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Rice Policy Study: Implications of Rice Policy Changes in Vietnam for Cambodia's Rice Policy and Rice Producers in Southeastern Provinces

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Thailand, Vietnam and Cambodia are well known for rice production and export. In 2015, Thailand was the second leading exporter of rice, exporting around 9.8 million tonnes (worth USD4.5 billion), followed by Vietnam, which exported about 6.6 million tonnes (USD2.8 billion). Thailand exports mainly high quality – aromatic – rice, while Vietnam produces and exports mostly non-aromatic or low quality rice.

Rice is Cambodia's staple food, principal crop and main source of income for 85 percent of rural households. It contributes about 4.5 percent of GDP and 20 percent of total household income. However, rice is one of the most controversial issues in Cambodia, particularly with regard to markets. The country produced around 9.3 million tonnes of paddy in 2014, including both aromatic and non-aromatic rice. In 2015 Cambodia officially exported around half a million tonnes of milled rice to EU and Asian countries. The remaining paddy was unofficially traded with neighbouring countries such as Vietnam and Thailand. Farmers along the border in south-eastern provinces (namely Takeo, Prey Veng, and Svay Rieng) traded most of their dry season paddy with Vietnam through Vietnamese or Cambodian merchants. Vietnamese traders dictate dry-season paddy demand and prices, which causes instability and uncertainty for rice farmers thinking of improving productivity and increasing production.

Table 1: Rice balance (tonne), 2015

Item	Tonne
Production (paddy)	9324170
Seeds	684500
Available (paddy)	8639670
Available (milled equivalent)	4751819
Total consumption (milled)	2703447
Rural consumption (milled)	2241229
Local urban market (milled)	186846
Inter-provincial trade (milled)	275372
Milled export	538000
Total used milled	3241447
Unofficial exports (milled equivalent)	1510371
Total exports (milled equivalent)	2048371
Unofficial exports (paddy equivalent)	2746130

Source: Frédéric Lançon (CIRAD) 2016

Recently, the Vietnamese government changed its agricultural policy, particularly rice policy, shifting the concentration from high yields of low quality (non-aromatic) rice to lower yields of high quality (aromatic) rice. Vietnam's rice export structure has changed significantly in recent years. Aromatic rice is playing an increasing role in Vietnam's exports and this trend is likely to continue as its Ministry of Agriculture and Rural Development (MARD) indicated that Vietnam should focus more on producing high value rice for export. Hence, it is expected that production and export of Vietnam's low quality rice will drop. In turn, Vietnam's rice traders and/ or exporters will demand more high value rice and

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reduce the purchase of low quality rice from both Vietnamese and Cambodian rice producers.

Farmers in south-eastern Cambodia mainly grow IR504, the demand for which depends heavily on Vietnamese traders. This brief therefore recommends that serious consideration be given to the implications of rice policy changes in Vietnam for rice production in Cambodia, especially their impacts on rural household incomes in the eastern and southern areas bordering Vietnam.

Vietnam agriculture policy change

Through desk study and interviews with Vietnamese public and private sector representatives, the first hypothesis is found to be true regardless of its implementation. Some export companies are starting to export high value rice and making better profits. Also, some Vietnamese farmers are thinking to change to higher value rice crops. However, not many have done so yet. Farmers in the Mekong delta are still growing low value rice varieties because it has been their practice for many years and the market is still there. In short, both public and private sector respondents stated that the policy is still new, and will take time to implement. It may be the medium term before the government makes more concrete plans, seeking new stable markets and helping farmers to become well-informed and to adapt. Therefore, Vietnamese traders are unlikely to cut back on their purchases of low value rice from Cambodia any time soon.

Situation of Rice Sector in South-Eastern Cambodia

Farmers in the three border provinces grow both wet and dry rice varieties. Dry rice varieties are mainly produced commercially, while wet rice is produced for household consumption. A few farmers trade their surplus of wet rice. Dry rice varieties are dominated by IR504, while prevailing wet rice varieties are aromatic. Farmers in the surveyed areas trade their paddy wet, without any value added, which has kept the price low. Very few grow vegetables.

The production of rice in south-eastern Cambodia is heavily dependent on demand from Vietnam. Vietnam is the major buyer and largely influences the price of paddy. Cambodian village traders collect paddy and sell to both Cambodian millers and Vietnamese traders, though only a small percentage is sold to domestic millers. A few Vietnamese traders come to the field just before the rice ripens and determine the harvesting date. In this case, some farmers sell their paddy directly to Vietnamese traders.

Cost and Benefit among Rice Crops

The cost and benefit analysis indicated that IR504 is the most profitable for households in the study areas. However, IR504 requires a lot of fertiliser, pesticide and water. Experience from Vietnam shows that intensive and extensive application of fertilisers and pesticides can severely harm soil and water quality. It is suggested that farmers switch from IR504 to medium rice varieties, which require lower inputs, particularly pesticides and

Figure 1: Flow of rice along south-eastern provinces of Cambodia

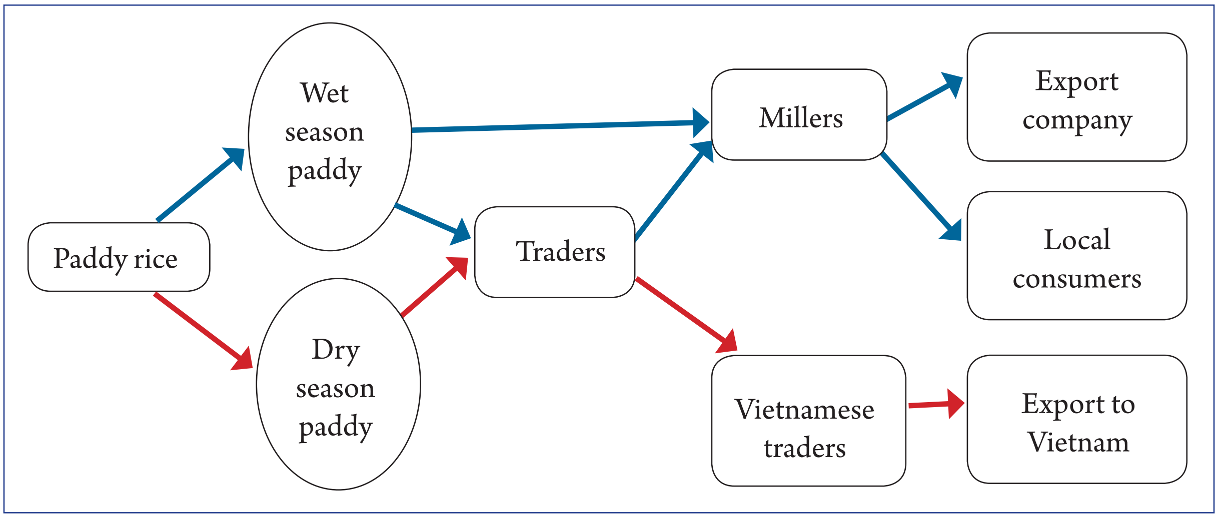

Table 2: Comparison of the production costs of IR504 and other rice varieties (one production cycle)

Production cost	IR504		Medium duration		Long duration		Total	
	Currency	%	Currency	%	Currency	%	Currency	%
Seed (USD/ha)	88.1	15.6	46.1	15.3	38.6	14.0	69.7	15.3
Rent labour (USD/ha)	7.7	1.4	10.7	3.6	5.5	2.0	7.5	1.7
Water (USD/ha)	26.4	4.7	1.4	0.5	0	0.0	16.3	3.6
Water pump (USD/ha)	39.4	7.0	9.2	3.1	2	0.7	25.7	5.7
Farm machinery (USD/ha)	107.5	19.1	91.8	30.5	113.8	41.2	107.2	23.6
Fertiliser (USD/ha)	173.5	30.8	116.3	38.6	102.5	37.2	147.5	32.5
Pesticide (USD/ha)	120.7	21.4	25.9	8.6	13.6	4.9	80.5	17.7
Total inputs (USD/ha)	**563.3**	**100.0**	**301.4**	**100.0**	**275.9**	**100.0**	**454.4**	**100.0**
Average price (wet paddy) (riels/kg)	749.7	-	898.5	-	879.4	-	776.6	-
Output (USD/ha)	**827.2**	-	**508.9**	-	**487.4**	-	**697.4**	-
Profit (USD/ha)	**263.9**	-	**207.5**	-	**211.5**	-	**243**	-

chemical fertilisers. Although yields are lower, medium duration rice varieties fetch a higher price than IR504. The price of medium rice varieties could almost triple if farmers were to sell it as dried paddy or milled rice. Therefore, for long-term economic reasons and for sustainable rice production, medium duration rice varieties should be widely promoted, together with stable market demand and price.

Implication of demand change from Vietnam

The paddy demand shock from Vietnam will have negative impacts on household livelihoods especially for households who rely on rice farming as their main source of income. From household survey, around 20 percent of sample households earn more than 50 percent of their income from rice farming. This population will be severely affected if Vietnam traders stop buying their rice.

Millers and traders in the studied areas have no capacity to absorb the excess paddy if Vietnam stops its purchases. The profit margins for milling low value rice varieties such as IR504 are very low to not profitable. Millers need working capital and low interest rates in order to expand milling capacity. There are a few big rice millers in Cambodia; however, given insufficient infrastructure and logistical arrangements, they cannot collect paddy efficiently. Also, because farmers spend less time harvesting their paddy, traders and millers need to enlarge their purchases during the harvest season, which requires large storage and high drying and milling capacities.

The public sector in Cambodia realises the importance of markets for agricultural produce. They are looking for new markets to diversify away from dependence on markets in neighbouring countries. China is one success in seeking new rice markets. The government is encouraging farmers to grow medium duration fragrant rice varieties, and has identified 10 varieties that farmers should grow for export.

Recommendations

In the short term:

- **To avoid demand shocks, the Cambodian government may need to seek a bilateral agreement with the Vietnamese government**, and local provincial authorities should have practical arrangements with their Vietnamese counterparts, to at least sustain the current situation and secure the paddy export market for farmers.
- **To develop policy solutions to increase production effectiveness, overcome production system weaknesses and improve efficiency in the rice value chain,** it is necessary to maintain the existing production structure for the next period. Intensive growing of IR504 by applying a huge amount of chemical fertilisers and pesticides is very harmful to human health and the surrounding environment, particularly

soil and water quality. Therefore, **farmer training on the proper handling and use of fertilisers and pesticides is crucial.**

In the long term:

- **Selling wet paddy is a loss to farmers, while exporting wet paddy is a loss to the country.** It is suggested that Cambodia promote agricultural production to create sustainable livelihoods for its farmers. With the advantages of a relatively cleaner environment with lower exposure to agrochemicals than in older exporting countries like Vietnam, Cambodia has favourable rice ecologies for the cultivation of traditional local varieties that also have high values. Government should promote Cambodia's high quality and value added rice by taking advantage of preferential access to EU markets. To promote the production of fragrant rice, substantial investment must be made to build infrastructure such as irrigation and drainage systems, transport services and processing capacity. However, to exploit these new markets while the capabilities of Cambodian companies are still limited and infrastructure remains inadequate, the best approach would be to develop connections with Vietnamese enterprises, and attract them to both invest in improving storage and processing capacities, and help Cambodia be proactive in expanding its higher value-added exports.
- **The market for fragrant rice must be diversified and secured.** As Vietnam restructures its rice policy by shifting to high value rice varieties, Cambodia can also align its production by producing more high value (fragrant) rice to meet rising demand from Vietnam. Contract farming should be widely implemented and encouraged to secure agricultural markets for farmers. Given their weak capabilities, it will be difficult for most Cambodian enterprises to respond quickly in the near future. Consideration should be given to devising policies that promote the development of farmers organisations, as international experience has proved that farmers organisations are a significant factor affecting the viability and sustainability of contract farming.

Improving the current situation as well as moving to a new model. To help farmers increase rice production and net returns, government should pay attention to policies for market development and protection, and investment cooperation, rather than for production subsidies.