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Agriculture and Rural Development in the Greater Mekong Sub-Region

The Important Nexus

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Introduction

The importance of agriculture cannot be emphasised enough in the Greater Mekong Sub-region (GMS) countries[1] as nearly 80 percent of the region's population lives in rural areas where subsistence agriculture, fisheries, and forest extraction are the main economic activities. Despite the relatively strong economic performance and improved living conditions in the GMS countries over the last decade, 10-40 percent of the people still live below the poverty line. In view of the importance of the agriculture sector in the GMS, sustainable agricultural growth is crucial for reducing rural poverty. Agriculture accounts for 78 percent of total employment in Lao PDR, 75 in Cambodia, 69 in Vietnam, and about 50 percent in Thailand. Rice remains a critical crop for food security throughout the GMS region. Given the large rural population, low farmer income and underdeveloped agriculture in the GMS countries, it is vitally important to develop agriculture and the rural areas.

This paper looks at the relationship between agricultural and rural development and the role played by them in reducing poverty in the GMS countries.

Background

There are growing concerns in the GMS on: (i) the widening gap between rural and urban areas, and between the rich and the poor; (ii) the unsustainable management of the environment, which provides livelihood for rural communities; and (iii) the special needs of the vulnerable ethnic minorities in rural areas. Providing increased economic opportunities in rural areas will be crucial in addressing these concerns.

Due to increased globalisation of the trade in agricultural and agro-based commodities as reflected in the recent entry of some GMS countries in the World Trade Organisation (WTO), more effective use of advanced agricultural science and technology is required to ensure food security, and promote agricultural diversification and commercialisation. Agriculture also contributes to food security by keeping the prices low making it affordable for the poor besides providing income and employment.

Table 1: Composition of GDP and Labour Force

Country	Composition of GDP by sector (in percent)			Labour force by occupation		
	Agriculture	Industry	Services	Agriculture	Industry	Services
Thailand	10	44.9	45.2	49	14	37 (2000)
Vietnam	20.1	41.8	38.1	56.8	37	6.2
Myanmar	50	15	35	70	7	23 (2001)
Cambodia	35	30	35	75	NA	NA
Laos	43.4	30.6	26	80	20 (combined)	
China	**11.7**	**48.9**	**39.3**	**45**	**34**	**21**

Source: www.cia.gov (retrieved on June 14, 2007)

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The link between agriculture, rural development and poverty reduction in developing economies like the GMS countries is of prime importance. In the GMS, where agriculture contributes over 40 percent to the gross domestic product (GDP) and provides employment for 75 percent of the population, sustainable and equitable development is intrinsically linked with improvements[2] in the agricultural sector. Since a major chunk of the population lives in rural areas and depends on agriculture for livelihood, an increase in productivity would definitely lift a larger proportion of people out of poverty.

As shown in Table 1, even though the secondary and tertiary sectors contribute more to the GDP, the labour force is predominantly concentrated in the agriculture sector. GMS countries had an average rate of GDP growth of more than five percent per annum during the last five years, and fully recognise the need for sustainable agricultural growth to maintain economic strength and reduce poverty in the region.

Developments thus far….

The countries in the GMS – comprising Cambodia, Lao People's Democratic Republic, Myanmar, Thailand, Vietnam, and Yunnan Province and Guangxi of the People's Republic of China – established a Working Group on Agriculture (WGA) in January 2003, to facilitate consultations on common issues in the agriculture sector and identify opportunities for increased regional cooperation. Agriculture remains the most important economic activity in the basin, with rice being the main crop. Overall, an estimated 75 percent of the lower Mekong basin (LMB) population earns its livelihood through agriculture.

Over the past few years, an advisory body to the sub-region's agriculture ministers has coordinated with a variety of stakeholders to create the Core Agriculture Support Programme. These stakeholders include the Government and donor agencies, as well as international and regional research and development organisations, non-governmental organisations (NGOs) and the civil society.

The programme focuses on cross-border issues, to encourage cross-border trade and investment in agriculture, while contributing to food security and poverty reduction and ensuring the protection of the environment and sustainable use of natural resources.

Also included are the use of advanced agricultural science and technology in bio-safety and biotechnology, policy and investment cooperation in bio fuels, rural renewable energy and the establishment of emergency response systems for agriculture-related crisis.

The biggest player in the region, China has played an important role in promoting cross-border agricultural development. It has helped train agricultural technicians from the five other GMS member countries. The training covered a wide range of areas such as aquaculture, animal husbandry, cross-border animal disease control and prevention and land use. GMS technicians have also participated in the training sessions and seminars that China held for the members of the Association of Southeast Asian Nations (ASEAN). The sessions were on hybrid rice, agricultural machinery, potato production, fertilizer and agricultural policies.

Highly ambitious targets for expanding irrigation are a characteristic policy of some Mekong countries. Laos plans to have 80 percent of its farmland under irrigation by 2020[3].

Furthermore, Thailand has touted a trebling of the irrigated area in 20 years as part of its gigantic 'water grid' plan. Water-resource development differs sharply between GMS countries. Thailand, China and Vietnam have already developed their irrigation systems extensively.

The Second World Water Forum held in The Hague, in March 2000, estimated that food demand from the Mekong River Basin would increase from 20 to 50 percent by 2030, accompanied by an increase in water demand. As to the resource base, a substantial increase of the agricultural production is possible[4].

As far as China is concerned, the Government initiated a number of reforms in the late 1970s such as the responsibility system under which remuneration was linked to output and the farmer was given full responsibility of his piece of land. Reforms in the agriculture sector contributed in a big way to promoting rural development and reducing poverty in the country.

Country	Population below poverty line (US$1) (percent)
Thailand	10 (2004)
Vietnam	19.5
Cambodia	35.70
Lao PDR	30.7 (2005)
Myanmar	25 (2000)
Source: Various	

Bottlenecks

In spite of the progress made there are still bottlenecks in the development of the agricultural sector in these countries. Besides policy and regulatory road blocs, the other challenges that these countries face include:

Slow rate of investment in agricultural diversification – Rice is the main crop of this region and there is a need for these countries to diversify and therefore, this issue demands investment. Despite the primacy of rice in the agricultural sector in the area, the LMB has a relatively low 'irrigation ratio' compared with the rest of Asia. A rough estimate would place the ratio of the LMB irrigated area over its total cultivated area at a mere 7-10 percent, whereas the ratio for the whole of Asia would be around 45 percent. Cropping intensities in the dry season are generally low. However, in certain areas, good prospects exist for seed crops, vegetables, fish, and shrimp ponds.[5]

Underdeveloped marketing channels, institutions and infrastructure – Farmers may not receive timely information on crop prices which affects their ability to sell products, if the price is too high, or the lack of roads prevents them from transporting their crops to the market in time, leading to a rise in transaction costs.

Limited capacity of public institutions and misalignment of public expenditure serving rural sector interests – The budget for agriculture and rural development has been de-centralised from the central to the sub-national governments which are still in the process of increasing their capacity to manage rural development projects.

Climate change – It threatens to magnify the existing climate threats, as well as bring new threats to the countries of the lower Mekong River basin. The expected changes in the climate would impact on many systems and sectors of these countries, which include Cambodia, Lao PDR, Thailand, and Vietnam.

The impact on rain-fed agriculture is a particular concern because farm livelihoods that are based on cultivation of rain-fed crops are highly vulnerable to climate stresses. Climate risks are not new to farmers of the lower Mekong. Important climate risks that are common to the farmers of the region include midseason dry spells that can damage young plants and late-season floods just before harvest that can cause severe crop loss.

The lower Mekong River basin sub-region currently experiences floods from the major tributaries of the river, mainly towards the end of the rainy season when water flow is high and water from the tributaries cannot flow into the main stem of the river. Sometimes, the situation is made worse when water from the Mekong River is backed up into the tributaries. Floods that occur late in the rainy season, October or November, which is quite common in the region, pose serious risks for rice cultivation and farmers' livelihoods.[6]

Environmental degradation – This remains one of the most pressing challenges in the countries sharing the Mekong River, a region rich in resources, but with a high poverty rate. The countries can ensure sustainable livelihoods for their people by wisely using the environment and natural resources.

Declining Arable Land – For a country like China, one of the major challenges in the coming decades would be the decline in arable land. In 1995, per capita land area was 0.08ha, which is expected to reduce to 0.05ha by 2030.

Recommendations

Keeping in view the bottlenecks stated above, it is evident that the potential of agriculture remains largely untapped due to institutional and policy constraints and lack of investment in the sector and, therefore, the region faces a host of challenges. Addressing these challenges requires a balanced approach that takes into account not only the growth objective but also equity and sustainability considerations.

Firstly, agricultural growth can be promoted by bringing about structural change, for instance, moving from staple grains to high value commodities. Also, the Government can increase public investments and encourage public-private partnership (PPP). With the involvement of the private sector and the infusion of capital, better technology can be adopted bringing about economies of scale.

Secondly, by creating opportunity through accelerating market-orientation due to rural growth and opening markets, attention needs to be paid to the diversification of agricultural activities, deepening of market systems, management of trade integration and pursuit of state-owned enterprise (SoE) reforms.

Thirdly, management of natural assets for broad-based growth (land, water and forests) is called for. For instance**,** Vietnam needs to continue to strengthen land management and administration (including land titling and farm parcel consolidation), improvement in forest resource management, and investment in irrigation systems to increase efficiency and modernisation. In Cambodia, efforts should be made to increase and stabilise agricultural production by developing nutrient management techniques through improving knowledge of soils and water quality. This would help these countries to deal with the problem of soil erosion, due to floods.

Fourthly, while the role of education, as a key mechanism for promoting improved agricultural practices and development, is universally accepted, delivering agricultural knowledge in the GMS and other developing countries remains a challenge.

Therefore, effort can be made to: (1) support and encourage online learning for agricultural professionals in the GMS; (2) recognise and respond to the need to adequately promote online courses; (3) develop indigenous e-learning capacity in the region; and (4) look for opportunities to subsidise or lower the costs of internet access for online learners.

Fifthly, special support should be provided to farmers who have small pieces of land by helping them organise into cooperatives with the interest of the farmers as the foremost concern.

Agriculture, as shown above, is the main source of livelihood for millions of people in this region. Therefore, it is imperative to promote change and growth in this sector in order to alleviate poverty. Transfer of technology (as is being done by China) can increase the access of GMS products to international markets through improvement of food safety and quality standards, and lead to higher production values through identification of innovative products and marketing.

Because the poorest populations are dependent on the land and water for their livelihood, it is critical that these natural resources are maintained, and that the people are able to grow a variety of crops, so that they are not dependent on a single crop in case of crop failure or lack of market demand, and are able to access markets to sell their products.

Potential positive impacts of agricultural development include increased food production and consumption, income, and employment. Reservoirs for irrigation can also create new opportunities for fish production. These can range from harvesting indigenous fish and stocking of non-indigenous species to cage culture and integrated farming systems. Agriculture, forestry, and fisheries provide the foundation for economic development in a broader sense.

However, potential negative impacts include ecosystem damage, competition of limited natural resources with increased population (affecting fish resources, by converting wetlands into agriculture land, deforestation leading to flooding, etc.); irrigated agriculture reducing water quantity; and depletion of soil quality by farmers in irrigation projects can result in large flows of tail-water into receiving waters, usually with high contents of pesticides. This can coincide with low flows in receiving waters leading to threats to fish stocks.

Therefore, a balanced growth strategy for this sector is the need of the hour.

Endnotes

1 The Greater Mekong Sub-region (GMS) comprises Yunnan province, Thailand, Myanmar, Vietnam, Cambodia and Lao PDR.

2 Abdon, B.R, Capacity Building for Sustainable Agricultural Development in the GMS: Taking Advantage of e-Learning

3 Water Policy Brief, Issue 22, International Water Management Institute, Colombo, Sri Lanka

4 Kristensen, Joern, Food Security and Development in the Lower Mekong River Basin, A Challenge for the Mekong River Commission, ADB, Manila, February 05-01, 2005

5 http://www.wca-infonet.org/servlet/BinaryDownloaderServlet?filename=1062597220185_food.pdf.

6 Climate Risks and Rice Farming in the Lower Mekong River Countries.

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