

Paths to Poverty Reduction in Cambodia

A Tale of Four Districts

Economic development and poverty reduction in the last decade have been remarkable. To further stimulate economic growth and effectively reduce poverty in an equitable manner, the Government should shift its focus to agricultural development by removing binding constraints such as lack of capital and lack of irrigation.

Two decades of civil war has left Cambodia one of the poorest countries in the world. GDP per capita is a meagre US\$380 per annum, the second lowest in South East Asia after Myanmar. More than one third of the population is living under the national poverty line. Cambodia ranks 130th in the Human Development Index.

However, the end of the civil war has brought Cambodia back on to its own feet. The economy is in full swing. Economic growth in the last decade has reached a remarkable seven percent per annum. By and large people have been able to improve their living standards. There are now more televisions, motorbikes, cars, and cell phones than ten years ago. According to the World Bank, the poverty rate has dropped from 47 percent in 1993 to 35 percent in 2004.

Even though poverty reduction is seen in almost every part of the country, the pace of reduction in varying places is very different. Surprisingly, the poverty rate has increased in the provinces of Kampong Thom and Kampong Speu. As different parts of the country have varying sources of growth, their development paths and poverty reduction should have differed. This shall explain the contrasting rates of poverty reduction.

On a national basis, economic growth has been supported mainly by growth in several sub-sectors such as the garment industry and the tourism industry. On the other hand, agricultural growth has been slow and erratic. This has led to different paces of economic growth in different areas.

This article is compiled from an EIC study commissioned by the World Bank on "Poverty Assessment" in twelve communes of four districts in four different provinces.

The garment industry boom has led to strong growth in Phnom Penh and surrounding regions where most of the garment factories are located. The trickle-down effect from the garment industry has led to growth in other sectors such as construction and trade. However, the trickle-down effect is rather limited to the surrounding areas. The rural economy has only benefited a little from the industrial boom via remittance.

Likewise, the strong growth of tourism is limited to Siem Reap town, the home of Angkor Wat. As in the case of the garment industry, the tourism boom has stimulated economic growth in the surrounding areas of Siem Reap town, particularly in construction and the retail food industry.

To explore the different paths of growth, the Economic Institute of Cambodia conducted case studies of four different districts namely Malai, Mesang, Phnom Sruoch, and Puok, supported by the World Bank. As expected, each district has shown different paths of growth and poverty reduction.

Trend of Income

In all the four districts, the poverty rate seems to have fallen. However, the answer is not quite clear-cut for Phnom Sruoch district where landlessness is quite common. Malai seems to be the most successful in terms of development and poverty reduction.

Generally speaking, poverty has been reduced. People are better off now than ten years ago. The upward trend is clearly revealed in the increase of asset holdings. Many people now own a television and/or a motorbike. On average, one in three households owns a television.

"Life is better now. I used to be a cyclo driver in Phnom Penh in 1993 but now I am a rice miller", said a 45 year-old rice miller in Prey Kfines commune, Mesang district.

Income Distribution

Yet, as income grows inequality seems to have also increased. The rich and the relatively better off are getting richer while most of the poor are trapped in extreme poverty. This has led to a larger gap between the rich and the poor. According to the World Bank, Cambodia has one of the highest inequality rates in the region (Gini coefficient of 0.42).

The cases of Puok and Mesang have proved that it is hard for the very poor to move out of the poverty trap. Lack of education has prevented the poor in Puok district from taking high-paid jobs in hotels in Siem Reap town. Likewise, the very poor in Mesang generally cannot get jobs in garment factories because they cannot pay the commission fee to the middlemen.

Landless people in Phnom Sruoch are making ends-meet with 5,000 Riel per day wages. With no land and capital to start their own business, these rural poor have no chance in moving up the prosperity ladder.

The poor are also hurt by inflation and depletion of natural resources. Even though inflation affects everyone, the poor have to bear the brunt. Inflation, particularly for food products, has substantially reduced the real income of the poor.

Depletion of natural resources

"Without illegal fishing, we would be able to catch some fish for household consumption", said a 37 year-old landless worker in Prey Kfines commune, Mesang district.

such as fish stock and forests has made life harder for the poor, depriving them of their major sources of income. According to the World Bank, fisheries and forestry contribute 29 percent to the income of the poorest quintile. In addition, a large part of their food consumption relies on access to common property resources, particularly fish.

Sources of Income

If we are to categorize each district's sources of growth, we can, by and large, summarize as follows. Malai has been growing fast through cash crop cultivation. Mesang has been enjoying the blessings of the garment industry boom. Remittance from garment factory employees has added a new source of income to traditional rice farming. Likewise, Puok has been enjoying the spill-over effect from the tourism boom. On the other hand, Phnom Sruoch is lagging behind since logging is no longer a source of income leaving only traditional rice farming and labor as viable sources of income.

The case of Malai has proved the potential of agriculture in economic development and poverty reduction. With land abundance and good governance, Malai has been able to effectively reduce poverty. A rough estimate shows that gross nominal income of the average cash crop farmer has increased five fold since 1996. The rapid increase of income has been due largely to land expansion. However, the growth is projected to slow down since there is less room for further land expansion and expected soil degradation.

On the contrary, poor land governance has prevented Phnom Sruoch from achieving similar success. The opportunity to make easy money from clearing forests and selling land, together with lack of skills and entrepreneurship, has pushed people into undertaking unsustainable development paths. When the forest is depleted and logging banned, loggers and charcoal producers are in trouble. Likewise, those who used to make

money through selling deforested land are as hopeless as helpless since there is no more land to grab.

On the other hand, the Puok case has shown the potential and limit of tourism as a source of growth. EIC's estimate shows that income from tourism related work amounted to as much as 40 percent of income from rice farming. These incomes are generated from employment at construction sites, hotels, and restaurants etc. However, due to a lack of education, local people still cannot take on the upper-end jobs.

Furthermore, farmers in Puok district have also been unable to reap the benefits of tourism through marketing their agricultural products. Currently, it is estimated that five tons of vegetables are needed each day in high season to supply Siem Reap's 68 hotels. However, lack of capital and technology has deprived Cambodian farmers in the surrounding areas from catering to the strong demand.

Likewise, the Mesang case study has also shed light on the trickle down effect of the garment industry on rural development. The study has shown garment factory jobs have helped in absorbing excess labor in agriculture and providing a new source of income. Remittance from garment employees is estimated at around US\$30 per month which is very high compared to the annual income from paddy of around US\$100 per hectare.

Consequently, a new class of the better-off has sprung up among those with daughters in garment factories.

Even with the emergence of new sources of growth such as garments and tourism, agriculture is still the main source of income in the four districts. The case of Puok and Mesang has proved the limit of non-agricultural development in poverty reduction. Even though there is room to speed up the pace of poverty reduction through development of the industry and service sectors, agricultural development is necessary if Cambodia is to effectively and equitably reduce poverty.

Potentials

In all four case studies, there are strong chances of poverty reduction. For example, inhabitants of Puok district stand a good chance of supplying organic vegetables to hotels and restaurants in Siem Reap town as well as supplying mulberry and silk to Artisan d'Angkor, a local producer of silk products. At the moment, 90 percent of its silk is imported due to the limited local supply capacity. There might also be more potential in tourism related industries.

However, the agricultural sector has the most potential. In particular, husbandry seems to have the highest potential since it is not strongly affected by weather conditions. Vil-

Box 1: Costs in Paddy Cultivation (riel/ha)

Item	Volume	Unit Price (Riel)	Total Price
Input Costs			682,000 riel
Diesel (for pump)	180 liters	2,300 riel / liter	414,000 Riel
Fertilizer	3 sacks	80,000 riel / sack	240,000 Riel
Pesticide	1 bottle	4,000 riel / bottle	4,000 Riel
Seed			24,000 Riel
Labor Costs			180,000 riel
Transplant	10 days * 3 persons	4,000 riel / person / day	120,000 Riel
Harvest	5 days * 3 persons	4,000 riel / person / day	60,000 Riel
Total Costs			862,000 riel
Gross Income	2,000 kg	500 riel / kg	1,000,000 riel

Source: Focus Group Discussion in Mesang District

Note: Input Costs might be exaggerated due to shortage in rainfall

lagers have stated their keen interest in husbandry.

No matter if in Puok, Malai, Mesang, or Phnom Sruoch, agriculture is the answer to poverty alleviation. Employment opportunities in the industrial and service sectors would not be enough to absorb all the excess labor in agriculture. Industry and services do have their share; but it is agriculture that matters the most.

Constraints

Though there are important potentials a lot needs to be done before these can be achieved. There are many binding constraints at the moment. Lack of capital is the largest constraint for all types of businesses. Even though many are extremely interested in husbandry, only a small proportion has been able to start a business. Most have been hindered by a lack of capital followed by a lack of skill.

In Cambodia, rural finance is underdeveloped. With the exception of ACLEDA Bank, operations of commercial banks cover only Phnom Penh and several provincial capitals. Rural households still have to turn to informal lenders who charge high interest rates ranging from 5 to 10 percent per month.

Microfinance institutions (including ACLEDA Bank) charge comparatively low interest rates at around 3.5 percent per month. However, this rate is still high given the low return on investment rates (ROI) in agriculture. Consequently, many rural households are left with no viable source of funding. The poorest of the poor are completely marginalized since they have neither collateral nor ability to join any borrowing groups.

Financial constraints have prevented farmers and rural entrepreneurs from profitable investment. This also leads to exploiting practices such as the sale on credit of fertilisers. In Mesang district, a bag of fertiliser costs more than 70,000 Riel. However, it costs 12 Thaing (288 kg) of paddy if bought on credit. Applying the 500 Riel per kg paddy price, this would

Malai District

Profile

Malai is a district of Banteay Meanchey province located along the Thai border. The district was under the full control of the Khmer Rouge until 1996. There are 6 communes and 38 villages in Malai district. As of 2004, there are 34,710 people or 6,802 households in the district.

Malai is an agriculture dominated district. Out of the total area of 50,058 hectare, 35,200 hectare, or around 70%, is agricultural land. People mainly grow cash crops such as maize, soybean, and mung bean.

Trend of Income

Since Malai was a war prone area, the population density was rather low. Thus, large pieces of land became available for distribution after the Khmer Rouge integration. The local authority has made an equal distribution in which each household received around 5 hectare of land.

Large land expansion has increased income rapidly. A rough estimate shows a five-fold increase of income. This increase of income is not limited to Malai's residents. Migrant workers from other area have also been able to reap the benefit of this growth through selling labor.

Sources of Income

Large cultivated area has spurred increase of agricultural production. So far, agriculture has been the engine of growth in the district. Together with increase in production, demand for labor has also increased sharply along with land expansion. As a result, there are many migrant workers coming in from other districts and provinces. Strong demand for farm labor and competition for labor from Thailand has raised the daily wage to around 6,000 to 7,000 riel per day as compared to around 4,000 riel to 5,000 riel per day in most parts of the country.

Income Distribution

There seems to be a relatively equal income distribution in the district. Both farmers and wage laborers has seen strong increase of income. Assuming that wage laborers can work 6 months per year, the annual income is \$270. This is comparable to the more than \$100 per hectare net profit of cash crop farmers.

Potential

Even with the rapid growth in production of cash crop, agro-processing is underdeveloped. A mill drying factory was open last year. However, there are strong potential for agro-industrial development due to abundance supply of crops. In addition, husbandry is thought to be a potential business opportunity as it is not strongly affected by weather condition.

Constraints

Even with rapid agricultural growth, there are still many constraints to agricultural development. Lack of irrigation network is the most binding constraint. As a legacy of the war, landmine is also a major problem. In addition, there are many other constraints such as high cost of inputs, high transportation cost, market uncertainty, and high interest rate.

Source: EIC case study in Malai district, Banteay Meanchey province

mean 144,000 Riel, roughly twice the cash-in-hand price.

A more worrying scenario is the sale of land and assets due to financial constraints in times of crisis such as illness. A study by GTZ and Oxfam shows that financial constraints is the main reason behind land loss.

In addition to lack of capital, agricultural production faces many constraints such as a lack of an irrigation network, lack of skill, lack of access to quality inputs etc. According to the Food and Agriculture Organization, only seven percent of Cambodia's arable land is irrigated compared to 31 percent in Thailand and 44 percent in Vietnam.

Lack of skills is very common among Cambodian farmers. Most farmers have never received any technical training. In Cambodia, there is a serious lack of extension services for farmers. There are only about 500 extension officers nationwide compared to more than 8,000 in neighboring Vietnam.

Lack of access to quality input is also a major concern to farmers. Due to a lack of proper inspection of imports and distribution networks, counterfeit fertilisers and pesticides are ubiquitous. In addition, there is no manual or instruction in Khmer attached to fertiliser and pesticide bags. Moreover, high costs of inputs has deteriorated farmers' terms of trade, thus, decreased farmers' net income (see box 1).

Social Development

Increase in income has also been associated with social and human development. Thanks to concerted action from the Government, donors, and NGOs, there has been improvement in all aspects of social and human development indicators.

In all four case studies, there has been progress in health and education. The majority of school-aged children are now able to go to school. There has been a sharp increase of the number of classrooms. For example,

Mesang District

Profile

Mesang is a district in Prey Veng province. It is a typical agriculture dominated district where everyone is involved in rice farming. Most people grow paddy on family owned land. There are 8 communes and 118 villages in the district. Mesang has a total land area of 41,385 ha with a total population of 109,819. Thus, it is quite a populated area.

Trend of Income

Mesang was infamous for begging, which today seems to have stopped. People are quite better off now compared to several years before. There are various specific reasons behind the increase of income.

Sources of Income

Firstly, improvement in road conditions has linked the district to markets. As a result, there are more traders coming in to buy agricultural products. The farm-gate price has also increased along with a decline in transportation costs.

Secondly, the garment industry boom in Phnom Penh city has had a trickle down effect on the remote district of Mesang. Many families have sent their daughters to work in garment factories. The job opportunity thus created a new source of income. Villagers and local authority estimated that garment factory workers can send home around US\$30 per month.

Income Distribution

Generally speaking, people in Mesang are better off. While many people have been able to increase their incomes substantially through lending money or cattle, or sending their daughters to garment factories, the landless are worse off. Landless people are worse off because their terms of trade have deteriorated. In other words, the labor wage has not kept up with inflation. In addition, depletion of natural resources such as fish stock has deprived them from a natural income source.

Potential

Besides remittance from garment factories, local people have no choice but entire dependence on agriculture. Besides rice farming, the only potential seems to be pig raising. A vertical production chain of [rice farming ' milling ' alcohol distilling ' pig raising] is recommendable because left-overs from one stage of production are used in the following stages with no waste.

Constraints

Even though life has become better due to employment opportunities in the garment industry, future increase of income can only stem from agricultural development. To develop the agricultural sector in this district, many binding constraints have to be removed.

According to a consensus, the most binding constraints are water shortage and lack of capital. In addition, the increase in the price of diesel and fertilizers has impeded rice production and decreased farmers' net income. Lack of skill and know-how are also constraints lowering yield and hampering people from diversifying their sources of income.

Source: EIC case study in Mesang district, Prey Veng province

in Phnom Sruoch district, the number of classrooms has increased from 112 in 1996 to 478 in 2004. However, the number of teachers has only increased from 147 to 385 during the same period. Rural villages are facing a chronic shortage of teachers because fresh graduates from Phnom Penh do not want to work in rural areas.

The healthcare sector has seen an increase in the number of both public health centers and private clinics. For instance, the number of public health centers in Phnom Sruoch district has increased from two in 1997 to five in 2003. Particularly, the number of private medical practitioners has increased rapidly. People in rural villages have also benefited from better health care in Phnom Penh. Some villagers in Phnom Sruoch and Mesang now tend to bring their children to Kuntha Bopha Hospital in Phnom Penh.

Security has also been improved in all districts. Better security has played a role in promoting a safer business environment and furthered economic development.

Physical infrastructure has also seen moderate improvement. Roads have been built and improved. This has exerted a positive impact on people's livelihood. However, irrigation has seen little improvement despite its urgent necessity.

Conclusion

In general, poverty has been reduced in all studied districts. However, the pace has varied and growth has been unequally distributed among groups of people. The general trend is that the rich are gaining the most while the poor find themselves stuck in the poverty trap.

The case studies have also shown the different paths leading to poverty reduction. Malai has been growing quickly through an increase in agricultural production due to land expansion. In contrast, lack of proper land governance and entrepreneurship has slowed down the pace of poverty reduction in Phnom Sruoch.

Phnom Sruoch District

Profile

Phnom Sruoch is located in Kampong Speu province, about 20 km from Chbar Morn, the provincial capital. It is a relatively large district with a total area of 171,435 hectare. As of 2005, there are 85,581 inhabitants. Phnom Sruoch consists of 12 communes and 179 villages.

Among the 179 villages, 126 are old villages (Khong Krop Khan) and 53 are new villages (Krao Krop Khan). The division of villages is a war legacy. New villages are those that have been incorporated into the district after Khmer Rouge integration in the 90s.

Trend of Income

The general trend of income is that the majority are better off compared to ten years before. However, the very poor seem to be losing ground. Inequality has widened rapidly. Among villages, old villages are doing better than new villages because they have followed a more sustainable path of growth.

Sources of Income

People in old villages mostly earn a living through agriculture. On the contrary, many people in new villages made a living through logging and land sale since there were large forest lands in new villages after the Khmer Rouge integration. Thus, people lose their business when forest is depleted, logging is ban, and land becomes scarce.

Income Distribution

Villagers who made a living through agriculture and petty trade have been somehow able to improve their living. However, inflation and depletion of natural resource has somehow adjusted their real income downward.

On the other hand, those who earned a living with logging and selling land are generally worse off. People seem to have not been able to effectively manage their income from land sale. Consequently, they are in a dire strait once the forest and land are gone. These days, lands in Phnom Sruoch are quite concentrated in the hand of a few elite Phnom Penh residents. Commune council in Traeng Trayeung commune estimated that local villagers own less than 300 hectare of the total area of 3,540 hectare. Many people have migrated to work in Phnom Penh, Malai, Thailand etc.

Potential

The potential for rapid growth is quite limited in Phnom Sruoch due to poor soil fertility and little rain. The district has faced drought consecutively in recent years. However, with abundant land, the opportunity is there. With a good land distribution program, there are rooms for agricultural development. Furthermore, husbandry seems to be the light at the end of the tunnel.

Constraints

The major constraint to development in Phnom Sruoch is land. Recent concentration of land does not bode well for the future. Thus, dealing with land issues is an immediate task to be done. In addition, as in other parts of the country, there are some other constraints such as lack of capital, lack of irrigation network, skills etc.

Source: EIC case study in Phnom Sruoch district, Kampong Speu province

On the other hand, the tourism boom has brought jobs to people in Puok district. However, local people have not been able to secure high-paid jobs due to a lack of education. In addition, farmers in Puok district have been unable to cater to demand for agricultural products from the tourism boom in neighboring Siem Reap town.

Similarly, the garment industry boom has offered Mesang a new source of income. Remittance from garment factories has to some extent contributed to poverty reduction in the agriculture dominated district of Mesang.

The increase of income has also been associated with an improvement in social and human development. There has equally been strong progress in the healthcare and education sectors. Security has also remarkably improved.

The pace of poverty reduction in the last decade has been quite satisfactory. Moreover, there is a strong potential for each district to further speed up growth and poverty reduction. The largest potential is in the agricultural sector where most rural households get their income from. With a good agricultural development policy, all four districts, or Cambodia as a whole, will be able to sustain high economic growth and reduce poverty effectively.

Developing good rural financial services should be given first priority as it is the most binding constraint for all businesses in rural Cambodia. To develop the agriculture sector, the Government should also take other measures such as building an irrigation network, enhancing agricultural extension services, and monitoring the input distribution network.

The preservation of common property resources is also an important task. Making common property resources accessible in a sustainable manner is essential in providing relief and a safety net for the country's poorer population.

Lim Visal

Puok District

Profile

Puok district is located in Siem Reap province, west of Siem Reap town. With a total area of 127,900 hectares, Puok consists of 16 communes and 154 villages. As of 2004, there were 121,248 inhabitants or 21,686 households.

The district is a typical Cambodian district with farming as the main source of income. The south-eastern part of the district is very suitable to crop cultivation as it enjoys water supply from the West Barrai channel.

Trend of Income

On a district level, income has been increasing. Agricultural production has been increasing gradually. According to Siem Reap Province Department of Agriculture, yield of paddy has been growing by about 21 percent in the last five years. However, the main source of growth is derived from the district strategic location next to the tourism town of Siem Reap.

Sources of Income

The tourism boom in Siem Reap town has brought about a new source of income to Puok's residents. Income from tourism-related employment amounts to 40 percent of income from paddy cultivation. According to Puok district office, there are 4,096 people working at construction sites, restaurants, and hotels in Siem Reap town.

However, only residents of a few south-eastern communes are able to take on the job. Geographical distance makes it impossible for residents of other communes to commute to work in Siem Reap town, giving them no choice but to work with their land. Some villagers have gone to find work as far as Thailand. However, unlike the case of garment workers in Phnom Penh, most of them have not been able to regularly send money home.

Income Distribution

In Puok district, income seems to have been distributed quite equally. Geographically, people in the south-eastern part lead a better life due to the West Barrai channel and employment opportunities in neighboring Siem Reap town. Occupationally, those who are able to find work in Siem Reap town are better off than those relying entirely on farming.

Potential

Even though income has increased slowly in the district, there is a huge potential for quick growth. The chance is there for villagers to supply agricultural products, particularly vegetables, to hotels and restaurants in Siem Reap town. Villagers can also supply mulberry and silk to Artisan d'Angkor, a local manufacturer of silk products.

Constraints

Though there are strong demands for agricultural products in Siem Reap town, Puok district farmers cannot cater to the demand because of several impediments on the supply side. Constraints on the production side such as technical and financial constraints have limited the supply consistency, thus, forced hotels and restaurants to use imported agricultural products.

Source: EIC case study in Puok district, Siem Reap province