INDUSTRY-AGRICULTURE LINKAGES: IMPLICATIONS FOR RICE POLICY

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INDUSTRY-AGRICULTURE LINKAGES: IMPLICATIONS FOR RICE POLICY

A UNDP Funded Discussion Paper

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FOREWORD

After the global financial crisis, there is a consensus that Cambodia needs to advance on industrial diversification shifting from a garment export-led growth to a more broad-based growth. It is often assumed that growth of agrarian economies, at least in the early stages, requires a net 'surplus' transfer from the agricultural sector in order to maintain high enough rates of industrial investment. While there is a long literature that identifies the regularities in structural change, empirical works on the mechanisms and processes of inter-sectoral resources transfers which give rise to such transformation are normally limited. This gap in the understanding of the development process, which economic theory on its own is not equipped to fill also contribute to the controversy on the best industrialization policy. It seems that this type of analysis linking the impact of the agricultural policy, particularly rice policy, and how increase agricultural surplus is fuelling industrialization has not received sufficient attention from researchers in Cambodia.

The current paper aims to fill this gap to examine the role of agriculture and food policy in Cambodia's pursuit of industrialization. The objective is to provide some inputs to the Industrial Policy paper prepared by the Supreme National Economic Council (SNEC). It begins with a brief review of economic trends, sources of growth and structural weaknesses. It then goes on to discuss the role of agriculture focusing on performance, volatility and linkages, followed by a review of food policy issues from the perspective of producers, millers, consumers and the State. The paper also reviews various state interventions and strategies before going on to discuss the vexing "land reforms". It ends with a call for a pro-poor, pro-rural bias in policy but acknowledges hurdles stemming from political economy considerations.

The study concludes that Cambodian industrialization needs to be firmly embedded in the domestic economy in order for it to be broad based, inclusive and sustainable. This is also an imperative from the perspective of poverty reduction. A dynamic, smallholder agriculture holds out the best promise to stimulate industrialization, given the strong multiplier effects of agricultural investments. In the specific case of rice exports, the incentive regime needs to be overhauled. At one level the 'soft' issues have to be streamlined and made efficient, including export processing, banking and insurance. At another level, the hard issues have to be addressed, particularly energy and transport costs along with some lumpy investments in SPS enabling infrastructure, bulking and storage facilities. In addition, it will be imperative to remove financial and credit constraints perhaps through carefully considered subsidies to encourage Cambodian initiatives in this sector. The issue of subsidies is a thorny one and I am making this suggestion with a degree of nervousness. If carefully structured, temporary subsidies can play a hugely positive, interim role to break the deadlock around rice exports from Cambodia. The longer run challenge will hinge on two additional critical elements: development of human resources and skills in critical areas, and development of an indigenous capitalist class. While the former is related to well-focused investments, the latter will depend critically on supporting local entrepreneurship and positive discrimination to encourage local talent.

Linking Policy and Practice (LPP)

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ABBREVIATION

ADB	Asian development Bank
CEF	Cambodia Economic Forum
ELC	Economic Land Concessions
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Domestic Product
GDP	Gross Domestic Product
LDC	Less Developed Country
MAFF	The Ministry of Agriculture, Forestry and Fisheries
NSDP	National Strategy Development Plan
RGC	Royal Government of Cambodia
RMG	Ready-Made Garments
SEA	South East Asian
SNEC	The Supreme National Economic Council
SPS	Sanitary and Phytosanitary Measures (SPS Agreement - WTO)
TOT	Term of Trade
UNDP	United Nation Development Programme

EXECUTIVE SUMMARY

Introduction

The overall purpose of this paper is to examine the role of agriculture and food policy in Cambodia's pursuit of industrialization. It begins with a brief review of economic trends, sources of growth and structural weaknesses. It then goes on to discuss the role of agriculture focusing on performance, volatility and linkages, followed by a review of food policy issues from the perspective of producers, millers, consumers and the State. The paper also reviews various state interventions and strategies before going on to discuss the vexing "land reforms". It ends with a call for a pro-poor, pro-rural bias in policy but acknowledges hurdles stemming from political economy considerations.

The paper is based on a desk review of secondary material along with the extant literature in the field of agricultural development, food policy and industrialization, with a special focus on the relevance of the South East Asian (SEA) or regional experience for Cambodia. It has also benefited greatly from stakeholder feedback obtained during a technical workshop and a brainstorming session with The Supreme National Economic Council (SNEC).

Economic Performance

Cambodia has done exceptionally well in terms of growth, continuing to remain a top performer in Asia. While the Global Financial Crisis took a severe toll on the economy, it has rebounded well, with key macro-economic indicators looking quite healthy (low inflation, rising foreign exchange reserves, improving balance of payments). Foreign Domestic Investment (FDI) flows have resumed while domestic savings, despite significant improvement, remains low.

Rapid growth has led to significant structural changes in the economy, with the historically high share of agriculture to Gross Domestic Product (GDP) (50 percent in the 1980s) falling to around 30 percent in 2011. However, the nature of the growth process suffers from the limitation that it is narrowly focused on just a few, volatile sectors, namely Ready-Made Garments (RMG), Tourism and Construction. More recently, agriculture has also started to demonstrate some dynamism.

A review of growth and performance of the Cambodian economy leads to two clear conclusions: (a) rapid growth failed to generate strong domestic linkages, especially with the rural-agrarian economy; (b) underlying structural weaknesses were revealed by the global financial crisis. Indeed, it has been noted that the early and rapid globalization led by manufactures, and a lagging agriculture meant that the growth process became "inverted" from the usual experience with agriculture not leading but lagging industrial development (in this case led by FDI). There is thus, a need to re-focus on agriculture to restore balance and construct linkages.

Role of Agriculture

Given this background, there is a urgent need to take a fresh look at agriculture, which is a traditional supplier of industrial raw materials, cheap wage-goods (food) to the (urban) labour force, and a potential market for domestic manufactures and services.

SE Asia has industrialized on the back of agriculture (see Henley 2012). Djurfeld et al (2005) also emphasizes the role of "State initiated, market mediated interventions concentrated in food production through subsidized inputs and credit". Thus countries like Malaysia invested heavily in agriculture during their formative years (1960s and 1970s), when 25-30 percent of the budget went to agriculture. In the 1960s, Malaysian investment in agriculture was 20 times larger than in industry.

Cambodia has lagged behind in its treatment of agriculture with budgetary allocations at a meager 3-5 percent in recent years (and declining). A target of 10 percent of the recurrent budget and 25 percent of the development budget should be aimed at.

Agricultural Performance

Despite relative neglect, significant growth has been achieved, especially since 2004. The Ministry of Agriculture, Forestry and Fisheries (MAFF) declared self-sufficiency in rice in 2005 when some formal exports began alongside much higher levels of informal, cross border exports. Large increases of exports are currently planned in the face of estimates of an exportable surplus of rice of over 2.0 million tons in 2011-12. Exports in 2011 were worth US$104 million (170,000 tons).

A key concern for planners is the lack of value addition in agriculture, dramatically demonstrated by the export of unmilled rice to Vietnam and Thailand for exports to third country markets.

The Royal Government of Cambodia (RGC) is now examining alternative export channels for rice exports through formal avenues, recognizing the need for diversification. The earlier focus on fine rice may need to be reviewed given changing market conditions, especially in Europe.

Agriculture: Poorly Linked

Agriculture depends on crucial, purchased inputs like seeds, fertilisers, pesticides, machinery and spares, mostly sourced from neighbouring countries through informal trade. Thus, agricultural production systems appear to be much better integrated with regional markets than it is with domestic markets.

Thus, the overall characterization of the Cambodian economy is that despite high growth rates, domestic linkages have remained poorly developed, with the most dramatic pointer being unmilled, informal rice exports.

It is therefore important to expand the rural-agricultural market through (a) expansion of production (mainly rice); (b) re-engineering the rice segment of the value chain to reduce costs; (c) interventions in infrastructure, energy and institutions. A quote from Mellor (1995) is poignant: "The faster agriculture grows, the faster its relative size declines".

Food/Rice Policy Issues

The main issues relate to production and production incentives, market stabilization, efficiency of value-chains (including missing links), and consumer welfare. The outlook for the demand side is good but we need to bear in mind considerable world market volatility and a fast transmission rate.

Value chain studies from elsewhere suggest that significant value addition is created by traders, millers, and wholesalers, especially for fine rice which suggests that given market demand, every effort should be made to exploit this opportunity. However, it is important to confirm these findings from Cambodian rice value chain studies.

The main problems surround absence of critical infrastructure and institutions (e.g. modern storage, cheap transport, cheap energy). The market has not yet responded to the critical absence of bulking, grades, and standards (especially Sanitary and Phytosanitary Measures (SPS)) – which can hold exports back.

Consumers cannot be forgotten in this debate: both producer and consumer welfare will need to be addressed given acute market volatility as food expenditures are high in Cambodia (64 percent) and rice provides 75-80 percent of calories. Similarly, farm incomes are highly susceptible to price shocks, as abundantly made clear during 2007-08.

Land Reform

It is time to address this vexing question given the poor performance (and high expectations) from economic land concessions as a way to create the basis of a modern, commercial agriculture. Cambodia would be far better off investing its resources (land and other resources) to build a dynamic, peasant agriculture, which is currently constrained by lack of resources and infrastructure. This would create the basis for a solid foundation to dynamize industry, forge genuine, well-grounded linkages, and exploit growth multipliers. However, given the complex land-interests that have evolved in Cambodia, it would take a lot of political will to implement a genuine, comprehensive land redistribution programme.

Conclusion

Cambodian industrialization needs to be firmly embedded in the domestic economy in order for it to be broad based, inclusive and sustainable. This is also an imperative from the perspective of poverty reduction. A dynamic, smallholder agriculture holds out the best promise to stimulate industrialization, given the strong multiplier effects of agricultural investments.

In the specific case of rice exports, the incentive regime needs to be overhauled. At one level the 'soft' issues have to be streamlined and made efficient, including export processing, banking and insurance. At another level, the hard issues have to be addressed, particularly energy and transport costs along with some lumpy investments in SPS enabling infrastructure, bulking and storage facilities. In addition, it will be imperative to remove financial and credit constraints perhaps through carefully considered subsidies to encourage Cambodian initiatives in this sector. The issue of subsidies is a thorny one. If carefully structured, temporary subsidies can play a hugely positive, interim role to break the deadlock around rice exports from Cambodia.

The longer run challenge will hinge on two additional critical elements: development of human resources and skills in critical areas, and development of an indigenous capitalist class. While the former is related to well-focused investments, the latter will depend critically on supporting local entrepreneurship and positive discrimination to encourage local talent.

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I. INTRODUCTION

The Cambodian economy has done remarkably well over the past decade with an average, annual growth rate of 9.5 percent accompanied by significant poverty reduction (World Bank 2010). Key sectors of the economy were badly affected by the Global Financial Crisis, including garments, tourism and the construction industry. Although the country has now recovered, the crisis left it deeply traumatized, serving to highlight fundamental weaknesses in its economic structure (ADB 2012; SNEC 2011). Early signs of structural change have been reported, pointing to a shift from a garment export-led growth to a more broad-based growth scenario with a more diversified agriculture, tourism and emergence of a light manufacturing industry as potential engines of future growth (SNEC 2011). It has now become important to understand these shifts and encourage these emerging trends. Key public interventions need to be aimed at improving public institutions and governance, support to industry and promotion of human capital through investments in people, mainly in education and health (UNDP 2011).

The RGC created the Cambodia Economic Forum (CEF), which has served as a useful platform for presentation and critical review of new policies and strategic directions aimed at supporting the country's reform agenda (Chibber 2011). The 5th CEF is scheduled to take place later in the year in the background of an increasingly unstable global economic climate. The European debt crisis, potential global financial instability and the "soft landing" of China represent fresh challenges to Cambodia's export sector, while at the regional level, Cambodia faces new competition in the shape of a newly liberalizing Myanmar (Schellekens 2012).

At the national level, the RGC is engaged in the formulation of both the new Rectangular Strategy (RS) and the National Strategic Development Plan (NSDP) with a specific emphasis on industrialization, graduation from Less Developed Country (LDC) status and setting up the path to avoid the so-called 'middle income trap'. Thus, the next CEF is also an opportunity to share and build a broad consensus around the government's new vision for Cambodia 2030 and its industrial policy (Menon 2012; Chibber 2011).

It is in this context that SNEC and UNDP agreed to organize a technical workshop to allow for time for reflection to identify gaps where further "solution oriented" analysis is needed and to concretize the theme of the forthcoming CEF. The technical workshop was structured along three interrelated themes namely, "food policy: Industry-Agricultural Linkage"; "Cambodia new industrial policy" in light of the latest advances in industrial economics theory and industrialization experience in LDCs; and "human capital in response to industrialization".

1. Objectives

The overall purpose of this paper is to examine the role of agriculture and food policy in Cambodia's pursuit of industrialization.

The overall purpose of this paper is to examine the role of agriculture and food policy in Cambodia's pursuit of industrialization. It begins with a brief review of economic trends, sources of growth and structural weaknesses. It then goes on to discuss the role of agriculture focusing on performance, volatility and inter-linkages, followed by a review of food policy issues from the perspective of producers, millers, consumers and the State. The paper also reviews various state interventions and strategies before going on to discuss the vexing "land reforms". It ends with a discussion of the need for a pro-poor, pro-rural bias in policy but acknowledges severe hurdles stemming from political economy considerations that render fundamental reforms especially of property rights, challenging.

2. Methodology

The paper is based on desk reviews of policy papers and other secondary material relating to rice-food policy, agricultural development and industrialization, with a special focus on the relevance of the SE Asian/regional experience that may be of relevance to Cambodia. The study also benefited from a policy workshop held in Phnom Penh in mid-August when an initial presentation was made to a select group of stakeholders. A further brainstorming session was held with SNEC team members who were kind enough to share their views and provide feedback.

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II. ECONOMIC PERFORMANCE

The high and sustained growth rate of Cambodia over the last decade was driven by FDI and concentrated on three sectors, namely garments, tourism and construction (World Bank 2010). More recently, agricultural performance improved significantly serving to diversify the sources of growth away from FDI-dependent sectors. It is in fact remarkable that Cambodia was able to move out of its post-conflict rehabilitation stage to a stage of rapid growth so quickly, based on a standard recipe of prudent macroeconomic management, market-liberalization policies, and an open economy combined with large investments in physical infrastructure. Cambodia's growth performance has been one of the strongest in the region (Table 2).

Cambodian growth was not preceeded by large-scale investments in agriculture or rural development, nor in education or health. While a distributive land reforms was conducted in the 1980s, by the turn of the century, land alienation had become a serious problem for the rural population, resulting in a third of rural households being landless while the remaining owning only small land parcels (around 1 ha per household on average) – a striking outcome in a context where land is supposedly in abundance (Ngo and Chan 2011).

Rapid economic growth induced significant structural changes in the economy, with the historically high share of agriculture to GDP (50 percent in the 1980s) falling to around 30 percent in 2011. Rapid growth also generated employment, especially in RMG for poor rural women (300,000 workers in RMG), while poor men have been attracted to construction work. There has also been a significant impact on poverty with current head count rates at around 30 percent (Table 3) down from nearly 40 percent in the early 1990s. Inequality however, both national and between rural-urban, has risen sharply in the meantime, in part because of rapid growth but also because the growth process has not been particularly broad-based or inclusive, yielding a mediocre growth-poverty elasticity. The main growth sources; RMG, Construction and Tourism have not been adequate in addressing the challenge of over 250,000 new annual entrants to the labour force.

Although outward linkages and a wide-open economy have served Cambodia well so far, the country is highly susceptible to global market instability, most dramatically highlighted by the 2007-08 Global Financial Crisis when GDP growth rates plunged. The lesson from that period is Cambodia is vulnerable to both financial and food shocks emanating from the world market that is quickly transmitted via market channels. Growth rates are yet to cross pre-crisis levels despite significant improvement (Table 1) although deflationary trends have been halted, reserves improved to around US$3 billion in 2011, and the balance of payments began to post a healthy surplus. It is therefore imperative not to lose sight of the lessons learnt from that experience.

Cambodian growth was not preceded by large-scale investments in agriculture or rural development, nor in education or health.

Two key observations: (a) rapid growth in Cambodia failed to generate strong domestic linkages, especially within the rural-agrarian economy, and

(b) underlying structural weaknesses remain significant as shown by the global financial crisis.

Thus, we may make two key observations: (a) rapid growth failed to generate strong domestic linkages, especially within the rural-agrarian economy, and (b) underlying structural weaknesses were revealed by the global financial crisis. Indeed, it has been noted that the early and rapid globalization led by manufactures, and a lagging agriculture means that the growth process became "inverted" (Henley 2012). There is thus, a need to re-focus on agriculture to restore balance and construct domestic linkages in order to create a more resilient, less vulnerable economy.

Table 1: Cambodia: Basic Economic Indicators

	2009	2010	2011	2012
GDP growth rate	0.1	6.0	6.9	6.5
Share of GDP:				
Agriculture (%)	33.5	33.9	34.0	33.6
Industry (%)	21.7	21.9	22.6	23.1
Services (%)	38.8	38.3	37.8	37.7
GDP/cap (USD)	753	830	909	984
Inflation - %	-0.6	4.0	5.5	5.0

Source: Hang Chuon Naron (2012).

Table 2: Cross-Country Growth Comparisons

	2010	2011	2012	2013 (p)
Brunei	2.6	2.9	2.6	3.2
Cambodia	6.0	6.8	6.5	7.0
Indonesia	6.2	6.5	6.4	6.7
Lao PDR	7.5	7.8	7.9	7.7
Malaysia	7.2	5.1	4.0	5.0
Myanmar	5.3	5.5	6.0	6.3
Philippines	7.6	3.7	4.8	5.0
Singapore	14.8	4.9	2.8	4.5
Thailand	7.8	0.1	5.5	5.5
Vietnam	6.8	5.9	5.7	6.2

Source: World Bank (2012).

Table 3: Cross-Country Poverty Performance

Country	Latest Year	National poverty line	$1.25 a day	$2.00 a day
Cambodia	2008	30.1[a]	22.8	53.3
Indonesia	2010	13.3	18.1	46.1
Lao PDR	2008	27.6	33.9	66.0
Malaysia	2009	3.8	0.0	2.3
Philippines	2009	26.5	18.4	41.5
Thailand	2009	8.1	0.4	4.6
Viet Nam	2008	14.5	16.9	43.4

LAO PDR = Lao People's Democratic Republic.
[a] 2007 estimate.

Source: World Bank, World Development Indicators Online.

Agriculture serves not only as a source of labour and raw materials but also as a vast source of demand for intermediate and capital goods, machinery and equipment needed for industrial production.

III. INDUSTRY-AGRICULTURE LINKAGES: REVISITING THE ROLE OF AGRICULTURE

An enduring view in the economic development literature is that growth of agrarian economies, at least in the early stages, requires a net 'surplus' transfer from the agricultural sector in order to fund industrial investment, keep food prices low and stable, provide raw materials for industry and stimulate demand for urban-industrial products (Brooks 2010). However, the growth dynamics of the Cambodian economy appear to be poorly linked across sectors so that it is unclear to what extent agriculture-industry linkages have contributed to growth in practice, in the case of Cambodia (Saing 2011; ADB 2012). In other words, there has been inadequate analysis of the mechanisms and processes associated with inter-sectoral resource transfers, and an incomplete understanding of their potential role in Cambodia's development (ADB 2012).

Theoretically, sectoral linkages describe a sector's relationship with the rest of the economy through its direct and indirect purchases of finished, intermediate and capital goods. The concept is derived from Hirschman's theory of "unbalanced growth" which implies that the sectors with the highest linkages have the greatest potential to stimulate rapid growth, compared to alternative resource allocations (Hirschman 1958; Polenske and Sivitanides 1990). Sectoral linkages have also been described in terms of backward and forward linkages, depending on direction of purchases and sales of the sector(s).

The earlier literature emphasized the supply side role of agriculture in a country's development process where development was mainly equated with industrialization. Thus, agriculture provides (surplus) labour for industry, raw materials for industrial processing and cheap wage goods (foodgrains) to feed the burgeoning labour force. Agriculture was also seen as a source of savings for (industrial) investment especially by tilting the terms of trade against agriculture to favour industry. There was, in other words, a clear bias against agriculture in these discussions represented by the works of Rosenstein-Rodan (1943), Lewis (1954), Scitovsky (1954), Hirschman (1958), Jorgenson (1961) and Rei and Ranis (1961). This bias never quite went away as indicated, e.g. in Vogel (1994) who referred to the ancillary role of agriculture in industrial development.

Gradually, however, a subtle transformation of ideas began to gather strength, with Kalecki (1976) talking about the need to transform agriculture through investment and technological change in the interest of rapid, successful and sustainable industrial development.

Later, the literature represented, amongst others, by Kaldor (1975), Mellor (1976), Singer (1979), Adelman (1984), and Ranis (1984) emphasized the demand side where agriculture serves not only as a source of labour and raw materials but also as a vast source of demand for intermediate and capital goods, machinery and equipment needed for industrial production. In addition, rural consumption of finished industrial products like shoes and textiles, are closely related to agricultural incomes and production.

A critique of the above position emanated from Adelman (1984), Bhaduri (2003) and Bhaduri et al (2007) who pointed out the failure to recognize the supply-side, terms of trade (TOT) link between the two sectors. A shift in the TOT in favour of agriculture would squeeze industrial growth and profits (as relative prices of agricultural products are higher) but at the same time, higher agricultural incomes have the potential to stimulate industrial demand. It is thus the 'net impact' of the two that determines impact on industry. The actual measurement of this net impact is not easy.

It could be argued that a small economy like that of Cambodia does need to depend on domestic (agricultural) demand to develop and sustain its industrial sector, especially in the face of strong trade links within and outside the region.[1] However, an industrial strategy that fails to forge strong domestic linkages run the danger of remaining restricted to an 'enclave' economy that fails to lift up the rest of the economy as it develops. Given the large rural population and the poverty rate in rural Cambodia, a strategy of agricultural development that maximizes industrial growth by forging strong backward and forward linkages seems most appropriate and most sustainable. It is, in other words, important to examine the supply and demand side, as well as assess the agriculture-industry terms of trade with a view to ensure that the net impact is positive.

1. East Asian Experience

SE Asia is commonly said to have developed on the basis of an export-led growth strategy. A closer look however at the regional experience suggests a somewhat more complex experience. SE Asia has industrialized on the back of agriculture - see Henley 2012 on the agrarian roots of industrial growth. Djurfeld et al (2005 p. 52) also emphasizes the role of "state initiated, market mediated interventions concentrated in food production through subsidized inputs and credit". Thus, countries like Malaysia and Indonesia invested heavily in agriculture during their formative years (1960s and 1970s), when 25-30 percent of the budget went to agriculture. In the 1960s, Malaysian investment in agriculture was 20 times larger than in industry. By contrast, Nigeria invested only 6 percent of its budget on agriculture.

Paradoxically, as pointed out by Mellor (1995), the faster the growth of the agricultural sector, the faster is its relative decline in comparison with the overall economy, due to the very strong, positive multiplier effects that agricultural growth creates - this is at the heart of the argument for a pro-agricultural development stance that many scholars, including Mellor have stressed (see also Stringer 2010).

Cambodia, however, has lagged behind in its treatment of agriculture with budgetary allocations at a meager 3-5 percent in recent years (and declining) – see Ngo and Chan (2011). An indicative target of 10 percent of the recurrent budget and 25 percent of the

[1] This turns Mellor's (Mellor 1976) logic on its head as he had insisted on agriculture being put at the centre of development, in the context of India, and then depending on rural growth linkages to dynamize rural industry and the non-farm sector. Clearly, in the context of a small open economy like Cambodia, this strategy would require suitable modification (see Dunham, 1991).

development budget should be set, based on the experience of other countries in the region at a similar stage of development.

2. Agricultural Focus in Cambodia

A key concern for Cambodian planners is the lack of value addition in agriculture, dramatically demonstrated by the large, informal cross-border movement of unmilled rice to Vietnam and Thailand for onward exports to third country markets as "Thai" or "Vietnamese" rice.

Despite relative neglect, Cambodia has successfully expanded its agriculture, especially since 2004 attaining growth in agricultural value-addition of around 5 percent per annum. Cambodian agriculture however, is predominantly rain-fed and susceptible to large year-to-year variation in yields and production, especially in rice, which is the major staple as well as a growing cash crop destined for exports.

The Ministry of Agriculture, Forests and Fisheries (MAFF) declared self-sufficiency in rice in 2005 when some formal rice exports began alongside much higher levels of informal, cross border exports of unmilled paddy rice. Large increases of exports are currently planned in the face of estimates of an exportable surplus of rice of over 2.0 million tons in 2011-12 RGC 2010). Exports in 2011 were worth USD$104 million (170,000 tons). These estimates are derived from food balance sheet figures that has put total rice equivalent output at 5.6 million tons in 2011-12 as against utilization (consumption, seed, feed, wastage, other uses) at 3.54 million tons. These figures however are extremely sensitive to even small errors in key parameters like population, production, wastage estimates and so on, and thus should basically be treated as an indicative estimate. What is clear of course is that there is significant export potential for milled rice in Cambodia (e.g. see Fraser Thomas 2012).

On the demand side, there seems to be strong market potential in China, Philippines and Bangladesh within the region, and in Africa outside the region. However, the pattern of demand in terms of quality and variety is a significant factor in the world rice market which Cambodian suppliers will need to respond to. Cambodia has traditionally sought to export fine quality rice to Europe. This is unlikely to prove to be a very stable market for reasons of the nature of demand, growing economic uncertainty in European Union EU and a very thin market for fine rice. Cambodia will need to emerge as a large exporter of medium and coarse variety of rice for which it will need to compete with Vietnam and Thailand. The long-term demand for rice seems excellent but at the same time the rice market is known to be volatile, thus providing significant opportunities but also posing quite a lot of risk (RGC 2010).

A key concern for Cambodian planners is the lack of value addition in agriculture, dramatically demonstrated by the large, informal cross-border movement of unmilled rice to Vietnam and Thailand for onward exports to third country markets as "Thai" or "Vietnamese" rice. This quite unusual situation has resulted from the fact that while Cambodia seems to enjoy a clear comparative advantage in paddy production and exports, it is not able to compete in milled rice production with its neighbours. This phenomenon is unlikely to be limited to paddy-rice but is possibly relevant for many other crops like sugarcane, maize, cassava, palm and rubber. In other words, given the production potential of agricultural crops in land-surplus Cambodia, it has become

imperative to take on the challenge of rural industrialization, which currently is lagging far behind its true potential. In the draft industrial policy as it now stands, this emphasis on rural industrialization seems missing (SNEC 2012).

Cambodia has just begun to appreciate its vast untapped potential in agriculture, not just in rice production and exports but also in many other crops and sub-sectors including maize, sugarcane, cassava, palm and rubber, as well as dairy and poultry. Major decisions will have to be made, i.e. whether to go for smallholder production or large, often foreign-owned commercial farms that tend to be highly capital intensive. Whatever strategy is adopted, it has to be pro-production so that genuine investments in agriculture can take place to expand production and productivity through technical adaptation and innovations. Unfortunately, ground realities are often stark, revealing vast tracts of land that have been misappropriated in the name of commercial farming but have remained undeveloped (Ngo and Chan 2010).

3. Agriculture: Poor Domestic Linkages

Agriculture depends on crucial, purchased inputs like seeds, fertilisers, pesticides, machinery and spares. Cambodia has been fortunate in that it sits between two dynamic neighbours (although this is not an unmixed blessing) and has been able to source most of its inputs from these countries informally through cross border trade. Thus various regions of Cambodia, depending on the proximity and connectivity with Vietnam or Thailand as the case may be, forged crucial although informal trade links with these countries, thereby becoming closely integrated with these economies, often much more so compared to domestic market linkages. In other words, agricultural production systems appear to be much better integrated with regional markets than it is with internal, domestic markets, mainly because domestic supply and availability of inputs have remained rudimentary (Murshid and Tuot 2005).

Agricultural production systems appear to be much better integrated with regional markets than it is with internal, domestic markets, mainly because domestic supply and availability of inputs have remained rudimentary

The extent of cross-border dependence actually runs deeper than what is suggested by the above as there is a significant degree of informal or semi-formal labour migration out of rural Cambodia mainly to Thailand but also to Malaysia. Thus, the overall characterization of the Cambodian economy is that despite high growth rates, domestic linkages have remained poorly developed, with the most dramatic pointer being unmilled, informal rice exports. Thus, Cambodia's division of labour in this regional configuration is quite basic: it exports low-wage, unskilled labour, unprocessed, low value, agricultural products on the one hand, and imports all inputs, spares, machinery etc. The journey towards higher value added production and processing remains at an early stage in the country.

It is therefore important to expand the rural-agricultural market through (a) expansion of production of rice and other crops in which there is comparative advantage; (b) examination of agricultural value chains very carefully to identify key areas of investments that is preventing realization of market potentials, and (c) broad, cross-cutting interventions that are prerequisites to higher value addition including infrastructure, energy and governance/institutions.

Value chain studies from elsewhere suggest that significant value addition is created by traders, millers, and wholesalers which suggests that given excellent market demand, every effort should be made to exploit this opportunity.

In the short term, the policy should be to channel imports through formal channels to ensure that quality and standards are met, especially for seeds, fertilisers and pesticides. In the longer term, Cambodia also needs to examine import substitution policies for some of these inputs like seeds.

IV. RICE POLICY ISSUES

A major and urgent concern of policy makers in Cambodia is centered around food and rice policy issues related to production and producer incentives, processing, technology as well as consumption, price and market stability and consumer welfare. Specific concerns are elaborated further below.

- Production expansion through yield intensification as well as area expansion – much of the initial output expansion occurred through area expansion as technological levels remained weak due to poor water control and inadequate access to modern seeds, inputs and implements. More recently, yields have begun to improve as well in the face of greater public attention to rice agriculture and increased investment in irrigation and modern inputs.

- Rice milling: value chain studies from elsewhere suggest that significant value addition is created by traders, millers, and wholesalers which suggests that given excellent market demand, every effort should be made to exploit this opportunity. This is an easy recommendation to make but in practice, there seems to be inadequate understanding of the key factors that is preventing direct rice exports from Cambodia.

- Re-engineering the rice value chain: From the above paragraph it should be obvious that we need not just to revisit the rice (as distinct from the paddy) value chain but indeed re-engineer it in such a way that it can compete in the regional and world market.

- Another crucial issue relates to the policy towards informal cross border imports for agricultural inputs. In the short term, the policy should be to channel imports through formal channels to ensure that quality and standards are met, especially for seeds, fertilisers and pesticides. In the longer term, Cambodia also needs to examine import substitution policies for some of these inputs like seeds.

- The question of producer incentives is often raised and this is best served through investments in public goods type activities where private sector investment is unlikely, certainly in research and development, extension services, irrigation, energy and rural roads.

- Consumer welfare: Given a rapidly growing urban population, high rural landlessness and high price volatility, the question of food security and consumer protection is never far off. There is therefore a case for adoption of market stabilization policy as well as social safety nets to ensure that at least the poorest are able to stabilize consumption in the face of food price shocks.

1. Rice Production and Exports

Rice accounts for around 84 percent of the cropped area organized in small peasant farms of around one hectare per farm (Ngo and Chan 2011). Irrigation coverage is very low by regional standards at around 20 percent. While yields have grown in recent years there is much scope for improvement with the help of the Green Revolution technology, which has only limited coverage in the country. Given very good demand conditions and a tendency towards high rice prices in the world market, Cambodia is well poised to emerge once again as a major rice exporter. In order for this to happen, future production increases will be required (through better irrigation, quality inputs and extension services) and attention will have to be given to rice quality. This will in turn require the quality of rice milling to be greatly improved.

Cambodia is well poised to emerge once again as a major rice exporter. In order for this to happen, future production increases will be required (through better irrigation, quality inputs and extension services) and attention will have to be given to rice quality.

Already strong signs of dynamism is visible in the rice market although out of an estimated 20,000 rice millers in the country, only 20 have so far been able to break into the export market. It is important to examine the success stories carefully to see what factors enabled these few to become successful exporters so that others can learn from the experience. An area of concern has been the complex paperwork and heavy informal fees that have to be paid by exporters to get through customs (RGC 2010). However, facilitation measures have been introduced by the RGC in an effort to simplify some of these processes and streamline export administration, including reduction of fees. Despite all these efforts, basic price data suggest that while Cambodia enjoys substantial competitive edge over Thailand and Vietnam in paddy production, its advantage in milled rice production, especially for white rice, remains ambiguous.

This is precisely the reason why the milled rice segment (for exports) is largely missing from the value chain. Major infrastructural constraints related to inadequacy of modern storage and bulking facilities, cheap, efficient transport systems and high energy costs mean that there is very little incentives for traders to invest along the rice value chain without which costs will remain excessive.

Absence of skills and managerial expertise is also thought to constrain rice exports. However, while domestic skills may initially be in short supply, it should be easy enough to attract these skills from the region to meet any shortfall. There is enough experience world-wide to show that these skills are much more easily learned by doing rather than by attending courses in college.

2. Rewards from the Rice Value Chain: Evidence from Bangladesh

Rice value chain studies are rare in Cambodia. A recent study on Bangladesh compared the paddy-rice value chain from the farmer up to the consumer by fine and coarse quality of rice (Reardon 2012).

Table 4: Rewards from the Rice Value Chain, Bangladesh

	Common paddy/rice			Fine paddy/rice		
Average retail price of rice in Dhaka (in USD/ton)	444			635		
Share of	Rewards %	Costs %	Total margins %	Rewards %	Costs %	Total margins %
Farmers	69	87	79	38	86	52
Rural paddy wholesalers	4	1	2	17	1	12
Millers	8	3	5	10	3	8
Urban rice wholesalers	10	1	5	5	1	4
Urban traditional retailers	9	8	8	30	8	24
Total	100 (47)	100 (53)	100 (100)	100 (70)	100 (30)	100 (100)

Source: Communication from Thomas Reardon.

The salient features of the above table are as follows:

- Farmers' share of rewards are much higher for normal quality rice compared to fine quality rice (69 percent vs 38 percent);
- For fine rice, rewards are somewhat higher for millers (+2 percent);
- Paddy wholesalers increase their share sharply by as much as 13 percent while urban retailers do even better, increasing their share by more than 21 percent;
- In overall terms, total rewards are much higher for fine quality of rice by as much as 70 percent.

What the evidence really points to is that there are substantial gains to be reaped from value addition along the rice value chain, and that these gains may well be particularly high for certain qualities – something that is rarely studied. If that is indeed the case, major investments to promote more efficient value chains would certainly be easy to justify on purely economic grounds. It is thus important to conduct careful rice value chain studies for Cambodia to establish potential rewards from value chain investments, and the specific type of investments that are needed.

A key question is what can the RGC do to encourage export-grade milling and trade? This requires a thorough understanding of whether the major constraints relate to (a)

hard issues (infrastructure investments as suggested by ADB), (b) soft issues related to management skills, technical capacity, ability to engage in complex export negotiations, or (c) financing issues related to credit. While hard constraints are relatively straightforward even if expensive, soft issues are often less tractable and require concerted public action. The best short-term measure to address soft issues is to hire appropriate skills from abroad or the region with a clear policy and mandate to Cambodianize as quickly as possible. Financial market constraints are amenable to government policy where the main concern is often with efficiency, targeting and leakages. Given that there already exist 23 financial institutions specialized in agriculture, there is enough institutional capacity to address the financial constraints given sufficient political will.

A recent ADB project identification mission has identified certain major investments in value chain infrastructure like bulking, storage facilities, modern infrastructure for fumigation, etc. (ADB 2012). There is also a presumption that transport systems require major improvement, and there is a need to establish international grades and standards for Cambodian rice. While all of these ideas appear reasonable, practical investment decision-making would be better served if these were based on suitably conducted value chain studies.

3. Consumers Need Protection from Volatility

A large proportion of the population depends on purchased food in Cambodia. Nationally, 50 percent of the population depends entirely on purchased food while in rural areas this proportion is around 43 percent. Only 33 percent of the population is completely self-sufficient and dependent on its own production (Ngo and Chan 2011; Murshid K.A.S. 1998).

Food and rice expenditures account for a high share of household expenditure with rice alone accounting for 75-80 percent of total calorie needs. The rice consumption norm used by Cambodia for food budget planning exercises is high at 153 kg per capita per annum (Murshid K.A.S. 1998; BEFS/FAO 2010).

However, the country is self-sufficient at the national level and is gearing up to be a major rice exporter. This means that domestic rice prices have become closely linked to world prices, which for rice, is extremely volatile. This volatility is now habitually passed down to Cambodian consumers because of the high price transmission rate associated with an open economy (BEFS/FAO 2010).

High/volatile prices affect different segments of the population differently. Surplus producers and frequently speculative traders benefit from high prices and market volatility while consumer welfare is reduced. For the nation as a whole, the net effect depends on the associated income and food price elasticities. According to an estimate available for Thailand from Warr (2008), the net effect was found to be negative. From this one could

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easily surmise that the net effect for Cambodia is likely to be even worse.

The extent of impact depends on the share of income from the rice sector (which is high for rural Cambodia), the share of food in the household budget, which is also high - close to 65 percent, and the food price-poverty elasticity. Thus, according to Warr (2008), a 50 percent rise in food prices is associated with a rise in poverty head-count of 2.5 percent. For Cambodia, the size of the elasticity is likely to be significantly larger (BEFS/FAO 2010).

Macro level impacts are also well known resulting from heightened inflationary pressures and adverse budgetary effects as the country tries to undertake anti-inflationary and social protection measures. For an exporting country, the balance of payments effect is likely to be positive.

The policy response to volatility is one of the most involved and most contentious issues in the food policy literature. At the sectoral level, the traditional responses have revolved around output price support and input subsidies to farmers, government procurement from producers at incentive prices (during a slump), creation of reserve stocks and periodic unloading of stocks to dampen prices when high, setting up of public food distribution agencies to undertake the tasks of public procurement and sales, and on the consumer side, to establish various types of safety-net programmes including public works programmes, food for works programmes, and targeted safety nets for the elderly, the very poor, children and destitute women. On the other hand, macro measures have included export tariffs or even export bans by exporting countries to try and de-link during a period of high world market prices (Abbot 2012; Mitra and Josling 2009).

Unfortunately, all of these measures have been open to question in terms of costs, effectiveness and impact. Thus, export bans serve to reduce aggregate supplies to the world market making it even more unsettled and preventing an early recovery. National policies to try and support producers or stabilize market prices are very expensive and of indeterminate efficacy. In particular, the former is extremely difficult to do well but often dictated by the political need to appear to be trying to do something. Domestic market stabilization is largely dependent on availability of stocks and quick off-takes. This again involves considerable expenditures and puts pressure on the national budget, making the cure frequently worse than the disease (Newberry and Stiglitz 1981).

The best option seems to be to strengthen safety nets, make then better targeted and more efficient while at the same time create employment and income generating opportunities especially in the countryside. It is also advisable to gradually build up sufficient public reserves of foodgrains to deal with emergencies, including sudden price hikes as well as natural disasters like floods and storms. A third element would be to continue with public food for works type of programmes.

4. Volatility: Root Causes

Weather: This continues to play a crucial role in year-to-year fluctuations in production

and yields, and in the face of environmental and climate change, weather shocks appear to have become more frequent. Individual countries are affected not only directly but also indirectly, as shocks leading to poor harvests in major producing or consuming areas tend to get transmitted everywhere through world market prices. Cambodia is no exception – indeed the country is prone to both floods and drought, and is also susceptible to climate change. As an exporter, it is also closely affected by the vicissitudes of the world market.

Oil Price and Bio-fuels: The two are closely related as high oil prices have made bio-fuels much more competitive, leading to the competition between food production and bio-fuel production. This is a longer run trend which has led to the loss of food crop land and reduced resource base for food production putting pressure on food prices.

Quite apart from this food-fuel competition, the price of oil has the capacity to generate strong inflationary pressures especially for oil importing countries that also has an adverse impact food security.

Demand Factors: Rapid growth in Asia led by India and China has exerted intense food demand for both cereal as well meat products. Since meat production depends crucially on feed, it also competes with cereal/food production – combining to generate strong upward pressure on food prices. While this is good news for exporting countries and their farmers, this is not the case for consumers or importing countries (Schellekens 2012).

Speculation: Finally, increasing speculation by large trading firms has been reported from world food/ futures markets that has the potential of making an already bad situation even worse (Timmer 2009).

All these forces together form a potent brew that could set off another round of high prices or a slump in world food or rice prices without notice. This is an unfamiliar scenario that is unfolding steadily with which policy makers will have to grapple in the years ahead.

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V. LAND REFORM

Cambodia experienced a first round of modest redistributive land reforms in the early 1980s. These reforms, however, remained incomplete with serious issues remaining with respect to land titling and laws pertaining to land transactions.

It was observed earlier on that the East Asian experience suggests an early state-mediated focus on agriculture to create the basis for export-led industrialization. This in turn was possible because of the redistributive land reforms that were carried out quite early on in their development trajectory by establishing property rights and promoting smallholder agriculture. Thus incentives were created to invest in land and agricultural technology, which combined with proactive state investments in infrastructure, technology and education. Thus, the East Asian economies emerged from a powerful policy mix that combined radical, redistributive land reforms, an export-led growth strategy, human capital accumulation and massive technology transfers (especially in the case of Japan, South Korea and Taiwan).[2]

Land redistribution, property rights and land titles created the incentives to respond to market forces, reallocate land resources more efficiently, invest in productive agricultural technology, thus contributing to the development of a vibrant, dynamic agriculture. At the same time, this created the basis for rapid industrialization, based on surplus generation and transfer, forward and backward linkages with the industrial sector and generating demand for industrial goods (Chuang et al 1994; Thorbecke and Wan Jr. 2004).

The more recent experience from Vietnam and China further validates this point where we saw rapid agricultural production and poverty reduction taking root in the 1990s in the face of land reforms that led to greater control over land resources and its usufruct, and the evolution of much superior land and output markets (World Bank 2009).

By contrast, countries and regions that failed to imitate the success stories of the 'tiger' economies, including Philippines and much of Latin America for example, found it very difficult to undertake land reforms. In the Philippines, the peasantry was left with little control over land and peasant revolts were harshly suppressed. Very little land has been distributed/ resettled resulting in a situation where the land gini is one of the highest in the region at around 0.62 with 25,000 persons owning a third of the land (World Bank, 2009).

Cambodia experienced a first round of modest redistributive land reforms in the early 1980s. These reforms, however, remained incomplete with serious issues remaining with respect to land titling and laws pertaining to land transactions. Further, over the last three decades, landlessness has re-emerged in Cambodia due to population pressures and land alienation amongst the peasantry. The ability of the peasantry to re-root itself in Cambodian agriculture also proved to be uneven given large-scale disruption, displacement and resettlement, often in new villages after the fall of the Khmer Rouge, along with poor infrastructure and dwindling farm sizes.

2 See Stiglitz (2004); Binswanger-Mkhize (2009).

Given the land abundance in the country, it can be argued that a second round of land redistribution is not only desirable but also essential in leading the country on to a higher, more sustainable, more pro-poor growth trajectory. However, land redistribution is insufficient by itself but will need to be complemented by titling, and investment in physical infrastructure and markets, along with agricultural extension and credit.

Given the land abundance in the country, a second round of land redistribution is warranted, especially since ELCs have not delivered,

However, it remains an irony that while the RGC has given away huge tracts of land to both non-farming Cambodians and foreigners through the so-called "economic land concessions" (ELC), the rural farm population faces acute land shortage. All the evidence so far shows that these economic land concessions have failed to deliver, and that land transfers to the peasantry would have a far more powerful, transformative impact on the economy and on overall welfare.

A new strategy thus, needs to be formulated with a dynamic, peasant-based agriculture at its core. Such a strategy would require a second round of land redistribution as well as public investments in, for example, roads and irrigation. This would create the basis for a solid foundation that will benefit not only agriculture but will also give a huge impetus to industry by forging genuine, well-grounded linkages to exploit growth multipliers.

However, given the complex land-interests that have evolved in Cambodia, it would take a lot of political will to implement a genuine, comprehensive land redistribution programme. Before that can happen, a policy consensus needs to be developed in favour of a dynamic, pro-poor, pro-peasant agriculture.

The RGC appears to have, at least partially, initiated moves towards a second generation, land redistribution program. In May, the RGC announced a moratorium on new ELC and proposed an initiative to conduct a thorough review of all existing ELC. It has been suggested that this may have been prompted by the forthcoming review of human rights in the context of Cambodia's ELC policy by the UN Special Rapporteur on human rights, Surya Subedi (Donovan 2012). Nevertheless, the RGC move constitutes a significant and positive move. RGC also stipulated that 10 percent of all ELC land would be released for redistribution to local inhabitants, prompting 300,000 families to lay claim to around 1.2 million hectares of land. While it has been suggested that ground realities have not changed very much, and that appropriation of fresh lands allocated for wildlife sanctuaries and national parks has continued, there is a gathering momentum in favour of land redistribution that may prompt a more positive outcome.[3]

The time has come for Cambodia to squarely address the land reforms and come out in favour of a decisive land redistribution programme to support peasant agriculture in the interest of poverty reduction, growth and rapid industrialization, including growth of rural industry.

[3] Mr. Subedi's report indicated that RGC failed to implement ELC in a transparent and accountable manner, and has in the process violated human rights, adding further pressure on Cambodia to resolve the land dilemma.

VI. HUMAN CAPITAL

As Cambodia looks towards further transformation of its economy towards the goal of attaining upper middle-income status, it needs to pay special attention to investments in human capital. It will require critical technical skills as well as a well-educated labour force.

Along with land reforms, an open economy stance, and an emphasis on agriculture, the East Asian miracle economies also attached a high priority to human capital accumulation (Stiglitz 2004; Thorbecke and Wan Jr. 2004). This is crucial in the context of successful technological transformation of both agriculture and industry.

As Cambodia looks towards further transformation of its economy towards the goal of attaining upper middle-income status, it needs to pay special attention to investments in human capital. It will require critical technical skills as well as a well-educated labour force to power new technology-led growth. It will require a large pool of managers to efficiently run its enterprises, and it will need to invest heavily in research and development (and therefore in higher education).

VII. POLITICAL ECONOMY AND THE ROLE OF THE STATE

Whither a Cambodian Entrepreneurial Class?

Industrialization in Cambodia needs to include rural industrialization in a host of potential industries involving crop processing for consumption or industrial use. A key missing element seems to be the lack of a Cambodian entrepreneurial class that has gone through a process of primitive accumulation and is now ready to take on risks and venture out into new areas of growth. While the process of primitive accumulation has been well underway for sometime, this has not yet been translated into risk-taking and entrepreneurship.

It is not possible to predict when a suitable entrepreneurial class will finally emerge. The process can be jump started or delayed. Thus, the role of the state is crucial not only in terms of the usual enabling investments in energy, irrigation, roads and human capital, but perhaps even more critically, in terms of safeguarding the rural (and remaining urban) industrial entrepreneurial space for Cambodians. Once this space becomes occupied by foreigners as has happened in the case of the garments industry, it will be very difficult for Cambodians to gain entry, thereby indefinitely delaying the emergence of an indigenous entrepreneurial class. The Bangladesh experience may provide useful insights.

The Bangladesh Experience

Bangladesh was part of Pakistan, and was carved out of British India at the time of independence in 1947. Traditionally, trade and business in the then East Pakistan (now Bangladesh) was dominated by traditional Indian and Pakistani merchants and trading

castes from Northern India and West Pakistan (now Pakistan). The presence of locals therefore remained rudimentary and relegated to the bottom of the entrepreneurial pile. For generations, Bengalis in both Bangladesh and India were seen as having very limited business skills and generally encouraged to become clerks, academics or professionals rather than businessmen.

With the liberation of Bangladesh in 1971 and its rise as an independent nation, the country soon found itself devoid of experienced entrepreneurs as most non-Bengali businessmen left the country. The debate at that time was how and when a modern, indigenous entrepreneurial class could or would emerge in Bangladesh.

Today, there is a vibrant, strong entrepreneurial class that has arisen out of the ashes of 1971. This has enabled Bangladesh to achieve remarkable successes in a number of fields: garments, pharmaceuticals, agro-processing, shipbuilding, light engineering and crop production. The process of its emergence has not been studied by academics very closely but there is little doubt that rapid primitive accumulation took place mainly through misappropriation of financial resources from State-owned financial houses. This provided the basis for investment and played a key role in the evolution of entrepreneurship in the country. Fortunately, Bangladesh was not seen as a hot destination for foreign investors, and attracted little attention from them, save tentative incursions by the Koreans who were the most adventurous in this regard. Thus there was an entrepreneurial vacuum that presented itself, and it did not take long for Bengalis to fill this up. With hindsight one could say that if Bangladesh remained a part of Pakistan, there would be no or very few Bengali entrepreneurs today simply because much of the entrepreneurship space would already have been occupied.

The lesson here for Cambodia is (a) to keep sufficient space for Cambodian entrepreneurs in the economy because once this space is occupied by others, it will be very difficult to regain it; (b) it will be important to nurture potential entrepreneurs through training, access to credit and incentives; and (c) encourage, even force those who have accumulated wealth (mostly through ELC) to invest in agriculture and industry. In this context, it will be crucial to allow land mortgages to be financed through State-owned banks and create the needed enabling conditions (energy access, roads, markets) for investment.

While each country will follow its own historical trajectory, it is clear that domestic entrepreneurship has often occurred by accident rather than design. Nevertheless, it is also clear that entrepreneurship and a capitalist class can emerge from scratch. The chances of a successful transformation are distinctly greater if the State adopts a conscious policy space within which potential Cambodian entrepreneurs can be nurtured and encouraged. In other words it is crucial to build-in not just a pro-rural, pro-poor, pro-agricultural policy bias but also a pro-Cambodian bias in policy-making.

Cambodian industrialization needs to be firmly embedded in the domestic economy in order for it to be broad based, inclusive and sustainable. This is also an imperative from the perspective of poverty reduction. A dynamic, smallholder agriculture holds out the best promise to stimulate industrialization, given the strong multiplier effects of agricultural investments.

VII. CONCLUDING REMARKS

Cambodian industrialization needs to be firmly embedded in the domestic economy in order for it to be broad based, inclusive and sustainable. This is also an imperative from the perspective of poverty reduction. A dynamic, smallholder agriculture holds out the best promise to stimulate industrialization, given the strong multiplier effects of agricultural investments.

In the specific case of rice exports, the incentive regime needs to be overhauled. At one level the 'soft' issues have to be streamlined and made efficient, including export processing, banking and insurance. At another level, the hard issues have to be addressed, particularly energy and transport costs along with some lumpy investments in SPS enabling infrastructure, bulking and storage facilities. The RGC should carefully assess developments of the railways and waterways as a longer run measure to reduce transport costs. In addition, it will be imperative to remove financial and credit constraints perhaps through carefully considered subsidies to encourage Cambodian initiatives in this sector. The issue of subsidies is a thorny one. If carefully structured, temporary subsidies can play a hugely positive, interim role to break the deadlock around rice exports from Cambodia.

In the short to medium term, Cambodia needs to address the land reforms satisfactorily in the interest of dynamic, sustainable growth and poverty reduction. In the longer term, the objective would be to help create an indigenous capitalist class, which will require investments in education and research, and policy action to guarantee economic space to locals.

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