ISSN 1560-7607

CAMBODIA DEVELOPMENT REVIEW

A Publication of the Cambodia Development Resource Institute

VOLUME 7, ISSUE 1 JANUARY–MARCH 2003 $4.00

Enhancing Rural Livelihoods

Mr. Chan Sophal and Mr. Kim Sedara, Researchers with CDRI, and Dr Sarthi Acharya, CDRI's former Research Director, summarise the findings of an intensive study on land and rural livelihoods undertaken by CDRI in 2001.*

In 2001, CDRI launched a field survey to study the current state of rural livelihoods in nine villages. The villages are distributed across four different agro-climatic zones in the country, namely, the Coastal Areas, the Tonle Sap Region, the Mekong Plain Region and the Plateau Highlands. Three of the nine villages were resurveyed as the Institute had previously conducted surveys there in 1996–97. Research methods included, conducting questionnaire-based inquiries with 1,005 households, and undertaking community and group interviews using qualitative methods in six villages.

Sorn Somaly an 11 year old girl, working on the wet season rice crop in Dang Kor, outside Phnom Penh, over the school holidays.

The main objectives of the research included measuring seasonality in food security, comparing the food security situation in different ecological zones and assessing the share and importance of common property resources (CPR) to rural livelihoods. While the studies do not attempt to make a definitive statement for the whole country, issues were identified that are important for any further policy or research development in rural Cambodia. The research concluded that there are at least four critical factors responsible for poverty and food insecurity not reducing at the rates policy makers would like. These are the rapid population rise, the uncontrolled exploitation of natural resources (particularly by stakeholders from outside the agrarian sector), the introduction of market forces with inadequate market regulation, and inadequate returns from labour for want of sufficient human capital.

Demographic Issues

There has been a visible population increase in recent years compared to the decades before the 1980s. This has resulted in existing resources becoming increasingly inadequate to meet the livelihood demands of the population. Additionally, it is not only the increase in population *per se*; it is the population pyramid (a large number of children compared to earning members), which adversely affects household level food security because of low earnings per capita. In addition, due to the excessive deaths of men because of previous wars, the gender imbalance has resulted in a large number of female-headed households, that are presently ill endowed with the

* This article presents a synopsis on the findings of the Land and Food Security Project, funded by DFID and summarises CDRI's Working Paper 24, *Land, Rural Livelihoods and Food Security in Cambodia*, and Working Paper 25, *Rural Livelihoods and Food Security in Nine Cambodian Villages.*

In This Issue

means of cultivation. This also jeopardises household food security.

Ecological Strain and the Degradation of Natural Resources

The quality of the natural environment is deteriorating with forest, water, fish, and mangrove resources all depleting. They face increased strain, as more is demanded from them without a compensatory replenishment, making livelihood both more difficult and less sustainable. This is happening because of inadequate management of natural resources, use of unscientific practices and low supply elasticity (due to little technological change). Even in the short period of a decade or so (and even compared to 1996–97), the situation has become worse. Although the village communities are not responsible for all the degradation — in fact, much of the demand emerges from outside the agrarian society — they nevertheless face the consequences.

Issues of Land and Landlessness

Land and other natural resources form the principal sources of people's livelihoods in rural areas. Those farmers who do not own agricultural land or have little access to other natural resources, face chronic or seasonal poverty and food insecurity. Agricultural landlessness is high: about 20 percent of rural households do not own any land, though not all of them are farmers. Additionally, another 25 percent own land plots of sizes less than 0.5 hectare, which are insufficient to sustain livelihoods. Consequently, more than 40 percent of rural households constitute the 'landless' and 'near-landless' categories. This 40 percent form the most vulnerable group in terms of livelihood security. Further, it is estimated that absolute landlessness is increasing by about 2 percent each year.

The quality of the natural environment is deteriorating with forest, water, fish, and mangrove resources all depleting. They face increased strain, as more is demanded from them without a compensatory replenishment, making livelihood both more difficult and less sustainable.

Landlessness and inequality in land distribution have emerged for several reasons. In addition to subsistence agriculture, there is an increase in demand for land from multiple sources. Market exposure has made land an exchange commodity, especially with the introduction of a cash oriented economy. Additionally, the population is rising. The dynamics of agricultural and non-agricultural activities is such that farming operations need large quantities of cash for working capital. If the farmers do not possess these monies, they have to borrow, often from moneylenders. If the debt is not serviced on time, part or all their land and/or assets could be lost. There are reports of land having changed hands this way from the small, low-resource farmers to the large and resourceful ones, contributing to land and asset inequalities. In turn, this creates problems of food insecurity for the small landholder.

In many locations, individual land plots are being subdivided to the extent that they are economically and technologically non-viable. It is neither possible to make realistic investments on them, nor is it feasible to bring these lands under intensive cultivation with the application of modern inputs. Households that till very small land plots are handicapped because of inadequate land and low production.

The argument against small size is relevant to non-farm operations as well. For example, small-scale fisherpersons are presently not able to fully exploit the opportunities that a market provides, whether they are for inputs or product markets. Also, they are not able to use modern methods to optimise their yields.

Agricultural Development and the Distribution of Gains

Farm yield rates are still quite low in Cambodia. Smaller farms are more productive under conditions of low-input (subsistence) agriculture. Under modern, high input conditions, however, the very small farms are less productive. Under either scenario, though, smaller farms yield lower incomes and result in lower food stocks with families. With farm sizes becoming smaller, and productivity not expanding fast enough, farmers' incomes are low or even drop. Incomes in some cases are so low that some farmers are unable to meet pressing expenses on a range of needs, particularly illness. In some cases, though fortunately not too many, they are compelled to sell their land. Despite this syndrome, lands are still getting atomised, since the population increase in the 1980s is leading to formation of new families now, and non-farm occupations are not expanding fast enough, particularly in rural areas.

There has been some selective mechanisation of agricultural as well as off-farm activities. For example, mechanisation is replacing draught animal power to differing degrees almost everywhere. An example is the introduction of mechanised boats for fishing. Since machines are large and expensive, inevitably the large farmers and operators own them. This process has therefore benefited individual farmers who hold land plots of certain sizes. Similarly, the mechanised boat owners have gained more than those who have no mechanised equipment. Although the overall productivity of the rural production system has risen, small farmers have not necessarily gained much since they cannot readily pay cash to hire machines and must resort to borrowing at unrealistically high interest rates, in addition to mortgaging their assets. The costs of machine hire are high, partly determined by the prevailing prices of machines in neighbouring countries (from where they are imported), partly by the costs of operation, and partly due to the high premiums fixed by the suppliers. This jeopardises the economies of small farm management.

There is some application of modern inputs in agriculture in many locales: high yield variety seeds are sown, and fertilisers and pesticides are applied. The out-

put in many cases (as seen for example in Krasaing, Prek Kmeng and Babaong) has risen to 3–3.5 tonnes of paddy per hectare. However, controlled irrigation is less than adequate and because of this, cropping intensity is low and levels of productivity are not as high as their potential 4–4.5 tonnes per hectare.

The Structure of the Market

The survey data shows that moneylenders are still the most dominant source of credit. This is not only because credit supply from institutional sources is limited, but also because the nature of credit demand (in an agrarian set up) is quite different to that which the formal banking system tends to believe. Villagers make little distinction between credit obtained for production, investment, consumption or rituals, while suppliers like to extend credit only for productive and investment purposes. The high cost of money reduces the net disposable incomes of households and this affects food security.

Since there are few and insufficient institutional mechanisms to hedge against price fluctuations (easy bank loans and price support, for example), small farmers face perpetual indebtedness to moneylenders. Next, transport costs are very high, information on markets and prices is low, and protection against products perishing is minimal. All these factors negate the advantages of markets to the poor. Efforts to bring in institutional credit are present, but they are sporadic and less than successful.

Sources of Earnings

It would be incorrect to say that rural Cambodians do little other than growing rice. In fact, rice cultivation and general crop activity, engages villagers for no more than an average four or five months. For the rest of the time they forage, fish, and gather a range of food and non-food items — facts that often miss enumeration in large surveys. In addition, they are undertaking small business activity and wage labour.

It would be incorrect to say that rural Cambodians do little other than growing rice. In fact, rice cultivation and general crop activity, engages villagers for no more than an average four or five months.

Most rural Cambodians earn a living from multiple sources: the principal ones being, agriculture, common property resources (mainly from forest and fish), and wage labour. On average, agriculture provides only about a third of total income, though the regional variations are large. In the villages that were surveyed in 1996–97, and again in 2001, the proportion of income derived from agriculture is rising, while incomes from CPR are not necessarily rising at the same pace. The poor face food insecurity since it is they who derive more income from CPR and less from agriculture, and returns from wage labour (to which they resort) are not commensurate. Consequently, rural livelihoods may be adversely affected if policies are made that privatise commons, or restrict access for conservation purposes.

Employment Options and Wages

Somewhat contrary to the suggestions contained in the 1998 Census Report, wage labour is extensive. Increasing numbers now rely upon labour, and while most workers may not work for most of the year for wages (maybe why they get missed out in large surveys), large numbers work for a part of the year as labourers.

The numbers of farm jobs are reducing while the numbers of non-farm jobs are not rising fast enough. There is an emerging gap between the demand for work and its supply, mainly because of farm mechanisation, vanishing commons, the opening of borders to cheap imports, and a rapid growth in the labour force. This contributes to anxieties over cash availability and food security among the poor.

The landless and small farmers now increasingly earn their incomes principally from wage labour, in contrast to the self-employment they undertook previously. However, since wages are low (at subsistence), earnings are not sufficient for these households to ensure food security.

Poverty and the Standard of Living

Although there is a wide variety in the consumption of non-rice food items as well as non-food items, the rich and poor consume almost the same quantity of rice across both seasons. People therefore define food security as consumption of a certain quantity of rice. This survey revealed that about 38 percent of people (in the nine villages) were subsisting below the poverty line. This is similar to the findings of the Socio-Economic Surveys of 1997 and 1999. However, there are not many that can be considered either very rich or very poor in rural areas (as in many other Asian countries). Even the rich, for example, face cut backs in consumption of some items in the lean seasons, while the poor are able to maintain a certain quantity of rice consumption. There is no extreme poverty in rural Cambodia, as the poor are able to exercise some choices about their food preferences. Cutbacks in leaner periods will be in non-food items, and then in non-rice food items.

People face uncertain livelihoods because of natural disasters. An average loss from natural disaster could be as high as one third of annual income. As a proportion of income, the poor face more losses than the rich do. With recurrent droughts and floods the vulnerability of people to poverty, malnutrition, and disease is rising. What is worrying is that recurrent crises increase the vulnerability of a large section of the rural population.

An Understanding of the Cambodian Rural Economy

With increasing commercialisation of the rural economy and its exposure to the larger markets for most of the twentieth century — without any significant effort to alter the structure of supply or organisation of production within the rural economy — the system is facing increased strain. Today, there are many claimants for forest, water, fish and land resources from outside the

agrarian sector. To make matters worse, the population is rising rapidly and claims on resources from within the rural economy are rapidly increasing. With demand increasingly exceeding the supply, less and less resources of the traditional type (i.e. land, forest and fish) are available for rural people per capita. Consequently, a new group of farmers, the landless farmer, is now rapidly emerging.[1]

It is not that the quality of life is deteriorating for everyone in rural areas. In several areas, agriculture is getting modernised and high yield variety seeds, fertilisers and controlled irrigation are finding increasing acceptability. This 'green revolution' is particularly successful in areas possessing better quality soils and easily accessible water resources. In these areas, farmers' incomes are rising, and agriculture is steadily becoming the dominant source of livelihood. In some other areas, resources like fish are still plentiful (or fish availability is increasing with the introduction of fish culture), and incomes from this sector are rising. Consequently, incomes are rising in areas wherever resources are growing (or being developed). Those who own the resources definitely gain, though at this stage it is not clear how strong the multiplier effect of this increased income is. It is also uncertain whether, in turn, this will distribute gains to those who do not own resources.

In some other areas, however, resources are shrinking — or at the least they are not growing. In these areas, there are already natural limitations such as poor rainfall and limited water bodies, and the weight of an increasing demand is taking its toll. As villagers' incomes from traditional sources are reducing, they are increasingly taking up wage labour. Returns from labour, however, are lower than the returns from productive physical resources (e.g. agriculture or fish), and the wage rates are lower than even a dollar a day. Additionally, growth in non-agricultural employment is rather slow and uneven across the country. In this transfer of occupations, which is taking place in all locales — whether resource deficit or otherwise — some people's incomes are reducing (due to both low wage and less work). Consequently, the aggregate poverty rate is not reducing at paces that would be comparable with other macroeconomic variables.

To compensate for low incomes, increasing numbers particularly from the border areas, either travel to Thailand where wages can be higher, or migrate to urban areas in the hope of earning a better living. Neither of these options are very easy, especially cross-border migration, which is not a sustainable solution.

Agriculture is not expanding fast enough and current land yields in Cambodia are the lowest in all of Southeast Asia. Among the reasons are credit constraints, inadequately controlled irrigation, insufficient market linkages, and poor quality infrastructure (both physical and social). Additionally, rural non-farm activities are not growing for similar reasons. A slow growing rural economy is naturally unable to effectively support increasing numbers joining the labour force each year, which is by itself a reason for growing food insecurity.

Returns from labour are low for at least three reasons. First, in both rural and urban areas, the non-farm sector is not growing fast enough. Wherever it is growing, such as in the garment sector, construction and tourism, there is insufficient labour intensity. Second, the nature and composition of growth is such that it has few links to rural areas. On the production side, there are virtually none (i.e. the value added by production is shallow), though in terms of repatriation of earnings, both regular and migrant workers send money back. However, these amounts are small and shrinking, especially as the garment industry is not growing at its previous pace. Compared to, for example, Thailand in the 1970s and 80s and China in the 1990s, the rural linkage of growth in Cambodia is rather small. Third, investment in human capital is low in Cambodia, particularly in rural areas. For most skilled jobs, therefore, foreign labour is employed and the transfer of skills is low. Many jobs do not require purely unskilled labour and this closes many segments of the labour market to rural youth.

Conclusion

Farmers still derive incomes from multiple sources and with a few sources of income becoming less available (e.g. forest and fisheries), some villagers incomes could fall. On the other hand, if full access to commons is permitted, the commons could rapidly deplete under the new market integration system, as was seen for some time in the 1990s.[2] It is not clear whether the new 'community-based' management of resources, proposed by the government and donors, will find a solution to this problem. Surely, there is no simple way out, unless there are significant alterations made in a system that was initially meant to support much smaller numbers and meet much smaller demands. These alterations should be in the direction of strengthening agriculture and other renewable resources, in addition to creating more livelihood options.

What can be said about the overall food security situation? There is no denying that food production has been rising gradually but steadily, and will continue to grow in the near future especially with larger number of farmers embracing modern variety seeds and fertilisers, and harnessing some water for irrigation. Additionally, some crop diversification is taking place. There is also some export of food items, which can be expected to grow. Each of these achievements, however, can only improve the food security of the deficit farmers and villagers in a limited way. Much of the distribution of gains will depend on whether, and to what extent, both wage and labour opportunities grow, not only in agriculture but in other activities as well.

Endnotes

1. The island of Java faced a similar experience between the 1960s and the 1980s. Large numbers getting employed in labour intensive industries partly mitigated the problem.
2. The World Bank cautioned against rampant deforestation in a report it brought out in the late 1990s.