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Agriculture and Agro-industry in Cambodia

Cambodia's economy has gradually expanded since it began to open up and take steps toward a market economy in the late 1980s. It has become more and more integrated with the world economy – including becoming a member at the Association of Southeast Asian Nations (ASEAN) and the World Trade Organisation (WTO). However, it remains one of the poorest countries in the world.

With some three-quarters of the workforce engaged in the agriculture sector, the upgrading of agriculture and agro-industry is a key component of the country's overall development strategy. Agribusiness is admittedly under-developed, but it enjoys some strong comparative advantages and is an area of considerable growth potential.*

This paper explores the recent developments and the current state of Cambodia's agriculture sector and its agribusinesses. While analysing constraints are evaluated as are opportunities and threats. Although measures have started to be taken to promote the country's agro-industry, it is clear that many obstacles have to be overcome for it to be able to reach its potential.

*Before proceeding, the term 'agribusiness' needs to be defined. In agricultural economics study, agribusiness can be broadly defined to cover the manufacture and distribution of farm supplies; production operations on the farm; and the storage, processing, and distribution of farm commodities and items made from them (Gail, L. C. and Clarence, W. J, "Agricultural Economics and Agribusiness" 1st ed., John Wiley & Sons, New York, 1979).

Background

The role of agriculture in furthering Cambodia's development can hardly be overstated. The great majority of the population is based in rural areas and three-quarters of the workforce is engaged in agriculture. However, productivity is low level and the sector depends primarily on one crop – rice.

There is, however, much scope for improvement in agricultural production and diversification. Promoting and strengthening agribusiness coupled with enhanced distribution and marketing activities, such improvement would assist the agriculture sector in moving from one based on subsistence farming and local trade towards one that increasingly focuses on cash cropping.

In view of the poverty and high reliance on agriculture in Cambodia, it is clear that the development of this sector and, on a broader level, agribusiness would have a profound impact on improving people's living conditions.

Cambodia – Salient Features

Cambodia is located between 10 and 15 degrees latitude north and 102 and 108 degrees longitude east, covering 181,035 sq km. The country's border total 2,434 km, with Thailand on the west, Vietnam on the east and Lao PDR in the northeast. Its 684 km coastline is washed by the Gulf of Siam. The country's central plain makes up three-quarters of the total land area. It is 10-30 meters above sea level and is drained by the Mekong, Tonle Sap and Bassac rivers. To the north lies the sandstone Dangrek range and to the southwest the Cardamom range with a high peak of 1,524 metres.

The country is inhabited by some 13.5 million people, 95 percent of who are Khmer, which is another word for Cambodians. The population grows at 2.5 percent per annum and annual economic growth averages below 7 percent starting from a low base of 3.5 percent in 1993. No matter how fast economic growth is, the fruits of economic development are unevenly distributed. The gap between the poor and the rich is, therefore, widening. Poverty is rampant with 45 percent living

on US\$0.5/day and 78 percent on less than US\$2.0/day. Almost 90 percent of the poor live in the rural areas.

Agriculture, the backbone of the economy, is one of the three conventional economic sectors. It constitutes around 36 percent of the Gross National Product (GNP) and employs 75 percent of the total labour force. Consequently, poverty in Cambodia is closely associated with rural areas, with an overwhelming majority of the population relying on the agricultural sector. However, despite its significant role in the economy and in poverty alleviation, agricultural growth is disappointingly low and value-added activities in the sector are extremely limited.

Agriculture and Agribusiness

Situation and potential

Cambodia has an advantageous location for agricultural production, with abundant rainfalls and suitable temperatures. It is characterised by a humid, tropical climate with two well-pronounced seasons. The rainy season lasts between May and October, and the dry season between November and April. The average annual rainfall is in the range of 1,000-5,000 millimetres, and the annual average temperature is about 27 degrees Celsius. The rainy season is frequently interrupted by a small dry season that occurs in June-July, or sometimes July-August.

After the war that ravaged the country in the 1970s and 1980s, the size and magnitude of the agricultural land is now breaking Cambodia's historical record. One estimate reveals that agricultural area in the 1960s covered over 3.5 million hectares, which dipped to some 2.5 million hectares in the following decades, before rising in the late 1980s to the more than 5 million hectares today. According to another set of data, more than 6.5 million hectares were estimated as being agriculture, grass and shrub land in 2004, despite 2.5 percent of the country's territory suffering from land mines and unexploded ordnance (UXO). Around 1.6 million hectares of land was added to this by clearing forested areas.

However, land under agricultural production is less than 4.5 million hectares, the productivity of which is still low compared with neighbouring countries such as Vietnam and Thailand.

	1960s	1980s	1990s	2001
Cambodia	1.15	1.28	1.59	2.06
Vietnam	1.90	2.66	3.66	4.27
Thailand	1.78	2.01	2.29	2.69

Sources: FAOSTAT and EIC (2005a)

Moreover, a vast land resource is still available and lies unused in Cambodia. This does not suggest that claiming this land would not have any consequences on the natural environment and biodiversity. On the contrary, the challenge will be to ensure a sustainable and environmentally balanced development.

	1960s	1980s	1990s	2001-03
Cambodia	83	172	264	270
Vietnam	1033	2320	2970	3000
Thailand	1759	3665	4599	4960

Sources: FAOSTAT & EIC (2005a)

Cambodia's advantageous location for agricultural production is not only due to good climatic conditions; it is also rich in natural water resources – surface and ground water assets.

On an annual basis, 500 billion cubic metres and 17.6 billion cubic metres, respectively, could be extracted from surface and ground water sources for human, agricultural and other uses. From surface-water sources alone, the potential for irrigation amounts to around 1.67 million hectares, but the current irrigated area is negligibly small.

Based on socio-economic, geographic, topographic and climatic characteristics as well as other factors such as population density, soil types, agricultural production potentials and water regime, Cambodia can be divided into four broad, but distinctive agro-ecological zones, namely:

- The Mekong Plain (Phnom Penh, Kandal, Takeo, Kampong Speu, Svay Rieng, Prey Veng and Kampong Cham) extending over 32,086 sq km of the total land area;
- The Tonle Sap Area (Kampong Thom, Seam Reap, Banteay Meanchey, Battambang, Pursat, and Kampong Chhnang) covering some 67,668 sq km of the total land area;
- The coastal zone (Sihanoukville, Koh Kong, Kep and Kampot) occupying 17,237 sq km of the total land area; and
- The north and north-eastern mountainous region (Preah Vihear, Stung Treng, Ratanakiri, Mondulakiri and Kratie) extending over 61,044 sq km of the total land area.

Agriculture employs some 4.9 million people, including 2.7 million females. With a total agricultural population of some 9.7 million people, about half of it is not economically active. In addition, the sector has performed very poorly and poverty among the agriculture population is prevailing. The average agriculturalist earns only US\$0.3/day, which is far below the national poverty line of US\$0.5/person/day. About 15 percent of agricultural households are landless.

This is frustrating for an agriculture-based economy like Cambodia. One problem is that the sector depends greatly on a single rice crop and less on non-rice crops. Some 58 percent of rice is grown and harvested in rainfed lowland areas, while another 32 percent being produced in deepwater ecologies. The dependency on rice is illustrated by the fact that about half of the value of the agriculture sector comes from agricultural crops, with rice making up 90 percent of the area occupied by these crops.¹

However, despite the high specialisation in rice, Cambodia is one of the most inefficient producers of the crop in the region. Indeed, it was only in 1995 that it became self-sufficient in rice production and moved from being a net importer of rice to a net exporter – as it had been in the 1960s. However, in this context it should be mentioned that a lot of exports are unofficial and go unreported across the borders to Thailand and Vietnam. For instance, the Economic Institute of Cambodia (EIC) put unofficial exports at US\$111mn in 2003, whereas the official figure stood at merely US\$0.6mn. Nevertheless, it is clear that rice exports have yet to reach its full potential. In addition, food shortages continue to hit in many areas of the country.

Besides rice, Cambodia's agriculture sector also produces maize, cassava, sweet potato and vegetables among others.

Despite the importance of agriculture to Cambodia's economy and society, the sector does not play a significant part in the country's trade. In 2002, only three percent of total exports came from agricultural products. Instead, most farming is for subsistence production and/or local trade.

As the foregoing suggests, agro-industry is underdeveloped, with limited value-added activities. There is a lack of storage possibilities as well as a lack of facilities for food processing. Investment is low, with small and medium enterprises (SMEs) – the dominant agricultural enterprise form – having limited access to capital from the banking system.

In view of the above, it is clear that developing the agriculture sector and enhancing its performance will help to alleviate poverty in the short, medium and long term. Further, it will also empower women who head 26 percent of all households and make up 52 percent of the total population.

Limited attention was paid to the agricultural sector in the last decade or so. However, the Royal Government of Cambodia has now a renewed focus on agricultural and rural development, as reflected in the 'Rectangular Strategy for Growth, Employment, Equity and Efficiency in Cambodia' for 2004-2008. The Rectangular Strategy – which was launched in July 2004 and aims to enhance economic growth, employment, equity and social justice – lists agriculture as one of its four strategic 'growth rectangles'.

The Government's policy is to improve agricultural productivity and diversification, with an emphasis on 'deepening' or 'intensifying' production on existing land rather than expanding land use. It is also focusing on developing the country's agro-industry and will look to promote private sector participation, pursue development of irrigation facilities and water resource management, encourage investment and take measures to improve distribution and marketing. The promotion and improvement of agricultural and rural development policies as well as that of rural-based industries have to be instituted and realised.

Agribusinesses in Cambodia

Despite the fact that technological advancement is beyond comparison with its neighbours, Cambodia still holds comparative advantages in agricultural production, which will help to boost the development of agribusinesses.

First, Cambodia is endowed with huge land and water resources as well as favourable ecological conditions. It enjoys a current comparative advantage in natural resource-based production, initially involving relatively unskilled labour, rather than in the non-agricultural labour-intensive activities for which

Cambodia	0.91
Vietnam	0.18
Thailand	0.60

Sources: Cambodia Development Resource Institute (CDRI), quoted in EIC, 2005a & FAOSTAT

countries like the Philippines and Vietnam, with high skill levels and labour-to-land ratios, are better suited.²

Second, while Cambodian labourers are less productive, cost of labour is three times less expensive than that in Thailand.³ In addition, Cambodian labourers are young and dynamic, and eager to learn and take on more new responsibilities for improving production.⁴

Third, low modern technological inputs and limited technical advancement does not imply that Cambodian agriculture has lost its competitiveness. With limited use of agro-chemicals – including inorganic fertilisers, pesticides, stimulators etc. – Cambodia has a huge opportunity to go in for organic agricultural production. The world market for organic produce is huge and demand for it is increasing by hundreds of millions of US dollars every year. The prices they demand from end-consumers are exceptionally high, in particular in the West. Indeed, an organic agricultural movement has started to take root now in the country. The renowned high quality of Cambodian rice adds to this advantage.

Despite the mostly traditional and low input practices, Cambodian agriculture produces several commodities, with strong competitive advantages over its competitors. These products include aromatic rice, maize, soybean, sesame, peanut,

Type	Number
Food and agricultural related industries	1,888
Forest-based industries	753
Textile industries	114
Rubber-based industries	45
Plastic industries (also based on agricultural raw materials)	33
Paper and pulp industries	114
Construction material industries	193
Chemical industries (also producing fertilisers)	59
Mechanical industries	217
Other industries	312
Total	3,728

Source: L'Industrialization du Cambodge (1955-1969, reprinted 1993)

cabbage, onion, watermelon, tomato, cashew nut, ginger, lettuce, black pepper, cattle and buffalo, as well as freshwater fish. Unfortunately, however, agribusinesses are not well developed and the situation is not comparable with that of the 1960s. In contrast to the 1960s, there are currently more micro and small agro-enterprises/agribusinesses than medium and large ones. In 1968 there were 3,728 small, medium and large industries of which 98.5 percent were privately run, while the remainder, with an equal proportion, were operated by the state or were joint ventures (JVs).

According to the World Bank (WB), the agro-industrial sector today consists of a large number of micro and small enterprises. It is estimated that 91 percent of the agribusinesses are small,

Type	Number
State-owned enterprises	14
Associations & groups	5,969
Private enterprises	39,911
Total	45,894

Source: Author compilation

employ less than five employees and have a capital outlay of less than US\$1,000. The agribusiness sector is dominated by rice

milling operations. EIC recorded 18,000 rice millers across the country. Value-added from these agribusinesses is roughly US\$462/worker, which is very low by international standards.

Although there are a huge number of agribusinesses, very limited value-added activities to agricultural produce are found. In addition, Cambodia loses millions of dollars every year by exporting the agricultural commodities in raw forms legally and illegally across the borders. For example, even if the number of rice milling operations is astronomical, Cambodia exports close to 1.5 million tonnes of paddy rice across the border to Vietnam and Thailand. This translates into a loss of employment creation that would have otherwise contributed to the expansion of GDP and, hence, boosted economic development.

In addition, as was mentioned above, most farming in the country is for subsistence production and/or local trade. The agricultural sector is, therefore, highly focused on production *per se*, with less emphasis on marketing and distribution activities. The Rectangular Strategy aims partly to adjust this imbalance and address the constraints on promoting the country's agro-industry (on constraints, please see next section).

About 230,000 new labourers seek jobs every year.⁵ The majority of them are unskilled and about 170,000 come from a rural background. This highlights the rural characteristics of the poverty and labour force in Cambodia, and further underlines that agriculture and its associated agribusiness sector make a strategic match for poverty alleviation and welfare development. However, developing agribusinesses and commercialising the agricultural sector are not without constraints and challenges.

Core constraints

Cambodia's agricultural development and agribusinesses face a lot of constraints. These constraints can be broken down into three main categories, viz., (i) constraints on the production side, (ii) constraints on the marketing side, and (iii) governance-related constraints.

Constraints on the production side include: (a) lack of appropriate and quality inputs, including good quality seeds⁶; (b) poor water control management and irrigation due partly to a lack of investment; (c) lack of appropriate agro-services, specifically agricultural credit and research and extension; (d) high input costs, (e) poor and unorganised production that is market responsive, in particular poor farmers' organisations, and (f) supply-driven production planning.

Marketing side constraints are: (a) lack of marketing information and poor market information system; (b) poor and fragmented agricultural marketing services; (c) lack of appropriate storage facilities; (d) poor post-harvest handling

Access to finance is difficult for agro-enterprises. They can only apply for loans if they have collaterals or securities. But, even with that they would be lent by half of their capital worth, which is, oftentimes, not adequate to improve their productivities and business performance.
<i>Sources: EIC, 2005a and MRT – Mong Reththy Group</i>

and dearth of processing industries; (e) lack of credit services for development of agricultural marketing and agribusinesses; (f) high energy and utility costs; (g) lack of system and mechanism for ensuring quality, including lack of certification systems for organic commodities; and (h) high transport, customs and shipping costs.

The main governance-related constraint is corruption, which is widely recognised by the public, private sector and donor agencies as a key impediment to developing not just agribusinesses, but also the private sector at large. Despite corruption, however, business transactions are often not expedited. According to the World Bank, agro-industry owners in Cambodia pay close to five percent of the values of their

Box 2: Transport Costs

Unofficial road taxes are in the range of US\$20-40/ton. Estimated administrative costs of a 40-foot container are between US\$800 and US\$1,200.

Sources: World Bank, 2004 & SME Cambodia, www.smecambodia.org

annual sales in bribery, but the service delivery remains delayed. Also, a small tax on export could potentially create opportunity for corruption and a burden and hamper the agro-industry development. Corruption and collusion also allow for smuggling that undermines domestic industries.

Opportunities and threats

Despite the many constraints identified above, potentials and opportunities, some of which have been discussed above, prevail for developing the agribusinesses. Some of these potentials can also be threats. Current policies of the Royal Government of Cambodia try to promote the development of the private sector, which is considered a driving force for employment generation. Certain aspects of the existing legal framework favour the development of private sector but require implementation of regulations and procedures to realise its goals, while more legal texts are needed.

As part of the ASEAN Free Trade Area (AFTA) and the WTO, Cambodian agricultural producers and agribusiness operators could have larger and more open access to international markets, not just domestic markets. The flip side to that argument, though, is that these memberships entail a lot of competitive challenges from not only advanced economies, but also from developing economies. Moreover, ASEAN relations with China, India, Japan and Korea also present both opportunities and threats for the agribusiness sector in Cambodia.

Recent attention of the donor community to agricultural and rural-based private sector development opens up opportunities for agribusinesses to grow. Some programmes focus on boosting rice production through better seeds, improved irrigation to enable two crops and rice milling near farms. Others target the development of food processing and the country's agro-industry.

The Asian Development Bank (ADB) will increasingly focus its assistance on the Tonle Sap basin in order to create greater synergies among its projects as well as target one of the poorest and environmentally most sensitive regions in the

country. Another example of donor activity is the support from the European Union (EU), the Food and Agriculture Organisation (FAO) and the Cambodian non-governmental organisation (NGO) Centre d'Etude et de Développement Agricole Cambodgien (CEDAC) to promote organic agricultural production.

However, competition among donors for niches to develop their own models, which can carry their flags, could become a cause for concern and impede the sector in its development. Another potential problem is that the benefits of the donor assistance primarily go to the larger and more well connected formal enterprises, rather than the smaller informal traders.⁷

Conclusion and Recommendations

Given the role of agriculture in Cambodia's population and economy – with the overwhelming majority living in rural areas – it is clear that upgrading the agro-industry plays an integral part in the country's development. This has also been recognised by the current Government's Rectangular Strategy that was launched in 2004. Accordingly, efforts are being made to raise productivity, diversify agricultural production, improve irrigation and encourage investment among others.

Cambodia's agriculture sector enjoys some strong comparative advantages, in particular in natural resource-based production, cheap labour and limited use of agro-chemicals (which is positive for organic production). Many challenges remain, however, due to constraints on production and marketing as well as governance-related constraints. Strategic directions that will help agribusinesses to develop are to:

- remove some or all of the constraints mentioned above;
- develop and pilot an entrepreneurship programme that takes into account the roles of women who dominate in micro and small agribusinesses;
- conduct constructive dialogues – based on the positive experiences from the pilot programme – with the Royal Government of Cambodia, using a donor-coordinated approach and taking concrete actions on recommendations emanating from the efforts of the Public-Private Sector Forum and Technical Working Group on Private Sector; and
- support the Royal Government of Cambodia in developing and implementing appropriate conducive institutional frameworks (policies and strategies, institutions, legal texts, human resources and reform programmes).

Endnotes

- 1 Andrew McNaughton, "Cambodia's Experience and Opportunities for Domestic and International Trade in Agricultural Products", 2002, http://www.r0.unctad.org/trade_env/test1/meetings/russels/presentations/Cambodia%20paper.doc
- 2 Martin Godfrey (2002), as cited in the World Bank, "Cambodia – Seizing the Global Opportunity: Investment Climate Assessment and Reform Strategy for Cambodia", 2004, <http://siteresources.worldbank.org/INTCAMBODIA/Resources/Global-opportunity.pdf>
- 3 Economic Institute of Cambodia (EIC), "The Rice Industry in Cambodia", Economic Review Vol. 1 No. 3, 2005a
- 4 Kao Sokuntheavy, Term Paper, 2005, Agri-Business Institute Cambodia (ABiC)
- 5 EIC, "Long Term Prospects of the Cambodian Economy: A Quantitative Assessment of the WTO Membership", Economic Review Vol. 1 No. 3, 2005b
- 6 Rice is more advanced than other crops. Thanks to AusAID's support during the 1980s and mid-2000s. Traditional and modern rice seeds from improved selection practices are available in many provinces but Cambodian farmers still have limited access to such seeds due to availability and prices as well as perception.
- 7 Maylee Thavat, "Cambodia's Pathways to International Trade", ASEAN Focus Group, August 2005, <http://www.aseanfocus.com/asiananalysis/article.cfm?articleID=865>

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