	48.6	67.7	90
Payments	223	269.6	321.8	380.4
Private transfers, net	153.4	175.8	209.3	315.1
Balance on current account	**-493.1**	**-435.3**	**-591.2**	**-524.9**
Official transfers receipts	325.9	320.5	325.7	449.1
Grant	326.2	320.8	326	449.4
Food aid	4.2	6.4	2.7	7
Project aid	156.3	158.9	163.4	254.5
TA salaries	138.2	135.3	142.8	167.8
Payments	-0.3	-0.3	-0.3	-0.3
Balance on current account and capital transfers	**-167.2**	**-114.8**	**-265.5**	**-75.8**
Financial Account	**243.7**	**219.1**	**334.9**	**321.4**
Official Sector loans	148.6	154.4	144	120.3
Drawings	156.4	162.7	153.3	129.3
Repayments	-7.8	-8.3	-9.3	-9
Non-official sector investment	95.1	64.7	190.9	201.1
Direct Investment, net	74.3	121.2	374.9	474.8
Portfolio Investment Assets	-7.7	-8	-7.2	-12.1
Other Investment	28.5	-48.5	-176.8	-261.6
Net errors and omissions	**-39.8**	**-45.8**	**5.1**	**-43.7**
OVERALL BALANCE	**36.7**	**58.5**	**74.5**	**201.9**

Source: National Bank of Cambodia

Current Account

In 2006, Cambodia's current account recorded a deficit of USD525 million, narrowed from USD591.3 million in 2005. As a percentage of nominal GDP, it declined to 9 percent from 11 percent a year earlier. This improvement mainly reflected an increase in net services surplus, which partly counterbalanced the trade deficit. The country's current account balance has been persistently in deficit, which means that Cambodia is accumulating a substantial foreign debt. However, a current account deficit is not always a problem if it is driven by the private sector (Pitchford 1995). Cambodia's current account deficit was caused by the increase of capital goods imports, stimulated by higher demand for investment. Such a deficit may not be problematic since it may increase Cambodia's future ability to produce goods and services and hence raise the country's ability to service and retire debt.

The balance of trade in 2006 recorded a deficit of USD1056 million, a 3.7 percent increase from 2005. Exports rose to USD3693 million, a 27 percent increase from the previous year. Of these, domestic exports, primarily garment products, were USD3537 million and re-exports USD156 million. However, during the same period, total imports amounted to USD4749 million, a 21 percent increase from 2005, reflecting increases of garments, petroleum and other retained imports. Cambodia imported most of the inputs for garment production and all of the petroleum products required for power generation and private transportation. While most petroleum products were imported from Singapore, there is also gasoline smuggling from neighbouring countries due to high tax rates on petroleum products.[2] This smuggling not only distorts the picture of the trade balance but more importantly also generates a substantial loss of government revenue.

The services balance in 2006 registered a surplus of USD507 million, a 7.6 percent increase from the previous year. The increase in travel receipts from tourism was the main cause of this rise. The services surplus, however, was partly offset by enlarged payments to transportation and other services. During the same period, the net income deficit amounted to USD290.4 million, 14.3 percent higher than a year earlier. The increase in income payments was the reason for this enlarged deficit. In 2006 the payment of employees, including technical advisers, and payment on equity were recoded at USD84.5 million and USD256.6 million respectively and together made up 90 percent of the total payments.

Financial and Capital Account

Cambodia's financial account measures net official sector loans and net non-official sector investment vis-à-vis the rest of the world. In 2006, the account registered a surplus of USD321.4 million, 4.0 percent less than the previous year. This reduced surplus largely

[2] The amount of tax on gasoline and diesel sales is estimated to be US 25 cents and 12 cents per litre respectively (EIC 2007).

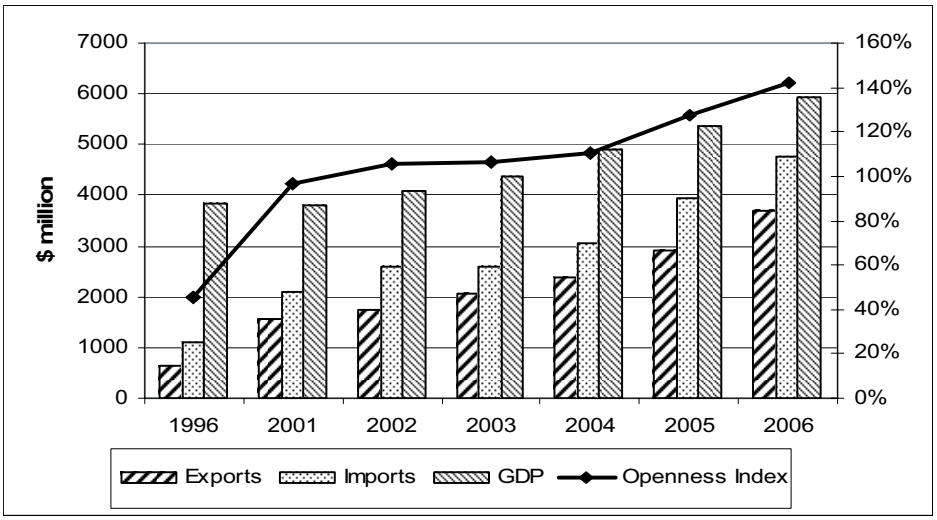
reflected a significant decline in official loans to USD120 million, 16.5 percent less than in 2005, while non-official investment was USD201 million, an increase of 5.3 percent.

Trade Performance

External Trade

Cambodia's foreign trade over 2002–06 increased rapidly, at an annual average rate of 18 percent. The high growth in recent years causes the country's trade openness index[3] to be very high, reaching 142 percent in 2006, compared to 127 percent in 2005 and 97 percent in 2001. The higher ratio suggests a more liberalised trade regime and greater dependence on international trade, which should flow into a boost of economic growth and development. Cambodia is now moving toward deeper integration into regional trading blocs via ASEAN plus schemes and into the multilateral trading system. This tendency is likely to boost imports and exports, thus making trade an engine of growth.

Figure 2.13: Cambodia's External Trade and Openness Index, 2001–06



Source: CDC

[3] The openness index (or dependence index) provides important information on a country's involvement in international trade in relation to GDP. The index can also indicate the level of openness and liberalisation of an economy. The formula for the index is:

$$O_i = \frac{\Sigma M + \Sigma X}{GDP}$$, where M = imports and X = exports.

Exports

Cambodia's export performance in 2006 was strong, increasing by 22 percent from the previous year to USD3693 m. The largest commodity exports were textiles and apparel, accounting for 84 percent of total exports and amounting to USD3114.31 m, followed by exports of footwear at USD210.87 m or 5.7 percent of total exports. The other export products, which represent about 10 percent of total exports, include gems, vehicles, prepared foodstuffs, plastics, live animals, wood products, metals and vegetable products (Table 2.5).

Table 2.5: Cambodia's Exports by section, 2005-06 (USD m)

Chapter	Section	2005	2006	% change	% (2006)
50-63	Textiles and apparel	2551.67	3114.31	22.0	84.3
64-67	Footwear	167.38	210.87	26.0	5.7
71	Gems	39.33	46.19	17.4	1.3
86-89	Vehicles	12.12	41.67	243.9	1.1
16-24	Prepared foodstuffs	33.72	36.76	9.0	1.0
39-40	Plastics	15.05	29.86	98.4	0.8
1-5	Live Animals	15.40	18.78	21.9	0.5
44-46	Wood and wood articles	16.30	17.26	5.9	0.5
72-83	Base metal and metal articles	11.15	16.00	43.5	0.4
6-14	Vegetable products	15.42	15.10	-2.1	0.4
Total	**ALL**	**2910**	**3693**	**26.9**	**100**

Source: Global Trade Atlas

The US is the largest market for Cambodia's exports, absorbing about 63 percent of the total, followed by Germany (10 percent), UK (4.6 percent), France (3.7 percent), Canada (3.1 percent), Japan (3.0 percent) and Malaysia (2.6 percent).

Exports of garments and footwear have maintained remarkable growth despite the end of the MFA, which many trade economists predicted would mean a gloomy future for Cambodia's garment industry. The post-MFA growth of garment and footwear exports is attributed to both external and internal factors. Externally, the US and EU imposed temporary safeguard quotas on imports from China, increasing their prices. This benefited countries like Cambodia that have higher production costs per unit. Cambodia's garment exports also benefited from the policies of many developed countries that still apply the Generalised System of Preferences to least developed countries. Although some schemes are limited by stringent rules of origin, they do provide a competitive edge for Cambodia's garments. Internally, considerable improvements have been made by the government and manufacturers through improved labour productivity, reduced costs of export procedures, better trade facilitation, better working conditions and wider recognition of "made in Cambodia" brands. However, new challenges will emerge when the temporary safeguards on Chinese garment imports cease at the end of 2008. This requires further efforts by government, the private sector and donors to ensure that Cambodia's exports of garments and footwear are competitive in a restriction-free environment.

Imports

Cambodia's imports in 2006 grew at an annual average rate of 20.9 percent, reaching USD4749 m or 80 percent of GDP. The largest imports were textiles and apparel at USD1495.1 m. or 31.5 percent of total imports. In the absence of domestic supply, the imports of this category, which are mostly from China and Hong Kong, were used as inputs to garment production. This resulted in low local content. The other main import categories include machinery and electronic appliances (USD506.3 m), mineral products (USD434.7 m), prepared foodstuffs (USD394.8 m), vehicles (USD376.6 m), chemical (USD233.5 m), plastics (USD141.7 m), metal articles (USD130.5 m) and pulp and paper (USD85.9 m).

Table 2.6: Cambodia's Imports, by Sector, 2004–06 (USD m)

Chapter	Section	2005	2006	% change	% (2006)
50-63	Textiles and apparel	1251.3	1495.1	19.5	31.5
84-85	Machinery and electronic appliances	410.4	506.3	23.3	10.7
25-27	Mineral products	319.7	434.7	35.9	9.2
16-24	Prepared foodstuffs	325.3	394.8	21.4	8.3
86-89	Vehicles	203.3	376.6	85.2	7.9
28-38	Chemicals	209.8	233.5	11.3	4.9
39-40	Plastics	122.4	141.7	15.8	3.0
72-83	Base metal and metal articles	105.0	130.5	24.3	2.7
47-49	Pulp and paper	67.0	85.9	28.2	1.8
94-96	Miscellaneous manufactured articles	67.7	84.1	24.3	1.8
Total	**ALL**	**3928**	**4749**	**20.9**	**100**

Source: Global Trade Atlas

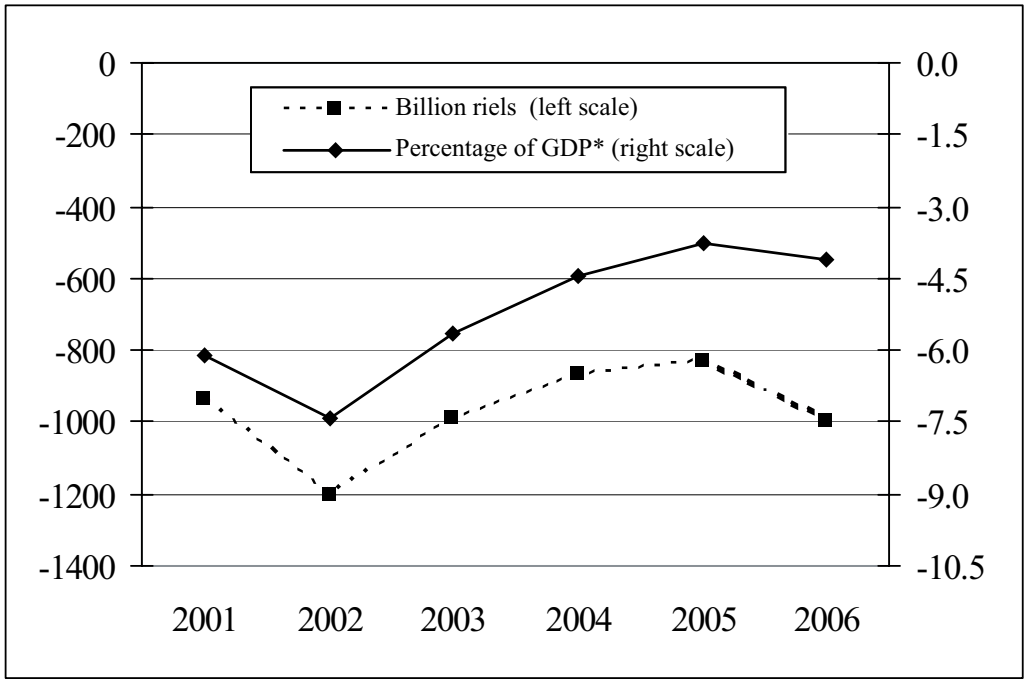
Countries in East Asia or the ASEAN plus three countries are the major sources of imports to Cambodia. Hong Kong is the largest exporter to Cambodia, providing 32.5 percent of its total imports, followed by Thailand (18.1 percent), China (14.5 percent), Vietnam (11.9 percent), Korea (2.6 percent), Singapore (2.5 percent), Japan (2.0 percent), Indonesia (1.7 percent) and Malaysia (1.2 percent). This import structure reflects increasing trade with countries in the region and thus deeper regional integration that is likely to increase imports and consumer welfare.

2.3.4 Fiscal and Monetary Developments

Fiscal Developments

Fiscal policy is a crucial tool of macroeconomic management. Sound fiscal policy is necessary for not only sustainable development but also for broad-based growth and social equity. There are areas that need government intervention through provision of public goods and services. However, this does not mean that government should crowd out the private sector by imposing too much tax. A healthy fiscal position provides an opportunity for quality and balanced growth. Economic growth expands the potential to increase domestic revenue and therefore public spending. Rising public expenditure is an opportunity to fuel development and enhance living standards. However, there is a challenge to strike a balance between short- and long-term growth. Increased spending on agriculture may yield quick returns to raise the standard of living, while spending on education takes a long time to bear fruit.

Figure 2.14: Overall Budget Balance and Percentage of GDP



Source: Ministry of Economy and Finance (MEF)

** Preliminary estimate for 2006, NIS*

Budget Revenue

In 2006, budget revenue totalled KHR3259.2 billion, 24 percent more than in 2005. Current revenue rose by 17 percent to KHR2881.7 billion, of which taxes accounted for 79 percent. Because taxes are the major source of domestic revenue, structural problems in the tax system (the narrow tax base and weakness of administration) need urgent solutions. The government has committed to strengthening and expanding revenue collection in a comprehensive public finance reform programme. It has also suggested that it may tax unproductive land. The rate suggested was 0.05 percent of market value, as assessed by the Commission of Fixed Asset Appraisal (Draft Budget Law 2006:4).

Table 2.7: Domestic Revenue

(Billion riels)	2001	2002	2003	2004	2005	2006
I. DOMESTIC REVENUE	**1529.4**	**1743.9**	**1764.6**	**2126.7**	**2625.3**	**3259.17**
1.CURRENT REVENUE	**1520.4**	**1727.6**	**1733.2**	**2107.3**	**2473.8**	**2881.72**
a. TAX REVENUE	**1096.4**	**1227.1**	**1220.1**	**1577.5**	**1911.1**	**2270.861**
• Profit tax	112.8	102.6	109.9	117.3	172.0	262.267
• VAT	412.0	449.4	449.4	590.6	719.1	855.596
• Excise duties	154.8	210.3	197.6	304.4	380.0	417.638
• Customs duties	375.7	423.8	395.2	513.3	572.6	644.385
b. NON-TAX REVENUE	**423.9**	**500.5**	**513.1**	**529.8**	**562.7**	**610.589**
• Forest exploitation	29.3	14.9	6.7	1.8	3.3	2.42
• Tourism income	14.4	19.5	20.2	28.8	44.4	59.23
• Civil aviation	40.5	33.5	21.7	26.9	30.1	29.517
• Posts and telecommunications	122.3	122.6	119.8	94.2	122.9	83.046
• Visa fees	27.9	40.5	41.1	62.2	85.1	95.336
• Quota auctions and export licences	71.6	106.1	145.8	122.9	75.3	88.427
2. CAPITAL REVENUE	**9.1**	**16.3**	**31.4**	**19.5**	**151.6**	**377.451**
			Annual Percentage Change			
I. DOMESTIC REVENUE	**7.5**	**14.0**	**1.2**	**20.5**	**23.4**	**24.1**
1.CURRENT REVENUE	**9.1**	**13.6**	**0.3**	**21.6**	**17.4**	**16.5**
a. TAX REVENUE	**5.4**	**11.9**	**-0.6**	**29.3**	**21.1**	**18.8**
• Profit tax	-2.0	-9.1	7.1	6.8	46.6	52.5
• VAT	6.8	9.1	0.0	31.4	21.8	19.0
• Excise duties	37.4	35.9	-6.0	54.0	24.8	9.9
• Customs duties	-3.8	12.8	-6.7	29.9	11.5	12.5
b. NON-TAX REVENUE	**20.0**	**18.1**	**2.5**	**3.2**	**6.2**	**8.5**
• Forest exploitation	-28.5	-49.2	-55.2	-72.8	82.4	-26.7
• Tourism income	-	35.6	3.8	42.5	53.9	33.5
• Civil aviation	63.4	-17.2	-35.3	24.0	11.8	-1.8
• Posts and telecommunications	32.9	0.2	-2.2	-21.4	30.4	-32.4
• Visa fees	-	45.1	1.6	51.3	36.9	12.0
• Quota auctions and export licences	-	48.1	37.4	-15.7	-38.7	17.4
2. CAPITAL REVENUE	**-69.1**	**79.5**	**93.0**	**-38.0**	**679.1**	**149.0**

Source: Ministry of Economy and Finance

In 2006, tax revenue rose by 19 percent from the previous year, to 9.3 percent of GDP or KHR2270.9 billion. Of tax collection, revenue from value added tax was 38 percent, custom duties 28 percent, excise duties 18 percent and profit tax 12 percent. To attract investment, the government legislated to exempt investment projects from tax on profits for a limited period. The government continues improving the tax system with the expectation that this will expand domestic revenue collection. Non-tax revenue was 22 percent of current revenue, rising by 8.5 percent from the previous year to KHR610.6 billion. Most components of non-tax revenue were less than projected.

Visa fees, substantially based on tourism, were the largest share, 16 percent, of non-tax revenue, rising 12 percent to KHR95.3 billion (8.0 percent less than projected). Receipts from tourism increased by 34 percent to KHR59.2 billion, 21 percent below the projection, while quota auctions and export licence fees were three times larger than projected. After falling in 2004, quota auctions and export licence fees increased by 17 percent from the value in 2005 to KHR88.4 billion. The expectation is that income from quota auctions and export licence fees will continue to improve while China faces import restrictions from the US and EU until the end of 2008. Among other main major sources of non-tax income, revenue from posts and communications decreased by 32 percent to KHR83.0 billion, forest exploitation fees declined by 27 percent to KHR2.4 billion, and civil aviation fees decreased by 1.8 percent to KHR29.5 billion.

Capital revenue went up by 149 percent from the preceding year to KHR377.5 billion in 2006. The items of capital revenue include domestic capital revenue, grants from abroad and borrowing. Domestic capital revenue was five times larger than government projections, KHR377.5 billion. Of this, capital revenue from the Multilateral Debt Relief Initiative was 90 percent; privatisation was 7.3 percent, domestic borrowing 2.4 percent and sale of land 0.03 percent. Grants and borrowing from abroad amounted to KHR1484.8 billion.

Budget Expenditure

Budget expenditure has grown as Cambodia expands its development activities. Currently, inability to increase revenue collection limits public spending. As in other developing countries, there are almost unlimited needs for infrastructure construction as well as for improving social welfare. When public spending needs cannot be met, expenditure reform can still improve the productivity of existing spending, and improve governance and transparency. Public spending, moreover, should be judged by its impact on growth and investment as well as on poverty and equity. Apparently, developing countries have invested huge amounts in education (Michael P. Todaro Fifth edition:366). The reason is that people need education to escape from poverty traps. Farmers with at least a primary education are thought to be more productive and more responsive to new agricultural technologies than illiterate farmers.

However, it takes time for investment in education to yield returns. An imbalance of short-term and long-term investment can be counter-productive. In the past 15 years, current expenditure on agriculture has not exceeded 1.5 percent of total current expenditure and not more than 2.5 percent of overall expenditure. This is far too low given that 57–70 percent of the population depend primarily on agriculture and are mostly poor. This explains why agricultural growth has lagged far behind other sectors and agricultural productivity remains the lowest in the region. Investment in agriculture would raise incomes of farmers immediately. With increased income, farmers would be able to send children to school. With low incomes, farmers may not be able to send their children to school even though the education budget allows more schools to be built.

Table 2.8: Domestic Spending

(Billion riels)	2001	2002	2003	2004	2005	2006
Total Budget Expenditure (cash basis)	**2516.9**	**2963.2**	**2928.8**	**2970.2**	**3417.4**	**4083.215**
a. Current expenditure	**1415.6**	**1574.9**	**1758.1**	**1745.7**	**1967.5**	**2366.553**
General administration	269.0	298.2	336.4	302.2	355.6	425.975
Defence and security	417.3	406.8	411.0	422.8	451.2	520.155
Social administration	449.5	583.0	615.9	672.3	720.9	895.47
• Ministry of Health	129.7	164.4	173.0	192.1	224.6	260.791
• Ministry of Education, Youth and Sport	209.2	289.7	300.5	325.9	350.8	445.614
Economic administration	150.7	159.5	170.5	151.3	178.1	240.265
• Ministry of Agriculture, Forestry and Fisheries	30.5	39.7	39.0	38.6	47.1	55.941
• Ministry of Rural Development	12.4	18.4	16.9	16.6	22.1	30.014
Miscellaneous	129.2	126.7	224.3	197.1	261.6	284.688
b. Capital Expenditure	**1101.3**	**1388.3**	**1170.7**	**1224.5**	**1449.9**	**1716.662**
			Annual Percentage Change			
Total Budget Expenditure	**19.2**	**17.7**	**-1.2**	**1.4**	**15.1**	**19.5**
a. Current expenditure	**16.5**	**11.3**	**11.6**	**-0.7**	**12.7**	**20.3**
General administration	-4.9	10.9	12.8	-10.2	17.7	19.8
Defence and security	-5.2	-2.5	1.0	2.9	6.7	15.3
Social administration	19.1	29.7	5.6	9.2	7.2	24.2
• Ministry of Health	28.7	26.7	5.2	11.0	16.9	16.1
• Ministry of Education, Youth and Sport	19.2	38.4	3.7	8.5	7.6	27.0
Economic administration	34.4	5.8	6.9	-11.3	17.8	34.9
• Ministry of Agriculture, Forestry and Fisheries	28.5	30.1	-1.6	-1.2	22.2	18.8
• Ministry of Rural Development	65.8	47.8	-8.1	-1.6	33.2	35.6
Miscellaneous	-	-1.9	77.1	-12.1	32.7	8.8
b. Capital Expenditure	**22.9**	**26.1**	**-15.7**	**4.6**	**18.4**	**18.4**

Source: MEF

In 2006, budget expenditure increased by 19 percent to KHR4083.2 billion, of which current spending rose by 20 percent to KHR2366.6 billion and capital expenditure increased by 18 percent to KHR1716.7 billion.

Current expenditure was 9.7 percent of GDP, while in 2005 the proportion was 9.0 percent. Of current spending, that on general administration was KHR425.9 billion, a rise of 20 percent over the previous year; defence and security rose by 15 percent to KHR520.2 billion; economic administration rose by 35 percent to KHR240.3 billion and social administration increased by 24 percent to KHR895.5 billion. The health and education sub-sectors are under social administration; both sub-sectors are a priority in government spending.

As in 2006, twenty-nine percent of social administration spending was allocated to public health and 50 percent to education. The government has spent USD4.50 per capita for health care and education, USD7.60, in 2006. Ministries' spending on wages amounted to KHR822.0 billion, an increase of 16 percent from the previous year. Spending on non-wages includes operational costs—i.e. purchases or use of goods and services—economic transfers, social transfers, interest and others. In 2006, non-wage expenditure was 65 percent of the total spending of all ministries. Capital expenditure is the result of government investment in development. In 2006, capital spending took 42 percent of total government spending; of this, 9 percent was funded domestically and 33 percent externally.

External Debt

Development activities require Cambodia to spend more than its revenue can cover. It must borrow for its social support and infrastructure reconstruction in the hope of repaying through the coming availability of its oil and gas resources. By the end of 2006, total external debt was USD 2.2billion (IMF 2007) or 38 percent of GDP; this included debts to Russia (USD457 m) and the United States (USD162 m).

Table 2.9: Cambodia's External Debt

(In USD million)	2001	2002	2003	2004	2005	2006
Total	**1331**	**1558**	**1808**	**2043**	**2123**	**2248**
Multilateral	557	740	955	1124	1148	1201
World Bank	240	303	396	464	460	501
ADB	232	328	434	530	568	656
IMF	80	95	102	97	81	0
Bilateral	774	818	853	919	975	1047
New debt	21	53	75	132	185	250
Rescheduled debt	25	28	33	35	30	27
Non-rescheduled debt	728	737	745	753	761	769
Total as share of GDP	**34%**	**38%**	**41%**	**42%**	**40%**	**38%**

Source: Cambodian authorities, cited in IMF (2007)

Debt to multilateral partners was 53 percent of total external debt, of which loans from the World Bank were 22 percent and ADB 29 percent. For 2005 and 2006, after receiving 100 percent relief, worth USD82 million, Cambodia did not have any debts to the IMF. Obligations to bilateral partners were USD1047 million; of that, new debt was 24 percent, rescheduled debt 2.6 percent and non-rescheduled obligations 73 percent. In 2006, the country paid USD50 million for debt servicing, of which USD23 million paid for interest and USD27 million for amortisation. Debt servicing was 6.3 percent of total domestic revenue and 1.4 percent of total exports. Debt service payments must be made with foreign exchange, usually US dollars, which can be obtained only from export earnings or from further external borrowing.

Since 1999, the World Bank and the IMF have conducted an official programme to help reduce the debts of heavily indebted poor countries. This approach is called a poverty reduction strategy. All official donors, including government bilateral donors, international organisations and international financial institutions, are expected to provide their aid and lending according to a Poverty Reduction Strategy Paper (PRSP). The PRSP framework requires the involvement of governments and substantial consultation and participation of their citizens, and that the role of the World Bank and IMF will be primarily advisory (Kathleen Selvaggio 2001:5). The developing countries are to use aid or loans in accordance with the priorities set in the PRSP.

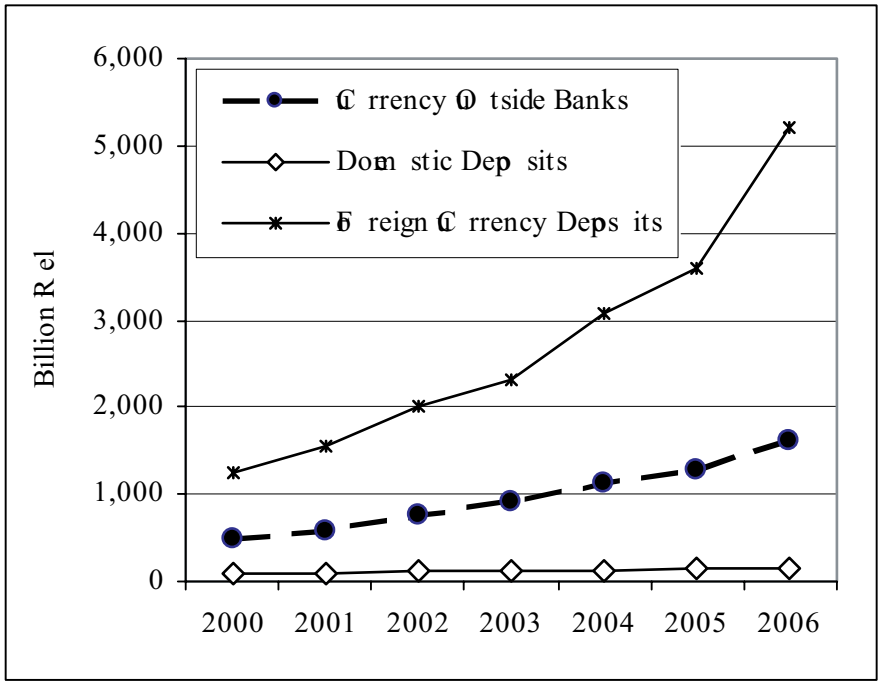
In 2006, loan project disbursements by the World Bank were USD22.7 million; these were used mainly for rural investment and local government, flood emergency rehabilitation, health sector support, education and rural electrification. The ADB provided project loan disbursements of USD59.0 million during the same period. There were no new grants by either the World Bank or ADB.

Money, Interest Rates, Exchange Rates and Inflation

Money

The National Bank of Cambodia (NBC) works with the banking services providers and related parties in the private sector to improve banks' efficiency and intermediation through managing the domestic financial system. The NBC is responsible for the internal stability (i.e. inflation control) and external stability (exchange rate) of the national currency. There are a variety of ways to attain these outcomes, including intervention (buying or selling the national currency in the market), interest-rate fixing and setting reserve requirements for commercial banks.

Figure 2.15: Components of Money Supply (M2)



Source: National Bank of Cambodia, Monetary Survey, Cambodia

In 2006, total liquidity (M2) increased by 38 percent from the previous year to KHR6942.3 billion. During 2001 to 2006, M2 grew at an average of 25 percent; this increase, however, seems not to be so fast as to lead to high inflation. According to the NBC, the rising liquidity indicated the growth of confidence in the financial system. Of the components of liquidity, money (M1) rose by 25 percent from the preceding year to KHR1657.7 billion, of which currency outside banks rose by 25 percent to KHR1599.6 billion and demand deposits surged by 43 percent to KHR58.1 billion. Quasi-money increased 43 percent to KHR5284.6 billion; this was accelerated by foreign currency deposits, which grew to KHR5195.9 billion, 45 percent more than the year before, while time and saving deposits decreased by 21 percent to KHR88.6 billion. The currency in use is mostly US dollars, either in circulation or as bank deposits; foreign currency deposits accounted for 75 percent of total liquidity in 2006.

The assets of the monetary system underpin the money supply. In 2006, net domestic assets improved by 37 percent, accounting for KHR282.0 billion. Net domestic assets have a negative sign in monetary statistics (Table 2.10) because capital and reserves, restricted deposits and other liabilities expanded more than domestic credit.

Monetary liabilities worsened by 22 percent from the previous year to KHR2958.5 billion in 2006, of which capital and reserves deteriorated by 23 percent to KHR3241.2 billion. An increase of 52 percent in non-government credit to KHR953.3 billion and a twofold worsening of net government credit to KHR3629.8 billion accelerated a rise of 36 percent

in domestic credit. Government deposits increased by 66 percent to KHR1239.9 billion, while claims on government were small, decreasing by 12 percent to KHR286.6 billion. Non-government credit was the major contributor to the increase of domestic credit. Compared to the previous year, credit granted by deposit banks to agriculture doubled to KHR148.7 billion; loans to wholesale and retail business escalated by 49 percent to KHR783.5 billion, and lending to services increased by 41 percent to KHR1146.2 billion. The rise of private credit was caused by greater demand from non-bank businesses, including manufacturing, construction, real estate and utilities. In 2006, gross foreign exchange reserves were KHR4504.1 billion (USD1096.7 m), representing 2.7 months of goods imports.

Overall, monetary developments in 2006 indicated intensified use of banking services by the public at the same time as a number of commercial banks introduced modern payment services including automatic teller machines and EFTPOS (electronic funds transfer at point of sale).

For the government, a sufficient supply of micro-financial services is an important mechanism for combating poverty and sustaining rural development. Most rural poor and low-income people do not have access to deposit services that would allow them to accumulate reserves, reduce risks, build productive assets, improve credit-worthiness, smooth their consumption expenses, take advantage of economic opportunities, finance major expenditures such as school fees and medical expenses and improve the quality of their lives (ADB 2005:1).

Table 2.10: Monetary Survey

(In billion riel)	2001	2002	2003	2004	2005	2006
Net Foreign Assets	**3077**	**3737**	**4027**	**4797**	**5475**	**7224**
Foreign Assets	3583	4279	4740	5482	6142	7650
Foreign Liabilities	-507	-542	-714	-685	-667	-426
Net Domestic Assets	**-879**	**-849**	**-698**	**-467**	**-450**	**-282**
Domestic Credit	865	942	1209	1608	1973	2676
Net Claims on Government	-75	-119	-128	-209	-421	-953
Claims on Government	271	310	360	360	327	287
Deposits of Government	-346	-429	-488	-569	-748	-1240
Non Government	943	1061	1337	1817	2394	3630
State Enterprises	7	2	0	0	0	2
Private Sector	936	1059	1337	1817	2394	3628
Other	-1744	-1791	-1907	-2075	-2423	-2959
Restricted Deposits	-100	-96	-109	-102	-123	-155
Capital & Reserves	-1959	-1943	-2089	-2192	-2640	-3241
Others	314	248	291	219	341	438
Liquidity	**2204**	**2888**	**3329**	**4329**	**5025**	**6942**
Money	610	813	938	1153	1323	1658
Currency outside Banks	578	766	908	1115	1282	1600
Demand Deposits	32	47	29	38	41	58
Quasi-Money	1,594	2,075	2,392	3,176	3,702	5,285
Time & Saving Deposits	56	74	82	97	113	89
Foreign Currency Deposits	1,539	2,001	2,310	3,079	3,589	5,196
			Annual Percentage Change			
Net Foreign Assets	**19**	**21**	**8**	**19**	**14**	**32**
Foreign Assets	18	19	11	16	12	25
Foreign Liabilities	11	7	32	-4	-3	-36
Net Domestic Assets	**16**	**-3**	**-18**	**-33**	**-4**	**-37**
Domestic Credit	-4	9	28	33	23	36
Net Claims on Government	-2,373	59	7	63	102	126
Claim on Government	0	14	16	0	-9	-12
Deposits of Government	29	24	14	17	31	66
Non Government	5	13	26	36	32	52
State Enterprises	92	-71	-100			
Private Sector	4	13	26	36	32	52
Other	5	3	7	9	17	22
Restricted Deposits	16	-4	14	-7	21	26
Capital & Reserves	9	-1	8	5	20	23
Others	47	-21	17	-25	56	29
Liquidity	**20**	**31**	**15**	**30**	**16**	**38**
Money	13	33	15	23	15	25
Currency outside Banks	17	33	19	23	15	25
Demand Deposit	-29	48	-38	30	7	43
Quasi-Money	23	30	15	33	17	43
Time & Saving Deposits	21	34	10	19	16	-21
Foreign Currency Deposits	24	30	15	33	17	45

Source: National Bank of Cambodia

Interest Rates

The number of banks increased from 17 in 2004 to 20 in 2006. Commercial banks increased by four to 16, while state-owned banks were reduced by one. Despite the increase of banking institutions in 2006, the interest rate on both riel and US dollar loans was higher than in 2005.

In December 2006, the 12-month riel loan interest rate was 23.07 percent, up from 18.60 percent in 2005. The dollar loan interest rate was 16.66 percent, 0.46 percent higher than in 2005 but 2.19 percent lower than in 2000. Even at the higher rate, the demand for credit increased by 42 percent from the previous year, to KHR3472.1 billion (USD845.4 m), excluding provincial branches of the NBC. Of this amount, 33 percent was lent to services, which received the largest amount, followed by wholesale and retail business activities, 23 percent. Cambodia has the potential for more investment if the interest rate were lower. By circulating money from banks to the private sector and vice versa, new or expanding businesses help to create more employment, which in turn encourages economic activity and poverty eradication.

The riel 12-month deposit interest rate was down from 6.83 percent in the previous year to 6.40 percent in 2006, while interest on dollar deposits rose from 3.96 percent to 4.84 percent. Riel deposits were KHR146.7 billion or 2.6 percent of total deposits, down by 4.3 percent from 2005. The margin between lending and deposits was 16.7 percent for riels and 11.8 percent for dollars.

Deposits and lending have a strong relationship; if deposits were larger, the ability to provide loans would increase and lower loan rates. Development, further, requires strong investment, which varies inversely with the interest rate (Richard Startz Sixth edition:27). Therefore, the lending rate has to be well managed to attract more investment.

Credit has an active role in poverty alleviation and rural development, but most banks in Cambodia provide services only in urban areas. Some micro-finance services operate in rural areas; their interest rate on loans is 3.0 percent to 5.0 percent per month based on the institutional policy and cost consideration of each operator. These rates are extremely high; this rate represents 30 percent to 70 percent a year on a reducing balance basis (Nimal A. Fernando 2006:1).

Exchange Rates

Exchange rate policy is to maintain price stability by purchasing and selling foreign currencies (mainly US dollars) to prevent volatility in the exchange rate of the riel. The official rate, which is 1.0 percent lower than the market rate, is used in foreign exchange transactions of the government and state-owned enterprises and is applied by banks for their record of all transactions in foreign currency (NBC 2006:5).

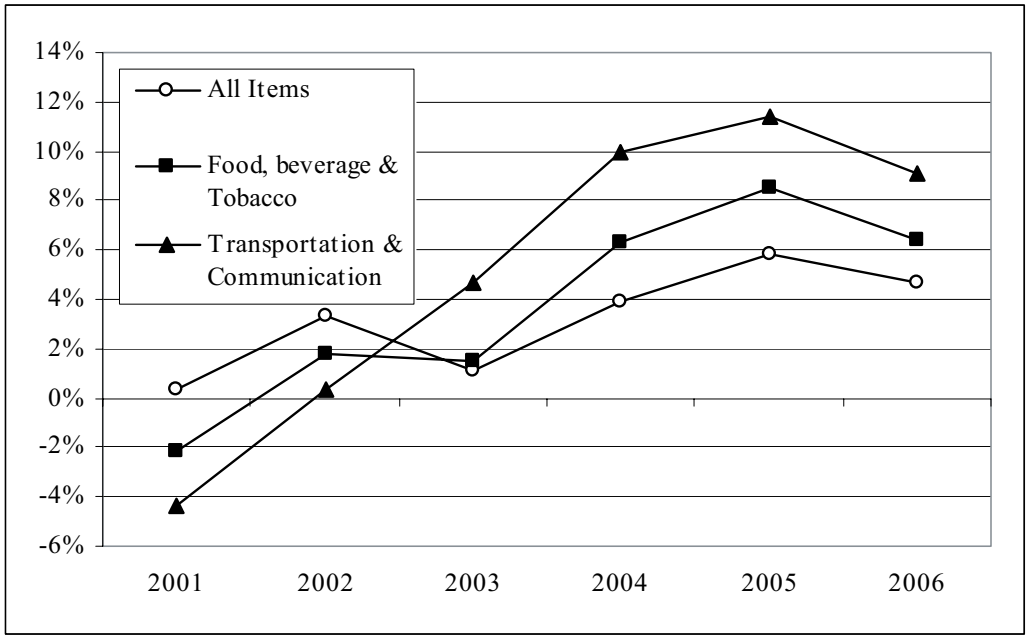
The market rate of the local currency to the US dollar has increased every year since 2003. In 2006, the riel averaged 4107 per USD, a depreciation of 0.2 percent compared to the preceding year. It exchanged at 108.7 riels/baht, a devaluation of 5.9 percent from the previous year. Against the Vietnamese dong, the riel improved by 2.8 percent, trading at 25.0 per 100 dong.

Cambodia is a least developed country in which market transactions are mostly in dollars. The country has a high requirement for foreign currency for debt servicing, imports and other economic transactions. People prefer to hold foreign currency rather than riels.

Inflation

Inflation and exchange rate policy have a strong linkage. If the value of the local currency depreciates, this will increase the prices of imported products in terms of local currency. Hence, intervention to stabilise exchange rates helps to make prices stable also.

Figure 2.16: Price Changes, 2001–06



Source: NIS

According to the NIS, in 2006 the overall price level in Phnom Penh was up 4.7 percent from the previous year, less than the 5.7 percent rise in 2005. Transportation and communication costs increased by 9.1 percent; however, the growth rate was lower than in the previous year (11.4 percent). The increase of transportation and communication costs was mainly caused by the increase of gasoline and diesel prices.

The rising price of food and beverages was also a key driver of the increase of overall prices; it was led by meat. Compared to the preceding year, food and beverage prices rose by 6.4 percent; the growth was 2.1 percent less than in 2005. Personal care costs increased by 4.9 percent. Clothing and footwear rose by 3.9 percent, housing and utilities by 2.5 percent.

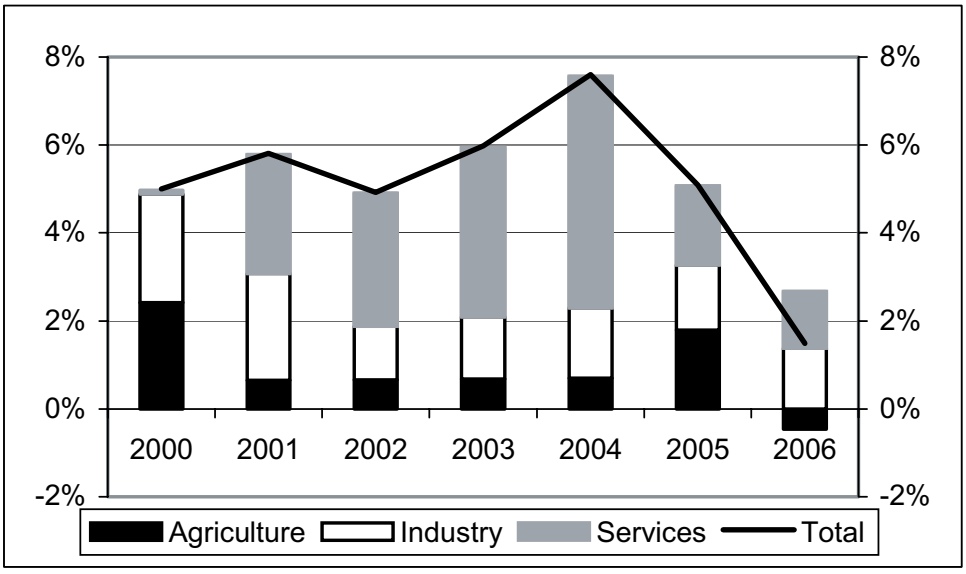
The 2006 inflation rate was below 5.0 per cent which is a level of price stability that determined by the government. Cambodia is an importing country, so the government cannot prevent price fluctuations. However, the quantity of imports can be controlled. Moreover, there should be incentives to attract local or external investment to improve the quality or expand the quantity of local products.

2.3.5 Employment, Labour Productivity and Vulnerable Workers

Employment

Cambodia has one of the fastest growing populations in the world. According to the NIS, the population grew at an annual rate of 3.8 percent during the 1990s and 2.0 percent in 2000–06. The Swedish International Development Cooperation Agency estimated that the labour force increased by 221,000 people or 3.6 percent annually between 1998 and 2004 and projected that this growth will continue until 2010 (Lundstrom, Susanna & Per Ronnas (2006)). The economy will come under pressure to generate productive employment for this very large number of young labour force entrants.

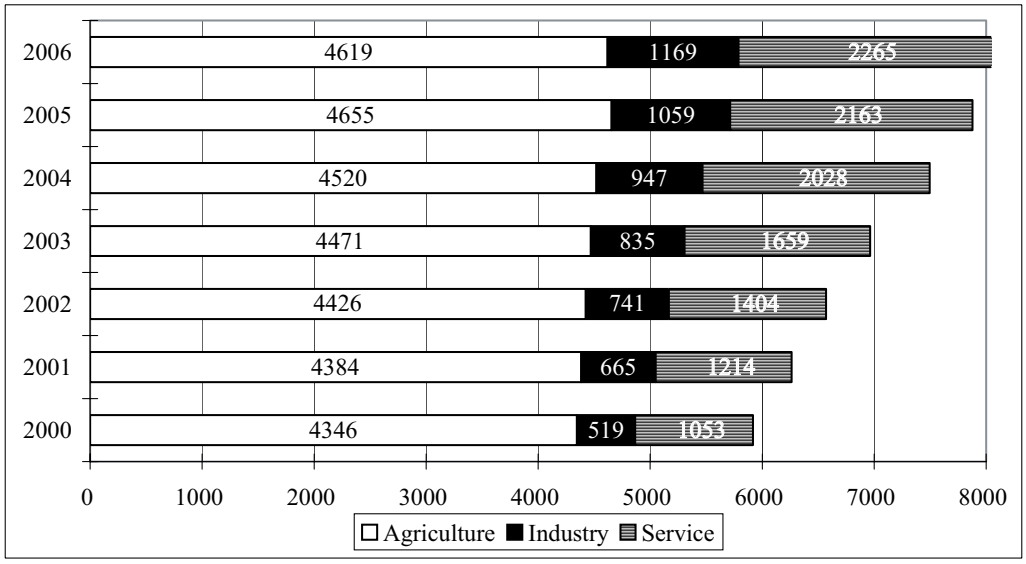
Figure 2.17: Growth of Labour Force



Source: NIS

The labour participation rate was 57.2 percent in 2006. Total employment reached approximately 8 million, about 2 percent more than in 2005, which merely kept pace with the population growth. The number and proportion of people employed in industry and services grew, while those in the agricultural sector declined, reflecting development of the economy. Agriculture accounted for 57.4 percent of total employment in 2006, industry and services for 14.5 and 28.1 percent, respectively.

Figure 2.18: Employment by Sector, 2000–06 (000s)



Source: NIS

Figure 2.18 shows employment in each sector of the economy. Agriculture, which employs the majority of the population, has not been able to absorb many new entrants since 2000; employment in this sector declined marginally in 2006. During the same period, employment in industry and services expanded gradually. This seems to reflect the fact that most of the new labour force are interested in employment in sectors outside traditional agriculture. This is confirmed by a number of recent CDRI studies on poverty (MOPS, Participatory Poverty Assessment, The Effect of Regional Economic Integration on Poverty Reduction) which showed that Cambodian rural youth are increasingly migrating to urban areas and neighbouring countries in search of employment. Female migrants usually take jobs in garment factories while male migrants usually work in construction. The studies also showed that the number of petty traders had been increasing for several years.

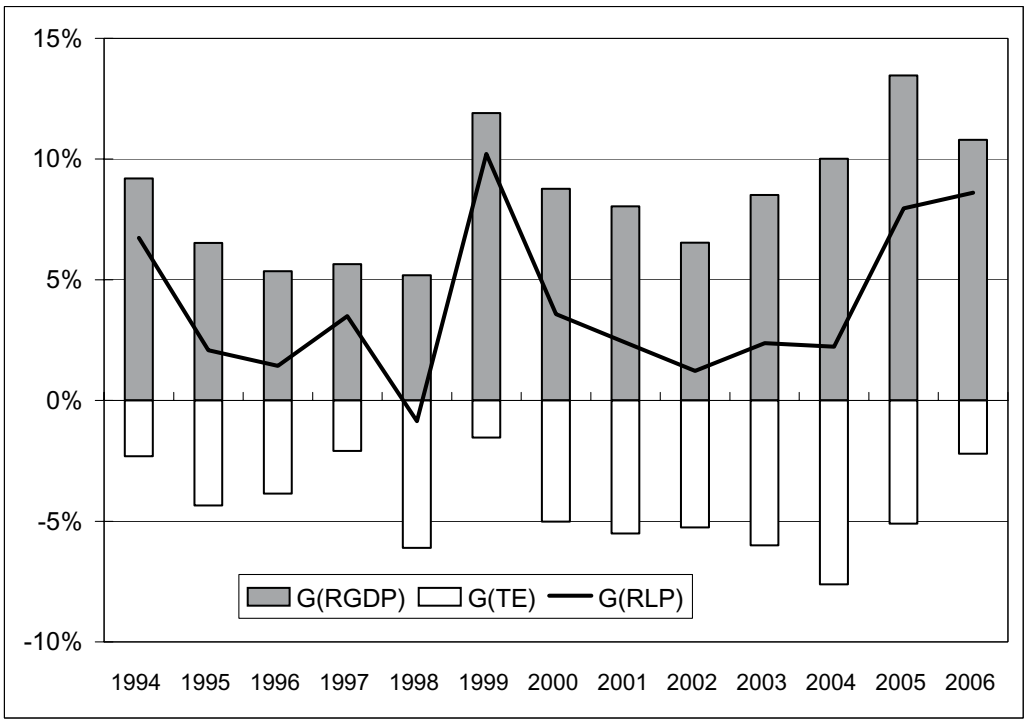
The Rise and Fall of Labour Productivity

In Figure 2.19, the line shows the growth rate of labour productivity, and the bars represent the GDP growth rate and total employment growth rate. On average, GDP grew by 8.1 percent during the past decade, making Cambodia one of the fastest growing economies in the region. During the same period, total employment rose by 4.5 percent thanks to a high

rate of population growth over the past two decades, which translated into an increment of roughly 221,000 new labour force participants per year. Consequently, productivity, calculated as output per worker, increased by 3.6 percent annually over 1994-2006.

The growth of labour productivity, however, is not stable over time. Figure 2.19 illustrates that productivity enjoyed modest growth over 1994 to 1997, but experienced a decline in 1998, then recovered markedly in 1999 and continued to post positive growth in the years that follow. Many factors accounted for these fluctuations.

Figure 2.19: Labour Productivity (2000–06)



Source: NIS

The productivity growth during the mid-1990s was driven by increased productivity in industry and services, largely thanks to the restoration of peace and the transformation into a market economy. Internal conflict in 1997 and 1998, however, caused industry and services growth to slow, ultimately leading to a decline of these sectors.

Since 1999, the return of peace and stability coupled with most favoured nation and Generalised System of Preferences status granted by the US and EU contributed significantly to the growth of industry, especially garment manufacturing, and the expansion of services, underpinned by tourism. However, the productivity of these sectors has not risen as much during the same period. This was due to a rapid increase in the labour force, specifically in industry and services, as a consequence of high growth in the economically active population as the large cohorts born in the 1980s reached working age. Despite

the relatively low productivity and low growth of agriculture, a large proportion of the population remains engaged in this sector.

Vulnerable Workers

This section is based on data gathered by regular vulnerable worker surveys conducted by the CDRI. The study focuses on the earnings of vulnerable workers and their impact on poverty reduction. In recent years, urbanisation has accelerated because of rapid population growth and the increase of economic activities in Phnom Penh. According to a report from the Planning Department of Phnom Penh municipality 2004 (Phnom Penh Municipality 2004:6)53.9 percent of immigrants come to Phnom Penh because the city has the most jobs, studies, facilities, services and security.

CDRI's survey was enlarged to 10 groups in 2000, while there were only four groups in 1998, when the surveys began. The six new groups were motorcycle taxi drivers, unskilled construction workers, skilled construction workers, waiters and waitresses, garment workers and rice-field workers. Forty workers are surveyed in each group except for garment workers, of whom 120 are interviewed. The interviews are conducted in or around seven large markets in Phnom Penh (Thmei, Olympic, Ou Russey, Kandal, Daeum Kor, Tuol Tumpung and Chbar Ampov).

The survey in 2006 found that average nominal earnings for all 10 groups were around 8000 riels per day, a 3.6 percent decrease from the previous year. The major cause of the decrease was reported to be an increase in the number of migrants from rural areas, particularly from poor households. Nevertheless, four groups (waitresses and waiters, rice-field workers, porters and garment workers) improved their earnings compared to the previous year. The survey found that 65 percent of workers from the countryside in the sample had a hectare or less of productive land, and 18 percent were landless.

In 2006, nominal daily earnings of rice-field workers increased by 26.8 percent to 6305 riels compared to the last surveys in 2005. This was the highest figure since the surveys started in 2000. The improvement was perhaps due to the rapidly growing economic activities in the city absorbing workers, especially youth, from rural areas; rice-field workers became scarce because many people had migrated to the city. However, 24 percent of rice-field workers reported that they were in debt. Mostly they borrowed cash from landowners and repaid with labour at low wages. Sixty-seven percent of rice-field workers interviewed had a hectare or less of agricultural land and 26 percent were landless.

The garment industry is the main sub-sector providing work for rural-urban migrants; garment products are the core export item. In 2006, garment exports totalled USD2.5 billion and employed 330,000 workers (World Bank August 2007), mostly poor rural women who support their families. In total, an estimated 1.7 million people depend directly and

indirectly on the garment industry. According to the CDRI surveys in 2006, the nominal daily earnings of garment workers increased by 9.2 percent compared to the previous year, to 10,500 riels (Table 2.10). Their real daily earnings increased by 6.6 percent to 8893 riels. However, this was lower than the wage in 2003 and 2004. The major reason for the increase from 2005 to 2006 was the increase of the minimum wage from USD45 to USD50 and the rising hours of employment, to approximately 60 hours per week, compared to 58 hours in 2005.

To help factories increase workers' wages, the government reduced the export management fee by 10 percent, according to the report from Garment Manufacturers Association of Cambodia in January 2007. Garment workers work primarily to support their families and themselves. Ninety-four percent of garment workers reported that remit money home (USD10–20 a month), and the other 6 percent earned just enough to live. About 60 percent of garment workers reported that they had started work with no skill or training; 25 percent reported that they had been trained beforehand in the private sector; the other 15 percent received training in their homes.

Table 2.11: Wages of garment workers

	2001	2002	2003	2004	2005	2006
Monthly wage (USD)	62.4	63.15	67.56	64.29	59.3	66.24
Nominal daily earnings in riels	8483	9087	9888	9945	9600	10,484
Real daily earnings in riels—base November 2000	8479	8770	9527	9138	8338	8893
Percentage change USD	1.6	1.2	7.0	-4.8	-7.8	11.7
Nominal percentage change in riels	7.8	7.1	8.8	0.6	-3.5	9.2
Real percentage change in riels	6.3	3.4	8.6	-4.1	-8.7	6.6

Source: CDRI, quarterly survey of 120 garment workers

Nominal daily earnings of waiters and waitresses have been increasing since the surveys started in 2000. Their nominal daily earnings in 2006 increased by 7.3 percent compared to the previous year. The amount was nearly double that of five years earlier. Mostly, the migrants were encouraged by restaurant owners who were relatives or by persons who were neighbours of restaurant owners to become waiters and waitresses in the city. Compared to other groups of vulnerable workers, they did not spend much of their income on food; they are provided with three meals a day. Eighty-two percent of waiters and waitresses said that a part of their earnings goes to improve their family's living standard.

Daily earnings of porters increased several times during the past three years. In 2006, the earnings reached 7771 riels per day, 3.7 percent higher than in 2005. All porters interviewed migrated from rural areas. Sixty-two percent were single and aged less than 25 years.

Sixty percent of the porters had attended primary school, 30 percent had attended lower secondary school, 2 percent had attended high school, and 8 percent had no schooling. Seventy-nine percent of porters stated that they cannot save money to start their own business when they stop working, while 21 percent said they can.

According to the municipality of Phnom Penh, the value of construction approvals in 2006 decreased by 10 percent from the preceding year to USD323.3 million (CDR July-September 2007). The number of construction project approvals declined accordingly. This perhaps contributed to the decrease in the daily earnings of skilled construction workers, by 10 percent from the previous year to 12,250 riels. The earnings decline was also due to an increase in the number of workers, according to 82 percent of the interviewees. Data from the IMF are that employment in the construction sector reached 260,000 in 2006, an 11 percent increase compared to the previous year (IMF August 2007). Of the skilled construction workers, 33 percent were single, aged 17–25 years; most had attended primary school. Although, 64 percent of the workers became better off and provided some money to improve their families, while 31 percent stayed the same and 5 percent were worse off.

Daily earnings of unskilled construction workers declined by 6.9 percent compared to 2005. However, they were 7.2 percent higher than in 2001. The reason for the drop was fewer working days; they had worked 15–20 days a month. Of these interviewees, 35 percent said that they had made their families better off; 59 percent said that their family had stayed the same; and 6 percent reported that their families were worse off.

The nominal daily earnings of motorcycle taxi drivers dropped by 18.5 percent to 9734 riels in 2006, the reason likely being an increase in the number of motorcycle taxis and competition from other transportation, especially the increasing number of tuk-tuks. Incomes of 90 percent of motorcycle taxi drivers were not enough to support their families, although they had limited their food spending to 4100 riels per day. However, 27 percent had saved some money to run their own business when they stop driving. The other 73 percent replied that they cannot save money; they earn just enough for food. Twenty-two percent said that they occasionally cannot even buy the food they need due to problems such as their motorcycle being too old, which made it not appealing to potential customers.

Daily earnings of small traders fell from 8308 riels in 2005 to 7125 riels in 2006. The reason was not clear. Some stated that it was because of the increase in the number of traders; others complained about selling places not being fixed. Generally, small traders left home around 3:00 am to buy their commodity and returned home at 5:00 pm. Thirty-seven percent of small traders were single. Some had dropped out of school but others said their home was near or in the city so they could still study. Thirty-one percent of small traders had never attended school, while 58 percent had attended primary school and 11 percent had or were studying in secondary school. Seventy-five percent of small traders said they migrated from other provinces and the other 25 percent were from Phnom Penh. The

cause of migration was a lack of productive assets for family production. The survey found that 44 percent of small traders were landless and 51 percent had productive land of less than a hectare, insufficient to support a family. On average, small traders spent about 2500 riels per day for food and approximately 106,000 riels per month for total spending.

Since the 1998 CDRI survey, the earnings of cyclo drivers have fluctuated. After increasing by 11 percent in 2005, they declined by about two percent to 8863 riels in 2006. Most cyclo drivers spent from 2000 to 2500 riels per day to hire a cyclo. Fifty percent of cyclo drivers stayed in cyclo owner's house; 38 percent slept in the cyclo wherever they stopped; and the other 12 percent stayed in rented houses or their own house. Cyclo drivers complained that the cost of living was increasing and making them spend much more. In 2006, their spending for food increased by 5.6 percent to 4000 riels per day. Therefore, they did not have savings to send home.

In 2006, the daily earnings of scavengers decreased by 6.4 percent, to 5243 riels. But this was much better than in 2000–04. Declining rubbish prices were the cause of the fall in income, according to 88 percent of the scavengers surveyed. Most scavengers complained that dumps place were like hell; they worked in smoke and mud (during the rainy season) up to their knees. Moreover, some scavengers worked at night by burning lights. It is the worst working environment and easily affects their health. Scavengers spent about 2400 riels a day for food; some picked food from the dump to eat. The middlemen said that the prices of recycled material declined because the prices of exports to Thailand and Vietnam fell.

In 2007 up to May, the average daily earnings of the 10 groups improved by 16 percent to 9300 riels. Eight groups' earnings increased. The survey found that 57 percent of vulnerable workers were happy working in Phnom Penh; their earnings could make their families better off. Thirty-eight percent said that their family livelihood did not improve; only five percent stated that their families became poorer (most of them were landless). The vulnerable poor find it easy to become indebted; 21 percent of respondents were in that situation. They borrowed from NGOs, moneylenders and micro-finance institutions. Some repay by labour, such as working in rice fields. The loans were charged a high interest rate for short periods; some scavengers and small traders had borrowed 10,000 riels and repaid 500 riels a day, the total (12,000 riels). being repaid in 24 days. Thus, the interest rate is about 25 percent per month.

Incomes of garment workers went up by 12 percent because of working overtime on the basic minimum salary of USD50. Nevertheless, some of the workers stated that prices were quite high, and therefore their real wages did not change much. In 2007, they spent USD38 per month, 12 percent more than in the 2006 surveys. Ninety percent saved an average USD23 a month to support their families while the other 10 percent could not.

2.4. Conclusions and Outlook for 2007

Cambodia's economy, despite its narrow base, continued to register considerable growth in 2006. The economy was underpinned by the expansion of garment manufacturing and by a tourism boom. The linkages between these two industries and other sectors remain thin. Given changes in international policies governing trade in textiles and clothing, ongoing efforts to increase productivity and competitiveness of the garment sector, as well as to diversify exports, are essential to promote further economic growth. Cambodia should strengthen the linkages between agriculture and garments and tourism by investing in supporting industries such as cotton plantations and vegetable and meat supply, which will result in employment and income generation. Another agro-business potential is growing cassava, for which there is increasing demand from China. Another sector with significant potential is mining. Geological and mineral studies indicate that Cambodia has significant minerals including bauxite, gemstones, solid fuel, metallic and non-metallic minerals besides recently discovered oil and gas in the Gulf of Thailand. Due to war and internal conflict, these resources have not yet been extensively explored and developed.

Because its sources of growth remain narrow, Cambodia's economy is exposed to risks arising from the changes in the global market. To reduce such vulnerability, more domestic investment, particularly in small and medium enterprises, is essential. Although economic growth during the past decade has been strong, its link to poverty reduction remains weak. The challenge is to strengthen this linkage. To make growth more pro-poor, policies to promote faster agricultural development and to generate employment are crucial. Such policies should include diversifying agriculture into labour-intensive high-value crops, improved marketing systems, better storage facilities and easier access to credit for small farmers. Employment-generating policies may consist of increased off-farm employment through promotion of small and medium enterprises and improved credit access for small entrepreneurs.

GDP is expected to grow by about 9.5 percent in 2007. Growth is coming from all sectors, but is still heavily dependent on industry, led by garment exports, and services, led by tourism. Agriculture is anticipated to grow by about 4.5 percent, with crops and livestock the leading sub-sectors. Industrial growth is projected to moderate to about 12 percent. Textile manufacturing and construction are expected to grow by 15 percent, while the other sub-sectors are anticipated to expand by the average growth of the past four years. Growth in services is expected to remain at about 10 percent. Major contributions to services growth are projected to come from trade, hotels and restaurants and transport and telecommunications, which are closely linked to the tourism industry. Cambodia's external trade is expected to increase steadily in the coming years and to play an even more important role in the economy. Imports are expected to increase further in response to increasing demand as a result of high economic and population growth. Exports are also expected to increase, especially textiles and clothing products. Given changes in

international policies governing trade in textiles and clothing, ongoing efforts to increase productivity and competitiveness of the garment sector, as well as to diversify exports, are likely to promote further economic growth.

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Chapter 3

Irrigation Water Use in Takeo Province: Problems, Conflicts and Solutions

by:
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Chapter 3

Irrigation Water Use in Takeo Province: Problems, Conflicts and Solutions

3.1. Introduction

Located in the Greater Mekong Sub-region, Cambodia has plenty of water to support both people and agriculture, which accounts for approximately one-third of the country's GDP and employs almost two-thirds of the work force. The government, therefore, has considered agriculture as one of the major engines of growth and poverty reduction. The water sector has been prioritised as a driving force of agricultural growth. However, only a fraction of total agricultural land is irrigated. According to the *National Strategic Development Plan 2006*, the irrigated area is estimated at 20 percent of agricultural land, while the *Cambodia Human Development Report 2007* reports 7 percent.

In Cambodia, irrigation is mainly used for dry season rice farming. Wet season farming, which produces approximately 80 percent of the total crop, relies on rainwater. According to the Ministry of Agriculture, Forestry and Fisheries (MAFF), in 2006 total rice yield was estimated at 6.3 million tonnes, an increase of five percent from the previous year. The reason for this increase was partly the expansion of irrigation, according to MAFF. Despite its potentially important role, however, irrigation still receives little investment from either the state or the private sector. The World Bank's 2006 *Cambodia Poverty Assessment* emphasises improved irrigation infrastructure in increasing paddy yield and argues that more public investment is needed to strengthen irrigation management.

Cambodian irrigation schemes, to date, have been unable to hold their full storage capacity because reservoirs have been deteriorated and leaking, limiting water for farming. Irrigation issues often go beyond limited water to water governance and conflicts. Thun and Chem (2007) argue that answers to the existing problems generally depend on a package of governance, technical design and popular participation.

Recognising the importance of irrigation, the Cambodia Development Resource Institute (CDRI), with support from the Economy and Environment Programme for South-East Asia (EEPSEA), conducted research on irrigation water use and related issues. This paper aims to present practical options that may be useful to a wide spectrum of readers, from policy makers to extension workers.

The study's main objectives were to understand the water use problems confronting irrigation projects. The specific objectives are 1) to provide an overview of irrigation systems with a focus on Takeo, 2) to study irrigation water use and conflicts and 3) to find possible solutions to irrigation constraints.

This article is divided into four sections. Section 1 introduces the study. Section 2 provides information about the methodology. Section 3 analyses data from the survey and discusses the findings, focusing on problems, conflicts and solutions. Section 4 summarises the key points and makes recommendations for improving irrigation systems.

3.2. Methodology

The research team collected and reviewed documents relevant to irrigation water governance including water laws and prakas (proclamations) on the establishment of farmer water user communities (FWUC). Secondary data were collected from governmental institutions and other agencies working in irrigation. The research team worked closely with the Ministry of Water Resources and Meteorology (MOWRAM) and relevant provincial departments in Takeo in order to access important records and procedures.

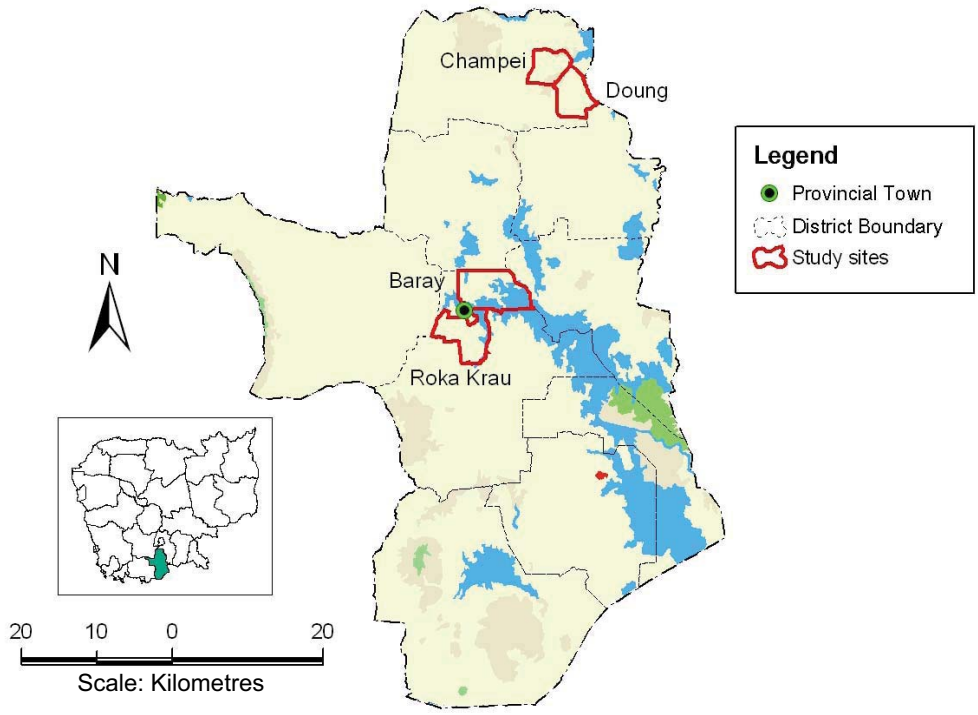
Proper statistical systems for Cambodian irrigation and related issues have yet to be developed. In order to obtain the necessary data, a field survey was conducted in five irrigation schemes in Takeo in January 2007. The survey used the participatory rapid appraisal method. The principal philosophy of this is to listen to target people and involve them in a joint learning process.

Focus group discussions, key informant interviews and farm household surveys were used to collect primary data. Focus group discussions and key informant interviews were used to collect data about the history and management of studied schemes. Meanwhile, a questionnaire was developed to collect farm data.

In 2006–07, the top five rice farming provinces produced more than half of the total yield (both dry and wet season). Takeo was second in total yield but first in dry season rice yield and productivity. The good performance of the province is partly due to the presence of various official aid organisations rehabilitating irrigation infrastructure and supporting locally managed irrigation schemes. The major reason for this support is that Takeo was chosen by the MAFF as a model province for agricultural development.

This study selected five irrigation schemes in Takeo: Sampoch in Champei commune, Dang Kngorm in Roka Krau, Daeum Krolanh in Doung, Chroy Samraong in Baray and Svay Kham in Doung. The province was selected for the study based on two criteria. Firstly, it is a major producer of both wet season and dry season rice. Secondly, irrigation projects in this province are known to have conflicts. The accompanying map of Takeo province shows the studied sites.

Figure 3.1: Map of the Studied Areas



In order to investigate governance issues, the study selected for interviews two to three representatives from commune councils (CC), five to 10 from FWUC and three to five from FWUC committees (FWUCC). Four representatives of provincial government (two from the provincial Department of Water Resources and Management (PDOWRAM), one from Provincial Department Of Agriculture (PDOA) and one from the Seila programme[1]) were also interviewed.

In order to make an in-depth study about water use conflicts, problems and solutions, two schemes were selected; Sampoch and Dang Kngorm. A total of 110 households (55 from each area) were interviewed with a standard questionnaire. A random sampling technique was used to select 150 households—more than required in order to allow for cases of not being able to interview busy households, which did happen.

[1] The Seila programme is an aid mobilisation and coordination framework for support to Cambodia's decentralisation and deconcentration reforms.

The field study was divided into two phases. In the first, researchers investigated the five irrigation sites on issues related to the management and institutional arrangements of the schemes. In phase two, the researchers focused on Sampoch and Dang Kngorm to study farmers' satisfaction with the performance of FWUCC.

3.3. Results and Discussion

3.3.1. Overview of Irrigation, Focusing on Takeo

In Cambodia there are more than 2000 irrigation schemes, which can potentially irrigate more than one million hectares (MOWRAM, 2003). Most irrigation schemes were built during the Sihanouk period and especially the Khmer Rouge period, but do not function well due to poor design and serious deterioration due to lack of maintenance during the civil war. Subsequently, there has been a lack of financial and technical support.

After 1985, the government encouraged popular participation in the maintenance of irrigation infrastructure by providing farmers with diesel pumps, oil and construction materials. In 1994, the government embarked on a programme of transferring the responsibility for operation and maintenance (O&M) of irrigation systems to FWUC. MOWRAM was established in 1999, and its Prakas 306 in June 2000 formalised FWUC. From 2000 to 2005, there were 328 FWUC (covering some 151,120 families) established and functioning in the whole country, but only 114 FWUC registered. They covered a land area of 184,578 ha of wet-season and 67,916 ha of dry-season paddy fields.

As in some other provinces, most irrigation reservoirs in Takeo were built in the Sihanouk period and poorly maintained subsequently. In Takeo, 41 of 92 schemes have been rehabilitated with support from donors through the government. In those schemes, there are 26 formal FWUC, covering 44,987 families. Even after rehabilitation, some problems are still evident: for example, irrigation infrastructure is still physically poor and poor management of water distribution due to poor technical design and low popular participation in O&M.[2] Individual politicians are sometimes involved, e.g. by providing financial support for rehabilitation and O&M.

Of the five irrigation schemes under this study, Dang Kngorm and Chroy Samraong have irrigated areas larger than their potential, the estimated area able to be irrigated based on the amount of water in reservoir, (Table 3.1) due to enlarged cultivated area –meaning that the schemes do more than possible. As a result, there is high competition for water, leading to insufficient amounts for each farm. This is one of the reasons for low paddy yield per hectare compared to the other schemes.

[2] "Annually the department receives about USD30,000 [development budget] from the government, which is enough to build only one or two medium canals". Interview with Takeo DOWRAM deputy director.

Table 3.1: Irrigation and Irrigated Area (Potential and Actual in Dry Season)

Scheme	Sampoch	Dang Kngorm	Daeum Krolanh	Chroy Samraong	Svay Khom
Built (year)	1960s	1962	1976	1962	1973
Potential to irrigate (ha)	214	150	150	430	857
Actual irrigated area (ha)	143	525	92	748	580
Yield (t/ha)	3.0	3.5	2.5	2.0	2.5
Beneficiaries (HH)	103	345	351	851	1000
Estimated O&M, '000 riels	2700	3500	2000	2500	5000

Source: CDRI survey, 2007

Except for Dang Kngorm, all the schemes receive technical and legal support from the PDOWRAM. As for financial support, even though the government promised to contribute to O&M costs over five years, none of the schemes has received the contribution. Therefore they have to depend primarily on contributions from FWUC members, mainly through the irrigation service fee (ISF). However, the ISF collection is just only enough to pay for about one-third of O&M". Insufficient funds for O&M are a serious threat for the sustainability and strength of schemes.

Because it does not receive support from the PDOWRAM, Dang Kngorm is an informal FWUC which is run by a village chief, while the others are run by democratically elected leaders. Although Dang Kngorm does not receive formal support from the PDOWRAM, it can consult PDOWRAM officers using the personal relationships of members.

3.3.2. Problems Encountered

There is a period of joint management in order to establish, register, train and strengthen the FWUC. The ideal is to have FWUC that are capable of managing, but FWUC still face various challenges after management transfer.

The most common problems are financial, technical and participatory. Different schemes have different degrees of difficulty. Based on 18 FWUCC members' evaluations, financial issues are ranked first, followed by participation and technical constraints (Table 3.2).

Table 3.2: Degree of Difficulty

Items	Min	Max	Mean
Financial	5	10	8.15
Technical	2	9	5.08
Participation	3	10	6.92

Scale: 1 the least serious , 10 the most serious.
Source: CDRI survey of FWUCC members, 2007

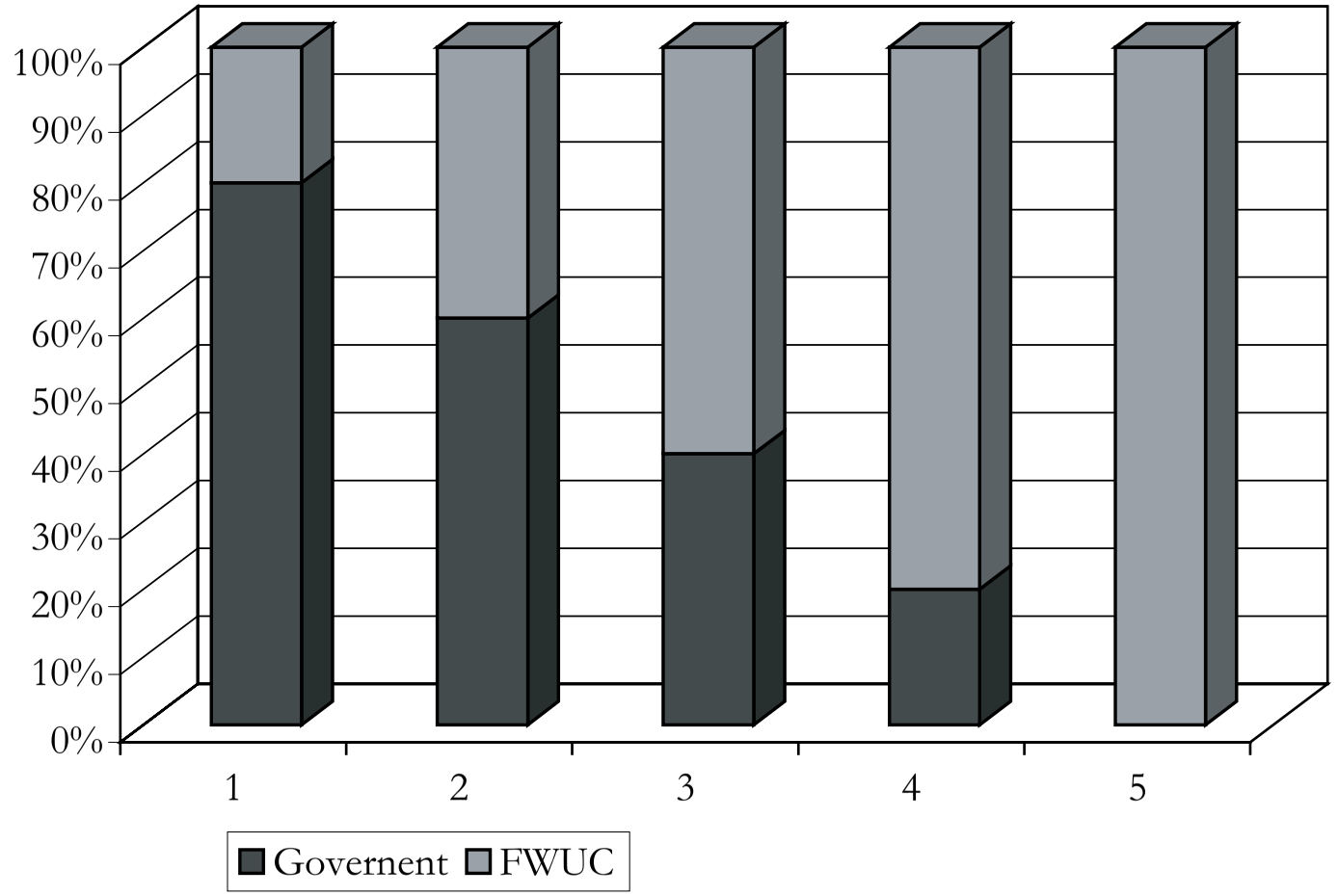
The study shows that financial limitations are the issue that concerns FWUC the most. Generally, community efforts are not sufficient, resulting in consistent calls for external intervention. Often external interventions are late, and small repairs and maintenance are usually neglected by outsiders until the situation gets serious. However, FWUC with social capital—especially when someone in the community knows an important, rich and influential individual—can speed up intervention.

Below this paper discusses financial issues and other matters key to sustainability that were raised by FWUC during the field survey. The issues are classified into five groups: (1) financial constraints and lack of incentives, (2) low popular participation, (3) inappropriate technical design, (4) inappropriate leader selection and (5) weak institutions and lack of law enforcement.

3.3.2.1. Financial Constraints and Lack of Incentives

FWUC are allowed to receive revenues from four sources: (i) ISF collection, (ii) assistance or credits from the government, international organisations and non-government organisations, (iii) profits from business operations of the community and (iv) various levies and fines. Figure 3.2 shows a scenario of financial contributions from FWUC and the government to O&M.

Figure 3.2: Planned Financial Contributions to O&M



The study found, however, that FWUC cannot receive support from all of those revenue sources, while they experienced difficulty in generating sufficient funds from the community. External financial support comes in occasionally and insecurely. For this reason, O&M faces serious problem when people do not pay the ISF.

Difficulty in mobilising local resources is partly caused by farmers not being accustomed to the system of water payment but to access water without charge or rules or regulations. Anecdotally, even though local people seem to support the formation of FWUC, they vote "for the committee, not for the water fees". Low ISF payment rates are also associated with the time of collection—collectors are busy with their own harvest and other activities, resulting in lateness of ISF collection. When farmers sold their products then the window of willingness to pay ISF is narrowed.

Poverty and power abuse also contribute to low ISF collection. Poor households often have farm land in disadvantaged areas, and low investment in inputs produces low yields, making them reluctant to pay the ISF. Also, some educated and powerful water users use their power and knowledge to avoid paying the ISF, setting a bad example. Moreover, due to lack of resources to measure land, FWUC depend on estimates and reports by owners about land holdings, resulting in inaccurate ISF being charged—a source of aggravation.

Low yield is another main reason for low rates of ISF collection. Many refused to pay because they claim their harvest cannot cover costs, even though they see that O&M is done well. This kind of refusal seems to happen also outside Cambodia. Pasaribu and Routray (2005) reveal in their study of East Java that farmers accept the amount set for ISF and are willing to pay to strengthen their water community, but in reality are unable to pay.

> *"I am a member of Sampoch FWUC. Last year, I needed to pump lots of water from the canal to obtain 3.2 tonnes from my one hectare of paddy field. I paid only 35,000 riels for water fees to the FWUC." (Interview, 6 January 2007)*

> *"We know the importance of having FWUC and want to contribute to O&M because we benefit from the scheme, but low yield makes it difficult for us to pay water fees. From what we get from rice farming, we can hardly cover the expenses, and some of us are even in debt." (Farmer focus group in Svay Kham)*

FWUC operate with limited budgets, which affects their ability to perform O&M and the sustainability of irrigation infrastructure. Low ISF collections translate into low pay for operators who take care of gates and do simple repairs. For example, the FWUC in Chroy Samraong has agreed to pay each operator 120,000 riels (approximately USD30) per year, but they receive only half that amount, which is far below the opportunity cost of their labour. Insufficient pay for operators is common in irrigation schemes; the pay was higher at the beginning of FWUC but has gradually decreased. In Svay Kham, each operator used

to receive about 120,000 riels in 2005 but this declined to 30,000 riels by 2006. The study found that operators were less interested in O&M jobs and need at least 160,000 riels per year to keep them serving in irrigation O&M.

As a result, in some irrigation schemes, FWUC begin to feel less motivated. Members gradually lose hope and motivation to stand in the next election due to lack of participation and the small benefit from their work. For example, a member in Chroy Samraong decided to give up his position in the FWUCC.

> *"I used to be enthusiastic in this job because, I think, I am experienced and well informed about the local situation, and I wanted to serve my people. But now I am less interested in this work because there is no incentive or popular participation. I will not stand as a candidate next time." (Interview with FWUCC chairperson of Daeum Krolanh irrigation on 4 January 2006)*

3.3.2.2. Low Popular Participation

In discussion, popular participation basically refers to two things. One is financial contributions from water users for O&M, and the other is O&M with a labour contribution from the community. However, financial contributions dominated the discussion in the five irrigation schemes.

According to the rules, financial contributions are based on the amount of cultivated land and how water is brought into the rice field, rather than the quantity of water or quality of service. For gravity flow water, the ISF is 100 kg of paddy rice per hectare, for half gravity flow and half pumped 70 kg/ha and for pumped water 50 kg/ha. However, in practice, the ISF is charged according to productivity. Not charging by the amount of water used is one reason that farmers use excessive amounts, leading to low efficiency of water application. "They open the gates and do not take care of the water properly, resulting in a flow of water beyond their needs and sometimes drying up the reservoir" (focus group discussion of FWUC in Doeum Krolanh).

A case study in the Indian state of Gujarat found that part of the reason for low efficiency is the highly subsidised price of irrigation water, which encourages its excessive application (Singh 2007)

Table 3.3: ISF Collection (in '000 riels)

	Formation year	2001	2002	2003	2004	2005	2006
Sampoch	2003	0	0	0	1200	710	356
Dang Kgnorm	1998	0	0	0	0	1200	300
Doeum Krolanh	2003	0	0	0	0	0	400
Chroy Samraong	2002	0	0	5000	0	911	0
Svay Khom	2000	3500	2000	0	0	0	0

Source: CDRI survey, 2007

All FWUC complained that water users do not pay the ISF regularly or in full. Generally speaking, FWUC members pay enthusiastically at the start but become less enthusiastic due to lack of immediate outputs and water delivery being still inefficient and unreliable. Due to lack of both financial and technical support, FWUC cannot produce immediate visible outputs, resulting in a perception of FWUC being useless.

Sampoch is an example of how participation has been reduced: 1.2 million riels were collected in 2004, 0.7 million in 2005 and 0.4 million in 2006. Table 3.3 illustrates declining enthusiasm over time; ISF pay is not only irregular but also decreasing. It is foreseeable that the FWUC will not be able to stand on its own but needs external support and stronger mobilisation of local resources.

Aside from limited financial contributions, local people do not contribute significantly to O&M, except for canals located close to their land or if they use the canals, which creates a greater sense of ownership and benefit. In 2007 the entire commune involved in the Daeum Krolanh scheme received land title certificates, but some rice fields have not been allowed the certificates because they are situated in the reservoir. While most farmers in the community received land tenure certificates, those who are not being able to obtain certificates feel less ownership on irrigation scheme and are not participating in term of paying ISF.

The Dang Kngorm dam was seriously damaged late in the2007 wet season and now cannot hold much water. This will mean a serious lack of water for dry season farming in 2008. The Dang Kgnom scheme was built in 1962 and slightly improved during the Khmer Rouge period. In 1996 rehabilitation was funded by the Australian government through AusAID. In 2002 the scheme was rehabilitated again by the MOWRAM with funding from the Asian Development Bank. This clearly indicates that, without proper maintenance, infrastructure can deteriorate after several years.

Lack of popular participation is also caused by the fact that FWUC are not formed from local initiatives (from people's wishes and community interests); rather they are pushed by

the PDOWRAM. Therefore it is hard to attract and retain locals in the work. With a sense of ownership, local people might be more willing to participate in O&M.

An interview with the Doung CC showed that local people contribute more money to pagodas than to FWUC. This implies that belief in future returns is crucial to people's participation. Belief also goes together with strong leadership by the achar (Buddhist priest). In some irrigation schemes, suitable leaders were not selected, leading to limited participation from FWUC members. Strong leadership is required to increase the sense of ownership and mobilise local resources.

> *"Villagers are more willing to contribute money to religious affairs than to FWUC. They walk to take money to the pagoda, but they refuse to pay water fees to the FWUC even though we try to meet them at their homes." (Focus group discussion with Doung CC members)*

Well-off farm households, including those having educated and high-profile members, do not participate when they have varied sources of income and are less dependent on dry rice farming. Some of them do not contribute at all, leading to refusal to contribute by the poor.

3.3.2.3. Inappropriate Technical Design

The physical conditions of most schemes are much the same as during the KR regime. Due to lack of repair and maintenance, the ability of systems to store and supply water is still problematic. In the absence of rehabilitation and maintenance, most reservoirs are becoming shallower and the dams gradually weakened. Shallow reservoirs mean limited water for agriculture. Lack of water in recent years is also associated with increased demand from larger cultivated areas and with drought. When the cultivated area is increased, there is a need to increase the volume of reservoirs.

Weak irrigation infrastructure is one obstacle to effective management of FWUC. According to site visits and interviews, none of the schemes are able to store much water, and the sluice gates are very old and can not easily manage water flows.

Apart from weak infrastructure, the systems were not properly designed. Due to inadequate construction methods and materials, particularly during the Khmer Rouge regime, many irrigation structures are harmful to water management (MOE 2005). This could be because they were constructed by forced labour, with little involvement of competent technicians.

The study found that there are a number of poorly designed canals that cannot direct water appropriately to paddy fields. As a result, water users sometimes break gates to get water. Four of the five schemes in this study experienced problems with sluice gates being broken by farmers.

Shallow canals, which are often a result of poor design and illegal occupation by farmers to plant rice, make it technically difficult to manage water distribution. Another problem is the geographical location not being appropriate; for example, some rice fields in Dang Kngorm are located in higher areas while canals are situated much lower, so that farmers have to pump water, resulting in high costs, especially when the gasoline price is high. However, farmers do not usually have to pump water for wet season rice.

In Sampoch, the scheme after repair and rehabilitation is still not appropriate, due to lack of consultation with community people. Now there is a need to lower the water gate, which may cost USD10,000. There is also a need for deeper canals so that water doesn't have to be pumped, as happened in the past.

3.3.2.4. Inappropriate Leader Selection

The statute specifies that FWUCC members are to be selected by local people through free and fair elections, and local farmers are assumed to be aware of the leadership qualities of the people they vote for. However, in some irrigation schemes the PDOWRAM also had some influence, proposing candidates.

In the Svay Kham scheme, water users were not supportive of the chairman in the first mandate. Personal qualities and high position in the community aid reputation, respect and trust in the ability to perform the job. In the second mandate, the local people decided to choose a new person whom they knew. Although the second person was very busy and involved in a lot of community work (the regulation says that persons who can stand as candidates for FWUC should not be involved in other group work) people are happy to have him as their FWUC chairman. Importantly, he lives closer to the reservoirs than the former chairman, making it easier to manage things in time. Generally, people perceive that the chairpersons should be male rather than female, partly due to the need for hard work, long hours away from home and security problems. So election and other criteria need to be flexible to produce a consensus among local people, because rules and regulations cannot completely reflect individual characteristics of a community. Having a consensus about leader among community people, community people can view themselves as decision makers rather than followers of existing models.

On the other hand, education seems to closely linked with recognition. "My water users do not trust me and my technical capacity because they think my knowledge is not much better than theirs" (interview with the former Svay Kham chairman on 4 January 2007). People feel trust in those with high education and want them to control the work. Of course, people also want those with high commitment, good attitudes and a good relationship with people in the community and those who have already produced good results. These criteria are important in enabling local leaders to convince and build trust with their people. Sedara

(2007) says that community associations will not work well unless their key members have good reputations and connections with other associations.

> *"I think people voted for me as FWUC chairman because they trusted me. They believed that I can do the job. Another reason is that I am more educated than many in this community and involved in various activities inside and outside the commune: Svay village chief, chief of the village bank, a member of the CC evaluation committee, a member of the planning committee for Seila." (Interview with FWUC chairman of Svay Kham irrigation scheme, 5 January 2007)*

3.3.2.5. Weak Institutions and Law Enforcement

The creation of FWUC reflects the government's will for decentralisation. They are expected to ensure effective irrigation development and management. However, there are a number of constraints on FWUC irrigation management. FWUC have been established very carefully, with backup of a legal framework, statement of purpose etc, but are still internally weak.

According to chapter 7 of the statute, punishment is applied to both ordinary and committee members in a number of cases, including absence from meetings, denial or irregular payment of water fees, refusal to contribute labour when asked by FWUCC, illegal diversion of water, opening water gates without permission, damaging of canal systems or cutting dikes, catching fish, waste of irrigation water and so forth.

The punishment is in the form of warnings, fines, cutting of water supply and legal action. In practice, however, most of these punishments do not exist. The study found that FWUC know abusers but prefer to keep silent because often they cannot solve problems without support from the CC and also fear revenge from offenders. In general, action by CCs is slow, which discourages people from reporting things to CCs.

The building of community irrigation management is not appropriate because it does not take into account all important aspects of effective institution building (Perera 2006). Institutional problems within the current FWUC management include financial problems, lack of law enforcement, poor institutional capacity and lack of incentive.

The process of FWUC formation was solid, but there were weaknesses in strengthening, sustaining and taking over management. The study indicates that the five schemes consistently call for support in capacity building and institutional strengthening. In the current situation, links with local administrative institutions contribute to water management and the strength of FWUC. FWUC cannot work well without support from CC, but these relationships impact on the former's independence.

Although FWUCC members have received some training from the PDOWRAM, it is not enough because of the lack of follow-up. Currently, FWUC are on their own in

learning by doing. They need leadership development, participatory decision making and conflict resolution, proper conduct of meetings, record keeping, resource mobilisation, communication and coordination.

FWUC are often confronted with low capacity in financial management, resource mobilisation, leadership and coordination. These became reasons for one CC to take control over the finances of one FWUC. Another serious case in a different scheme was that of a CC leader ordering the FWUC leader to give him money without reason. This was known to many, but there was still no push for more transparency.

Another abuse of rules and regulations is the enlargement of farm land by moving into canals, making the width of canals smaller and secondary dams narrower. "The rich and influential people, including teachers, are smart at grabbing public canals. That is why they are richer than us. We reported this to the commune council but there is no solution so far" (focus group in Chroy Samraong). This constrains the flow of water and creates a high possibility of breaks in the secondary dams.

Farmers cannot solve this problem themselves, and they wait for intervention from higher levels such as commune councils, the PDOWRAM and especially the provincial Department of Land Management and Urbanisation. Again, actions are rarely taken on complaints or at least are very slow. There is a need for a mechanism with legal capacity and enough resources to resolve issues quickly; otherwise irrigation will not progress.

3.3.3. Water Use Conflicts

Lack of irrigation water for rural communities is emerging as a cause of conflict. With limited amounts of water in reservoirs, an enlarged cultivated area increases competition for water. Under such circumstances, it is hard to think about equal distribution and access among beneficiaries. Another challenge is inefficiencies and inequities in how water is used. Rice farmers want to use water differently from fisherpeople, resulting in conflicts between these two groups.

3.3.3.1. Conflicts among Rice Farmers

Conflicts in irrigation happen both before and after rehabilitation of schemes. In general, before rehabilitation the main problem is lack of water due to low holding capacity and wastage. After rehabilitation, the water supply is still inadequate, due to increased cultivation, not to mention the lack caused by low rainfall. Conflicts include times for opening water gates, water flowing across other farmers' rice fields, canal invasions by farmers that block water flow and illegal opening or damaging of water gates.

Conflicts often occur between upstream and downstream farmers regarding water allocation and because of the anxiety to get water as soon as possible. Conflicts also occur due to cultivation inside reservoirs. People inside the reservoir need the water to flow out in order to prepare for dry season farming. At the same time, farmers outside the reservoir want to keep water because of worries about insufficient water at the end of the dry season.

The scope of conflicts varies from community to community with the scale of irrigation and a multiplicity of other factors. Where irrigation covers different villages, the problems are related to where the water gate is and where the operator lives. An operator sometimes tries to protect the farmers of his community at the expense of other communities. "The operator did not want to open the gate for us because his commune wanted to keep the water high to avoid the cost of pumping water to their rice fields" (farmer focus group in Svay Kham).

Water allocation timing is a problem faced by FWUC because downstream farmers are impatient and worry about being late in cultivating and about water run-off. The worry of downstream farmers is that late cultivation often encounters serious problem from rats.

It is often difficult for farmers from different communities to agree on a schedule of water flows and allocations, especially when water is insufficient. Mutual understanding is limited, and many water users are individualistic and pay little attention to collective action. This results in tension between communities every year and sometimes leads to violence. Tension and violence are harmful to water management, resulting in waste of water and low yields from cultivated land.

> *"Villagers come from far away to release the water for their rice field without permission from the gate operator and even when it is not their turn. We cannot stop them because they need the water and threaten to fight us if we stop them. We cannot be strict with them because we do not want to die and leave our families behind." (Focus group discussion of FWUC in Doeum Krolanh)*

3.3.3.2. Conflicts between Rice Farmers and Fishermen

Irrigation is often a source not only of water for farming but also of fish. In 2001 and 2002, the local authorities leased the fishing rights over the reservoir of the Svay Kham scheme to a private entity. Fishing fees used to contribute 1–2 million riels a year to Svay Kham. There are conflicts between farmers and the fishing entity over when to let water flow out of the reservoir.

Then there was a collective action by the FWUC to pressure the local authorities to cancel the fishing rights of the private entity. After fishing rights were returned to the community, the FWUC managed water for farming but could not collect fishing fees. The fishing families are mostly landless and among the poorest in the community.

FWUC also face challenges from small fishers who use illegal gear, such as electric devices. It is reported to be difficult to stop illegal fishing due to lack of resources for patrols by security forces. FWUC members can be watchdogs but can do little because of threats of violence from illegal fishermen.

3.3.4. Possible Solutions

Financial contributions would be higher if the importance of ISF were better explained to farmers, charges were fair to different groups of water users and collectors sought fees straight after the harvest. Thun and Chem (2007) ague that there is a need (1) to set ISF at a realistic level according to locality and gradually increase it to the level of O&M costs, (2) to help farmers understand the link between ISF and O&M and (3) to produce a simple cost-benefit analysis for farmers. Meanwhile, there is a need for the financial, technical and legal capacity to measure land holdings so that FWUC can be more accurate in charging users. Financial management should more independent of CCs.

Increased ISF collection would increase incentives for those involved in O&M work. This would allow some villagers to continue to work on O&M because they use irrigation water and in addition could receive intangible benefits, which include appreciation, reputation and respect from local people. "I appreciate FWUCC members because they carry out unpaid work. I believe they are the ones who truly care about people because they sacrifice their own time and energy", said a Doung CC member.

The study found that FWUC and commune authorities are very related and complement each other. For example, in some irrigation schemes, village chiefs are selected by farmers as the leaders of water groups; in other schemes, village chiefs play a crucial role in pushing water users to pay the ISF; and in other cases, commune chiefs are de facto advisers of FWUC. These links are seen to make FWUC functional because village chiefs and CC have been involved in this work since before the establishment of FWUC; they are experienced, well informed and used to the tasks.

Before the formation of FWUC, villagers solved problems individually, sometimes benefiting one individual and damaging another. Farmers in conflict used to complain to higher levels (provincial governors and sometimes the Senate or National Assembly) without trying to solve problems locally. This resulted in high costs. Since the formation of FWUC, villagers have been moving to solve problems collectively and through their FWUCC representative before they go to CC or higher levels. In some serious cases, FWUCC work with higher authorities, especially CC, to solve problems. If the CC cannot solve it, they submit complaints to the district or even province. In Daeum Krolanh in 2005, CC received seven complaints from villagers; four were solved in the commune and three were sent to the district.

In conflicts between communities, it is often hard for the parties to sit down together and solve their problem. They usually need to make a complaint to the PDOWRAM or a ministry. Usually, all parties accept the involvement of high authorities and are satisfied with the solution. However, solutions are often temporary, especially those provided by politicians, because politicians seek to win the favours of both parties.

In order to involve higher authorities in time, social relationships between FWUC, CC and PDOWRAM and individuals are important. However, farmers usually are satisfied with the solution provided by influential outsiders, partly because they could get some compensation for their losses. This is because those outsiders, mainly politicians, pay to farmers using their own resources while they do not expect that their community people have enough to pay as much as those outsiders do.

The interviews in the five schemes indicate that CCs play critical roles in three kinds of support for FWUC: (1) CC provide moral support to FWUC; (2) CC help to address water conflicts; and (3) CC help when FWUC want to seek help from outsiders. When the Daeum Krolanh scheme faces water scarcity, the CC goes to meet governors and FWUC in Bati district to request water on behalf of the committee – the two schemes are connected by canal and water can flow from one scheme to another.

CCs and village chiefs are important local leaders who exist in every commune and village, while other community organisations such as the pagoda achar committee and school support committee exist according to geographical conditions. A link with leaders backed by higher administration is the biggest contribution to the functioning of FWUC. "FWUC need three qualities for good management: to be influential (to make decisions, to command etc), to make people believe and trust, and to enforce laws and regulations. Current FWUC seem not to have those qualities, so they need to work closely with CC who do" (interview with Mr. Phart, of the Takeo PDOWRAM).

Healthy relationships with CC are good to an extent but often are used as a political tool by CC members and politicians to collect votes, because CCs are a political body. This often happens before and during commune and national elections and is an ongoing problem for FWUC that depend greatly on external support. In some cases, conflicts are managed politically, which is not good in the long run. Hirsch and Wyatt (2004) show that when a political approach is applied to conflict management, unequal power relations result in inequitable outcomes.

However, CCs do not serve as a strong backup, especially in sensitive conflicts, because CCs want to maintain popularity with villagers. "We asked the commune council to intervene in serious cases, but they do not solve problems between farmers because they are afraid of losing their popularity", said a focus group in Doeum Krolanh. In this regard, links with

local administration bodies may undermine the development of FWUC as an independent organisation.

Cultivated area should be according to the amount of water available in the reservoirs and when knowing water is not sufficient, negotiations to reduce cultivated area should been made. So farm negotiations have never been made and FWUC seem not to be able to reach agreement without external intervention. "We cannot negotiate on limiting cultivated areas because everyone wants to farm because they have no alternative. They fight for water when the time for allocation comes. Villagers do not listen to us because we are not more educated than them. They listen to higher people or the outsiders with high education" (FWUC in Doeum Krolanh).

3.3.5. Farmer Satisfaction with FWUCC Performance

3.3.5.1. Household Socio-Economic Profile

On average each household has six members; only 9.30 percent of households have females as heads. Most household heads were around 45 years old, about 90 percent married and 10 percent separated. Slightly more than 50 percent of heads did not attend lower secondary school, while fewer than 10 percent reached high school.

Most household heads (95.30 percent) were employed in agriculture. The others engaged in non-agricultural work inside or outside their villages—running small businesses, driving a motorcycle taxi, selling labour, construction work and so forth. Sampoch, which is far from the provincial town, had no household head working in the non-agricultural sector, while Dang Kngorm, which is close to the provincial town, had 8.60 percent of household heads working in the sector.

Table 3.4: Household Profile

			Unit	Dang Kgnorm	Sampoch	Weighted
HH size (mean)			Persons	5.9	5.9	5.9
HH toff-farm income			USD	947.0	301.0	651.0
HH farming	Rice	Income	USD	429.0	348.0	392.0
		Expense		209.0	216.0	212.0
	Livestock	Income		226.0	213.0	174.9
		Expense		206.0	126.0	125.0
HH head	Schooling	None	%	15.5	20.4	17.8
		Primary		38.0	28.5	33.6
		Secondary		43.1	38.8	41.1
		High School		3.4	12.2	7.5
	Gender	Male		86.2	95.9	90.7
		Female		13.8	4.1	9.3
	Occupation	Farming		91.4	100.0	95.3
		Others		8.6	0.0	4.7

Source: Calculated based on CDRI survey, 2007 (US$1 = 4000riels)

There are farmers who raise cattle as draught power, in particular to cultivate their land; in addition, they raise pigs, fish and chickens to earn extra cash. On average, livestock provide USD175 per year to families. Rice alone contributes USD392 per household per year. From the analysis, local farmers need to spend up to 125 dollars on livestock and USD212 on rice farming per year, of which about 70 percent is spent on inputs, hired labour and transportation while the other 30% spent on others such as (pumping) water, sawing and threshing. Animal husbandry has declined in recent years in the five irrigation areas because animal power is being replaced by machines, especially hand tractors, and because of concerns over animal diseases, including bird flu.

Greater availability of tractors induces competition, resulting in low charges for land preparation. A rough calculation during the study shows that land preparation cost is 5–10 percent lower using tractors than using animal power. Therefore there is less demand for animal power when there is competition from tractors. But probably, in north-west provinces, there will be a shift back to animal power when there is less smuggling of fuel, making it more expensive, and when machines start to break down. A shift back to animal power may also occur if demand for beef increases, allowing farmers to raise large animals

for food as well as draught power. Currently farmers keep animals mainly as saving for rice farming costs and for expensive family events such as a wedding or medical treatment.

A small number of people interviewed (6.5 percent) also receive remittances from relatives who work in Phnom Penh, on average about USD120 per year. Household members also generate income from off-farm and non-farm activities within and across communities in the province. Overall, off-farm and non-agricultural work contributes about USD650 per year to household income, which is generally more than earning from their own agricultural activity. This is partly because farmers sold their farms and being employed to work on their sold land, and more opportunities for people to work urban areas.

Dry season rice fields are flooded in the rainy season, and when water flows off, it carries fertile soil downstream, creating fertile soil there. However, downstream areas more often encounter damage to rice from rats due to late planting and rat multiplication when water recedes. This is particularly true for the Sampoch scheme, which faced a serious rat problem in the year of the survey, resulting in lower yields downstream than upstream. There are 29 plots upstream and 83 downstream in the Dang Kngorm scheme. In Sampoch, there are 35 plots upstream and 66 downstream.

Table 3.5: Household Land Holding

		Unit	Dang Kgnorm	Sampoch	Weighted
Size (mean)		ha	0.96	1.41	1.17
Yield	Upstream	t/ha	2.68	2.52	2.57
	Downstream		3.58	1.75	2.60
Ownership	Own	%	99.17	95.10	97.30
	Rent		0.83	4.90	2.70
Document	Yes		73.55	38.24	57.40
	No		26.45	61.76	42.60
No. of plots	One		22.40	28.60	25.20
	Two		55.20	44.90	50.50
	Three & more		22.40	26.50	24.30

Source: Calculated based on CDRI survey, 2007

Table 3.5 shows that half of the people interviewed cultivate rice on two plots, while one quarter cultivate on one plot and the other quarter on three or more. Many respondents (97 percent) said they owned their lands, but only 57 percent of the total had any paper to prove ownership. This is the same figure in the survey conducted by CDRI in early 2004 (CDRI 2007). Although two-thirds of farmers own more than one farm plot, the study found

that plots are becoming smaller because, anecdotally, people need to divide their lands for their children or sell parts of it for emergencies, e.g. treatment of illness. The average household owns 1.17 hectares of paddy land. Fragmented land ownership is an obstacle to improvement and modernisation of irrigation in Takeo. Like in Spain where land is fragmented, the structure of land tenure limits the improvement and modernisation of irrigation (Neira *et al.* 2005). Lack of finance and lack of participation result in deteriorated irrigation infrastructure over time.

Farm fragmentation and many small holdings pose a problem for farmers because they need to move from one plot to another in order to manage water for all their fields. This issue has also been found elsewhere (Crecente *et al.* 2002).

3.3.5.2. FWUCC Performance and Satisfaction

This section presents farmers' perceptions of the performance of FWUCC. This includes different components: planning and budgeting, election and leadership, FWUCC relationships for external support, ISF collection, financial transparency, education of FWUCC members and water distribution.

Table 3.6: Satisfaction and FWUCC Performance *(1-10, where 10 is the highest)*

FWUCC performance		**Dang Kgnorm**		**Sampoch**	
Planning and budgeting		6.86		5.98	
Election and leadership		7.52		7.04	
External relations		7.29		6.78	
ISF collection		7.54		7.35	
Financial transparency		6.41		5.37	
Education		7.35		6.98	
Water distribution		7.62		7.35	
Average		7.23		6.69	
Satisfaction	**Answer**	**No.**	**%**	**No.**	**%**
Technical design	Yes	41	74.55	46	93.88
	No	14	25.45	3	6.12
FWUCC performance	Yes	53	96.36	42	85.71
	No	5	9.09	7	14.29

Source: CDRI survey, 2007

Table 3.6 provides the farmers' responses on their satisfaction with the performance of FWUCC. Based on the seven items above, the study demonstrated that 96 percent of households in Dang Kngorm and 86 percent in Sampoch are satisfied with the performance of FWUCC. The average score on a scale from 1 to 10 is at 7.16 in Dang Kngorm, 0.53 higher than in Sampoch. The high score in Dang Kngorm is led by high scores for financial transparency, planning and budgeting and external relations. External relations are very much linked to financial issues: support to rehabilitate and maintain the system.

Despite their satisfaction with FWUCC, farmers in the two studied sites marked the lowest score for financial transparency. The conclusion is that the important aspect of FWUCC performance is financial issues—collecting charity and transparent use of money—not really collecting ISF.

Water distribution is important because the government expects that FWUC will decide internally how to regulate and deliver water according to the amount available. Water distribution relies on the technical design of the system and the performance of FWUCC. The study found that 75 percent of households in Dang Kngorm and 94 percent in Sampoch are satisfied with the technical design of the irrigation system.

Generally the Dang Kngorm (informal) FWUC received a higher score than the Sampoch (formal) FWUC. This relates to the previous discussion of inappropriate leader selection and the argument that leader selection should be flexible, not totally based on written rules and regulations, to ensure leaders earn trust and respect from their community.

3.4. Conclusions and Recommendations

3.4.1. Conclusions

Many irrigation schemes are poorly designed technically. Poor design is due to their being built for dual purposes, not specifically for agriculture. As well, insufficient maintenance makes it difficult for schemes to function well. Insufficient maintenance is initially a result of the long civil war but is now exacerbated by the lack of financial and technical support for FWUC. The following are the main conclusions, although care should be taken in generalising the results due to constraints on study site coverage.

Field observations suggested that downstream areas have too much water in the early dry season, making early land preparation impossible. Due to the distance, downstream areas get fewer visits from relevant people, and poor maintenance results in poor water delivery. Upstream areas close to the village get more visits and maintenance, and as a result management of upstream irrigation water is more systematic.

In Takeo province, existing problems in irrigation are mainly related to (1) financial limitations on O&M due to lack of external support and low contribution from FWUC members; (2) low popular participation, which is the result of a low sense of ownership due to poor explanation and extension for FWUC members, unfair practices in ISF collection due to poverty, poor law enforcement and abuse of power by educated and powerful elites; and (3) poor technical design of schemes due to a combination of poor financial and technical support and multiple purposes of dam construction.

Irrigation also faces two other problems: (1) inappropriate leader selection due to lack of flexibility and (2) weak institutions and lack of law enforcement due to limited capacity of leaders and cooperation from authorities. These two points are linked and result in a lack of strong leadership to mobilise resources for O&M.

Conflicts associated with irrigation water are created by most of the above problems. The study indicates that conflicts often occur among the same type of beneficiaries, e.g. rice farmers. Conflict is generally a result of insufficient water supply and allocation for farming due to (1) increase in cultivated areas from year to year, (2) limited water in reservoirs due to low holding capacity and low rainfall and (3) improper timing due to location of farmland and few incentives for operators.

Conflict is also observed between rice farmers who want to keep water in reservoirs for dry rice farming and fishers who want water to flow out for fishing. Those benefiting from fishing are just a fraction of the total irrigation community, but they are relatively poor, so it is difficult to enforce the law when there are no other livelihood alternatives. The study also found that there is political interference in the decision making of FWUC, especially before and during elections.

Conflicts are solved at different levels depending on their nature and the size of irrigation schemes. Conflicts in small irrigation schemes are often solved in the community by FWUC; only occasionally do complaints go up to provincial and national levels. In medium irrigation schemes where beneficiaries are from different communities, conflicts more often involve intervention from provincial and national authorities.

At the current stage of development, FWUC need more capacity building and strengthening in order to mobilise financial support for maintenance of infrastructure. More external and financial support is still very much needed for at least several years to place FWUC on track for sustainability.

3.4.2. Recommendations

Policy Implications

There is a need to provide technical and financial support to FWUC so that they can ensure more regular O&M. At present, FWUC are learning by doing but the efficiency and sustainability of irrigation schemes require two critical factors: financial support for O&M and technical support to FWUC for management and resource mobilisation. However, local resource mobilisation is not easy because users are not familiar with the idea of paying the ISF and the FWUC services fall far short of expectations.

In the communities, there are educated and powerful people who can ignore the regulations and avoid paying the ISF, resulting in difficulty in mobilising local resources. In order to reduce the problem, a mechanism to monitor, evaluate and penalise should be established for rule enforcement and fair practices. In the future, however, when local resources are mobilised by FWUC, financial support should be decreased over time. Technical design of irrigation schemes requires the use of external experts, with consultation to obtain local knowledge.

There should be external financial support for O&M to keep responsible persons devoted to their jobs, but the pay for regular involvement in O&M should be set by local people based on the quality and workload. There is a need to strengthen FWUC financial management and conflict resolution.

Education and extension are needed to increase a sense of ownership and awareness of the importance of O&M. Training, at least occasionally, is needed to strengthen the management and leadership of FWUCC. Moreover, collaboration between FWUCC and other relevant authorities is important in terms of institutional strengthening and law enforcement. However, the collaboration should be established in such a way that there is no political interference, in order to avoid political and personal conflicts.

There is also a need to build a high spirit of mutual understanding among farmers and between farmers and fishers. This might be achieved though having strong and respected community leaders to explain and educate community members on how to share resources according to the rules and regulations.

Future Study

Due to limited funds, the study could compare only conflicts between small and medium irrigation schemes, not between large schemes. Information from the household survey could allow only study of small-scale schemes. The measures used in this study could be

refined and made more robust when comparing irrigations schemes of different scales. This will be the subject of later studies, the next topics of which would be:

(1) optimal land plot size for both productivity and adequate incomes for farm households;
(2) the pro-poor policies appropriate for food security, poverty reduction and sustainability of irrigation infrastructure.

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Chapter 4

Defining Participation in Irrigation Management and Development

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Chapter 4

Defining Participation in Irrigation Management and Development

4.1. Introduction

In the minds of most, perhaps all, Cambodian rice farmers, water is an issue they have to face every year. When will rain begin so that they can start cultivating? Will there be enough rain at the beginning? Or will it rain too much? What about the months to come? These questions are outstanding until the rice plants no longer need water, and there are no clear answers to them before the events happen. This total dependence on nature often results in a less than satisfactory crop. It is generally believed that Cambodian farmers are poor because of the unreliable water supply (Somatra and Daravy 2007).

With a large proportion of the population directly or indirectly dependent on rice growing, it is sensible for the state and policy makers to invest more in irrigation. Irrigation can bring more certainty and predictability to wet season rice growing. Farmers can be more certain of having water in their fields to start the cultivation regardless of rain patterns, and they can also control the water supply throughout the season. Moreover, irrigation can make it possible for farmers to increase their crops from one to two times a year, growing wet and dry season rice.

But how true is this of irrigation in Cambodia? In theory, irrigation is supposed to do all this for farmers, so irrigation schemes have been restored or built anew. Some farmers are very excited about the schemes and the availability of water, describing irrigation water as "the wealth of farmers", but other seem not to care about it. It is observed that irrigation infrastructure, more often than not, is under-utilised. Although there is plenty of water in the schemes, some farmers do no more than what they did previously. Most still grow only one crop a year. Why?

This paper is part of a larger project on water resource development research and capacity building, carried out jointly by the Cambodian Development Resource Institute (CDRI), the Royal University of Phnom Penh and the University of Sydney, with funding from Australian development assistance (AusAID). It is built on international literature on the management of commons and the nature of participation. The findings are based on two case studies that reflect on the motivations for and constraints on use of irrigation water and on operational decision making.

4.2. Literature Review

There have been countless cases in which development projects, ranging from irrigation infrastructure to rural credit, fail to achieve their goals of lifting people out of poverty, and it is not surprising that most such projects eventually disappear from the development project list. It is argued that development projects fail because people do not take part in them and do not have a sense of ownership (Ackerman 2004). An irrigation scheme may be built in a local area, and it is hoped that local farmers will make use of the water to grow more crops and that they will take care of the scheme or at least not destroy it. This is based on the assumption that farmers should be happy with anything given to them. Unfortunately, this notion of how development works has in some cases proved wrong. It is believed that people will be more interested in making development achieve its goals if they feel they belong to the project or the project belongs to them (Moote *et al.* 1997). The difference between projects that are sustainable and those that are less so lies in, among other things, the degree of people's involvement, which is loosely known as "participation". It is argued that lack of participation is one constraint that has caused water management to fail in past Asian irrigation projects (Easter 2000).

Participation has been promoted and has become a cliché in development. But how much participation can contribute to the success of a project depends on how much people participate and the nature of their participation (Ackerman 2004; German *et al.* 2006; Sneddon and Fox 2007). As the term has become widely used, it has also been abused because it is not clearly defined. What does it really mean?

Participation has been interpreted in many different ways depending on the socio- economic, political and cultural background of the definer. The UN in 1975 defined it as "involved in the development work, sharing the profit equitably, and involved in the decision making process" (Chandrapatya *et al.* 2007). Some define the term as involved in problem diagnosis, planning and project implementation (German 2007). But the term has also been misused by farmers, who tend to use it to mean "going to meetings" (Rusten *et al.* 2004).

4.2.1. Evolution of Participation

The development paradigm has shifted from development as the all too familiar industrialisation, expansion, peace, employment, stability and economic growth to a view that puts development recipients at the centre of projects. However, this concept is not new. Roland Bunch (1982) suggests that "Development is basically a process whereby people learn to participate constructively in solving their own problems. The driving force behind this participation is enthusiasm; the direction in which the people must move is toward gradually increasing participation; and the goal is that the programme itself gradually be lost in, and replaced by, a totally participatory movement of people, by people, and eminently for the people" (cited in Shrestha 1994: 25). Rahnema (1992) suggests that "participation"

first came into the vocabulary of development in the 1950s, but its meaning and practice have evolved through four major stages:

Development as no participation: All development planning and implementation were done by policy makers, scientists and experts. The people were considered purely as recipients of development work, so they did not have to be involved in any of the planning or implementation.

Development with participation as consultation: Local people were consulted for their ideas of what they wanted, but in the end, it is the policy makers, scientists and development experts who make the decisions on what to develop.

Development with participation as coordination (partnership) between expert and farmers: With most development projects failing to sustain themselves and some people blaming this on the lack of genuine local participation, development work started to focus more on attracting meaningful participation. The idea is for local farmers to be involved in project design and implementation, with the hope that they will have more sense of ownership, which, many argue, is needed for development to work sustainably.

Development with participation that allows local people to own the project completely: The idea is to have local people take ownership of the development around them. They are trusted to have the right vision for development. It is believed that they can initiate, plan and execute development projects by themselves, with development experts providing them with necessary support.

4.2.2. Advantages of Participation

Arnstein (1969) proposes four levels of popular participation in development projects:

- Ownership
- Partnership
- Consultation
- Information

The top two, ownership and partnership, signify true and meaningful participation, which is widely considered an essential element of development. In the context of integrated water resource management, meaningful participation can ensure the effectiveness of water governance (Solanes and Villareal 1999). It allows people to bring local knowledge, norms and traditions into the planning of a project to ensure that it complies with people's needs. It contributes everyday's knowledge and techniques, in addition to ownership, to make the project effective and efficient (Sinath 2001; Johnson *et al.* 2003; Narain 2006). Participation

allows local people to come together to deal with the common problems they face, including problem identification and solutions. Participation can lead to better solutions to problems because everybody is involved and contributes their thinking (Rahnema1992). For policy, participation is essential in that local people can not only be involved in making policy but will also be able to make sense of it and be more likely to accept it. Participation allows for a representation of ideas and ensures that development can serve the interests of everybody because minorities and the weak can have their say along with the majority (Arnstein 1969).

Good participation provides good coordination, cooperation, commitment and responsibility in project development. It is a tool to involve local people in irrigation management and it is specifically perceived as an advantage in promoting new ideas and self-help within community to reach right decisions on development needs (Chandrapatya 2007).

4.2.3. Challenges to True Participation

Is participation really the answer to development issues? The proponents of participation assume that it allows local people to express their ideas and development needs. While this is largely true, two factors should be taken into consideration. First, from a power-relations point of view, it is argued that there is no genuine interest in bringing a participatory approach to development. Participation is just a term used by the powerful to gain legitimacy and funding (German 2007; Rahnema 1992). In watershed management, it is argued that participation and the idea of involving local people in the project arose mainly in response to funding requirements (Rahnema 1992). Some argue that participation has been used to provide a new source of political legitimacy and control, as a way to deal with the drive toward better governance and the advocacy of people's role in development. It is just a term to justify a project (Rahnema 1992; Cooke & Kothari 2001). The term is often imported, usually from the west, and it is applied in the developing world as if no local norms or traditions existed (Longley *et al.* 2007). This leads to the question of if there is a real interest in making participation work. Who is interested in making it work toward better development outcome?

The second issue concerns the nature of participation. Participation involves the assumption that local people represent a single entity. It is assumed that everybody concerned will participate actively, fairly and equally in bringing multiple interests to a common forum (Lebel *et al.* 2005). In reality, however, not everyone participates in everything in the village. People participate only in projects or events that directly concern them (Ribot 2004).

Mohan (2001) argues that participation can bring more inefficiency into projects. When people participate, they bring with them their own ways of thinking, which are shaped by their educational and socio-economic background and interests, and the process is conflict-ridden. This is coupled with the fact that in meetings, more often than not, only the most

vocal persons get their say and have their needs heard, while the more reserved are there just to listen (Rusten *et al.* 2004). If not managed well, participation can give rise to more arguments and conflicts because people can put their own interest above the common interest and try to shift development in their favour. Only those with strong interests, whether economic or political, participate actively by trying to negotiate and influence the process so as to ensure that development serves their interests, which means they will not participate unless they can benefit (Warner 2006). This creates a conflict of interests and the problem of interest groups dominating the development agenda (Moote *et al.* 1997). When this happens, projects fail to achieve either growth or equity, as the fruits of growth are shared among only a handful of people.

Besides, participation can be exclusive to the poor. To participate meaningfully, people have to have knowledge of the subject matter (DFID 2006; Mysliwiec 2005). Unfortunately, the poor and the vulnerable do not often have the required information and skills. At the same time, it should be noted that participation comes at a cost (Barker & Molle 2004). It takes people's time away from their work, and it sometimes involves financial costs, usually associated with travel.

4.2.4. Reality of Participation in Cambodia

The participatory approach to development in Cambodia seems to share some of the success stories and setbacks. In villages, Cambodians are observed to be participating more actively in local development affairs. However, their participation is largely limited to going to meeting, and Cambodians are used to going to meetings just "to be there and listen" (DFID 2006; Hughes 2003; Rusten *et al.* 2004). While attending a meeting can be seen as a first step toward meaningful participation, the impact on policy formation is still very limited because Cambodians are so used to "the directive from the top" telling them what to do (Rusten *et al.* 2004). It is argued that meaningful participation can take place when people are treated as development partners (Rahnema 1992; Cooke & Kothari 2001). Unfortunately, Cambodians do not often approach their representatives to demand development because they do not see officials as people who represent their interests. Rather, they see contact with officials as a threat (Hughes 2003), and they would not meet officials unless they know them personally and they need to ask for a personal favour (Rusten *et al.* 2004).

The level of contribution of beneficiaries to sustainable development in Cambodia is still low. According to Shrestha (1994), who conducted a study of community participation in the American Friends Service Committee (AFSC)'s hydrological programme in Stung Chrey Bak (also known as Stung Srebak) in Kampong Chhnang, low participation is the result of: (i) lack of awareness, (ii) absence of a tradition of volunteer associations, (iii) a history of exploitation in the name of community participation, (iv) mistrust of leaders and (v) damaged community cohesion.

Part of the problem is a result of the adverse effects of political experiments by different regimes. All those regimes exploited the community in the name of participation. Especially in the Pol Pot regime, people were forced to contribute labour to the community but did not receive enough food to live. This has eroded trust in community participation and led to a mistrust of leaders, who mobilised participation in the village, and has damaged community cohesion (Shrestha 1994).

Currently, most of the people who participate in community organisations are older people who could not access education, so the urgency of community development is not familiar to them. In addition, farmers are too busy finding their daily necessities and cannot think beyond tomorrow (Shrestha 1994). Participation is low also because the project benefits only a proportion of households (Aruna Technology 2006). Lack of community participation in irrigation by beneficiaries is really a constraint on sustainable irrigation.

4.3. Methodology

The article explores the issues of participation, which is defined for the purposes of this study as (1) people using the water from the schemes for agricultural purposes and (2) people joining in operational decision making, in particular in setting irrigation service fees.

This study is based on a study of five irrigation schemes in Kompong Chhnang, Pursat, Kompong Thom and Siem Reap provinces. The five schemes were selected based on (1) under- or over-utilisation of the irrigation infrastructure, (2) responsibility for operation and maintenance being transferred to a local farmer water user community (FWUC) and (3) operational policies being negotiated and implemented.

After the sites were selected, the researchers used focus-group discussion with the expert groups—the local water governing body, the FWUC and the provincial Department of Water Resources management—to explore participation from the management point of view. The researchers then organised focus-group discussions with farmers to discuss issues and challenges they face in cultivating their land, in particular using water from the schemes. The researchers also relied on random interviews with farmers, who told detailed stories of their situations. Qualitative data from all sources was then compiled and analysed.

4.4. Findings

This paper aims to shed more light on the degree and nature of participation in water resource management in Cambodia. It illustrates why Cambodian farmers compete for irrigation water so fiercely in certain areas, while in other areas they make little use of water from irrigation schemes. It also seeks to understand more about the nature of people's participation in operational decision making about irrigation. However, the findings are not representative of all irrigation schemes.

4.4.1. Participation in Use

Trapeang Trabaek is an area located in the flood plain of Kompong Chhnang province; water from the Tonle Sap floods the whole area in the wet season. There is an irrigation scheme in this area, and the scheme is part of the Chrey Bak river basin. It was first constructed by the Khmer Rouge during the 1970s, but was left to destruction by floods, erosion and neglect. Originally, farmers in the area grew wet season rice (floating rice), but the flood water from the Tonle Sap is often unpredictable. In some years, the area can be submerged in up to three metres of water and the crops are damaged. A succession of crop failures resulted in people giving up the idea of growing wet season rice in the area, and the land was abandoned in the late 1980s. In 1991, the scheme was restored by the AFSC, which rebuilt the weir.

The weir prevents water that flows from its catchment in the mountains of Kompong Speu province from emptying into the Tonle Sap River, and there was plenty of water in the scheme in the dry season. With water available in the dry season, a few farmers whose land is near the river resumed cultivating their land, changing from wet season to dry season rice. However, the scheme does not have any canals. The farmers have to use their own means, mostly pumps, to bring water to their fields. In the early stage of the scheme's operation, only a few farmers were interested in water from the scheme, and the total cultivated area of dry season rice was only around 20 hectares.

For this relatively small area of cultivated land, the scheme could supply sufficient water, and as a result, dry season rice farmers were doing very well. Farmers talked of enjoying high yields, up to 4.5 tonnes per hectare compared to 0.7 or 0.8 tonnes, or even nothing, for wet season rice.

But the farmers' joy did not last long. Two or three years after the scheme began operating, more farmers were attracted into it by the high profits from dry season farming. Farmers who had stopped using their land in the area started to convert to dry season rice. By 2006, the total cultivated land in the area expected to use water from the scheme was more than 500 hectares, the size that the FWUC thinks and it has been proven to be beyond the capacity of the scheme. Yet the figure is rising. In 2007, the FWUC noted that 30 more hectares were added to the scheme's already-too-large command area.

Trapeang Trabaek is not alone, and its story of excess demand for water is shared by schemes in other provinces. Me Tuek (or Wat Leap) in Pursat, for example, also faces excess demand for water. It is also on a flood plain. A scheme was built prior to the Pol Pot time, but it was left to deteriorate. When the scheme was restored in 2003, the provincial Department of Water Resources and Meteorology estimated that it could irrigate 100 hectares of rice land and recommended that local farmers not grow more than that. But because the area is in the Tonle Sap flood plain, only floating rice can be grown. The yield is not only low (around 1.2 tonnes per hectare) but also unpredictable. Wet season rice farmers, more often than not, end up harvesting nothing, while dry season rice provides more certainty and higher yields, up to 2.5 tonnes per hectare. As a result, farmers converted to dry season rice and competed to extract water from the scheme. According to the FWUC in the area, in 2007 the total area of cultivation was 405 hectares instead of 100, and the figure is expected to rise.

While it is hard to prevent people from using water from some schemes, it is as hard to mobilise local farmers to make use of the available water from others. There are schemes that are fully functional, but no one yet cares to make use of the water. One example is the case of Damnak Ampil scheme.

This scheme was first built during the Pol Pot regime. According to the local people, big rocks were laid across the river to divert water into a main canal that stretched some 25 kilometres to the west. Both the dam and the canal were left to ruin. In an effort to promote agriculture in the area, the scheme was restored, construction work starting in 2004. In mid-2006, the construction was completed, with the one diversion weir and part of the main canal (7 of the 25 kilometres) restored. It was proposed that the scheme has the potential to irrigate up to 12,000 hectares of wet season rice and some 7000 hectares of dry season rice.

Some local farmers are very positive about the irrigation scheme, especially because it allows them to start cultivating on time, regardless of the rain. It also helps farmers control the water supply to their fields, mitigating the impacts of drought. But while the scheme has big positive impacts on wet season rice in the area, it has very limited impacts on dry season rice growing. It was observed in 2006 that only a few farmers make use of the water to grow dry season rice. One of the possible reasons is that the scheme was completed too late for farmers to plan on growing dry season rice.

However, our empirical data suggest that the number of farmers planning to use water from the scheme to cultivate dry season rice this year will remain limited. The scheme is not fully complete yet. An irrigation scheme needs a weir, a main canal, sub-canals and tertiary canals to work. Unfortunately, Damnak Ampil has only a diversion weir and seven kilometres of the main canal restored. There are no tertiary canals yet. As a result, extracting water to fields is difficult. There may be plenty of water in the restored part of the main canal, but farmers have no access to the water if their fields are not located along the main canal.

If farmers want to grow dry season rice by extracting water from the scheme, they have to have pumps, which most ordinary farmers do not have. Currently farmers can rent pumps from local private operators who provide the pumps and the diesel fuel, and the farmers pay a fixed rate of 15,000 riels (nearly $4) per hour. This is an expensive option for most farmers. To irrigate one hectare of paddy, the pump needs to run for six to eight hours a day for around four days. Thus farmers need to pay more than $100 to irrigate one hectare. What is more, irrigation is not a one-time job. The farmers need to bring water to their paddy fields every month or so, depending on how well their land holds water. The less it holds, the more frequently farmers need to rent pumps, increasing the cost. One farmer in Pursat said, "We need to rent a pump for eight hours a day, maybe for three days. That is a lot of money, but what if we need to do it again next month and the following month?" One elderly farmer said, "After paying for the ploughing, transplanting, fertiliser and water fees, we make little or even no profit. So why bother?"

Elsewhere, farmers do not participate because there is a high opportunity cost of farming. In Siem Reap, for example, there is plenty of water in the irrigation scheme, but the demand for it is insignificant. In some parts, water flows freely through the system and out without being used. One of the reasons is that farmers can migrate to work as labourers in Siem Reap town. This can give them a higher income. Some report earning up to $5 per day. Others do not care about the availability of water because they can sell their land for a lot of money and move to other areas to conduct other businesses.

However, things are starting to change in some irrigated areas. Seeing the success of other dry season farmers, and with the price of rice increasing (from around $125/ tonne in 2006 to around $180 in 2007), more farmers are becoming interested in extracting the water for dry season rice. In the meantime, some fundamental issues have emerged. How are policies formed to facilitate the changing interests and role of irrigated local production? How do local people participate in making policy on irrigation management and development in their area? The next case study will look at farmers' participation in policy formation, in particular related to the setting of irrigation service fees.

4.4.2. Participation in Operational Decisions

For sustainability, irrigation needs good and applicable operational policy. While the government is focusing on infrastructure development, policies for operation and maintenance need to be formed. "Participatory irrigation management and development" has been employed to allow farmers to take part in the process. The idea is to engage local farmers in all activities of the project in the hope that this will enhance their sense of ownership and make it more likely that they will accept the policy (Moote *et al.*1997).

But how do farmers participate in operational decision making? It is noted that Cambodian farmers are more frequently attending meetings in the commune or village. It seems that

they are more curious about the issues, wanting to know what is going on. One female farmer in Pursat said, "If we are invited to a meeting, we will go because we want to know what they talk about". For participation, more frequent attendance at meetings is a positive step. However, not everybody goes to meetings because that involves some real economic costs. Members of farm households take turns going to meetings. The timing of a meeting in the village often conflicts with farmers' need to be on the farm. Attending meetings means being away from farming, the main source of their livelihoods. The majority of those who attend meetings are those who are less busy, and they are mostly female farmers, the elderly and in some cases adolescents who can contribute little physically. Others do not go to meetings because they do not see any benefit for them. One farmer said, "We have so many meetings. There is meeting after meeting, but nothing really happens."

Attending a meeting is one thing, and contributing through it to sustainable management and development of the schemes is often quite another. Taking part in meetings is a means, not an end in itself. The impact of participation is still limited. Farmers sometimes go to meetings to get to know what is going on in the village, but they do not really go to express their opinions. In the process of setting irrigation service fees, for example, FWUCs and farmers meet together. Sometimes, farmers try to oppose what they disagree with. One farmer in Kompong Thom said, "If they try to do something that would affect us, we would not agree". This indicates that participation starts to have some meaning when farmers do not attend a meeting just to listen, but try to interact meaningfully in the process.

However, there is a limit to how much local people are willing to express their ideas, and most of the time this willingness is shaped by the majority. It is observed that farmers are willing to express their support or voice their objections to a proposed policy only so much; otherwise they simply follow the majority. One farmer put it, "If they [commune council or the FWUC] propose something that affects our interests, we would oppose it, but in doing so we would look around to see other people. If the majority agree, how can we few oppose?"

4.5. Conclusion

When an irrigation scheme is built or restored and local farmers do not make use of the water, the predominant view of those in charge of irrigation is that the farmers do not want to "participate" and are "lazy". Our empirical data show that farmers are not "lazy". When farmers want to participate in irrigation, to be part of the scheme and to make use of water from it, they appear to do a careful economic calculation. Most of them, especially those in Pursat, do not use the water because it is not economically beneficial for them to do so.

People's use of irrigation water is largely driven by economic motives; how much they are willing to use the water is determined by how much profit they see in doing so, but

their decision is constrained by their limited resources, equipment, finance and, sometimes, labour. People participate more actively in operational decision making now, but this still has limited influence on policy formation—water allocation and fee setting—because farmers are still largely unwilling to stand up against the mainstream, being afraid to be seen as the odd one out.

There is growing interest in irrigation water on the part of local farmers who hope to grow dry season rice. However, there are many uncertainties, related to both the water supply and the policy governing it. With the physical water supply, the problems lie in the incompleteness of irrigation systems. Most irrigation systems we observed consist of mainly the reservoir and the main canal and, in rare cases, sub-canals. To ensure adequate water, there is a need for sub-canals and tertiary canals, but the central question is: who is or should be responsible for building sub-canals and tertiary canals? This can be the subject of more investigation.

From reflecting on people's participation as discussed above, a host of related issues arise. Because participation seems to be constrained by their resources and shaped by the majority, there is a risk of participatory processes being captured by interest groups that are more organised and can shape the outcome of the process.

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Chatpter 5

From Informal to Formal Land Markets: Navigating Land Tenure in Cambodia

by:
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Chapter 5

From Informal to Formal Land Markets: Navigating Land Tenure in Cambodia

5.1. Introduction

The Ministry of Land Management, Urban Construction and Planning (MLMUPC) is implementing a land management and administration project (LMAP) with support from international development partners in order to strengthen land tenure security and land administration in Cambodia. Among other activities, LMAP is undertaking a systematic land-titling programme in which one million titles are being issued during the first phase (2003–07) in both rural and urban areas.

The assumptions and predictions that government planners and their development partners make about the expected benefits from land titling are primarily based on property rights theories that link investment incentives to secure land tenure. Property rights are generally defined in terms of a "bundle of rights" to consume, obtain income from and dispose of a particular asset (Barzel 1997). The basic argument is that people are more likely to invest resources in productive enterprises when they are confident that they, or their heirs, will enjoy the benefits of such investments (Alchian and Demsetz 1973). For example, Brandao and Feder's (1996) assertion that "secure individual (or corporate) property rights are critical in establishing a structure of economic incentives for investment in land-based activities" applies to both urban and rural areas.

Although there is some empirical evidence from other countries that supports aspects of such claims, there is also considerable evidence that land titles alone are not a panacea for poor economic performance or weak land administration and management. As a result, the use of formal land titles to govern productive land tenure arrangements must be understood as part of a market approach to development that takes place within a wider arena of formal institutions, including regulated real estate markets and official land registry systems (Payne *et al.* 2007).

This observation suggests that with the right level and mix of enabling institutions, secure tenure in the form of land titles may indeed contribute to the development of economically

efficient land markets as commercialised land rights are, over time, purchased by people who are willing and able to pay the highest price. Kim (2004: 278), for example, has observed that when bids are based on estimates of how much profit can be derived from owning land, "the highest bidder is the one who can most efficiently capitalise on the asset". However, this observation assumes more fully developed formal land markets in which legal as well as land management and administration institutions are in place to uphold property rights.

Land titles are expected to promote more efficient formal land markets that allocate land to economically productive uses. At the same time, efforts to strengthen the land administration system include the use of the formal registry to facilitate and record land transactions. These expectations are based on observations that countries with efficient modern land markets have benefited from well-run administration systems, and that such systems are the key to building such markets. The transition from informal to formal land markets and the development of effective land administration systems therefore appear to go hand in hand (Williamson and Wallace 2007).

Williamson and Wallace (2007: 2) have observed that a land market is "more or less formal according to the level its activities are serviced by public, authorized systems provided by, or at least organized through, government". Formalisation routinely involves establishing an institutional infrastructure to deal with registration, valuation and taxation, as well as planning and development (e.g., urban development master plans, enforceable zoning regulations). Informal land markets, however, are governed according to local systems that are not necessarily transparent and which render interests in land "unrefined, irregular, happenstance, or, worse, insecure". Informal markets often operate parallel to legalised formal market systems, because people tend to prefer local and informal practices over costly formalities. Williamson and Wallace (2007: 2) observe that in countries with parallel markets using various degrees of formalisation, "the most formal transactions tend to engage the large scale developments and high value land".

These characterisations of the differences between informal and formal markets and the nature of parallel—or hybrid—land markets provide an apt description of Cambodia, where informal markets tend to predominate in rural areas, while in many urban areas more formalised markets have now emerged along side well-entrenched informal markets. In peri-urban areas, the transition from informal to formal land markets can be readily observed, although the rate of the transition will vary according to the specific characteristics and historical trends of each location.

Recent research (CDRI 2007a; CDRI 2007b)[1] assessing the potential social and economic impacts of land titles in Cambodia shows that urban and rural land markets differ in several respects while having similarities in others. This research identifies several useful indicators for mapping the direction and rate of transition from informal to formal markets in urban and rural areas, as well as peri-urban areas.[2] Five key indicators are (1) the mode of land acquisition, (2) the mode of ownership documentation, (3) the volume of land transactions, (4) the value of transacted land and (5) the mode of documenting transactions. This research also highlights an important area of concern regarding the development of an effective land administration system in Cambodia, namely, the use of the official registry to record and validate transactions in urban, rural and peri-urban areas.

This article uses these key indicators to assess the rapid development of land markets in urban and peri-urban areas in Cambodia and the use of the official registry to facilitate and validate land transactions. It argues that in many areas where land titles are being issued, customary rights in informal land markets have worked well enough to govern localised transactions and disputes, as people have historically and traditionally tended to use local authorities to recognise and validate local land transactions and transfers.[3] With the introduction of the LMAP titles, however, government officials expect that transactions (sales and purchases) and other transfers (inheritance) will be facilitated and validated through the official registry. This suggests that transfers recognised only by local authorities following tradition may not be legally recognised by the government or upheld by the courts. If this is the case, over time the transfers of LMAP titles outside the official registry could weaken land tenure security rather than strengthening it as intended. Such transfers could result in complex conflicts as well as denying the government revenue from land sales tax.

This argument also has implications concerning the targeting and sequencing of systematic land titling. Land titles are a scarce resource, and therefore policy decisions must be made about where titles should be issued first and subsequently in order to optimise the social and economic impact of the titles, including their contributions to more efficient formal land markets. Generally speaking, policy makers would look to the objectives and expected benefits for guidance about where to start. However, the ambitious objectives for the LMAP and the long list of expected benefits are potentially in conflict with each other and could be a source of confusion rather than clarity. For example, using land titles to reduce poverty implies that they should be issued in areas where poverty rates are highest, which is often in more remote areas that lack access to markets and credit. Hence the expected impact

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1 These two papers report on the results of land-titling baseline surveys conducted by CDRI in collaboration with the MLMUPC. A rural baseline survey covering 1230 households was conducted in early 2004, while an urban baseline survey covering 2706 households was conducted in late 2005.

2 Williamson and Wallace (2007) have identified five stages of land market development along a continuum ranging from land-land rights-land trading-land markets-complex markets, which generally encompasses the full range of informal-formal land markets employed broadly in this article. See Annex A.

3 For example, see Le Meur (2007).

of better access to credit cannot be realised, and the virtual absence of land transactions suggests that land market impacts are also negligible. Such areas, particularly those on the periphery of forested land, are also subject to conflict and confusion. This slows down titling and undermines the objective of issuing a certain number of titles within a specified time period. Ballard and So (2004) have referred to such areas as "low capacity areas".

In contrast, titling efforts that begin in and around rural market centres where transport and credit services are more developed or areas where rice farming land tenure is more stable may bring more benefits relative to the time and expense of issuing titles. In such areas, titling benefits of developing formal land markets may be optimised. Moreover, where there are more stable boundaries and fewer disputes, titling tends to go faster and therefore supports LMAP objectives concerning the volume of titles to be issued in a given period. According to Ballard and So (2004), such areas can be referred to as "high capacity areas". At first glance, this argument appears to assume that land transactions and transfers subsequent to the issuance of titles will be facilitated through and validated by the official registry. This article assesses what happens in situations where this assumption may not hold. Ironically, the potential positive impacts of emerging land markets may be undermined by people's tendency to continue using traditional informal means to transfer land and land rights.

5.2. Urban, Rural and Peri-Urban Land Market Characteristics

This section examines several key indicators that characterise urban, rural and peri-urban land markets and their dynamics. These indicators include mode of acquisition, land values and land use. These indicators help map the direction and pace of urban land market penetration into nearby rural areas. Such mapping is useful in terms of predicting the social and economic impact of land titles in specific areas.

Mode of Acquisition. One of the most distinguishing characteristics of the land markets in rural and urban areas is the mode of acquisition. Table 5.1 (see Annex) shows that urban areas are characterised by a high percentage of land acquired through purchase, while in rural areas the predominant mode of acquisition is by state allocation, presumably from the 1989 land distribution.[4] This reflects the fact that land markets are more active in urban areas, while in many rural areas such markets are largely dormant, or only recently emerging. For example, in Phnom Penh, 71.5 percent of all plot/units were acquired through purchase, while in rural areas only 15.2 percent of agricultural plots were acquired by purchase. On the other hand, 21.9 percent of plot/units in the urban Phnom Penh were acquired through state allocation, while more than half (54.7 percent) of plots in rural areas were acquired through state allocation. The peri-urban areas of Phnom Penh and Siem

[4] It should also be noted, however, that land was distributed locally in many areas of the country throughout the 1980s, prior to the 1989 land distribution, and that there is evidence of the emergence of nascent informal land markets in the early 1980s.

Reap district lie somewhere in between, particularly in Phnom Penh, where 28.0 percent of plots were acquired through purchase, while almost half (49.6 percent) were acquired through state allocation. This allows the direction of land market expansion to be readily observed. A similar pattern holds for Siem Reap, although it is not as pronounced as in Phnom Penh, suggesting that land market formalisation may not be as advanced there as in Phnom Penh.

Another feature of the mode of acquisition concerns inheritance. In the urban areas of Phnom Penh, land acquisition through inheritance is much lower than in rural areas, 6.0 percent compared to 22.1 percent. In this regard, the peri-urban areas of Phnom Penh, where 20.2 percent of acquisitions are through inheritance, retain the characteristics of rural areas. It is interesting, however, that in the fully urbanised commune of Sala Kamraeuk in Siem Reap town, acquisition through inheritance is higher than in rural and peri-urban areas around Phnom Penh, while acquisition through inheritance in Siem Reap commune is even higher still. This again suggests that land markets in Siem Reap are less well developed than in Phnom Penh, and that Siem Reap commune is more rural than peri-urban in nature, at least in some aspects.

It is also important that there are significant differences between urban, peri-urban and rural areas in modes of land acquisition according to the sex of household heads (see Table 5.2, Annex). The two most important modes of acquisition are state allocation and purchase. In all three urban areas, female-headed households have a much higher percentage of plot acquisitions through purchase than do rural female-headed households. Also, urban female-headed households have a much lower percentage of acquisitions from state allocation. The percentages of acquisitions through inheritance are, however, somewhat mixed, as male-headed households in Siem Reap have a similar level of inheritances to rural areas, while in Phnom Penh and Serei Saophoan the percentage is much lower. For female-headed households, acquisition through inheritance in Phnom Penh and Serei Saophoan is similar to rural areas, while the percentage for Siem Reap is higher.

Mode of Documentation. Table 5.3 (Annex) shows that people in all three urban areas employ a wide range of documentation to assert or stake ownership rights to land. One of the most striking aspects of the data, however, is the high percentage of rural plots that do not have paper: an astounding 65.3 percent of the agricultural plots surveyed did not have documentation of any kind; 2426 plots (62.4 percent) never had any paper, while papers for another 226 plots had been lost and presumably not replaced. The general lack of paper documenting land tenure appears to be a decidedly rural characteristic and is most likely due to the fact that in the survey areas customary rights seem to work well enough in the absence of emerging land markets, where rising real estate values may contribute to conflicts. The fact that these households and communities have been managing land tenure rights outside the formal system for so long will probably mean a very difficult time incorporating these areas into the formal markets and land administration systems.

This contrasts sharply with urban areas. For example, in Phnom Penh, only 5.6 percent of all plots did not have any documentation. In Siem Reap, 12.1 percent of the plots did not have any paper, while in Serei Saophoan the figure was 17.8 percent. The most common (41.6 percent) mode of documentation in Phnom Penh municipality was survey papers. This is higher than in Siem Reap, where 23.5 percent of all plots were documented with survey papers, while in Serei Saophoan only four plots out of 905 were documented in this way. One possible explanation for the higher percentage for Phnom Penh and Siem Reap may be that landowners there were prepared to follow the cadastral process beyond the application stage, and/or that the cadastral authorities were better equipped and more able to survey a large number of plots than elsewhere.[5]

Only 6.1 percent of all surveyed plots in Phnom Penh were documented with a land certificate issued according to the 1992 land law. About 76.0 percent of the certificates found in the Phnom Penh survey groups were in the three urban districts. In Siem Reap, about 16.8 percent of all plots were documented with certificates. Interestingly, only 10.3 percent of household plots in Sala Kamraeuk were documented with certificates, while 26.9 percent of the plots in Siem Reap were documented with them. Of all the plots documented with certificates, about 63 percent were in Siem Reap commune.

After survey papers, the next most frequently cited mode of documentation in Phnom Penh was receipts for land certificate applications. About 26.4 percent of all plots were documented in this way. In Siem Reap and Serei Saophoan, application receipts were the most frequently cited mode of documentation, about 35.3 percent and 41.3 percent, respectively. In rural areas, as many at 57.4 percent of all documented agricultural plots were documented with application receipts. The use of application receipts to document land seems to be a decidedly rural characteristic of informal land markets.

In Phnom Penh, about 17.7 percent of all plots were documented by village or commune transfer authorisation. In Siem Reap, 15.2 percent were documented in this way, while in Serei Saophoan the figure was much higher at 29.0 percent. In all three urban areas, village transfers were more commonly used than commune transfers. This is probably due to the fact that the transaction costs associated with such transfers are less in the village than in the commune. In rural areas, this mode of documenting ownership appears not to be used very often. This may reflect the fact that until recently there have been relatively few land acquisitions through purchase.

[5] About 83.5 percent of the plots documented with survey papers were also in the peri-urban Siem Reap commune, and only 16.5 in the urban area of Sala Kamraeuk. If the explanation given for Phnom Penh was a consistent feature of urban land markets, then one would expect a higher percentage of such documentation in Sala Kamraeuk than in Siem Reap. One possible explanation for this is that the household surveys were being conducted in Siem Reap where LMAP teams had recently conducted surveys for the land titling paper and that the survey papers to which people referred were LMAP titling survey papers, not the earlier survey papers. This would then represent a survey recording error.

Land Transactions: Volume and Value. Tables 5.4 and 5.5 (Annex) show that land market transactions are increasing in all three urban areas. In Phnom Penh, respondents reported a total of 1504 land purchases since 1979.[6] About 42 percent of the purchases took place during 2000–05. Of these, 65.3 took place in the second three years, 2003–05, suggesting that land purchases are increasing. During the first three years, about 51.6 percent of purchases took place in the three peri-urban districts, while in the second three-year period this increased slightly to 53.6 percent.

Phnom Penh respondents reported selling a total of 1014 plots between 1980 and 2005. Of these, 443, or 43.7 percent, took place during 2000–05. Seventy-two percent of the plots were sold by peri-urban households. Of the 443 sales, almost 70 percent took place during 2003–05. About 73.1 percent of the 309 plot sales during this period were sold by peri-urban households, whereas 69.4 of the sales during the first three-year period were by peri-urban households. As with the land purchases of surveyed households, it appears that their rate of land sales is increasing in peri-urban areas.

Such trends are largely reversed in the smaller urban areas of Siem Reap and Serei Saophoan, where the greatest number of recent land transactions are taking place in urban areas rather than peri-urban. In Siem Reap, 396 land purchases were reported between 1979 and 2005. Of these 161, or 40.9 percent, took place during 2000–05. Of these purchases, about 56.8 percent took place during the second three-year period; 78.4 percent of these purchases took place in the urban commune of Sala Kamraeuk, while the remainder occurred in the peri-urban commune of Siem Reap. This is in sharp contrast with Phnom Penh, where the majority of purchases during this period took place in peri-urban areas. During the second three-year period, 75.0 of the purchases took place in Sala Kamraeuk, a decline from 82.9 percent during the first three years.

A similar trend regarding land sales by surveyed households is also evident in Siem Reap, where a total of 209 sales were reported during 1985–2005. Of these, 120 (57.4 percent) took place during 2000–05. About 78.3 percent of these sales took place in Sala Kamraeuk, almost exactly the same as the percentage of land purchases. Of these, 60.8 percent took place during the second three-year period, again suggesting that recent trends are accelerating in Siem Reap district. During the first three years, about 76.6 of the sales took place in Sala Kamraeuk, while in the second three years the sales there increased to 79.5 percent. It appears that as the overall land market expands in Siem Reap district, the division of transactions between urban and peri-urban communes remains more or less constant.

In Serei Saophoan, there were 501 land purchases between 1979 and 2005. Of these, 57.9 percent took place in the urban area of Kompong Svay commune, while the remainder took place in the peri-urban Preah Ponlea and Ou Ambel communes. Of the total purchases,

[6] 292 purchases (19.4 percent) were reported to have taken place during the period 1979–89.

154 (30.7 percent) took place between 2000 and 2005. This is considerably fewer than in Phnom Penh or Siem Reap. Of these purchases, 59 percent took place during the second three-year period, which suggests that a previously dormant market is now beginning to awake. During the entire six-year period, 55.2 percent of purchases took place in Kompong Svay, while the remainder took place in Preah Ponlea and Ou Ambel. During the first half of this period, 44.4 percent of purchases took place in Kompong Svay, while in the second half the percentage in Kompong Svay increased to 62.6 percent.

There were 118 reported land sales in the Serei Saophoan survey households during 1985–2005. About 61 percent were reported in Kompong Svay, while the remainder took place in Preah Ponlea and Ou Ambel. This is similar to the pattern of land purchases. Of the totals sales, 43.2 percent took place during 2000–05. Of these sales, fewer than half took place during 2003–05. About 52 percent of the second half sales took place in Kompong Svay, up from 46.2 percent during the first half.

Table 5.6 shows that rural land sales tend to be concentrated in strategically located areas along major transport routes (e.g., Sranghe in Kompong Cham), market or administrative centres closer to population areas (e.g. Srayov in Kompong Thom) or areas with a number of development activities (e.g. Rovieng in Takeo, Sambour in Kompong Cham). In more remote areas (e.g. Ti Pou in Kompong Thom) or areas that are off main roads (e.g. Tuek L'ak in Sihanoukville), land sales tend to be much less frequent. Unlike the urban and peri-urban areas, it appears that land sales may have peaked during 1998–2001 and then slowed somewhat between 2002 and 2004. However, these data are dated, and it is expected that the volume of transactions in many of these areas will have increased since 2004, in some areas perhaps sharply.

Documenting Land Sales. Table 5.7 (Annex) shows a clear preference for documenting land sales locally in all three urban and peri-urban areas as well as the two rural survey areas. For example, in Phnom Penh 92.6 percent of land sales were facilitated by changing names on application receipts. A majority (59.4 percent) of these sales were documented at the commune level, while 19.7 and 13.3 percent were documented in the village and district, respectively. In Siem Reap, almost 90 percent of land sales were facilitated by changing names on documents below the provincial level. A majority (54.5 percent) of sales were documented in the commune, while 27.3 and 7.7 percent were documented in the village and district, respectively. While the percentage of sales documented in the commune is similar, there appears to be a slight preference for documenting sales at the village level in Siem Reap commune compared to Sala Kamraeuk. In Serei Saophoan, the data show a strong preference to document land sales by changing the name of the owner at the village (48) or commune (44) level, a total of 78 percent of all sales. Only 5.9 percent changed the name at the district level, while even fewer (3.4 percent) registered the transfer with the official provincial registry. Another 12.7 percent of plots were transferred with a contract or letter between buyer and seller.

The high percentage of land sales documented in the commune across all consumption levels and in both communes suggests that people view the commune as the locus of local government authority—including for cadastral matters. While it has been suggested that this preference for documenting land sales in the village or commune is also related to the high transaction costs of provincial documentation, neither the communes in Siem Reap nor those in Serei Saophoan are far from the provincial cadastral office. This suggests that there are other reasons that people avoid registering transactions officially and legally. These could include the land sales tax and unofficial fees. Other reasons may be that these are customary practices rooted in tradition, a tradition that tends to view the local authorities as the locus of state authority.[7] The fact people that avoid using the official registry is a matter of serious concern because transactions taking place outside it are likely to contribute to continued land conflicts and represent lost revenue for the government.

Land Values and Sales Taxes. Table 5.7 shows that the three urban areas share two characteristics concerning urban land values. The first is that land values[8] vary according to urban and peri-urban locations, at least in the more active urban markets. In Phnom Penh and Siem Reap, the average plot values in urban areas are clearly higher than the average plot values in peri-urban areas. In Serei Saophoan, the picture is less clear, Kompong Svay having the lowest average value even though it would be expected to have the highest as the one urban commune in the sample. One reason for this may be the fact that some plots in Preah Ponlea and Ou Ambel may actually be situated closer to the urban centre.

Secondly, Table 5.8 also shows that location matters a great deal for plot value. One of the more consistent features of the urban land situation is that plot values steadily increase along with improved access in all three urban areas, including both urban and peri-urban locations. Plots situated on main paved roads are consistently valued more highly than plots situated on two-way access streets, either paved or unpaved, while plots situated on one-way access streets are valued less than those on two-way streets.

Table 5.9 shows the reported value of the 443 land sales in Phnom Penh referred to above. The average value per plot generally tends to increase with consumption quintile and to be higher in urban than in peri-urban areas. It is important to consider the value of plot sales in terms of the potential revenue from the land sales tax, currently four percent. A very rough estimate of the total potential tax revenue from these transactions would simply multiply the average value (USD16,862) by the total number of sales (443) and then multiply again by four percent, giving a total of about USD298,795, about USD675 per land sale. This is admittedly a very rough calculation, but it is useful in terms of providing

[7] Survey data regarding land conflict resolution also show a clear preference for local authorities as the focal point of negotiations and arbitration.

[8] Respondents were asked to report the amount they would expect to receive if they were to sell their plot at the time of the interview in late 2005.

some basis for estimating the potential revenue if all transactions were facilitated through the official registry and the tax paid accordingly. While many transactions are facilitated through the registry and at least some tax is paid, the data in this survey suggest that many transactions are conducted outside the registry, which represents considerable lost revenue for the government.

5.3. Conclusion

Over time, the mode of acquisition will certainly shift in the direction of purchase, followed by inheritance. As a result, the share of land plots acquired through state allocation will decline, most sharply in urban areas, followed by peri-urban areas. As increasingly formal land markets emerge in rural areas, especially in and around market and administrative towns, there will also be a higher percentage of acquisition through purchase, although the rate of increase will be far less than in urban and peri-urban areas. Female-headed households in urban areas will acquire land through purchase at a faster rate than their rural counterparts. Such shifts, particularly in peri-urban and urban areas, will be the result of expanding formal land markets for both speculative and productive investment. Land titling will surely facilitate the process by reducing the transaction costs of contractual exchange. The degree to which such transactions will be recorded with the official registry is another matter.

The rural land sector is characterised by an absence of paper validating ownership, while more formal urban land markets are generally characterised by some of form of documentation. In both rural and urban areas, the preferred methods of documenting land often involve local authorities, but are not legal in the sense that land is formally registered with the state cadastral authorities. Most documented land lies outside the official registry and is therefore not legal.

In all three urban areas, the pace of land transactions is increasing. In Phnom Penh during 2000–05, the percentage of total transactions in the three urban areas declined from 41.7 percent in the first half of the period to 38.0 percent in the second half. This suggests that an increasing share of transactions is taking place in peri-urban areas. During the same period, a decline was also recorded in Siem Reap, from 80.3 to 77.0 percent. In Serei Saophoan, the trend runs in the opposite direction, with 44.9 percent of total transactions taking place in the urban areas during the first half, while more than 60.3 percent did so during the second half. In rural areas the data showed a decline in sales until 2004. Since 2005, it is likely that the pace of rural land sales has also increased, especially in areas that have good transport and are near market or administrative centres.

If, as expected, land transactions continue to increase after titles are issued, people may still continue to document transactions locally in ways that are not legal. There is already some anecdotal evidence of this occurring in at least some areas where titles have been

issued (e.g. Markussen 2007), as well as documented evidence in areas such as Prey Nob in Sihanoukville (ADI 2007). This is a matter of fundamental importance because one of the key reasons for undertaking systematic land titling has been to facilitate land transfers through the official registry. It is also important because transactions that take place outside the official registry will contribute to continued conflicts over land and represent major lost revenue for the government.

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Annex A: Simplified Characteristics of Evolutionary Stages of Land Markets *

Stages	Characteristics
1. Land	A group or country establishes a defined location with territorial security. The securing of spatial relationships in land arrangements among competing groups is fundamental to all later developments.
2. Land rights	Within the group, regularities of access create expectations, which mature into rights. In formalized systems, the rights are reflected in the legal order. In some of these, the legal order is further embedded in formal infrastructure of Land Administration Systems. The crucial element of cognitive capacity of the participants starts with "my land" and "not my land" and matures into everyone appreciating "your land". The power derived from land ownership is also managed and restricted by taxation and other systems.
3. Land trading	Virtually at any time stage 2, a process of trading land between members of the group will develop. The rights in land traded evolve into property, the basic legal and economic institution in formal land markets. As economies become more complex, the trading will include strangers, and will depend on objective systems of evidence, eventually on a well-run program of recording property rights. Process of inheritance tracking will also develop. The commoditization process will involve public capacity to view land as offering a wide range of rights, powers, and opportunities. The better these are organized and understood, the better the market will operate.
4. Land market	Now the trading gets serious and increases in scale and complexity until it develops into a property market in which rights are converted into tradable commodities with ease. Significant government infrastructure supporting the market activities in land stabilizes commoditization and trading. Land is used extensively as security, multiplying the opportunities to derive capital. Capacity to invent and market new commodities emerges and gains strength.
5. Complex market	The stability of the market allows spontaneous invention of complex and derivative commodities and "unbundling" of land. This involves imagination and globalization. Typical machinery includes corporatization, securitization and separation. The system relies heavily on the rule of law, government capacity, and national ability to compete for capital in international market places.

** Reproduced from Williamson and Wallace (2007:8-9)*

Annex B: Data Tables

Table 5.1: Mode of Plot Acquisition

Location	Given by State		Inheritance		Purchase		Other		Total Plots
	N	% *	N	%	N	%	N	%	
Phnom Penh	**588**	**35.4**	**214**	**12.9**	**839**	**50.5**	**22**	**1.4**	**1663**
Daun Penh	18	21.4	0	0	66	78.6	0		84
Ch. Mon	70	17.2	24	5.9	309	76.1	3	0.6	406
Tuol Kork	100	27.2	27	7.4	238	64.9	2	0.6	367
Russey Keo	192	51.5	76	20.4	96	25.7	9	2.4	373
Dangkao	171	54.6	64	20.4	71	22.7	7	2.3	313
Meanchey	37	30.8	23	19.2	59	49.2	1	0.8	120
Siem Reap	**181**	**33.8**	**173**	**32.3**	**180**	**33.6**	**2**		**536**
S. Kamraeuk	107	29.0	103	28.9	147	41.2			357
Siem Reap	76	42.5	70	39.2	33	18.4			179
S. Saophoan	**172**	**33.9**	**63**	**12.4**	**269**	**53.1**	**3**	**0.6**	**507**
Kg. Svay	87	30.0	29	10.0	173	60.0	1		290
Pr. Ponlea	40	38.5	12	37.0	54	50.0	2		108
Ou Ambel	45	41.3	22	20.2	42	38.5	0		109
Rural (exp) **	**2162**	**55.6**	**845**	**21.7**	**589**	**15.1**	**29**	**7.4**	**3886**
Rural (con) **	**628**	**51.6**	**284**	**23.4**	**189**	**15.5**	**115**	**9.5**	**1216**

* *Percentages by row.*

** *In the Rural Baseline Survey, the four provinces of Kompong Cham, Kompong Thom, Sihanoukville and Takeo constituted experimental areas where LMAP titles were being issued. Kompong Chhnang constituted a control area where titles were not being issued. Please note: "exp" = experimental; "con" = control.*

Table 5.2: Mode of Acquisition by Location and Gender of Household Head (% of plots)

Location	Given by State		Inheritance		Purchase		Other		Total Plots
	M	F	M	F	M	F	M	F	
Phnom Penh	31.8	34.3	12.5	10.2	54.4	44.7	0.7	0.6	2834**
Siem Reap	42.6	49.1	23.6	17.9	33.4	30.7	0.3	2.3	1109*
S. Saophoan	35.5	40.0	13.3	8.4	53.6	50.5	0.4	0.2	507***
Rural (exp) *	**51.3**	**70.9**	**24.7**	**11.0**	**16.1**	**11.6**	**7.8**	**6.3**	**3886**
Rural (con) *	**46.8**	**67.2**	**26.3**	**13.9**	**17.3**	**9.8**	**9.6**	**9.1**	**1216**

* *See Table 5.1 for explanation.*

** *Includes all plots owned by the survey household.*

*** *Includes only the first plot owned by survey households.*

*Table 5.3: Mode of Documentation (All Plots)**

Location	App Receipt	Survey Paper	Certif.	Sale Letter	Comm Trans	Village Trans	No Paper	Lost Paper	Total
Phnom Penh	**745**	**1177**	**171**	**74**	**149**	**352**	**145**	**13**	**2826**
Daun Penh	18	66	28	4	7	11	6	0	140
Ch. Mon	87	138	64	38	45	131	72	2	577
Tuol Kork	48	348	38	13	20	64	8	0	539
Russey Keo	287	356	23	10	19	49	17	2	763
Dangkao	212	267	12	4	40	74	37	5	651
Meanchey	93	2	6	5	18	23	5	4	156
Siem Reap	**344**	**261**	**187**	**14**	**48**	**121**	**84**	**50**	**1109**
S.Kamraeuk	270	43	69	13	45	111	71	49	671
Siem Reap	74	218	118	1	3	10	13	1	438
S. Saophoan	**307**	**4**	**140**	**31**	**118**	**144**	**132**	**29**	**905**
Kg. Svay	160	3	71	21	73	82	82	15	507
Pr. Ponlea	87	1	16	6	21	26	23	6	186
Ou Ambel	60	0	53	4	24	36	27	8	212
					Other				
Rural (exp)**	**866**	**215**	**116**		**89**		**2426**	**178**	**3890**
Rural (con)**	**284**	**47**	**109**		**52**		**692**	**48**	**1232**

* *AppReceipt = (Certificate) Application Receipt; ComVil = Commune or Village*

** *See Table 5.1 for explanation.*

Table 5.4: Land Purchases (2000–05), Number of Plots per Year

Location	2000	2001	2002	2003	2004	2005	Total	% Total
Phnom Penh	**84**	**55**	**80**	**117**	**167**	**128**	**631**	
Daun Penh	8	3	2	10	9	7	39	6.2
Ch. Mon	15	14	12	25	33	14	113	17.9
Tuol Kork	19	14	19	28	41	24	145	23.0
Russey Keo	16	18	27	29	37	25	152	24.1
Dangkao	19	3	17	17	38	52	146	23.1
Meanchey	7	3	3	8	9	6	36	5.7
% of Total	**13.3**	**8.7**	**12.7**	**18.5**	**26.5**	**20.3**		
Siem Reap	**33**	**12**	**25**	**32**	**34**	**26**	**162**	
S.Kamraeuk	26	11	21	26	24	19	127	78.4
Siem Reap	7	1	4	6	10	7	35	21.6
% of Total	**20.4**	**7.4**	**15.4**	**19.8**	**21.0**	**16.0**		
S. Saophoan	**29**	**18**	**16**	**25**	**31**	**35**	**154**	
Kg. Svay	14	8	6	18	17	22	85	55.2
Pr. Ponlea	8	5	4	4	11	6	38	24.7
Ou Ambel	7	5	6	3	3	7	31	20.1
% of Total	**18.8**	**11.7**	**10.4**	**16.2**	**20.1**	**22.7**		

Table 5.5: Land Sales (2000–05), Number of Plots per Year

Location	2000	2001	2002	2003	2004	2005	Total	% Total
Phnom Penh	**52**	**34**	**48**	**88**	**147**	**74**	**443**	
Daun Penh	2	0	0	2	6	3	13	2.9
Ch. Mon	7	5	6	6	11	4	39	8.8
Tuol Kork	8	5	8	16	24	11	72	16.3
Russey Keo	15	10	15	34	47	24	145	32.7
Dangkao	16	12	17	25	48	30	148	33.4
Meanchey	4	2	2	5	11	2	26	5.9
% of Total	**11.7**	**7.7**	**10.8**	**19.9**	**33.2**	**16.7**		
Siem Reap	**18**	**12**	**17**	**25**	**28**	**20**	**120**	
S.Kamraeuk	14	9	13	19	23	16	94	78.3
Siem Reap	4	3	4	6	5	4	26	21.7
% of Total	**15.0**	**10.0**	**14.2**	**20.8**	**23.3**	**16.7**		
S. Saophoan	**14**	**4**	**8**	**6**	**13**	**6**	**51**	
Kg. Svay	7	1	4	3	6	4	25	49.0
Pr. Ponlea	5	1	2	1	5	2	16	31.4
Ou Ambel	2	2	2	2	2	0	10	19.6
% of Total	**27.5**	**7.8**	**15.7**	**11.8**	**25.5**	**11.8**		

Table 5.6: Number of Land Sales, by Year

Commune	< 1989	1989-93	1994-97	1998-2001	2002-2004	Total
Trap. Sab	0	7	16	8	5	36
Rovieng	0	3	9	22	14	48
Choeung Ko	0	4	1	7	6	18
Prey Nob	0	2	9	6	2	19
Tuek L'ak	1	2	1	3	0	7
Srayov	0	5	9	18	3	35
Ti Pou	0	1	5	6	2	14
Sambour	0	16	13	33	28	90
Sranghe	0	4	7	18	4	33
Total	**1**	**44**	**70**	**121**	**64**	**300***

** N = 3 missing*

Table 5.7: Land Sales (2000–05), Mode of Documentation (No. of plots)

Location	Village	Commune	District	Province	Contract	Total
Phnom Penh	**79**	**261**	**73**	**16**	**13**	**442**
Daun Penh	0	5	2	4	2	13
Ch. Mon	3	19	12	4	1	39
Tuol Kork	6	34	26	4	2	72
Russey Keo	36	76	22	4	6	144
Dangkao	22	115	9	0	2	148
Meanchey	12	12	2	0	0	26
Siem Reap	**24**	**74**	**11**	**6**	**5**	**120**
S.Kamraeuk	16	58	10	6	4	94
Siem Reap	8	16	1	0	1	26
S. Sophoan	**18**	**21**	**5**	**1**	**6**	**51**
Kg. Svay	7	8	4	1	5	25
Pr. Ponlea	8	7	0	0	1	16
Ou Ambel	3	6	1	0	0	10
					Other	
Rural (exp) *	**161**	**33**	**3**	**1**	**102**	**300**
Rural (con) *	**29**	**13**	**1**	**0**	**21**	**64**

** See Table 5.1 for explanation.*

Table 5.8: Land Value, by Means of Access (USD/Plot)

Location	Main Paved Road	2-way Access	1-way Access	Bicycle	Foot	Total	
						No	Ave $
Phnom Penh	**77,238**	**40,518**	**21,226**	**15,901**	**5200**	**1,615**	**40,412**
Daun Penh	125,917	39,500	45,000	18,200		73	109,370
Ch. Mon	66,163	59,664	32,023	18,131		390	52,715
Tuol Kork	92,226	53,803	19,590	11,250	5000	348	52,106
Russey Keo	54,348	18,837	19,225	14,942	4800	372	21,684
Dangkao	70,867	30,553	19,709	16,281	7000	312	24,878
Meanchey	37,500	27,154	18,024	14,196		120	23,003
Siem Reap	**100,168**	**63,631**	**43,837**	**22,613**	**1260**	**532**	**53,365**
S.Kamraeuk	149,386	81,195	52,858	28,900	504	354	68,422
Siem Reap	38,979	28,839	15,455	12,581	2016	178	23,420
S. Sophoan	**27,719**	**10,931**	**5928**	**5316**	**8750**		**15,469**
Kg. Svay	23,938	9426	3413	2500	8750	290	12,719
Pr. Ponlea	31,972	18,162	9000	7333		108	23,324
Ou Ambel	30,682	11,275	4000	8610		109	15,003
Rural (exp)*							**472**
Rural (con)*							**346**

** See Table 5.1 for explanation.*

*Table 5.9: Land Sale Values (2000–05), (USD/Plot)**

Location	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Average
Daun Penh		8400	50,000	70,000	78,250	68.700
Ch. Mon	12,500	20,000	7438	16,885	40,214	21,701
Tuol Kork	8071	22,227	19,000	40,761	45,288	33,364
RusseyKeo	4961	4740	7212	9490	9585	7159
Dangkao	4326	6904	8956	9522	16,692	10,043
Meanchey	5100	4500	12,070	13,167	21,500	10,858
Average	**5277**	**9086**	**10,568**	**16,868**	**34,094**	**16,862**
Total N	**71**	**74**	**79**	**109**	**110**	**443**

** Quintiles refer to average annual per capita consumption, with Quintile 1 the lowest and Quintile 5 the highest.*

Chapter 6

The Political Economy of Managing Labour Migration

by:
Chan Sophal

Chapter 6

The Political Economy of Managing Labour Migration

Approximately 200,000 Cambodian migrants are working in Thailand, Malaysia and South Korea. Thailand deserves critical mention because it has received by far the most—an estimated 180,000 workers, most of whom entered the country illegally. To address this problem, the governments of Thailand and Cambodia in 2003 signed a memorandum of understanding that aimed to document and regularise those already working in Thailand and to spell out a legal procedure for new labour migrants. The implementation of the MOU has been problematic for various reasons. Many workers already in Thailand were not documented and continued to be illegal, facing arrest or having to pay the police not to be arrested. Most new migrant workers still enter Thailand illegally because the legal procedure is not accessible or is too costly. Only about 6114 workers had been sent to Thailand via legal channels by the end of 2007, and a large number of these left their legal employment to avoid repaying the fee of USD600, on top of the USD150 already paid by some migrants to get a passport. Most workers continue to enter Thailand by paying about USD100 to an informal broker, or to enter by themselves. While acknowledging the complexities in the issue, this paper suggests that the cost of legal means can be lowered. Among other things, the Cambodian government should improve the issuing of passports. At present, there is only one small office issuing passports, and it takes two to three months and a cost of approximately USD56 for a worker to receive a passport, or USD150 for issuance in one week. The government of Thailand should also find ways either to regularise those already working in Thailand or to shut down the employment of illegal migrants. There are possible win-win solutions for both the Cambodian government and the poor migrant workers. The government can reduce the cost of officially sending migrant workers to Thailand by providing passports at cheaper prices within one or two weeks, and thereby total revenue will increase. The government can also lower the required deposit of USD100,000 by a labour recruitment agency in order to encourage more firms and competition, which will bring down costs.

6.1. Introduction

Cambodia is a latecomer in management and administration of labour emigration. Most migrants travel by informal or illegal means, while the legal option is relatively new, costly and inconvenient for most. Government agencies will face an increasing challenge to manage labour emigration, which is expected to rise because of both internal and external factors. Since creation of productive jobs does not keep pace with the annual labour force addition of some 300,000, emigration pressure is likely to increase. Higher wages in Thailand, Malaysia, South Korea and Singapore are also a factor. Between 1998 and 2007, 10,532 workers had been officially sent to Malaysia, 3984 to South Korea and 6114 to Thailand, according to official statistics of the Cambodian Ministry of Labour and Vocational Training (MOLVT). Approximately 180,000 Cambodian workers are in Thailand (UNIFEM 2006). Of these, some 110,000 were granted a working permit by the Thai government in 2004, and 50,000 were provided with a certificate of identification by the Cambodian government.

There is pressure from the Thai government to formalise the Cambodian migrants who will go to work in Thailand as well as those already there. To do this, the two governments signed a memorandum of understanding (MOU) in 2003. The MOU addresses the situation of existing Cambodian labour migrants in Thailand and requires all Cambodian workers to have legal documents before they enter Thailand through private recruitment agencies. Eventually all Cambodian workers will enter Thailand legally. If this goes as it should, it will be a huge burden on both private and public institutions in Cambodia. Either the 15 existing recruitment agencies will have to expand or new agencies will have to be set up, and the passport department will have to expand its services to keep up with tens of thousands of additional workers.

While it is generally preferable to create jobs and development in the country, it is advisable to have sound management, policies and a legal framework to govern labour emigration because it provides employment and income needed in the short and medium terms. It can contribute to poverty alleviation. Remittances to Cambodia, which likely include non-migrant remittances, were estimated at USD200 million or 3.23 percent of GDP in 2005. By comparison, in the same year, Thailand and Vietnam received remittances of USD1.2 billion and USD4 billion respectively, according to the World Bank (2007). The Philippines and Bangladesh received USD13.5 billion and USD4.2 billion. A study by the International Fund for Agricultural Development and the Inter-American Development Bank (IFAD 2007) found that there are 150 million migrant workers, who sent home USD300 billion in 2006, surpassing development aid and foreign direct investment.

Based on existing data, reports and interviews, the current paper provides a brief overview of trends and characteristics of labour migration from Cambodia and the emerging issues around it. It examines the legal and regulatory framework governing migration practices and economic policies. It also attempts to project the medium-term and long-term extent of

emigration pressure in Cambodia. The main purpose is to review labour migration issues, with a focus on emigration policies, institutions, legal framework and implementation.

Part II summarises labour emigration trends in Cambodia. Part III reviews legislation and institutions governing labour emigration, while Part IV discusses critical issues of administration. Part V provides conclusions and policy recommendations.

6.2. Development of Labour Emigration in Cambodia

Cambodian migration over the last two decades has been changing from forced migration of refugees or displaced people along the Cambodian-Thai border due to civil war and political instability, towards voluntary migration in search of work at the borders or inside Thailand and other countries. A new wave has emerged of Cambodians migrating to work in Thailand. There are both push and pull factors: insufficient jobs in Cambodia and high wages in Thailand. There are basically two types of migrants: those who stay and work for months or years and those who work for shorter periods near the border, mostly in farming. The long-term migrants are employed in construction, factories, plantations, domestic help and fishing.

One reason for labour migration is that high-growth countries have a demand for low-skilled labour due to their economic expansion and the diminishing attraction of such jobs for their relatively well-trained workforces. Higher incomes attract workers from poorer countries. Unskilled poor labour from the Greater Mekong Sub-region thus comes to Thailand, while semi-skilled workers from Thailand travel to richer East Asian nations (World Bank 2007).

Labour movement from Cambodia started in several areas that received returning refugees from Thai border camps, and expanded to include almost the whole country, except remote areas with limited communications and poor infrastructure. Although Thailand is still the main destination of Cambodian migrants, others include Malaysia, South Korea, Saudi Arabia and Taiwan. Migration has accelerated particularly since the mid-1990s, which were marked by the full attainment of peace and successive natural disasters (Chan and So 1999).

Godfrey et al. (2001), Maltoni (2006) and CDRI (2007b) elaborated other push factors explaining the increased migration. These include chronic poverty, landlessness, lack of employment, lack of access to markets, debt and natural disasters such as droughts and floods. This movement is also facilitated by other factors, including improved communications and infrastructure and increased demand for unskilled labour in Thailand and other Asian countries (AMC 2002a).

In Thailand, the majority of migrant workers are from Myanmar, followed by Laos and Cambodia. The Thai Ministry of Labour granted quotas to the three countries. However, not all could be translated into work permits. For instance, 227,275 jobs could be granted to Cambodian workers but only 110,042 were registered and provided with work permits.

Year after year, continuous negotiations have been conducted involving government agencies, business and labour in an effort to arrive at a rational way to manage the flow of these workers without unduly affecting the economic prospects of Thais (Paitoonpong and Chalamwong 2007). In 2005, the quota of workers set for Myanmar, Laos and Cambodia was 1,086,653, 198,659 and 227,275, respectively. However, the work permits provided were only 58 percent, 53 percent and 48 percent of the quotas (Table 6.1). This indicates clearly that the implementation of work permits was problematic and should be improved. Cambodian migrant workers are quite dispersed in Thailand but there is a relative concentration in the eastern region, central region and Bangkok. The quota provided for the eastern region was much higher than the number of work permits actually granted. This means that the demand for Cambodian workers was high.

Table 6.1: Distribution of Quotas and Work Permits by Region in Thailand, 2005

	Quota				Work Permit			
Region	**Myan.**	**Laos**	**Camb.**	**Total**	**Myan.**	**Laos**	**Camb.**	**Total**
Bangkok	166,138	63,365	33,037	**262,540**	105,771	40,177	17,709	**163,657**
Central	265,509	46,647	49,859	**362,015**	156,874	24,815	23,840	**205,529**
East	71,758	25,885	110,315	**207,958**	34,965	15,272	53,781	**104,018**
West	101,652	11,629	5547	**118,828**	46,685	3850	2105	**52,640**
North	226,189	7532	1099	**234,820**	129,904	3110	944	**133,958**
North-east	6159	30,145	5440	**41,744**	2832	11,595	1464	**15,891**
South	249,248	13,456	21,978	**284,682**	155,423	6315	10,199	**171,937**
Total	**1,086,653**	**198,659**	**227,275**	**1,512,587**	**632,454**	**105,134**	**110,042**	**847,630**

Source: Thai Ministry of Labour. Data up to 31 May 2005 in Paitoonpong and Chalamwong (2007)

6.2.1. Cambodian Emigration through Recruitment Agencies, and Remittances

There are basically two types of migrant works from Cambodia: legal and illegal, in a strict sense. Table 6.2 provides the most recent official statistics on Cambodian migrant workers sent to three countries since 1998. As of July 2007, a total of 20,045 workers/trips have been officially destined to Malaysia, Thailand and South Korea. Of this total, 10,532 went to Malaysia, 3984 to Korea and 6114 to Thailand. The majority of workers sent to Malaysia were female, serving as domestic helpers or housemaids, while most of those to South Korea were male. Although Thailand has received migrant workers from Cambodia since 1994, most workers are undocumented. Official labour emigration started only in 2006.

The contract is for two years at a time. There are 6114 Cambodian workers in currently Thailand under the new legal arrangements. There are also about 100,000 who received

work permits in 2004, about 50,000 of whom received certificates of identification. Thus, in total the majority of Cambodian workers in Thailand were technically legal until recently, when their permits and identification issued in 2004 expired. According to the MOLVT, only about 5000 identification certificates were provided in 2007. Thus, the majority of workers with old work permits and identification are currently in a questionable situation. The MOLVT suggested that the Thai government deport them so that they can be sent back again legally. However, this costs USD600 per worker, which is too expensive for many workers.

Table 6.2: Number of Cambodian Migrant Workers Officially Sent Abroad since 1998

	Malaysia			South Korea			Thailand			TOTAL		
	Total	M	F	Total	M	F	Total	M	F	Total	M	F
1998	120	0	120	..	..	..	..	..	..	120	0	120
1999	86	0	86	..	..	..	..	..	..	86	0	86
2000	502	307	195	..	..	..	..	..	..	502	307	195
2001	846	342	504	..	..	..	..	..	..	846	342	504
2002	1049	246	803	..	..	..	..	..	..	1049	246	803
2003	573	73	500	756	638	118	..	..	..	1329	711	618
2004	809	105	704	675	519	155	..	..	..	1483	624	859
2005	1776	467	1309	468	432	36	..	..	..	2244	899	1345
2006	1690	231	1459	1501	1341	160	445	219	226	3636	1791	1845
2007	3081	174	2907	584	499	85	5669	3913	1756	9334	4586	4748
Total	**10532**	**1945**	**8587**	**3984**	**3429**	**554**	**6114**	**4132**	**1982**	**20630**	**9506**	**11123**

Source: Ministry of Labour (official statistics)

Elsewhere in the region, labour migration is significant, and workers' remittances and compensation are substantial. About 400,000 Vietnamese are currently working in 40 other countries and sending home about USD2 billion per annum, according to Dang (2007). However, the World Bank (2007) reports much larger remittances, as can be seen in Table 6.3. Vietnam is reported to have received USD4 billion in 2005, similar to that in Bangladesh, while the Philippines were sent USD13.5 billion.

Table 6.3: Workers' Remittances

Country	1996	1998	2000	2002	2003	2004	2005
	USD million						
Philippines	4875	5130	6212	9735	10,243	11,471	13,566
Bangladesh	1345	1606	1968	2858	3192	3584	4251
Vietnam	..	..	..	2714	2700	3200	4000
Thailand	1806	1424	1697	1380	1607	1622	1187
Cambodia	12	120	121	140	138	177	200
Lao PDR	45	50	1	1	1	1	1
	Percentage of GDP						
Philippines	5.88	7.87	8.24	12.75	12.66	12.65	13.70
Bangladesh	3.31	3.64	4.18	6.02	6.16	6.32	7.08
Vietnam	..	..	..	7.74	6.81	7.08	7.63
Thailand	0.99	1.27	1.38	1.09	1.12	1.00	0.67
Cambodia	0.34	3.85	3.31	3.27	3.01	3.37	3.23
Lao PDR	2.40	3.91	0.06	0.05	0.05	0.04	0.03

Source: World Bank 2007

Likewise, Thailand has 160,000 migrant workers abroad and received remittances averaging USD1.6 billion per year before 2005. This figure is also reported in Paitoonpong and Chalamwong (2007). Elsewhere in the region, labour migration is a main source of income for the Philippines (about 13.7 percent of GDP) and Bangladesh (7 percent of GDP). Cambodia is gaining USD200 million per annum from workers' remittances and compensation according to the World Bank (2007). This was equal to 3.23 percent of GDP in 2005.

This is, however, by no means an argument for Cambodia to specialise in or rely on sending workers overseas for long-term development. Rather, it suggests that labour export, if well managed, can help alleviate poverty and relieve demographic pressure in the short and medium terms.

6.2.2. Medium-Term and Long-Term Labour Emigration Pressure

In national economic development policy and labour market conditions, there are both push and pull factors for labour emigration from Cambodia.

Push Factors

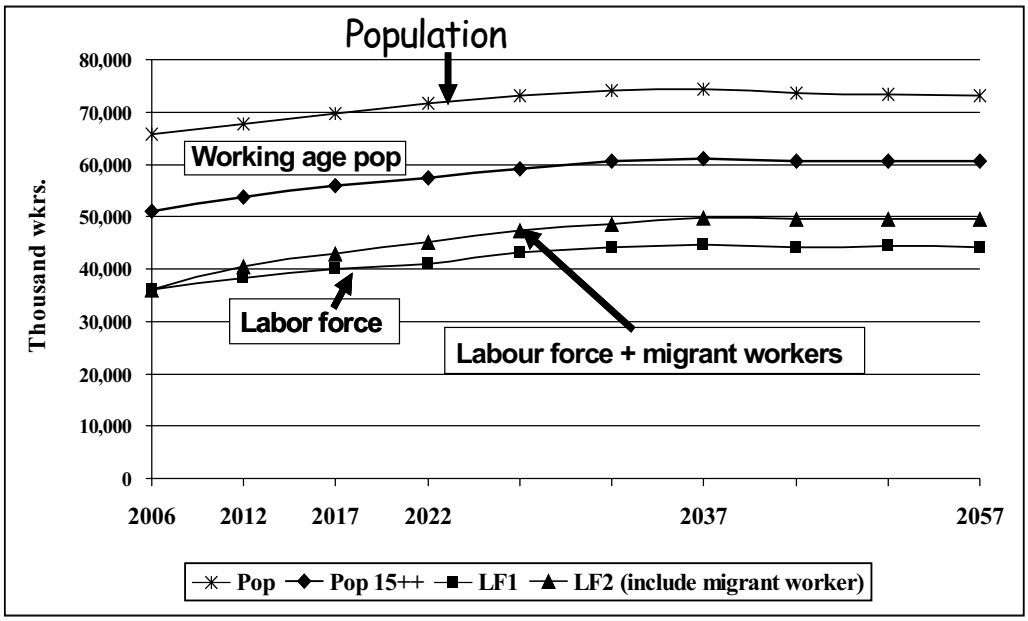
Cambodia's population is growing at 1.96 percent annually, but the youth population is growing at 3.2 percent. In 2020, Cambodia's population is projected to be 18.7 million, compared to 14.4 million in 2007. Youth population (15–24) will be 3.6 million in 2011, compared with 2.35 million in 2007. This suggests that Cambodia faces a challenge of creating jobs to mitigate the demographic pressure.

Since 1995 there has been little investment in agriculture (only 4.7 percent of total capital investment). However, most people (60 percent in 2005) are in agriculture, essentially family workers. This has resulted in persistent poverty (about 40 percent) in rural areas. This is a factor pushing people to migrate. The pressure is going to continue since there has not been any change in government spending and investment in favour of agricultural development.

Pull Factors

There is also a pull factor in labour migration into Thailand. The Thai economy is in need of unskilled labour at present and for many years to come. Paitoonpong (2007) projects that the need for unskilled migrant workers will continue for another 50 years. The gap between the labour force and the demand for labour will grow until it reaches 7 million (Figure 6.1). Several million migrant workers will be needed within the next few years. Box 1 adds more details on the demand for migrant workers in Thailand.

Figure 6.1: Thailand's Long-Term Employment Forecast



Source: Paitoonpong (2007)

Box 6.1: Demand for Foreign Workers in Thailand

The Department of Employment in Thailand conducted a survey of the industrial workforce and found that there are shortages of unskilled workers in most industries.

- The industrial labour force is predominantly unskilled.
- Although there is a legal minimum wage, there are a number of violations.
- Many dirty or unattractive jobs are in the industrial sector.
- 12,053 firms, 38 percent of those surveyed, needed additional workers in 2007.
- There is a need for 445,683 persons (17 percent of current employment) in 14 industries.
- The industries that most need workers are electrical appliances and electronics (130,710 workers), textile and garments (116,752) and food and animal feed (76,449).
- Production workers needed total 145,887 (32.7 percent of total requirements).
- Skilled workers needed are 106,054 (23.8 percent).
- General workers needed are 60,670 (13.6 percent).
- The majority (67 percent) of the workers required have secondary education or lower.

Source: Paitoonpong (2007)

Paitoonpong (2007) offers four possible policy options to the Thai government:

1. Increase participation rates; mobilise Thai workers from the surplus sector;
2. Supplement local labour with migrant workers (by facilitating migrant workers);
3. Increase the productivity of Thai labour through greater capital intensity, better technology, better management, increased training.
4. Combine all three approaches.

Option 3, which is quite likely, has important implications for emigration from countries like Cambodia, Myanmar and Vietnam.

6.3. Legislation and Institutions to Govern Labour Emigration

6.3.1. Lack of Legal Framework

As Cambodia's labour emigration is a relatively recent phenomenon, the country faces a challenge to create policies, legislation and regulations to deal with the outflow of migrant workers. "Sub-decree 57 on Sending Khmer Migrants to Work Abroad" was issued in 1995. The document was drafted by the then Ministry of Social Affairs, Labour, Vocational Training and Youth Rehabilitation (MoSALVY)[1] in collaboration with the Ministry of Interior and Ministry of Foreign Affairs. The sub-decree recognised the lack of domestic employment opportunities and stated the objective of improving standards of living through income generation and skills acquired working overseas. The sub-decree referred to the ministry in charge (now MOLVT) as the providing party and a recruitment company or agency as the receiving party. In addition to Sub-decree 57, there are Prakas 108, May 2006, on "Education on HIV/AIDS, Safe Migration and Labour Rights for Cambodian Workers Abroad" and Sub-decree 70, July 2006, on "The Creation of the Manpower Training and Overseas Sending Board".

Many interviewees pointed out that Cambodia lacks a migration policy or any specific law on migration. In their view, Sub-decree 57, the only binding legal document above a prakas, is old and needs review. Cambodia's Labour Law cannot be applied in the receiving countries when it comes to dealing with labour migration. The MOLVT will issue an employment policy in the near future according to officials.[2] But Cambodia lacks laws and regulations to control the conditions of migrant workers abroad, to punish persons who exploit or cheat workers or to intervene when migrant workers face problems or conflicts.[3]

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[1] MOSALVY in 2005 was divided into the Ministry of Labour and Vocational Training (MOLVT) and the Ministry of Social Affairs, Veterans and Youth Rehabilitation (MoSAVY). The veterans' affairs component moved from MoSALVY to the Ministry of Women Affairs in 1999 and then to MoSAVY in 2005.

[2] Interview with Seng Sakda, 16 July 2007.

[3] Interview with Khoun Bunny, 19 June 2007.

However, some view overcoming the lack of individual capacity to manage migration as more urgent. The MOLVT is two years old. The number of staff who have considerable knowledge of migration issues and technical skills such as English is quite limited. Policies or laws may not be effective when capacity is severely limited.

6.3.2. Lack of Government Institutions

There is a view that there should be an institution specifically in charge of managing labour migration. Because migration is a complex issue involving many sectors, one option is to set up an independent office or department under the Council of Ministers. However, there is also a view that there are enough organisations; what is lacking is the capacity of the institutions. There is a consensus among all the interviewees that more competent staff are needed for the General Department of Labour and Department of Employment and Manpower to manage labour migration issues. This may entail more funds from the government in order to hire capable persons.[4]

NGOs are very active in dealing with migration and human trafficking issues. The Migration NGO Network was created with the support of UNIFEM and has the participation of 30 organisations. They meet every two months to pursue their five programmes on (i) advocacy and awareness raising, (ii) investigation, (iii) legal aspects, (iv) research and database and (v) capacity building and public relations. The network is led by a steering committee composed of organisations most active in labour migration and human trafficking issues.[5]

6.3.3. Lack of Private Institutions

Sub-decree 57 rightly points to the problem of unemployment and under-employment and the benefits from labour emigration to improve the standard of living of Cambodians. However, a number of aspects suggest that there is incoherence between intentions and policies. These are the requirements for recruitment agencies to make high deposits and advance expenditures.

There should be adequate recruitment agencies to handle the approximately 200,000 emigrant workers if all are to go in legal ways. Both government and private institutions need to be sufficient and strong. Currently, there are both a lack of staff capable of dealing with labour migrant issues and a shortage of private agencies to recruit, train and send workers overseas.

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[4] The ministry is open to new ideas and improvements. It would like to take a serious approach of having a workshop or training to discuss the needs, a study tour to learn from neighbouring countries and a final decision making meeting.

[5] Information based on a meeting of the network members on 16 July 2007.

The lack of labour export companies is clearly the result of high requirements set by the sub-decree. Companies are required to deposit USD100,000 with the MOLVT and to pay expenses for applicants. This places a great financial burden on them. It is the reason that 26 companies had to close in July 2006, when the deposit requirement was strengthened, leaving only 13. Judging by countries with long experience in exporting labour, this is too few companies. Bangladesh has about 800 companies to recruit and export migrant workers, while the Philippines has more than 1000.[6]

There should be financial guarantees for when companies fail to conform with the law or cause losses to potential workers. However, a strong government monitoring system can also ensure conformity. It is more efficient to improve government institutions than to constrain the creation of recruitment agencies. The operational costs of such institutions can be financed from the revenue from migrant workers, who can bring hundreds of millions of dollars into the Cambodian economy.

6.3.4. Requirement for Agencies to Advance the Costs of Sending Migrant Workers

The other problem of regulation is that the financial costs of sending workers abroad are borne by companies. It is believed in the Ministry of Labour that this requirement is binding, while in fact it is only a recommendation by the prime minister out of sympathy for the poor. This means a company needs to advance at least USD600,000 in order to send 1000 workers at a time, since the cost of sending each worker is reported as USD600. This is a lot of money to risk, especially for Cambodian companies that are not rich but may be competent. Companies report substantial losses because of workers running away while abroad. This puts their viability at stake.

The advance payment by companies can create a moral hazard as well. Some workers may think that they can just leave work found through a recruitment agency in order to join the irregular workers, who account for more than 90 percent of those working in Thailand, to avoid repaying their substantial debt. To cope with this risk, the companies have to raise the charge to workers, which in turn raises the total cost of exporting migrant workers.

Having recognised this burden, the government has allowed companies to charge applicants for their passports and some basic costs such as health checks. At present each applicant pays USD50–150 to cover basic costs, mainly passports. This is a good step towards cost sharing. However, recruitment agencies still bear the rest. Including their profit, companies charge USD600 per person for those going to work in Thailand, USD800–900 for those going to Malaysia. For those going to South Korea, companies used to charge USD1500–2000. Currently, under the government to government arrangement the cost of sending a

[6] The number must be much higher in Thailand and Vietnam, where labour export is substantial. According to Dang (2007), there seems to be no deposit required for licensed recruitment enterprises in Vietnam.

worker to South Korea is only USD900. Fortunately, employers in Thailand advance the cost, 20,000 baht for each worker. Some advance 50 percent of the cost and deduct from the salary for 10–12 months to recover costs and the profits of the Cambodian companies.

6.4. Critical Issues in Administering Labour Emigration

6.4.1. Passports

Once the MOLVT approves the application to work overseas, the recruitment agency prepares the application for a passport, which is a prerequisite to applying for a visa. The official cost of a passport should be only USD20, thanks to the concession provided by the government to migrant workers.[7] However, in practice, the cost is USD50 if there is no urgency and the issuing takes around one month. Recently, due to new technology (addition of a microchip to produce an e-passport) and rising demand for passports, the processing time has increased to around two months. The official cost has also increased by USD20. To get the passport in one week, the cost is approximately USD150 for a migrant worker or USD220 for a normal citizen. This is very high for workers who cannot wait for many months.

Recruitment agencies complain about both the cost and the long delay to get a passport. They say that, if only one thing can improve, it should be quicker issuing, because some workers can not wait, as they live from hand to mouth. Including the one month to receive a Thai visa, the whole process takes about six months, which is too long for workers who desperately need income. The request for quicker issuing of passports is sensible and should be possible for the government to fulfil. The MOLVT has sent an official letter to the minister of the interior requesting that passports be issued in no more than one month, but there has been no improvement to date.[8]

There is only one place issuing passports in all of Cambodia. The office is small and has never been expanded. At the national workshop on foreign employment administration in Cambodia at the Sunway Hotel, 26–27 July 2007, the representative of the Ministry of Interior responded to the appeal for faster processing of passports that the ministry had introduced e-passports, which require the addition of a chip and take longer to process. He cited the lack of human and material capacity to process passports. Regarding the price of passports, the representative said that the Ministry of Economic and Finance (MEF) sets the price. However, while the MEF set a price of USD20 for a passport for a migrant worker, the actual cost was around USD60 for issuance in two months or USD150 for one week. This points to the inconsistency of migration policy, which has contributed to the rising cost of migration and the rising number of irregular migrants.

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[7] In normal cases, a passport costs USD135 if issued between four and six weeks after the application. If a passport is needed in one week, the cost is USD250, in 2 weeks USD200, in 3 weeks USD160.

[8] According to Seng Sakda in meeting on 16 August 2007.

Given the high price of passports, there should not be a lack of facilities and equipment to process them. The revenue from passports should be more than adequate to purchase needed equipment and to hire adequate staff. When more people are applying for passports, it will generate more income to finance the system.

If some 200,000 workers are each to be given a passport, the total cost will be USD10 million, at a rate of USD50 each. The one small office in Phnom Penh would not be able to meet this need. It would be more efficient for the Ministry of the Interior to open more than one office in Phnom Penh. More importantly, it should open offices in a few major provinces and provide them with competent staff. This would not only meet the acute need for passports but would also cut travel costs for provincial people. For instance, Banteay Meanchey should have an office for passport applications and issuance. It would be even faster if the provincial governor were delegated power to sign a passport. However, even if only the ministry in Phnom Penh can sign, there can be an office to accept applications and deliver the passports issued and signed in Phnom Penh.[9]

6.4.2. The Problem of Desertion while Working in Thailand

The requirement for recruitment agencies to bear the cost of sending workers is problematic. The agencies stand to lose if workers run away. Desertion, especially in Thailand, is quite high, according to the recruitment agencies. This is understandable because fewer than 6114 workers have been sent legally, while more than 100,000 work in Thailand irregularly or entered without legal means. It is likely that legal workers are tempted to flee their debt and join the large crowd of undocumented workers. This is not a unique problem. Dang (2007) reports that the desertion rate of Vietnamese workers in Japan was 27–30 percent, in South Korea 20–25 percent and in Taiwan 9–12 percent.

Cambodian workers sent by recruitment agencies have to pay a large part of their salary for 10–12 months to cover the debt of about USD600. To ensure the money will be repaid, recruitment agencies send a staff member to stay with the workers, provide some help to them and hold their passports. Holding passports as collateral is not very effective. It is not difficult to cross the Thai-Cambodian border, so workers can easily leave their passports and take the risk.

The MOLVT expressed understanding of the financial burden on the recruitment agencies. It relaxed the requirement for the companies to cover the whole cost. Currently, workers pay for their health examination and passport. This amounts to about USD100, while the recruitment agency still pays about USD500 for those who go to Thailand.

[9] In Thailand, a passport costing 1000 baht and taking only three to five days is available in many places in Bangkok and in each province.

Another problem is that some workers find the work too hard, so they return home by any means. This makes the company lose money. It could be that they were not briefed adequately before accepting the job, or that the promised and actual jobs are different. The recruitment agencies are partly to blame for runaways because they fail to recruit the workers properly. They are not selective, but choose anyone. Their aim is to send anyone without screening so that they can quickly earn the recruitment fee.

It is not easy for recruitment agencies to solve the problem of desertion. In some cases, they request the Thai embassy to block the runaways from receiving visas again. It remains a messy situation without any good solution. Unlike South Korea or Malaysia, where most migrant workers are legal and cannot easily return home without a passport, Thailand is a special case: geography and loose border controls make it easy for workers' to run away.

6.4.3. Alternative to Advance Payment by Recruitment Companies

If it is left to recruitment companies to bear the costs, there is a limit to the number of workers that companies can recruit and send abroad. If a company had to pay for 180,000 workers at the cost of USD600 each, it would mean it had to have USD108,000,000. If the governments of Cambodia and Thailand want labour migrants to go through recruitment agencies, the number of agencies should be much greater. Currently, half or most of the costs are borne by the Thai employers on the condition that the Cambodian recruitment agency will replace at no charge workers who run away. This places the Cambodian recruitment agencies at very high risk.

A solution to the runaway problem would be to have the workers bear the costs of obtaining employment in Thailand, especially in areas deep inside the country. This would also allow recruitment agencies to be released from the financial burden and to be able to send many more workers.

It is understandable that most workers may not have USD600 to pay up front. However, this problem can be dealt with by finding a way for serious workers to obtain a special loan either with or without interest. It could be through banks, micro-finance institutions, NGO credit programmes or community saving schemes. Workers seeking larger benefits from working abroad would have to put up cash or get a loan to pay the recruitment agency. The loan would be endorsed by local authorities who knew the applicant well or guaranteed by or other arrangements.

6.4.4. Implementation of MOU between Cambodia and Thailand

There are different types of foreign workers in Thailand: lifelong permit, temporary permit, investment promotion permit, and permits for non-registered illegal and registered illegal. In the past decade, illegal immigrant workers from neighbouring countries have increased because

there is a very large unfilled demand for low-skilled workers in Thailand. The influx of illegal workers has resulted in both economic gains and social problems. The Thai government therefore signed MOUs with Myanmar, Laos and Cambodia in 2003 to develop measures for better management of illegal immigrants (Paitoonpong and Chalamwong 2007).

As part of the implementation of the MOU between Thailand and Cambodia, Cambodian authorities set up an interministerial committee from the MOLVT, Ministry of the Interior, Council of Ministers and Ministry of Foreign Affairs to provide certificates of identification to Cambodian migrants who had been working in Thailand illegally. A parallel Thai task force (from the ministries of Labour, Interior and Health) provides work permits. A migrant worker has to pay 500 baht to the Cambodian committee and 4000 baht to the Thai committee for the work permit, which requires a health examination for inclusion in the health insurance scheme. The total cost of sending a worker through the MOU system in Cambodia is USD600 (including the profit of the recruitment agency), while in Laos the cost is only USD441. This suggests that Cambodia has the potential to reduce the cost of legal means.

The second round of registration of illegal workers in Thailand occurred from 23 April 2007 to 31 August 2007, following the first round in 2005. In this round, only around 6000 Cambodian workers were registered. The main reason for the low number, the Cambodian side speculated, is that Thai employers did not take their workers to register with the committees. This may or may not be deliberate. Another reason could be the cost and the perception that there are no benefits from registration. The total cost of about 4000 baht is high. Unless they see benefits from registering or punishments for not registering, workers may choose not to register.

The Cambodian MOLVT believes that the MOU has been helping Cambodian workers in Thailand to gain recognition and fair treatment over the past five years. Up to the end of 2007, 6114 Cambodian workers were sent to Thailand under the MOU conditions. The teams working for the Cambodian and Thai labour ministry have cooperated very well, according to the Cambodian government officials interviewed. The director general of the General Department of Labour, who heads the delegation negotiating with the Thai Ministry of Labour, argues that Thailand should deport Cambodian workers who fail to register, but do so humanely. Then these workers should be sent back to Thailand if they wish through recruitment agencies or other legal means.

In order for Cambodian workers in Thailand to register with the Cambodian interministerial committee working in Thailand, they have to be informed. Dissemination in Thai and through public means may not be effective because most Cambodian workers are not able to access or understand the information. The Thai Ministry of Labour was reportedly requesting employers to notify workers to register. This was perhaps the only way to reach Cambodian workers. However, it relies heavily on employers cooperating. If employers fail to inform their migrant workers, the information will not reach them.

Generally speaking, there have to be incentives for employers to cooperate or disincentives for them not to cooperate. There is a belief among some interviewees that some employers prefer hiring undocumented workers because there are benefits in doing so. They can mistreat these workers if they wish. There are accounts that, shortly before pay day, employers collaborate with the police to chase away workers and then share their wages with the police. If true, this would suggest that employers in Thailand need incentives to inform their irregular workers to register or should be punished for failing to do so.

6.5. Conclusions and Recommendations

The key issue is how to make a legal choice available and affordable to the workers who enter Thailand. The question is whether or not to regularise the many workers who have remained in Thailand. To have them go home and then return through companies is unlikely unless it is absolutely necessary for them to do so. Among other barriers, the cost is quite prohibitive. In order for migrant workers to use formal means, there must be changes in both Cambodia and Thailand.

In Cambodia, the cost for migrants to enter Thailand legally should be minimised. For this, several actions are needed:

- Institutional arrangements should be improved. The MOLVT should have a department responsible directly for labour migration and more staff competent in dealing with migration issues.
- A migration policy and more appropriate legal framework such as migration law should be considered.
- Passport fees should be lowered. The current charge of USD150 for issuance in one week is too high for workers.
- There should be more offices issuing passports in both Phnom Penh and provinces with large numbers of would-be migrants.
- There should be more companies and more recruitment offices in the provinces where there are large numbers of workers migrating to Thailand.
- Sub-decree 57 should be revised to accommodate new developments.
- Deposits, currently USD100,000, for setting up recruitment companies should be reduced in order to increase the number of services in this sector.
- There should be a more careful selection of workers by recruitment agencies to avoid runaway problems. This can perhaps be done through NGOs.
- Recruitment companies should be allowed to charge workers the fees to go and work in Thailand to avoid the problem of running away from workplaces.
- The time to process documents should be reduced by speeding up passport issuing.

Thailand stands to benefit from migrant workers in the country and should therefore help to formalise the workers there:

- Processing costs (for work permit and visas) should be lowered by the government.
- The option of employing migrant workers illegally should be closed. There should be incentives to employ legal workers or disincentives to employ illegal workers.
- There should be a way to legalise those already working in Thailand without requiring them to acquire passports and visas in Phnom Penh.
- All costs associated with legalising migrant workers should be minimised.

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