

The Rice Industry in Cambodia

It is perhaps unrealistic that the problems of the supply side will be solved only by an expansion of market access, because the new trade policy, WTO, will affect the rice industry in Cambodia in the long run rather than short run.

In the 1960s, Cambodia was a rice exporter country, able to grow 500,000 tons in excess of its domestic demand. The paddy production of Cambodia at that time accounted for 2.38 millions tons, representing 1.1 percent of world paddy production. In the 1970s and '80s, war conditions resulted in such a loss in production that Cambodia was not able to feed itself, let alone export rice. It took until 1995 for the country to again achieve self-sufficiency. Currently, its excess rice production is back up to about 500,000 paddy tons (Figure 1). Most of this is exported unofficially to Thailand and Vietnam. Cambodia's share in world paddy production, although its exports are back up to previous levels, has fallen due to growth in paddy production in other countries. Cambodia's share of world paddy production was 0.7 percent in 2001; its neighbours, Thailand and Vietnam, have paddy production shares of 4.5 percent and 5.4 percent, respectively.

Although more than 70 percent of Cambodia's population lives in rural areas, agriculture represents only 30 percent of gross domestic product (GDP). The statistics become even more unbalanced specific to the rice sector, as 50 percent of the total labour force is engaged in rice farming and marketing, but rice only accounts for 9 percent of GDP. The extreme poverty of Cambodian agricultural workers is evident from these statistics. Thus, strategies to develop and improve rice farming and marketing could go a long way toward reducing poverty and creating better jobs. Cambodia has not yet learned to utilize its full capacity of natural resources, or to adopt more efficient farming techniques and advanced technology.

Cambodia is taking steps to join the World Trade Organization (WTO); among these steps are to make its agriculture sector subject to the Agreement on Agriculture (AoA). The objective of this article is to understand the current situation of rice industry, assess the impacts of AoA, and study what Cambo-

dia should do to utilize WTO's help in improving the rice industry.

Conditions for Rice Production

The climate in Cambodia is tropical, with rainy and dry seasons of about six months each. The wet season starts in May and ends in October. Average annual rainfall is estimated at 1,463 mm, but the rainfall varies from region to region within the country. The mean annual evaporation varies from 1,000 to 2,300 mm/year.

The rice ecosystem is divided into four types. Rain-fed lowland accounts for about 58 percent of the rice area, and upland occupies 2 percent. Flood-prone land represents about 32 percent. Dry season irrigated land covers 8 percent. There are three types of dry season rice culture: 1) a fully irrigated second crop at the end of wet season, 2) a supplementary irrigated rice in deep flooded areas, and 3) a dry season rice crop in receding water around lakes and rivers.

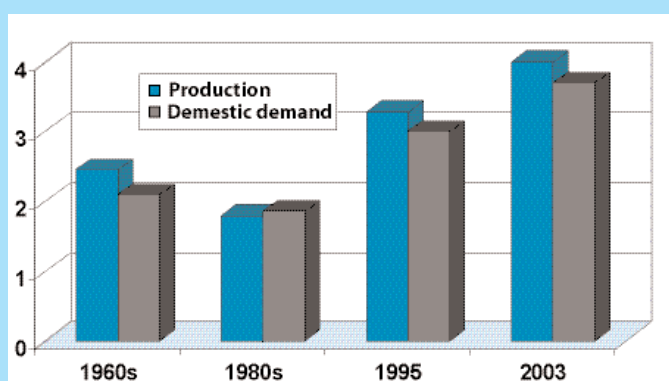
Rice occupies 90 percent of the total cultivated land in Cambodia, which currently is 2.2 million hectares (ha). Of that total, 1.9 million ha is land cultivated during the wet season, and 0.3 million ha is area cultivated area in the dry season. In 2003, rice production represented 34 percent of the total dollar value of

agriculture products. Rice production has increased significantly in the last decade, particularly after major economic reforms undertaken in 1989 which boosted production to 4.2 million tons in 2003, against 2.4 million tons in 1990 (Figure 1). The productivity of rice also has increased significantly, from 1.6 tons/ha in 1990 to 1.9 tons/ha in 2003. This increase in yield is attributed mainly to the selection of new high-yielding rice varieties. The combination of the expansion of planted areas and the increase in yields has allowed Cambodia to once again boost its production to surplus levels. A remarkable fact is that the productivity figures of the dry season crop are much higher than the wet season crop. The main reason for the high productivity in the dry is due to selection of a higher-yield IR seed and better water management. As well, it is easier in the dry season to fertilize and treat the land for better production.

Government Policy on Rice

Rice trading policy by the government is changing from a planned economy model to an open market model. Cambodia's joining of the Association of Southeast Asian Nations (ASEAN) started this process, and the bid to join the WTO is continuing it. During the WTO negotiation process, Cam

Figure 1. Production and Demand of Rice (Million tons)



Source: EIC

bodia committed to implement the AoA, among other pledges. The agreement on agriculture and WTO membership will shape the trading system in Cambodia.

Support System for Rice Marketing

Although the government's new policy pays some attention to the issues surrounding rice marketing, the sector still faces some restrictions and market glitches. Although in the past, rice traders needed a license to export rice, that policy is changing because of complaints by small exporters and farmers over the difficulty in obtaining such a license.

Further support is need for farmers. Some non-governmental organizations (NGOs) have formed some small scale groups. The government also is planning to organize farmer's groups but the Ministry of Agriculture, Forestry and Fisheries (MAFF) is still drafting its agricultural cooperative act.

Policy on Rice Marketing

Quantity restrictions have been basically abolished in import and export policy. There is no export duty on milled rice. Import duty is 7 percent and value-added tax (VAT) is 10 percent. Although licenses are supposedly necessary both for export and import, a great deal of paddy is the subject of informal border trading. A tariff reduction is expected in the future by members of the Asia Free Trade Area (AFTA), but rice will be not be addressed until late in the application schedule.

The exporting of processed agricultural produce is a key goal of agricultural growth. Therefore, the improvement of processing facilities should be an important part of the government's industrial growth plan. However, there is no efficient policy at this time for improving or supporting rice milling facilities.

Food Security Policy

Government policy seems as lacking in this area as it is in the encouragement of rice industry development. The food security policy of Cambodia is premised on its ability to be self-suffi-

cient in rice production. There are no clearly stated measures or policies in place for such important food security measures as keeping a national reserve of rice or having a distribution system in place for poor or disaster-stricken citizens. Although food security is regarded as important in the socio-economic development plan, there are currently few concrete policies to achieve it.

Agreement on Agriculture

The WTO's Agreement on Agriculture took effect in 1995. Its aim is to expand agricultural trade and growth for developing countries. As the AoA aims to liberalize trade in agriculture, could have tremendous impact on agriculture and the livelihoods of poor peasants in the developing countries. However, developing countries are not currently happy with certain provision of the AoA as relate to government subsidies for farmers in developed countries. The developing countries see subsidies as unfair and protectionist, coming at the expense of millions of small farmers in the developing countries. At the fifth ministerial conference in Cancun, September 2003, trade talks collapsed because there was no consensus on this issue. The rich countries said it was the time to talk about the Singapore issues, such as market access, whereas the

developing countries thought it was the time to discuss unfair subsidies.

So the provisions of the AoA are in dispute. Cambodia has become the first less-developed country (LDC) approved to join the WTO through a full negotiation process that will make its international trade subject to the WTO rules. Agriculture, especially rice, is the strategic sector in Cambodia's effort to reduce the poverty of its citizens. What do the AoA and other international agreements mean to Cambodia?

During the negotiation process to join WTO, Cambodia made commitments related to agriculture in the areas of subsidies, tariff reduction, removal of trade barriers, price policies, and other restrictions (Box 1).

In the WTO's AoA, all countries except LDCs have to cut the subsidy on agriculture within a time limit. Under its status as an LDC, Cambodia can increase the competitiveness of its farmers and also protect its agriculture sector, especially the rice industry. But after sustained pressure, Cambodia has promised to cut its subsidy to zero whilst Cambodia has no previous exported subsidies on agriculture products. This agreement on subsidy seems to have no impact on agriculture (rice) in the short-term since currently the state has no ability to subsidize its farmers due to the fact that rice production in Cambodia has only recent-

Box 1: Agreement on Agriculture (AoA) under WTO

Agricultural policies: Cambodia binds its agricultural export subsidies at zero, and will not maintain or apply any export subsidies for agricultural products.

Export restrictions: Cambodia restricts exports of rice, round logs, unprocessed timber, forestry products, antiques more than 100 years old, narcotic drugs and poisons, weapons, explosives, ammunition, and vehicles and machinery for military purposes. From the date of accession, Cambodia will ensure that restrictions comply with WTO agreements.

Quantitative import restrictions, including prohibitions, quotas and licensing systems: No later than 1 June 2005, Cambodia will eliminate quantitative restrictions on imports of fertilizers, pesticides and other agricultural inputs, and will establish a WTO-consistent method of registration and review of imported agricultural chemicals. From 1 January 2007 Cambodia will rely on the provisions of the Technical Barriers to Trade Agreement to regulate domestic and international trade in these items.

From the date of its accession, Cambodia will not introduce, re-introduce or apply other non-tariff measures such as licensing, quotas, prohibitions, bans and other restrictions having equivalent effect that could not be justified under the provisions of the WTO Agreements.

Pricing policies: From accession, Cambodia will apply price controls in a way that is consistent with the WTO, and take into account the interests of exporting WTO members. Cambodia has published a list of goods and services subject to state control.

Source: Cambodia membership negotiation, Fifth working party, July 22, 2003

ly passed the point of self sufficiency. However it will have an impact in the future when rice production far exceeds self sufficiency and the state needs to protect its farmers.

The tariff on imported rice in Cambodia will rise to 40 percent, on average, under the AoA terms. The rice industry is not competitive if compared with its neighbouring countries which are major rice suppliers in the world market. Currently, the rice industry is strongly dependent on natural conditions and has very poor irrigation systems to help counterbalance varies in the weather. Its productivity is the lowest in the region. It currently lacks much in the way of institutional support. It is notable that in the existing trade policy on rice, there is no tariff barriers on the import of agricultural products. The 40 percent tariff rate will allow the government to raise more revenue; however, it is actually unfortunate that the figure is so low, as Cambodia could raise even more revenue and also protect its farmers with a higher tariff rate that would be comparable to other WTO member countries.

What Needs to Be Done?

The Cambodian government's move to join the WTO will likely have significant impact on the country's economy and its ability to participate in international trade. Key will be the government's commitment to making the changes, as encouraged by the WTO, that will foster growth in the economy. Once Cambodia becomes a full member of the WTO, it will have the means to export its products to 146 other countries. The lure of international trade opportunities will, it is hoped, encourage farmers to expand their activities, and to attract foreign direct investment in agrobusiness. Market forces can boost the growth of supply if both local and foreign investors are comfortable with Cambodia's business climate; this means that the country needs to insure political stability, fight corruption, instill confidence in the legal and judicial system, and show appropriate fiscal policy and macroeconomic stability.

Cambodia will maximize the benefits from the WTO accession if and

only if its supply side is already strong. Cambodia reached self-sufficiency in rice production only in 1995, and it has taken several more years to produce the current surplus of about 500,000 tons of paddy. Cambodia needs to strengthen production capacity.

That rice production could grow quickly if Cambodia is able to improve its irrigation system to expand its cultivated area in the dry season. Natural irrigation covers only 8 percent of the rice cultivated area. By contrast, in 2001 natural and man-made irrigation systems in Thailand were supplying water to about 2 millions ha, representing about 22 percent of the rice harvested area. In Vietnam, irrigation systems cover about 3.6 millions ha, which is 54 percent of total rice harvested area.

If irrigation could be installed to supply about 50 percent of the total cultivated land; that is, about 1 million ha of the total 2 million cultivated, production could increase to about 3 million tons in the dry season alone (Figure 2). Second, if Cambodia could improve its productivity in the wet season to the level of neighbouring countries (about 3 tons per hectare), it could grow an additional 2 million tons to that season's harvest. This increase in production could generate up to US\$ 500 million, a huge sum that would certainly help reduce poverty.

Increasing Productivity

Current yield levels in the Cambodian rice ecosystem are very low compared with those in many Southeast Asian countries. Poor soil fertility is a major production constraint in most low-land areas, and will need to be addressed by suitable soil and fertilizer management technologies. Nearly half of the soil types found in rice-growing areas can be classified as low productivity. This is compounded by weather uncertainty and recurrence of devastating floods and droughts.

The low level of irrigation in the country, coupled with the poor performance of existing irrigation facilities, discourages diversification of local farming systems. Without good water management and control, farming remains a highly risky activity. Farmers are hence unable to take full advantage of modern farming technologies.

Post-harvest losses are chronic. Rice harvest and post-harvest losses of about 30 percent have been reported. Many farming areas lack even small-scale feed and food processing equipment. There is, in addition, a lack of drying, bulk handling and storage facilities, all of which would contribute to product quality. The country lacks quality facilities for the secondary and tertiary pro-

Table 1. Irrigation, Productivity, and Technology

	1960s	1980s	1990s	2,001
Irrigation	,000 ha			
Cambodia	83	172	264	270
Vietnam	1,033	2,320	2,970	3,000
Thailand	1,759	3,665	4,599	4,924
Productivity	Ton/ha			
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
Tractors Agric Total	,000			
Cambodia	925	1,220	1,296	1,855
Viet Nam	2,633	25,698	82,458	163,000
Thailand	5,000	31,934	141,218	220,000
Harvesters-Threshers	,000			
Cambodia	5	20	20	20
Viet Nam	N/A	N/A	N/A	N/A
Thailand	9,000	30,344	62,038	69,500

Source: FAOSTAT

cessing of agricultural products and by-products, facilities that would not only promote efficiency but would diversify and improve outputs.

Technology transfer plays a crucial role in increasing productivity. There is currently a paucity of knowledge of new farming technologies (Table 1). Limitations also exist in both the availability of technology and the capability to identify, test and adopt promising technology. These are mainly rooted in a lack of funding for research and development (R&D) activities. The Cambodian government does not have the means to plan, finance and manage a comprehensive agricultural research program. Various independent organizations within the country are conducting limited R&D activities; however, they are being done without the benefit of coherent planning and coordination, and rarely reflect actual farming conditions. Intended end users have very little input in the R&D and extension delivery systems. Research and extension linkages are very weak and technology demonstration activities often commodity-oriented and seldom geared towards a diversification of farming systems.

Removing Trade Constraints

Cheap labour costs in Cambodia make it possible for this country to compete with more technologically-advanced Thailand in terms of farm gate price. Unfortunately, the export price for Cambodian rice inflates to about US\$ 50 per ton more than Thai rice after taking into account the expenses of unofficial fees, export procedures, and check points along the trading road.

Many rice millers and wholesalers in the northwest complain about the difficulty and high cost of obtaining an export license. Moreover, there are still many regulations that make legal exportation unattractive.

Another problem is quality control. Purchasers in many importing countries reportedly do not trust the quality control certificates issued by Camcontrol, and therefore do not trust the quality of Cambodian products. These concerns have a basis; fact, a number of agricultural products have failed to meet the

international standards in overseas markets. The government's Sub-Decree of 1998 on standards and management of agricultural materials should be expanded to include clearer guidance on exportable product quality.

Infrastructure, facilities and institutional mechanisms for the handling, processing and export of food grains are still undeveloped. Essential market support infrastructure and services such as farm-to-market roads, transport facilities, power supply systems and quality control facilities and services are grossly inadequate. Marketing and transaction costs remain high due to bad road conditions, poor security, high transport costs owing to the enforced imposition of ad hoc road fees, and the shabby conditions of city and local markets.

Strengthening Trade Institutions

The institutional capacity for regulating and supporting the private sector as it tries to market its products is weak. The newly-established Agricultural Marketing Office, within the Department of Planning, Statistics and International Cooperation of the MAFF, still lacks capable and experienced staff. The same problem is encountered in the Ministry of Commerce, where assistance for a newly-opened unit for export promotion as well as the existing Camcontrol. At present, there is no national marketing institution. Only the Market Information Service under the MAFF, which is receiving assistance from the FAO, is undertaking marketing development from within the Ministry. Essential ser-

vices and functions such as the assessment of overseas market signals, the establishment of internationally-accepted norms and product standards, and the introduction of modern storage and packaging materials and techniques all need attention.

Raising Agriculture Import Tariffs

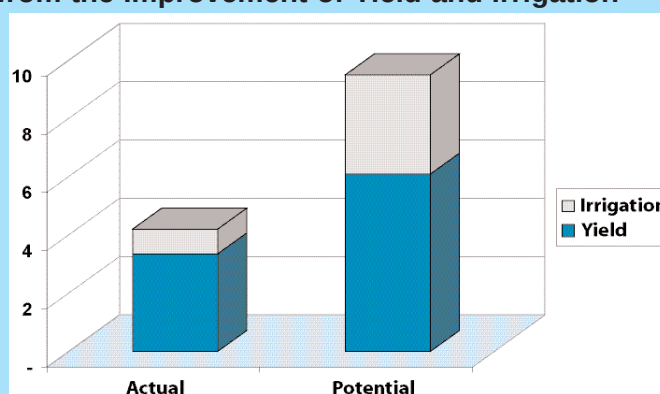
As Cambodia attempts to develop its export market, it also needs to protect its farmers. By strengthening border controls and discouraging unofficial trade, Cambodia can increase the national revenue and also protect the local farmers. Agriculture products currently are not competitive with neighbouring countries. Cambodia should increase the tariff rate. Otherwise Cambodia will be flooded by cheap agricultural products from Vietnam and Thailand, to the detriment of its local farmers.

Conclusion

Cambodia could become a major world exporter of rice, if some constraints were removed. How long might this take? The answer will depend on how strong the commitment to growth is by the government and by private interests. Neighboring Vietnam developed its irrigation system during the 1980s. Vietnam became a rice export country in 1986 and the third biggest rice exporter in the world in 1989. In total, it took about 10 years for Vietnam to develop its capacity, and it continues to grow.

Chea Samnang

Figure 2: Increase in Rice Production from the Improvement of Yield and Irrigation



Source: EIC