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## 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.

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.



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

### 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

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\* 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*.

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.

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

***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.***

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 output in many cases (as seen for example in Krasing,

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.

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

***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.***

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.<sup>1</sup>

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 South-east 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 rea-

sons. 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.<sup>2</sup> 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.

# Employment and Trade in Angkor Park: Some Preliminary Observations on the Impact of Tourism

Mr. Brett M. Ballard the Project Advisor for the Analysing Development Issues (ADI) Project, outlines the results of a small-scale survey undertaken to find out how tourism affects the people that are living in Angkor Park.\*

## Introduction

Tourism now forms an integral part of Cambodia's development strategy in terms of attracting foreign direct investment and stimulating people's income through new employment opportunities. Since the late 1990s, the number of international tourists arriving in Cambodia has increased dramatically. An increasing percentage of these tourists now go to Siem Reap to visit Angkor Wat and other ancient temples as a result of the government's 'open skies' policy that allows direct international flights to Siem Reap. The Ministry of Tourism estimates that by the year 2005 there will be 1 million foreign tourist arrivals in Siem Reap alone. The number of domestic tourists visiting Siem Reap is also increasing, though the number has fluctuated according to the condition of transport infrastructure.

The increase in tourist arrivals has sparked dramatic growth in the service sector associated with tourism. For example, since the year 2000, the number of hotels and guesthouses in Siem Reap has increased by 34.2 percent and 60 percent respectively. The number of restaurants has increased by 50 percent and there are now 75 travel agencies operating in Siem Reap.

Investments in infrastructure and services have helped create many new employment and trade opportunities in the construction, transport, and service sectors in Siem Reap. APSARA<sup>1</sup> estimates that as many as 1,000 people from nearby villages have found employment in the construction sector. APSARA itself employs about 800 people as guards, cleaners, temple renovators and office staff, and as many as 90–95 percent of the guards and cleaners are from villages located in or near Angkor Park. These estimates do not include vendors, tour guides, or people employed in service sectors such as transport, restaurants, and hotels.

In July 2002, the Analyzing Development Issues (ADI) project conducted a small-scale study to learn more about how people who live in Angkor Park are

affected by the tourism industry in Siem Reap. The ADI researchers visited nine of the 20 villages in Angkor Park during two days of fieldwork. The researchers used semi-structured questionnaires to collect quantitative and qualitative data from household interviews, focal group discussions, and village chief interviews. One team interviewed an official from APSARA and the provincial governor's office, and another interviewed 15 vendors who sell handicrafts or operate food stalls in Angkor Park. This report summarises the main observations concerning the distribution of employment and trade opportunities among people who live in Angkor Park. These observations may also apply to other areas around Siem Reap town, and as a result could suggest ways that policy makers and project planners can design strategies to direct a greater share of tourism benefits to local people living in and around Angkor Park.

## Employment and Trade

Village location, social relationships, and village circumstances (e.g. land use and migration patterns) are all factors that influence employment and trade opportunities. Gender plays an important role and will also raise many questions concerning the impact on the family.

## Location

Generally speaking, more people in villages located along roads and/or near popular temples appear to receive economic benefits in terms of income from employment or small-scale trade, or both, than people in more distant villages. The role of village location as a factor of employment in Angkor Park is understandable given APSARA's preferential hiring policies for park residents. It is also understandable in the construction sector as people who live in villages closer to Siem Reap are able to travel there more easily, and may already have prior experience in the urban labour market. This is especially evident in Tek Sean, which is located next to Siem Reap town. Many of the households there have at least one family member who works in Siem Reap. In fact, people have become so deeply integrated into the local labour markets that many households have sold their agricultural land to outside buyers. The other village closest to Siem Reap, Kravan, also has a significant number of people working in the construction industry in Siem Reap. The village chief there said that 30–40 people work in construction and as park guards.

These numbers drop off in some of the villages located further away from Siem Reap. In Rohal, about five to six people work in construction and six to seven are employed in the park by APSARA. In Pradak, about 20 people work outside the village, though it is not entirely clear what portion of these have tourist-related employment. There were very few reports of any outside employment in Arak Svay, which is located some distance away from Siem Reap and is well off the main road.

The two cases of Kok Thnaot and Nokor Krauv, however, suggest that location is not the only factor that influences how or where one finds employment or trade opportunities. In Kok Thnaot, which is located several

\* The ADI project provides training for Cambodian NGO staff in research and analysis. ADI is a project of the Cooperation Committee for Cambodia (CCC)

kilometres west of Angkor Thom, the village chief indicated that as many as 150 people — mostly young people, 50 percent of whom are women — now work in construction and as park guards, and that this number is increasing each year. The village chief in Nokor Krauv, located several kilometres north of Angkor Thom, also reported that as many as 80 percent of the households have a family member working in construction in Siem Reap, while 30 percent of households also have a family member working in Angkor Park.

### **Social Networks**

A second important factor concerns the role that social networks play in helping people navigate their way through the tourist-related labour and vending markets. People most often learn about jobs through friends and relatives, as well as APSARA staff or village officials in the case of park employment. In Kok Thnaot, the village chief said people paid intermediaries to help them find jobs. In some cases, construction contractors, or their agents, went to villages to inform people about the availability of jobs. NGOs and other organizations may also play a role, as several people indicated they had heard about jobs from staff of the Angkor Participatory Development Organisation. In response to a question concerning problems they had finding jobs, three household respondents each in Pradak, Thnol Toteung, and Nokor Krauv indicated that they lacked connections with family or friends who could help them find employment. Several people also indicated that they did “not know how to find jobs” and could not afford to pay the necessary fees to intermediaries or bribes to company staff or contractors.

Social networks also play an important role in small-scale trade (e.g. handicraft sales and food stalls). For example, one household respondent in Tek Sean observed that people with family members who were police or local officials were able to establish small businesses more easily than others. Otherwise, it was necessary to pay police fees for operating a small business. The vendors who were interviewed for this study confirmed this assessment. Of the 12, only one said that they had not paid fees to the police. The others reported paying various amounts each month, mostly in the range of \$5–10 per month. However, none of the vendors cited these fees as an obstacle that prevented them from operating their business. In fact, it appeared that some vendors felt they were benefiting from certain services that the police provided, such as protection and security.

One obstacle that the vendors faced was a lack of capital with which to open a stall and acquire merchandise or food for sale. All of the respondents except one reported that they had to borrow money from one informal source or another in order to start their business. Most of the vendors also said they had to acquire merchandise on credit from suppliers in Siem Reap or local producers. These kinds of informal arrangements are often facilitated through family relationships, friends, or community members. As with the labour markets, this suggests that people often rely on social networks to se-

cure sufficient capital with which to start up and then operate a small business.

### **Land Use Patterns**

One of the most consistent impressions across all of the villages was that land use patterns had not appreciably changed over the past several years in terms of the amount of village land classified as rice, *chamcar*, and forest. All of the village chiefs indicated this was because APSARA's rules and regulations have more or less prevented people from expanding the amount of land used for rice cultivation and *chamcar* plantations, and limited people's ability to harvest forest products, such as rattan and various resins (e.g. *chor chheu*). Moreover, people are not allowed to cut firewood or make charcoal in Angkor Park.

Land use and ownership patterns, however, are in fact changing in several villages where both the price of land and the number of transactions have been increasing recently. In Tek Sen, as noted above, some residents said that nearly all the families have sold their agricultural land to outside buyers, while retaining their residential plots. These families were motivated to sell their land by the rapidly increasing land prices in the area, as well as a belief in the continued growth of tourism that will guarantee jobs for the foreseeable future. In Nokor Krauv, where 11 percent of the households do not have land, the village chief reported that many people are seeking construction jobs and other forms of employment in Siem Reap. It appears that several families have sold their land for distress reasons, and that employment in Siem Reap is only enabling them to maintain subsistence level livelihoods.

In some villages, farming has been intensified as a result of the introduction of small-scale irrigation technology. The effects of irrigation, however, vary from one village to another. In Nokor Krauv, competition over scarce productive land resources appears to be increasing, and is played out in terms of distress sales, and — in some cases — land-grabbing. In Thnol Toteung and Pradak, however, the number of land transactions has not yet increased significantly. In Thnol Toteung, where people are not so actively engaged in the tourist industry, land continues to be the primary source of family livelihood. In Pradak, the same is true, despite the fact that many people are engaged in selling handicrafts and other local products to tourists. In Kok Thnaot, there are some land transactions, but they involve people selling land to one another within the village and the price has not changed.

One possible explanation for such variations is that in the two most distant villages, Thnol Toteung and Pradak, there is sufficient land for most people to produce at least some rice, as well as opportunities for people to supplement household income from handicrafts sales and other products. As a result, people may not yet feel compelled to make the long trips to Siem Reap or within Angkor Park in search of employment. Also, many people in Thnol Toteung have continued earning income from cutting firewood and selling charcoal. The



only difference is that they no longer do this in their own village because of the APSARA rules. Rather, they now travel further away to Banteay Sre and Phnom Kkulen to cut firewood and make charcoal for sale in Siem Reap. While APSARA has indeed been effective in terms of reducing deforestation within Angkor Park, the net effect is that at least some of the ecological problems associated with cutting firewood or making charcoal have been exported outside the park boundaries.

### ***Population Pressures***

It is also important to consider the population pressures on the local ecology associated with natural birth rates and increasing in-migration. In effect, APSARA regulations have locked in place the amount of land that can be cultivated for rice, while reducing or eliminating *chamcar* production and access to nearby forests. As a result, population growth relative to fairly constant rice production (except when irrigated) and limited access to forest products may be pushing a number of people into the labour and vending markets. This is probably most evident in Kok Thnaot where existing land is increasingly being subdivided to accommodate the growing number of young families, which ultimately reduces the amount of land each family has to cultivate. This helps explain why so many young people on Kok Thnaot are now joining the labour markets in order to maintain a certain level of livelihood, despite their village's more distant location.

In terms of in-migration, the most visible impact was observed in Tek Sean, where as many as seventy families have recently migrated from elsewhere in Siem Reap province, or other provinces, and occupied public land along some of the village roads. These migrants have come to Siem Reap in search of jobs in the construction industry or other forms of employment. There is also some evidence of increasing in-migration in other villages, at least some of which may be attributed to the employment and trade opportunities associated with the tourist industry. In Nokor Krauv, ten families have migrated there recently from Kompong Cham and Phnom Penh in order to earn money in the tourism sector. In Kravan, ten families who had once lived in the village have returned in order to find jobs in the tourism industry. In Pradak, the village chief knew of three families that had migrated there in order to earn money from the tourist trade.

### ***The Division of Labour Between Men and Women***

Among the interview respondents, men held nearly all the construction jobs in Siem Reap as well as temple renovation jobs in the park, while two-thirds of the vendor operators were female. However, there seems to be a greater mix between men and women in terms of employment by APSARA for cleaning and grounds maintenance jobs in the park. Not surprisingly, some women indicated that childcare represented significant obstacles, particularly with respect to potential employment in Siem Reap or further away from home within Angkor Park. It also appears that illiteracy among women, espe-

cially young adults, also limits their employment options in Siem Reap. Several men also mentioned illiteracy as a factor that limited their employment options. The lack of literacy skills, as well as specific vocational skills, has relegated many employees to a status of low entry subsistence wage earners.

The fact that many park labourers and vendors are female suggest that women are now playing a much greater role in terms of household income. The income earned by the vendors who were interviewed is used to supplement household incomes in about half of the families whose primary occupation was either rice farming or wage labour. The other half reported that their primary occupations and sources of income involved small-scale trade, which suggests that many vendors may now depend almost entirely on the tourist industry for their main source of livelihood. The income earned varied from one vendor to the next in the range of \$3–20 per month. Not surprisingly, monthly income also varied according to seasonal fluctuations in the number of tourists: income declines during the rainy season when there are fewer tourists, and increases during the dry season when the number of tourists peaks. It would seem that any such income fluctuations would be most difficult for single women heads of household to manage.

More comprehensive surveys are needed in order to better understand the social implications of labour market trends pertaining to gender. For example, what are the implications for women in terms of managing the household while their husbands are away working in Siem Reap or elsewhere? What are the implications for child care and school attendance when parents work away from home? Another important question concerns the potential problems associated with the possibility of people working away from home in Siem Reap eventually spreading HIV-AIDS or other STDs back to their families and communities. While there is no evidence of this from our study, observations elsewhere suggest this is a real possibility, especially in an area where the sex industry appears to be expanding.

### **Conclusion and Recommendations**

In rural areas such as Siem Reap, where the Angkor Park World Heritage Site is located, well-governed tourism can have a significant and positive impact on the livelihoods of local people. However, people must have certain skills and access to resources in order to secure meaningful employment and trade opportunities. There must also be effective measures for minimizing the social costs associated with undesirable activities that often accompany rapid growth in tourism.

Officials at both APSARA and the provincial government are committed to increasing the share of tourism benefits for people living in and around Angkor Park and reducing the negative impacts of tourism. For example, APSARA has adopted a policy of preferential employment for people who live in Angkor Park, while the provincial government is studying ways to help local farmers sell more of their agricultural produce for the

*(Continued on page 16)*

# Off-Farm and Non-Farm Activities in Rural Cambodia

**Dr. Sarthi Acharya, former Research Director with CDRI, discusses the types of non-farm activities being undertaken in rural Cambodia. The article discusses how they operate in the wider economy and some of the difficulties they face.\***

The occupational base in Cambodia is rather narrow. The country's total labour force in the year 2001 was estimated at 5.63 million, out of which 4.35 million (77.26 percent) were engaged in agriculture. The size of the formal sector labour force was only about 5 percent of the total workforce. Of about 200,000 joining the labour force each year, only 15,000 get formal sector jobs; the rest have to accommodate themselves in the informal sectors, primarily subsistence agriculture, where productivity and earnings are low. It is not surprising that an annual growth in the national income of over 6 percent per year (1993–99 average) reduced poverty by a mere 3 percent over this whole period.

One of the proposals put forward to address this problem is to upscale activities in the informal sectors (outside agriculture) in rural areas. It is believed that if rural

non-farm activities become economically vibrant, they will be able to absorb more labour and provide remunerative earnings. CDRI, in collaboration with the Cambodian Institute for Cooperation and Peace (CICP), launched a study to assess the economic position of rural industries in Cambodia. This article presents preliminary findings from field studies carried out in 2002 to judge the economic, financial and marketing status of the rural non-farm sector.<sup>1</sup>

## A Profile of Prominent Rural Industries

### *Fishing and Fish Processing*

Cambodia's fisheries economy is mainly a seasonal, inland industry. Although it could be an underestimate, production is estimated anywhere between 290,000–430,000 tonnes annually and is valued at \$100–200 million or 7 percent of GDP.

As most of the fish is marketed fresh, marketing and transportation assumes a central position. Fishing is still a low productivity activity with a majority of fisherpersons not earning much more than subsistence. Since

2001, 56 percent of the fishing lot area has been released for open access fishing in recognition of the need to provide better food security to local communities. Fishing lots are leased out to private contractors for one to three years. This system has yielded revenues to the state, but there has been little evidence of modern scientific efforts introduced to harness fish or manage the stock. Additionally, the technology used for fish processing in the villages is largely traditional.

### *Silk Making*

There are about 10,000 weavers. Fifty-five percent working in Takeo, 31 percent in Kandal, and 11 percent in Prey Veng and Kampong Cham. Currently, only weaving and dyeing of silk is undertaken in Cambodia and 98 percent of the yarn is imported. Looms are wooden, locally made traditional hand-operated machines, constructed by local carpenters, while the dyes are imported. Weaving is primarily a household level activity and institutional credit is not available: traders advance credit to weavers at 3–4 percent interest rate per month. The quality of Cambodian silk is uneven from one batch to another, and poor quality of dyes and yarn tends to further result in poor quality output. Low technology looms and a lack of training of workers also result in low labour productivity and this is not permitting the industry to flourish.

***It is believed that if rural non-farm activities become economically vibrant, they will be able to absorb more labour and provide remunerative earnings.***

### *Loom-made Cotton*

Cotton ginning and spinning activities virtually vanished after farmers stopped growing cotton in

the 1970s. Villages in the provinces of Kampong Cham, Kandal and Prey Veng engage in handloom and power loom weaving, and village carpenters make both handlooms and power looms. The productivity of handlooms is low: a worker produces no more than 10–12 *kromas* a day; though, production with power looms can be 35–40 *kromas* a day. Cotton weaving is labour intensive and has the potential to provide large employment. However, there is little in the form of product diversification or improvement; hence the value added is low and the activity is localised.

### *Pottery*

Khmer pottery, in its traditional form, does not make use of a potter's wheel. Instead, the production system consists of moulding the desired product with simple instruments made out of wood and cloth, and then baking them using firewood. Making pottery is exclusively a part time, household business and earnings are generally not much more than about \$18 per month, for a team of two. Recently, a foot-paddled rotation machine and a high-temperature furnace have been introduced. This has helped raise labour productivity. Pottery is most prevalent on the banks of Tonle Sap, in the provinces of Kampong Thom and Kampong Chhnang (indeed the province name Kampong Chhnang derived from the Khmer word *Chhnang*, meaning earthen-made cooking

\* This article is an abridged version of a report written for the Development Analysis Network (DAN). Sarthi Acharya and Kim Sedara (CDRI), and Chap Sotharith and Meach Yadi (CICP) authored the full report which will be published in 2003.



vessel). Cambodia manufactures both glazed and clay-baked pottery.

### **Brick Making**

At the end of the 1990s, there were about 600 brick making units in the country. Most factories are located in Kampong Cham, Kandal, Kampong Thom and Phnom Penh. The sizes of these factories vary greatly; the smaller factories could produce 200,000 pieces each year, while the larger ones can have 30 times this capacity. Cambodian brick makers face stiff competition from factories in neighbouring countries where brick is more expensive but of better quality.

### **Marble Handicraft**

Marble handicraft manufacture is concentrated in the provinces of Pursat, Kandal, Siem Reap, and Phnom Penh. Handicraft making is predominately a household activity, though in recent years some families have set up larger production facilities. While modern methods have become evident for stone cutting and chiseling, stone extraction continues to be rudimentary in marble mines. Large blocks of marble are dug out of the hill, which are then broken into smaller pieces and carved into still smaller statues. In the process, a lot of stone gets wasted, jeopardising the economics of manufacturing, and wasting a non-renewable resource.

### **Rice Milling**

There were 400 rice mills operating in the country in addition to about 1,000 smaller, village-level commercial units. Commercial rice-milling units operate in the west, and southeast, the main rice producing areas. Larger mills buy paddy when the prices are favourable, process, and market the rice. They operate all round the year and manage to get some institutional credit. Smaller mills mainly carry out custom operations, seasonally and get no money from institutional sources. Estimates place the annual rate of return on capital between 5–20 percent, depending upon the vintage and size. The direct employment potential is largely seasonal, and is not particularly high (5–10 workers per enterprise). Spin-off employment, though, may be significant with respect to transportation and storage. Nearly all mill machinery, however, is old and inefficient, which keeps productivity low. Cambodian rice millers are also disadvantaged because they buy diesel in dollars and market their products in riels, baht or dong.

### **Rural Electrification**

About 80,000 households are served through localised generators and rechargeable batteries, mainly in the northwestern provinces. In most households, the primary source is old diesel generators that are not only inefficient, but also repeatedly breakdown. The average value of assets per enterprise is about \$17,633, employing about five persons. The average cost of power is about \$0.30–0.45 per kWh which is rather high compared to \$0.10 cost incurred in more modern systems. There is also significant transmission loss (greater than

30 percent). Customers are charged a fixed rate, about \$1–2 a month, for 1–2 kWh of power, for about four hours a day. Given the quality of service, customers would not pay more. Although 40 percent borrow from private sources only about 10 percent of enterprises have obtained credit from financial institutions.

## **The Economic and Financial Characteristics of Sample Enterprises**

### **Earnings and Employment**

The average wage paid for male workers is the highest in fishing and the lowest in cotton weaving. The daily wage in fishing is about \$1.25, though full time work is only available for about four months. Wages of female workers in this industry are lower, at about 83 percent of the male wages. In fish processing, the wages of male workers are lower at about \$1.13 a day, and female workers' wages are at about 63 percent of male workers' wages. In the cotton-weaving sector (and weaving in general), the wages are lower still, at about \$0.68 per day, though in this case the gender wage gap is virtually non-existent. In short, earnings of hired workers are a little over \$1 a day at the highest.

**Table 1: Numbers of People and Capital Outlay by Enterprise**

Enterprise	Average no. of people employed	Average Capital Outlay
Fishing	3.65	\$975
Fish processing	2.23	\$373
Silk weaving	1.51	\$34
Cotton weaving	4	\$940
Pottery	1.35	\$72
Marble handicraft,	2.26	\$370
Brick making	19.36	>\$10,000

Table 1 indicates the average number of people employed in an enterprise. Although the numbers are generally small, a few units are much larger and not represented by the mean. In industries other than brick making, the scale is very small and generally smaller enterprises employ lower numbers of hired workers. Hired workers constitute nearly 100 percent of the workers in brick making, about 20 percent in fishing, 16 percent in marble handicrafts, and less than 3 percent in fish processing, silk and pottery.

### **Capital Outlay**

With the exception of brick making, Table 1 suggests it is possible to initiate business enterprises in rural areas with relatively small amounts of capital. However, the differences between the sizes of enterprises with respect to capital outlay are large. In the fishing and fish processing industries, the largest enterprises have a fixed capital outlay more than 20–30 times that of the smallest. In brick making, cotton weaving and marble handicraft this gap is lower, followed by pottery and silk weaving where it is the lowest.

Local suppliers and intermediaries supply business equipment. The source of equipment depends upon its type. Boat makers construct boats locally, while second-

hand diesel engines are imported, or locally procured,, by intermediaries. In fish processing, the main equipment needed is pots, pans, pails, stirrers, knives and other kitchenware, which is supplied by local shopkeepers. Local carpenters fabricate both the silk-weaving and cotton-weaving equipment. Very often, the owners themselves repair their equipment and this is why they choose simple technologies even if their resulting productivity is lower.

Few borrow from institutional sources. The main reason for the lack of credit supply is the inadequate social infrastructure for loan regulation and recovery. The consequent high interest-rates inhibit borrowers from borrowing.

In fishing, fish processing and cotton weaving, it requires about \$200 to create one job, in silk weaving about \$25–30, and in pottery \$65–70. Only in brick making does the capital requirement exceed \$500. These average values, however, have to be interpreted with care since inter-enterprise variations are large.

### Production and Productivity

The mean value of production per fishing enterprise is about \$4,890 and the value added is 66 percent of this. Fish culture is the reason for a smaller proportion of value added to production, as it requires buying fish feed and the regular repair of fish cages. The mean value of production in fish processing per enterprise is four times higher than fishing, though the value-added ratio is smaller at about 31 percent. The value of production in silk weaving is modest at about \$875 annually (value added: 54 percent), while for cotton it is about 10 times that of silk (value added: 23 percent). Pottery making yields a high 'value added to production ratio' as its material inputs — earth or clay and firewood — are either very inexpensive or they are self-provisioned. In the case of brick making, this ratio is 68 percent because of greater fuel requirements.

Labour productivity is the highest in fish processing, followed by brick making, cotton weaving and fishing, with pottery and silk weaving coming last. The size of production, technology use, and labour productivity do not necessarily follow the same ranking. A more capital-intensive industry like brick making has a lower production per worker ratio than fish processing. The labour productivity data suggest that the scale of operation or sophistication in technology alone do not ensure success; product demand (i.e. price) plays a critical role.

The capital/output ratios for this sample show the highest figure at 0.47 in brick making and the lowest in silk weaving and pottery which is only just greater than 0.10. In some of these rural industries, capital is rotated several times each year and the efficiency of capital use is many times higher than in modern large industries. This implies that these industries survive essentially on labour inputs being intensive.

### Profitability

Earnings per owner-worker are higher than subsistence in all industries other than silk weaving. However,

wages are at subsistence everywhere. A possible reason is that labour market conditions determine hired workers' earnings rather than capacity to pay. Hired workers in rural non-farm enterprises can be low skilled, and the overall labour market conditions are slack.

In summary, rural industries are disparate entities with significant industry/enterprise variations in labour use, capital outlay, value added, and profitability. However, most have shared characteristics. Most industries are labour-intensive, and short of capital. In almost all, the turn-around cycle of capital is rather short, often as little as a month. Machines are chosen for the ease with which they can be repaired. Few, if any, get credit from institutional sources. Earnings of paid workers are always at subsistence, though profits in many industries are higher than subsistence. Despite high efficiency exhibited in operations, absolute earnings are modest because of the small scale of operation, low output prices and rudimentary technologies.

### Marketing and Market Chains

On aggregate, the highest numbers of buyers are the intermediary traders, followed by local shops. Products are directly marketed in Phnom Penh markets only in the case of woven *kroma*. Intermediaries, traders and merchants enjoy a localised monopoly.

### Product Price

Perceptions about who controls output prices among the enterprises are mixed. In fishing, intermediaries controlled the prices as the market for fish is large and spreads outside the region. In the case of fish processing, as there is no urgency to sell, there are few intermediaries. Intermediaries, who supply the yarn and pick up the final product, dominate the silk market. Again, in pottery and marble handicraft, traders play a critical role. Finally, locals and not traders market the cotton, *kroma*, and brick making products.

### Forward and Backward Linkages<sup>2</sup>

Fishing involves a large number of partners in the production and marketing process. There are two kinds of fish traders. The first are those who procure smaller quantities and sell the catch in a local town market where another set of traders will take over. The second are Fishing-lot owners who possess the resources to market their products to traders in Phnom Penh or Poipet for export. There are traders in Phnom Penh and Poipet who take the merchandise further for distribution to its final users. The markets are not perfect, as there are a greater number of traders than producers.

The price of fresh fish has not risen in the last two or three years despite an increase in the demand, while input prices (salt, ice and diesel) have risen steadily. Prices are negotiated daily, based on the prevailing prices on the border or Phnom Penh. Traders pay \$0.12 per kg of fish to transport the merchandise to the Poipet border, to cover the freight cost, road fees and checkpoint payments. Additional expenses are incurred for licence fees (\$25 per trip), monthly telephone costs, and

monthly labour costs for loading and unloading fish stocks. Those who operate 30-tonne trucks also have to pay for warehouses and ice. The smaller traders cross the border and dispose of their product at whatever price they can get. The incidence of all these expenses is not borne by consumers alone as producers and various traders bear the costs. It is not surprising that prices the producers receive have remained stagnant.

For marketing silk, intermediaries supply the yarn and dye and collect the final product. In some cases, the people who collect the final product and those who sell the yarn are the same. Intermediaries supply silk to producers, at \$16 per kg if paid in cash, and at \$20 for 21 kg if advanced on credit. Producers sell to intermediaries, who transport the product to Phnom Penh. In turn, they sell the merchandise to city merchants. Intermediaries often obtain credit from the merchants, and since the interest rates are what they are, the real gainers in the trade chain could be the merchants. The product is sold to the consumers at prices ranging between \$20–25 a piece; merchants earn about \$2–4, the intermediaries (middlemen) profit margin is \$1–3, while the producers gross about \$10–15 a piece. Since the producers are able to weave only about two pieces a month, their incomes are at subsistence.

In the case of cotton cloth, producers have historically developed contacts with cloth merchants in Phnom Penh. Select producers, travel to Phnom Penh to both deliver products and pick up fresh yarn for weaving. In each trip producers spend up to 6,000 riels to carry either the final produce or yarn. At least two factors limit the incomes of both workers and producers. First, output markets are fairly competitive, and if the cost of production rises because of increased land-input prices, the incidence cannot always be passed on to the markets. Second, technology is still rudimentary. The productivity is therefore low.

With pottery, the main input is clay, which is inexpensive; a cart (about  $\frac{1}{2}$  m<sup>3</sup>) is available for a little over \$1, and is sufficient to make 250–300 pots and vessels. Often the producers dig the clay and transport it themselves. Traders market up to 95 percent of the product and export a small proportion. Most traders also transport the product. Breakage's, which could be up to 30 percent and borne by the traders, are met partly by the producers through price adjustments. The price paid for each product is not standardised, other than that which is sold to locals for household use.

The principal backward linkage in marble handicraft is the supply of marble stone. Miners extract and cut marble slabs from mountains and transport them to an open warehouse. They earn no more than subsistence. Intermediaries' pick up the merchandise from warehouses. The producers (carvers) buy stone from intermediaries at prices ranging from \$0.20–\$1.00 per kg. Intermediaries usually sell stone to producers at prices two to three times higher compared to that paid to miners. Part of the margin is shared with government functionaries, en-route, for safe passage from the mines.

Forward linkages include traders and wholesalers in Phnom Penh and elsewhere. Traders off-take up to 80 percent of the total produce in volume. They have a network of wholesalers to whom they supply; who in turn distribute the product to smaller shops, emporia, and souvenir shops. The final customers are tourists, local high-income groups, and foreign wholesalers/ exporters. The profit margin of traders is two to three times their costs, and for wholesalers a further two to three times that. Traders and wholesalers rather than producers control the business. While many producers now have power drills and chisels, which have enhanced their productivity, they do not earn very high incomes for lack of control over the markets.

In brick making, backward links include supplies from clay sellers, rice husk suppliers (i.e. rice mill owners) and transporters. The forward linkage includes intermediaries, traders and transporters. Inexpensive machinery is imported. Next, clay suppliers often own the land plots from where clay is dug and transported to the brickyards. Workers are locally employed at subsistence wages to dig the clay and pack it in trucks. Transporters then take the clay to the brickyards. In the case of bricks, producers rather than wholesalers dominate the market. They sell bricks on an order-basis as well as for supply to wholesalers and retailers. Downstream price margins do not exceed 10 percent of that received by the producers.

Typical to small producers in developing countries, small rural industries in Cambodia suffer from a lack of control over marketing and price mechanisms. However, traders, intermediaries and merchants can gain a great deal, especially those who possess a large amount of money and a monopoly position.

## Conclusion

In almost all cases, the internal functioning of the enterprises is efficient. However, enterprises suffer because of obsolete technologies, inadequate training and exposure of workers to modern methods, lack of finance, limited marketing channels, and rather small scales of operation that yield insufficient incomes. Next, subsistence and family-oriented styles of business also keep productivity low. Finally, the two frequently quoted obstacles to promoting local business in Cambodia, namely poor infrastructure and dollarisation of the currency, appear to be present here as well.

Nevertheless, the rural non-farm sector has strong potential for remunerative job creation. To meet this potential, however, comprehensive effort, to address both macro level issues and micro level support will have to be undertaken at the policy level.

## Endnotes

- 1 Primary surveys with a total of 276 enterprises.
- 2 A term used to describe the economic linkages that occur from a single product. For example with tree felling, a forward linkage would be timber or wood products, while a backward linkage would be forestry.

## Economy Watch – External Environment

According to recent data, the US, Europe, and East Asia show different paces of economic recovery. While GDP growth in the US and East Asia accelerated, GDP in the Euro Area remained sluggish. Consumer price inflation in the US and Euro Area stabilised around 2 percent, though Japan still suffered from deflation. Compared to the second quarter, the US dollar has weakened against the Euro and the Yen in the third quarter of 2002.

### World Economic Growth

In the year to the third quarter of 2002, the US economy grew at an annual rate of 3.2 percent, faster than in the year to the second quarter (2.2 percent). The growth was mainly encouraged by two factors: higher consumer spending, and an increase in non-farm productivity. Consumer spending, especially on cars, motorcycles, and houses was boosted by zero-interest-rate financing. In the third quarter of 2002, non-farm productivity grew at a 4.0 percent annual rate, according to the US Department of Labour. In the 12-month period to November 2002, industrial production rose by 1.8 percent. The Fed's rate cut in November 2002 should encourage both business spending and consumer spending, giving additional steam to economic growth. Economists expect a GDP growth of 2.4 percent for the year 2002, better than a year ago with just 1.2 percent.

Economic recovery in the Euro Area continued to falter. In the year ending in the third quarter of 2002, GDP grew at an annual rate of 0.8. The growth was caused first by consumer spending, which rose before Christmas and New Year, and second by exports, especially to the US. Slumping European financial markets and falling business confidence have dimmed the weak engine of growth. Investor sentiment has deteriorated with the prospect of war with Iraq, which could hit oil prices. Moreover, sluggish productivity growth and rapid wage inflation have squeezed company profits. A stronger Euro has curbed European exports. The growing trade surplus, US\$ 95.6 billion in the 12-months to September 2002, does imply a weaker import, which strongly depends on domestic demand (*The Economist*).

At last, Japan's economy has begun to grow in terms of a 12-month period comparison. In the year ending in the third quarter of 2002, Japan's GDP rose by 1.3 percent, its first gain after the second quarter of last year. Industrial production grew by 3.36 percent. As before, the export sector has driven growth. While exports to the US slightly increased by 2.1 percent from a year earlier in October, exports to Asian countries jumped by 28 percent, as Asian customers bought more cars and computer chips (Bloomberg News). In the 12-month period to October 2002, Japan achieved a surplus trade balance worth US\$89.3 billion. The trend in Japan's recovery, however, shows poorer prospects. Quarterly comparisons indicate that the pace of Japan's recovery has slowed. In the third quarter, GDP grew by just 0.7 percent over the second quarter, lower than between the first and second quarter 2002 (1 percent). A slowing US economy and the stronger Yen are hurting Japan's ex-

porters, curbing economic recovery. To escape this situation, Japan's government will spend a further US \$24.6 billion, on public works projects and a 'safety net' (*Reuters*). Meanwhile, there have been Japanese official's comments on new efforts to restrain the Yen, fuelling export growth.

In other East Asian economies, e.g. China, South Korea, Singapore, Malaysia, and Thailand, economic output grew strongly in the year ending in the third quarter of 2002. China 8.1 percent, South Korea 5.8 percent, Singapore 3.7 percent, Malaysia 5.6 percent and Thailand 3.8 percent. In China, large public spending and increased exports since joining the WTO, last December, has induced faster growth. Two chief factors have pushed China's exports: inflows of foreign investors, and depreciation of the US dollar. Thanks to low costs, multinational investors moved to China to engage in the export business, which became easier after China's membership in the WTO. In the first nine months of 2002, foreign direct investment rose 22 percent to US \$41 billion. China's exports jumped by 32 percent in the year ending in October. Recent weaknesses of the US dollar have also helped China increase its exports, as the Chinese yuan is pegged to the dollar.

### World Inflation and Exchange Rates in the International Markets

In the third quarter of 2002, consumer prices in the US rose at an annual rate of 1.6 percent, faster than in the second quarter (1.3 percent), which dimmed fears of deflation in the US. Price increase was encouraged by a big jump in the prices of energy and tobacco, and of dearer oil and cars. The interest rate cut by the Fed in November could fuel a further price increase in the US. In the Euro Area, the inflation rate remained at 2.0 percent, the ceiling target of the European Central Bank. In Japan, consumer prices in the third quarter were 0.8 percent lower than a year ago. For the fourth consecutive quarter, consumer prices in China continued to fall in the third quarter of 2002, by 0.8 percent. Two main factors assisted the prices in China: a low cost of production and reduction in import tariffs, which occurred after China's membership in the WTO.

The US dollar continued to weaken against the Euro and Japanese Yen, with 1.00 Euro/dollar and 121.75 Yen/dollar in November 2002. A main reason was high uncertainty about the sustainability of a US recovery, clouded by the Fed's rate cut and tension with Iraq.

### Commodity Prices in the World Markets

In November 2002, the price of first quality rice in Bangkok was US\$189.25/tonne, down from US\$191.1/tonne in January 2002. In Malaysia, rubber increased from US\$820.72/tonne from US\$571.25/tonne in January. An increase in the price of rubber was mainly due to the 'El Nino' weather pattern, (*Bangkok Post*). Gasoline in the US rose to US\$18.25 cents/litre from 14.20 cents/litre in January.

*Prepared by Dr. Kang Chandararat*

## Economy Watch–External Environment

**Table 1. Real GDP Growth of Selected Trading Partners, 2000–2002 (percentage increase over the previous year)**

	2000		2001			2002			2001	2002*
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1-Q4	Q1-Q4
<b>Selected ASEAN countries</b>										
Cambodia	-	-	-	-	-	-	-	-	5.3	4.6
Indonesia	5.2	4.0	3.5	3.5	4.1	2.5	3.5	3.9	3.8	3.3
Malaysia	6.6	3.2	0.5	-1.3	-0.5	1.1	3.8	5.6	0.5	3.5
Singapore	10.5	4.5	-0.9	-5.6	-7.0	-1.7	3.9	3.7	-2.3	2.0
Thailand	3.1	1.8	1.9	1.5	2.1	3.9	5.1	5.8	1.8	4.9
Vietnam	6.75	-	-	-	-	-	-	-	7.1/7.0	7.0
<b>Selected other Asian countries</b>										
China	7.3	8.1	7.8	7.0	6.6	7.6	8.0	8.1	7.5	7.9
Hong Kong	6.8	2.5	0.5	-0.3	-1.6	-0.9	0.5	3.3	0.3	1.0
South Korea	4.6	3.7	2.7	1.8	3.7	5.7	6.3	5.8	3.0	5.9
Taiwan	4.1	1.1	-2.4	-4.2	-2.7	0.9	3.0	4.8	-2.1	2.9
<b>Selected industrial countries</b>										
Euro-11	3.0	2.5	0.2	1.3	0.6	0.1	0.7	0.8	1.2	0.5
Japan	2.5	0.2	-2.9	-0.5	-1.9	-1.6	-0.7	1.3	-1.3	-0.3
United States	3.4	2.7	1.2	0.6	0.4	1.5	2.2	3.2	1.2	2.3

Source: The International Monetary Fund and The Economist. \* CDRI estimate

**Table 2. Inflation Rate of Selected Trading Partners, 2000–2002 (percentage increase over the previous year)**

	2000		2001			2002			2001	2002*
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1-Q4	Q1-Q4
<b>Selected ASEAN countries</b>										
Cambodia	0.5	-0.8	0.1	-0.4	-0.6	3.4	3.3	3.5	-0.4	3.4
Indonesia	8.8	9.1	11.1	12.1	12.7	14.5	12.6	10.2	11.3	12.4
Malaysia	1.7	1.5	1.6	1.4	1.2	1.5	1.9	2.1	1.4	1.9
Singapore	2.0	1.7	1.7	0.8	-0.2	-0.9	-0.4	-0.4	1.0	-0.5
Thailand	1.6	1.8	2.6	1.7	1.1	0.6	0.2	0.3	1.8	0.4
Vietnam	-0.4	-1.4	-0.8	-	-	-	-	-	0.0	0.0
<b>Selected other Asian countries</b>										
China	0.6	1.3	1.6	0.8	-0.1	-0.5	-0.7	-0.8	1.0	-0.7
Hong Kong	-2.2	-1.8	-1.3	-1.1	-1.3	-2.7	-3.1	-3.5	-1.5	-3.2
South Korea	2.9	4.3	5.3	4.3	3.4	2.5	2.7	2.5	4.3	2.6
Taiwan	2.0	-1.0	-0.0	-0.5	-0.6	-0.1	-0.1	-0.3	0.5	-0.6
<b>Selected industrial countries</b>										
Euro-11	2.7	2.5	3.1	2.7	2.2	2.5	2.0	2.0	2.6	2.2
Japan	-0.5	-0.1	-0.5	-0.8	-1.0	-1.4	-0.9	-0.8	-0.5	-1.0
United States	3.4	3.4	3.4	2.7	1.9	1.2	1.3	1.6	2.9	1.8

Source: the international Monetary Fund, The Economic, \* CDRI Estimates based on the IMF, ADB and World Bank Projections. \* CDRI estimate

**Table 3. Exchange Rates of Selected Trading Partners Against the US Dollar, 2000–2002 (period averages)**

	2000		2001			2002			2001	2002*
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1-Q4	Q1-Q4
<b>Selected ASEAN countries</b>										
Cambodia (riel)	3,906	3,925	3,932	3,953	3,932	3,910	3,916	3,935	3,935	3,923
Indonesia (rupiah)	9,297	9,780	11,242	9,558	10,365	10,078	9,076.6	8,940	10,236	9,291
Malaysia (ringgit)	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.8	3.80	3.8
Singapore (\$)	1.74	1.75	1.81	1.77	1.83	1.83	1.81	1.76	1.79	1.79
Thailand (baht)	43.3	43.2	45.4	44.8	44.3	43.77	42.78	42.09	44.4	43.03
Vietnam (dong)	14,423	14,556	14,670	14,999	15,084	15,142	15,231	15,314	14,827	15,262
<b>Selected other Asian countries</b>										
China (yuan)	8.28	8.28	8.28	8.27	8.28	8.28	8.28	8.28	8.28	8.28
Hong Kong (HK\$)	7.79	7.80	7.80	7.79	7.80	7.80	7.80	7.80	7.80	7.80
South Korea (won)	1,167	1,272	1,306	1,295	1,290	1,319	1,273	1,197	1,291	1,253
Taiwan (NT\$)	32.1	32.4	34.6	34.6	34.7	35.1	33.8	33.8	34.1	34.55
<b>Selected industrial countries</b>										
Euro-11 (euro)	1.15	1.08	1.15	1.11	1.12	1.15	1.09	1.02	1.12	1.06
Japan (yen)	110	118	123	121	125.5	133.3	127.6	119.6	122	136

Source: The International Monetary Fund and The Economist. \* CDRI estimate

**Table 4. Selected Commodity Prices on the World Market, 2000–2002 (period averages)**

	2000		2001			2002			2001	2002*
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1-Q4	Q1-Q4
Hardwood (logs) - Malaysia (\$/m <sup>3</sup> )	186.0	171.0	163.8	159.4	146.2	137.6	153.0	178.7	160.1	156.4
Hardwood (sawn) -Malaysia (\$/m <sup>3</sup> )	529.8	507.0	492.2	482.0	471.8	479.7	493.0	536	488.3	502.7
Rubber - Malaysia (\$/ton)	696.6	632.0	628.9	597.7	549.4	622.3	754.0	863	602.0	766.5
Rice - Bangkok (\$/ton)	185.1	182.0	164.7	170.4	173.3	193.7	196.6	192.6	172.6	192.7
Soybeans - USA (\$/ton)	209.0	202.0	186.7	205.6	188.0	179.9	189.8	219.3	195.6	202.8
Crude oil - Dubai (\$/barrel)	27.5	24.0	25.1	23.9	18.2	19.9	24.3	25.4	22.8	23.6
Gold - London (\$/fine ounce)	269.2	264.0	267.7	274.7	278.4	281.0	280.9	313.7	279.0	291.9

Source: The International Monetary Fund and The Economist

## Economy Watch—Domestic Performance

The most recent, main economic indicators suggest that the Cambodian economy achieved solid growth in the year 2002 (up to October). Garment exports, tourism, and construction continued to be triggers of growth, but private investments, especially in the garment industry, and agriculture declined, curbing the pace of economic growth. On this basis, Cambodia's GDP is expected to grow at a rate of between 4.5–4.7 percent, lower than earlier estimates. In the third quarter of 2002, consumer prices rose at an annual rate 3.47 percent, faster than in the second quarter. In the same period, the Cambodian riel has depreciated by 0.6 percent against the US dollar, and total liquidity (in riel) expanded by 2.8 percent over the second quarter of 2002. Data for November 2002 shows that while the poverty situation was better than the same period last year, it was worse than in the beginning of 2002. In the period January–October 2002, Cambodia's current budget operated with a surplus of 321 billion riels, 15 percent lower than a year ago.

### Economic Activity

Within the export sector, the garment industry has gradually developed a dominant position expanding from 19–54 percent of GDP between 1991 and 2001. Similarly, it dramatically increased from just 0.8 percent of total exports in 1994 to 92.5 percent in 2001. Prosperity in Cambodia's garment industry, however, proved dependent on quotas granted by destination markets. US markets absorbed 72 percent of exports from Cambodia; the EU markets took 26 percent, with the remainder being shipped to other markets. Exports to the EU markets have continuously risen recently, while exports to US markets appear to have stagnated. During January–November 2002, Cambodia exported garment products worth US\$1,183 million, 12.3 percent more than a year ago, according to the Customs Department. The garment quota increase by the US, which, according to the Ministry of Commerce, will be effective January 1 2003, will increase Cambodia's garment exports. However, business confidence of investors from the garment industry seems low. They are pessimistic about the competitiveness of Cambodia's garment industry, when agreements on garment quotas expire in 2004, after Cambodia's possible membership in the WTO. New investments in the garment industry have shrunk significantly, by 30 percent from US\$ 23.3 million for the period January–September 2001 to US\$16.4 million for the same period in 2002.

Cambodia's tourism sector has gradually established a joint leading role in fuelling economic growth. After declining in 1998, due to the fighting of July 1997, the number of international tourists arriving by air has increased constantly at an average annual rate of 27 percent. During January–October 2002, Cambodia welcomed 418,801 international tourists with 279,620 arriving at Pochentong Airport and 139,181 arriving at Siem Reap Airport, (10 percent more than a year ago). The new policy of the Cambodian government aimed at

'ASEAN tourists' should encourage ASEAN nationals to visit Cambodia, especially with relation to the Visa issue. A forum on ASEAN tourists will be held in Phnom Penh at the end of January 2003. Presently, the US shares the largest portion of total international tourists by flight, 14 percent in 2001, and an estimated 12 percent in 2002. The high number of US visitors has been because many of these visitors are of Cambodian origin. The number of tourists from ASEAN countries arriving by air was 50,907 persons in the first nine months of 2002.

Cambodia's labor-intensive construction sector began to rebound in 2002. During January–November 2002, the Department of Cadastre and Geography of the Municipality of Phnom Penh approved 698 construction projects for the City of Phnom Penh, 5.4 percent more than for the whole of 2001. Of this, 483 projects were for apartment construction, 138 for mansion construction, and the remainder for other construction projects. According to CDRI surveys compared to last year, daily earnings of both skilled and unskilled construction workers improved, rising respectively by 35.3 percent and 20.8 percent. However, when compared to the beginning of 2002, skilled workers earnings increased, while the daily earnings of unskilled workers decreased. In November 2002, unskilled workers earned an average 5,850 riels per day, compared to 7,025 riels per day in February 2002, and skilled workers earned 13,350 riels per day, compared to 11,530 riels per day in February.

### Inflation and Foreign Exchange Rates

Consumer prices in Phnom Penh rose at an annual rate of 3.47 percent by the third quarter of 2002, faster than the previous two quarters. The main thrust lies in a high increase in prices of 'prepared meals' (National Institute of Statistics) over that quarter, 24.35 percent higher than a year ago. The second factor for a rapid increase in consumer prices was a significant rise in prices of 'pork with fat', 19.26 percent in the year ending in the third quarter of 2002. In October and November 2002, however, consumer price inflation slowed to an average rate of 2.71 percent. According to data from the NIS, a drastic fall in prices of 'leafy vegetables' has reduced the increase in consumer prices. In Phnom Penh, prices of 'leafy vegetables' fell by 25.12 percent, especially that of 'lettuce and spinach' (44.58 percent in the year ending November 2002). Due to an increase in the prices of other food items, (the prices of 'dried fish' for example, increased at an annual rate 33.44 percent in November 2002 to 12,050 riels/kg) food prices in Phnom Penh were 2.07 percent higher than a year ago.

Since the second half of 2002, prices of gasoline and diesel generally remained unchanged, at 2,200 riels/litre and 1,550 riels/litre. However, the price of gasoline rose by 10 percent and that of diesel by 3.33 percent compared to the same period last year. This brought about a 2.39 percent increase in the price of 'transportation and communication' in November 2002.



## Economy Watch—Domestic Performance

The Cambodian riel devalued quarterly against the US dollar and Thai baht over 2002. In the third quarter of 2002, the dollar was priced at 3,935 riels/dollar, 0.6 percent higher than in the second quarter. Against the baht, the Cambodian riel has depreciated by 2.3 percent to 93.5 riels/baht in the third quarter, from 91.4 riels/baht in the second quarter. Compared to the third quarter of last year, the riel has appreciated by 0.5 percent against the dollar, while the riel has lost its value by 6 percent against the Thai baht. The exchange rate between the riel and the Vietnamese dong has remained generally unchanged at 25.7 riels/100 dongs.

### Poverty Situation – Earnings of Workers

According to the most recent data collected through a survey by CDRI in November 2002, daily earnings of vulnerable workers have improved compared to one year ago. ‘Cyclo drivers’ could earn an average 8,878 riels per day in November 2002, 41.78 percent more than last year. The increase was mainly related to more foreign tourists using cyclos, especially over the water festival period. This situation may not be sustainable, however, because of the growing number of cyclo drivers with more and more people from the provinces coming to drive cyclos. ‘Motorcycle-taxi drivers’ also improved their daily earnings. In November 2002, they earned an average 12,075 riels per day, 23.33 percent more than a year ago (9,791 riels). Compared to the beginning of 2002, however, the average daily earning of both cyclo drivers and motorcycle-taxi drivers worsened. In November 2002, cyclo drivers earned 6 percent less than in February, while motorcycle-taxi drivers 16 percent less. Fifty-eight percent of motorcycle-taxi drivers interviewed claimed that present daily earning could not meet family needs. According to interviews, 75 percent of all motorcycle-taxi drivers are temporary migrants from provinces to Phnom Penh.

Compared to the August 2002 survey, ‘porters’ suffered a decline in average daily earnings in November 2002, earning 17 percent less. Compared to November last year, however, there has been a 26 percent increase. In general, daily earnings of porters depend on the needs of market-sellers, and on the amount of goods to be transported. Of ‘Small vegetable sellers’, 60 percent have experienced an increase in daily earnings (November 2002), 40 percent more than last year and 18 percent more than in February 2002. More vegetable consumption fueled by cheaper prices of vegetables has buoyed their daily income.

‘Scavengers’, ‘waitresses’, and ‘rice-field workers’ have comparable daily earnings, around 4,000 riels. Among them, only waitresses have experienced a fall in daily income, compared to the August 2002 survey. However, waitresses benefit from free food in restaurants, while scavengers and rice-field workers have to pay for food, spending 1,100 riels/day per person. Although the average daily earning of scavengers and rice-field workers has increased in comparison with last

year, 25 percent of scavengers and 30 percent of rice-field workers interviewed stated they still live in debt.

The November 2002 survey indicated that ‘skilled construction workers’ achieved the highest average daily earning (13,350 riels/day), 35 percent more than November last year. 52.5 percent of skilled construction workers, however, asserted that this amount of daily income cannot meet family needs. According to interviews, 97.5 percent of skilled construction workers are migrants from the provinces.

All surveys undertaken by CDRI in 2002, on the daily earning of vulnerable workers, indicate that ‘garment workers’ have gradually improved their daily income. Between February and May 2002, their wages increased from 7,772–8,775 riels, and between August and November their wages increased from 9,800–10,000 riels. Including payments for overtime, the average monthly salary of garment workers in November reached US\$66.97: the minimum salary was US\$30 and the maximum salary was US\$120. At the same time, garment workers spent an average US\$25 per month, of which US\$19 was for food, US\$5 for house rent, and the remainder for personal care. Among 120 workers interviewed, 108 persons (90 percent) sent money home to support their families.

Past data from CDRI surveys indicates a high volatility in the earnings of vulnerable workers. Their daily earnings fluctuate from quarter to quarter, and in certain occupations, they drop below one dollar. Unless there is some kind of sustained labour market pressure, it is unlikely their earnings will stabilise.

### Monetary Developments

In the third quarter of 2002, there was a clear sign of restrictive monetary policy from the National Bank of Cambodia (NBC). The amount of money (M1) is strongly under the influence of the NBC. Consequently, the amount of money (M1) which encompasses the riel outside banks and the riel on demand deposits at banks, rose slightly to 771 billion riels, up from 748 billion riels by the end of the second quarter. However, the pace of growth slowed, from a 10.8 percent increase between the first and the second quarter, to a 3.07 percent increase between the second and third quarter of 2002. In parallel, the increase of ‘quasi-money’, dominated by foreign currency deposits slowed, down from 9.8 percent growth between the first and second quarter, to 2.6 percent growth between the second and third quarter 2002. By the end of the third quarter, the amount of quasi-money rose to 1,952 billion riels. Trends in M1 and quasi-money determined levels of total liquidity (M2). Total liquidity expanded to 2,723 billion riels by the end of the third quarter, a 2.8 percent increase from the end of the second quarter, slower than the pace between the first and the second quarter (a 9.9 percent increase). The restrictive policy of money supply by the NBC was responding to weak trends of the riel against both the US dollar and the Thai baht during 2002.

## Economy Watch—Domestic Performance

### Public Finance

During the third quarter of 2002, Cambodia's current budget operated with a surplus of 64 billion riels, 50 percent more than a year ago. When comparing the periods January-September 2001 and 2002, the current budget surplus has fallen sharply by 30 percent, down from 381 billion riels to 293 billion riels. In this nine month period over 2002, current revenues worth 1,232 billion riels were collected, 69 percent of the target, while current expenditures amounted to 939 billion riels, 60 percent of the target. Of total current revenues of 1,232 billion riels, 576 billion riels were collected from domestic tax, 355 billion riels from non-tax, and 301 billion riels from customs duties. Among these three sources, non-tax revenues were the furthest from target at just 65 percent. The worst category among non-tax revenue was collection related to 'forest exploitation', just 22 percent of target. Of 939 billion riels expenditure, social administration accounted for 301 billion riels, defense and security 258 billion riels, general administration 218 billion riels, economic administration 102 billion riels, and other expenditure 60 billion riels. Compared to target expenditures, spending on the National Election Committee (NEC) and on the Ministry of Economy and Finance (MEF) exceeded the target, by 226.7 percent and 193.9 percent, respectively. During the first nine months of 2002 and according to the MEF, (in line with the 2002 budget law), 2.8 billion riels should have been devoted for the NEC, and 22.9 billion riels for the MEF. In implementation, however, 6.3 billion riels were spent on the NEC, and 44.4 billion riels on the MEF.

### Private Investment and Employment

The value of private investments approved by the Council for the Development of Cambodia rose rapidly to US \$127.6 million in the third quarter of 2002, up from US \$23.3 million in the second quarter. During January-September 2002, total private investments reached US \$178.7 million, compared to US\$66.1 million in the same period last year. The main thrust was investment in the service sector, especially telecommunications, while investments in industry declined significantly by 15.4 percent. Investment in the garment industry declined by 29.6 percent. Private investments in the manufacturing sector from the ASEAN (+3) countries has constantly declined from US\$296.3 million in 1997, to US\$12.7 million in 2001.

### Foreign Aid and External Debt

Foreign aid has played an essential role in financing Cambodia's development and public budgets. During 1992 to 2001, Cambodia received international financial aid worth US\$4,116.4 million, according to the Council for the Development of Cambodia. Of this total, US \$3,384.1 million was in grants, and US\$732.3 million in loans. Of the total grants allocated, 47 percent were devoted to free-standing technical cooperation, 25 percent to investment project assistance, 17 percent to food aid, emergency and relief assistance, 7 percent to investment related technical cooperation, and 4 percent to budgetary aid/balance of payments support.

*By Dr. Kang Chandararot and Pon Dorina*

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tourist markets. At the same time, both APSARA and the provincial government face certain constraints in implementing their policies effectively. Many people who live in Angkor Park appear to be unaware of the role and regulations of APSARA, and the provincial government is faced with a growing list of responsibilities associated with providing services and security in support of tourism without corresponding increases in their operating budgets.

The Royal Government of Cambodia, including APSARA and the provincial government of Siem Reap, and civil society organizations should work together to implement a 'Cambodia First' policy that directs a greater share of tourism benefits to people who live in Angkor Park and the areas surrounding Siem Reap. Government agencies, NGOs, and donors should:

- Help farmers produce more agricultural products of better quality, including vegetables and meat, to sell in the tourist sector (e.g. hotels and restaurants). This would require more studies concerning the markets for such products, as well extension services to provide farmers with knowledge and information about how to adopt more efficient and environmentally friendly ways of increasing rice and vegetable pro-

duction. The introduction of irrigation infrastructure, where feasible and appropriate, along with Sustainable Agriculture techniques can help in this regard.

- Provide vocational and literacy training, as well as job placement services for people seeking employment. This would require more studies concerning the labour markets in and around Siem Reap, especially the construction and service sectors.
- Make more low-cost credit available to help people start or maintain small business enterprises, as well as produce and market new or better agricultural and handicraft products.
- Stabilise population growth in Angkor Park. NGOs and the relevant government agencies should introduce family planning techniques to help reduce natural birth rates, and provide information about ways to prevent the spread of HIV/AIDS and STDs among people in the Siem Reap area.

### Endnote

1. APSARA. The organisation established in 1994 to preserve and protect the Angkor Wat World Heritage Site. L'Authorité pour la Protection du Site et l'Aménagement de la Region d'Angkor.

## Economy Watch—Indicators

**Table 1. Cambodia: Main Macro-economic Indicators, 1994–2001**

	1994	1995	1996	1997	1998	1999	2000	2001
GDP at current prices (billions of riels)	6,256	7,176	8,271	9,125	10,795	11,797	12,149	12,724
GDP at current prices (millions of dollars)	2,435	2,915	3,131	3,042	2,841	3,088	3,149	3,234
GDP per capita (dollars)	225	262	273	258	234	248	247	247
Growth rate of real GDP (1993 prices)	5.3	7.6	6.7	0.7	2.9	6.8	5.5	5.3
Agriculture	4.8	9.2	2.9	2.2	0.1	1.4	-2.4	0.7
Industry	7.3	11.8	19.5	0.6	16.8	12.6	16.7	11.2
Service	5.3	4.7	6.0	-0.6	0.1	9.4	7.5	6.1
Inflation (in riels, final quarter basis)	17.8	3.5	9.0	9.1	12.6	0.0	0.5	-1.3
Riel/dollar parity (annual average)	2,569	2,462	2,641	3,000	3,800	3,820	3,859	3,935
Budget revenue (percentage of GDP)	9.4	9.0	9.1	9.7	8.7	11.2	11.7	12.0
Budget expenditure (percentage of GDP)	16.1	16.7	17.4	13.8	14.4	16.4	17.3	18.4
Current public deficit (percentage of GDP)	-1.4	-0.8	-1.2	0.7	-0.2	1.6	1.6	1.3
Overall public deficit (percentage of GDP)	-6.7	-7.8	-8.4	-4.2	-5.7	-5.2	-5.6	-6.3
Exports of goods (percentage of GDP)	19.6	29.1	23.1	28.7	32.1	33.9	44.2	46.4
Imports of goods (percentage of GDP)	30.0	41.4	39.4	40.9	49.3	48.2	54.4	56.9
Trade balance (percentage of GDP)	-10.4	-12.3	-16.3	-12.2	-17.2	-14.3	-10.2	-10.5
Current account balance (percentage of GDP)	-9.1	-12.7	-15.3	-10.4	-15.5	-11.6	-7.2	-6.7
External contribution to the economy	16.5	20.9	20.4	13.8	17.5	15.6	14.5	13.2
Total savings (percentage of GDP)	18.2	21.6	26.7	21.6	25.3	22.8	19.3	18.3
Gross foreign reserves (months of imports)	1.5	1.7	2.1	2.4	3.2	3.8	4.7	5.5
Population (million)	10.8	11.1	11.5	11.8	12.1	12.5	12.8	13.1
Labour force (percentage of population)	41.1	41.2	41.4	41.6	41.9	42.2	42.5	43.0

Sources: CDRI, Compiled from Government data

**Table 2. Destination of Garment Exports, 1994-2002**

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
	Millions of dollars											
United States	0.0	0.02	0.1	26.8	74.1	121.5	187.5	198.0	212.9	158.7	201.7	307.4
Rest of the world	1.0	6.6	19.6	30.0	20.5	17.0	58.8	102.7	89.0	73.7	69.4	124.9
Total	1.0	6.6	19.7	56.8	94.5	138.5	246.3	300.7	301.9	232.4	271.1	432.3
	Percentage change over previous year											
Total	-	560	200	187	66	47	78	0.5	13.8	-7.8	3.6	44

Source: Ministry of Commerce, Department of Trade Preferences Systems [1994-2001 (Q1-Q4), quarterly average]

**Table 3. Passenger Arrivals by International Flights at Pochentong and Siem Reap Airports, 1994-2002**

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
	Thousands of passengers											
Tourist visas	27.9	38.7	55.3	46.3	38.1	44.9	57.4	53.5	58.1	67.3	59.7	55.1
Business visas	7.1	10.6	15.8	13.9	10.7	16.0	20.6	20.9	18.3	18.1	14.4	18.6
Official visas	3.3	3.9	3.2	3.6	4.4	8.8	4.8	4.6	5.9	5.7	6.1	6.9
Total Pochentong	38.3	53.2	74.3	63.8	53.2	69.7	82.7	79.0	82.3	91.1	80.2	80.6
Total Siem Reap	-	-	-	-	2.6	7.15	33.4	30.5	36.6	54.7	29.6	39.7
	Percentage change over previous year											
Total Pochentong	29.7	38.9	39.7	-14.1	-16.6	31.0	18.7	8.2	-4.6	3.1	-1.2	2.1
Total Siem Reap	-	-	-	-	-	175	367	52	13.7	30.5	25.4	30.0

Sources: Ministry of Economy and Finance and Ministry of Tourism [1994-2001 (Q1-Q4), quarterly average]

**Table 4. Consumer Price Index (CPI), Exchange Rates and Gold Prices, 1994-2002 (period averages)**

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
	Consumer price index (percentage change over previous year)											
Provinces	-	-	-	6.1	16.3	6.2	5.4	-1.1	-1.6	-3.4	0.0	2.0
Phnom Penh - All Items	-0.5	7.8	7.1	8.0	14.8	4.0	-0.8	-0.4	-1.3	3.4	3.3	3.5
- Foods	-13.4	4.9	7.6	6.7	14.1	7.6	-3.3	-2.4	-3.8	-0.6	2.7	3.71
- Energy	-1.2	19.4	20.7	20.0	15.1	3.5	6.6	-3.0	-3.4	-0.4	-0.9	0.3
	Exchange rates, Gold and Oil prices (Phnom Penh market rates)											
Riel per US dollar	2,582	2,479	2,666	3,029	3824	3832	3,879	3,953	3,932	3,910	3,913	3,935
Riel per Thai baht	102	99	105	98	88	101	96.3	88.2	88.7	89.3	91.4	93.5
Riel per 100 Vietnamese dong	23.5	22.3	24.0	25.6	28.6	27.8	27.4	26.4	26.1	25.8	25.7	25.7
Gold prices (US dollar per chi)	45.8	45.9	46.3	40.4	36.0	34.0	33.3	33.6	33.0	34.6	36.2	38.0
Price of Diesel (Riels/litre)	750	716	779	883	1,065	1,105	1,329	1,550	1,517	1,480	1,450	1,550
Price of Gasoline (Riels/litre)	698	847	1,118	1,378	1,613	1,760	2,113	2,100	2,033	2,100	2,167	2,200

Sources: CDRI, IMF, NIS, Ministry of Planning, Ministry of Economy and Finance

## Economy Watch—Indicators

Table 5. Average Daily Earnings of Workers, 1997–2002

	Daily earnings (riels)									Change from last year (%)		
	1997	2000	2001	2002						2002		
	Pre-Jul	Nov	May	Aug	Nov	Feb	May	Aug	Nov	May	Aug	Nov
Cyclo drivers	12,250	8,398	9,568	9,057	6,262	9,450	9,375	8,900	8878	-2.0	-1.7	41.78
Porters	9,675	6,893	7,058	7,189	5,000	8,137	6,675	7,600	6312	-5.4	5.7	26.24
Small vegetable sellers	7,050	5,813	7,386	6,670	5,096	6,062	6,712	6,862	7158	-9.1	2.9	40.46
Scavengers	4,155	3,006	2,670	2,686	3,393	3,350	4,231	3,440	4012	58.5	28.1	18.25
Waitresses*	-	2,335	2,600	2,683	2,358	3,543	3,652	4,225	4000	40.5	57.5	69.64
Rice-field workers	-	4,184	3,613	4,500	3,618	3,916	5,167	3,833	4219	43.0	-14.8	16.63
Garment workers	-	7,410	7,500	9,165	8,968	7,772	8,775	9,800	10000	17.0	7.0	12.59
Motorcycle-taxi drivers	-	9,522	12,050	10,559	9,791	14,327	11,978	11,300	12075	-0.6	7.0	23.33
Unskilled construction workers	-	5,970	8,261	5,625	4,841	7,025	6,912	6,525	5850	-16.3	16.0	20.85
Skilled construction workers	-	14,517	10,306	12,375	9,866	11,530	13,850	12,695	13350	34.4	3.0	35.32

Notes: Surveys on the revenue of waitresses, rice-field workers, garment workers, unskilled workers, motorcycle taxi drivers and construction workers began in February 2000: \* Waitresses earnings do not include meals and accommodation provided by shop owners. Source: CDRI.

Table 6. Monetary Survey, 1994-2002 (end of period)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
	Billions of riels											
Net foreign assets	391	550	881	1,172	1,550	1,961	2,589	2,951	3,080	3,366	3,614	3646
Net domestic assets	59	99	31	-109	-435	-591	-759	-827	-877	-959	-965	-923
Net claims on government	143	148	128	54	141	111	3	-73	-75	-152	-165	-125
Credit to private sector	237	293	435	637	682	731	898	992	936	976	928	959
Total liquidity	450	650	912	1,063	1,116	1,370	1,831	2,124	2,204	2,408	2,648	2723
Money	200	279	329	385	466	515	540	569	610	676	748	771
Quasi-money	250	371	583	678	655	855	1,291	1,555	1,594	1,731	1,901	1952
	Percentage change from previous year											
Total liquidity	35.1	44.3	40.3	16.6	4.9	22.7	33.6	18.5	20.4	26.8	33.4	28.2
Money	-1.9	39.5	17.9	17	21	10.5	4.9	5.4	13.0	23.4	37.5	35.3
Quasi-money	93.2	48.1	57.2	16.4	-3.4	30.5	51.0	24.2	23.5	28.1	32.0	25.5

Source: National Bank of Cambodia.

Table 7. National Budget Operations on Cash Basis, 1994-2002 (billion riels)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
Total revenue	148	161	187	220	230	329	356	360	403	423	369	457
Current revenue	-	-	-	-	-	-	-	358	401	407	369	456
Tax revenue	91	111	134	149	169	239	260	261	281	252	302	323
Customs duties	70	80	86	87	94	108	98	83	90	81	104	116
Non-tax revenue	56	47	44	68	51	87	89	97	120	156	66	133
Forest exploitation	22	13	7	9	5	9	11	8	2	1	1	9
Post & Telecommunications	15	14	16	21	22	27	23	30	41	34	13	30.7
Capital revenue	0	2	10	3	9	3	7	2	2	15	0	1
Total expenditure	252	300	360	315	324	448	515	578	735	486	702	699
Capital expenditure	84	128	157	113	92	156	220	253	268	195	260	297
Current expenditure	168	172	203	202	245	291	295	325	467	291	442	402
Education and Health	23	25	31	32	33	70	62	52	217	20	81	60
Defense and Security	98	106	102	105	110	116	111	89	165	36	117	105
Other Ministries	48	41	71	65	83	103	123	167	272	347	244	273
Overall deficit	-105	-139	-173	-95	-95	-119	-160	-218	-332	-64	-333	-242
Foreign financing	108	140	170	111	67	104	167	205	188	228	442	268
Domestic financing	-3	-1	3	-16	28	15	-7	13	144	176.4	110	-25

Source: Ministry of Economy and Finance: Quarterly average [1994-2001 (Q1-Q4), quarterly average]

Table 8. Investment Projects Approved, 1994-2002

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q3	Q4	Q1	Q2	Q3
	Number of investment projects											
Total	46	51	75	34	35	24	24	12	10	10	8	11
Garment	27	30	36	12	21	11	13	6	2	5	3	5
	Registered capital (millions of dollars)											
Total	116.0	89.0	97.8	69.5	104.1	61.7	25.6	15.2	93.8	11.4	4.5	12.11
Garment	26.8	28.0	39.2	8.6	22.9	13.9	6.4	8.8	1	5.6	1	5
	Fixed assets (millions of dollars)											
Total	303.0	76.2	186.7	190.4	212.3	118.5	66.6	16.5	150.6	27.8	23.3	127.6
Garment	25.1	25.4	39.6	9.7	30.2	19.9	19.2	10.0	2.0	20.3	2.8	5.5

Source: Cambodian Investment Board [1994-2001 (Q1-Q4), quarterly average]. \* Including existing investment expansion projects

## Glossary-Terms Used in This Issue

### Common Property Resources ប្រទេសកម្ពុជា

Common Property Resources (abbreviated as CPR) is a term used to describe areas such as forests, pastures, rivers and lakes to which all residents in an area have a right of access.

### Fishing-lot Owner ម្ចាស់ត្រីសាត

These are lot 'owners', granted a two-year lease by the government for fishing a particular area. Owners may share capital costs, responsibilities, and benefits of the lots with co-sharers.

### Kroma ក្រមា

A *kroma* is traditionally made of cotton, silk, or mixture of both. It is a common cloth, used widely by both men

and women for multiple purposes. It can be used as a head cover, a towel, to wear around the hips, and to wrap things. It has a small lattice pattern.

### Yarn យ៉ា

Yarn is the raw material (thread) used for knitting or making cloth

### Chamcar ចាមកា

Land, which is used for growing crop other than rice.

### Ginning កិន

Ginning refers to the process of removing the seeds from the raw cotton fibre.

## (Continued from page 20) CDRI Update

### Library

The CDRI library, with the assistance of Ms. Nereida Cross, a professional Librarian from Australia, conducted an internal training course for its staff from December 30, 2002 to January 4, 2003. The training on the WINISIS programme will contribute to enhance the CDRI Library's database management systems.

### Publications

New publications include an English edition of *Land, Rural Livelihoods and Food Security in Cambodia*, (WP24), the Khmer editions of *Natural Resources and Rural Livelihoods in Cambodia: A Baseline Assessment* (WP23) and the *Cambodia's Annual Economic Review 2002*. The Khmer version of WP24 and, the English version of *Rural Livelihoods and Food Security in Nine Cambodian Villages* (WP25) will be published and released in January 2003.



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## CDRI Update

### Management

The CDRI conducted its Annual Board of Directors Meeting on December 6–7, 2002. In October Ms. Catherine Cecil, Esq., a public policy specialist, helped CDRI to develop a communications strategy and policy framework. The framework was adopted by the Board of Directors, and recruitment of a Communications/Public Policy Director will commence in January 2003. In December 2002, CDRI commissioned an independent evaluation of its Peace and Development Programme. The evaluation will be completed in January 2003 and will contribute to shaping the next three-year phase of the programme.

The CDRI is pleased to announce the appointment of Dr. Caroline Rusten on November 25, 2002, to head its decentralisation research programme.

### Research

A year-long research on Land and Food Security has been completed and findings were presented at a seminar held on 27 November 2002. Two working papers are being produced under this project, one of which is currently available (*Land, Rural Livelihoods and Food Security in Cambodia: A Perspective from Field Reconnaissance*). In a partnership with the Institute of Developing Economies (Japan), CDRI began conducting research on the garment and silk weaving sectors in December 2002. Findings from the DAN field studies on off-farm and non-farm employment were discussed and disseminated at a conference in Hanoi in December 2002. In the Natural Resources and Environment programme, field research on fish and resin trade is underway.

In this last quarter of the year, CDRI hosted a research intern from Canada, Mr. Owen Taylor, to conduct research on the issue of Human Security.

A Forum on "*The National Budget and the Link to Poverty Reduction: The Vision and the Challenge*", jointly organised by the Senate Commission on Banking and Finance and CDRI, was held on December 17–18, 2002 at the Senate Conference Room. The forum, which was attended by distinguished Members of the Senate and National Assembly, focused discussions on the 2003 National Budget and its links with the RGC goal of poverty reduction.

### Centre for Peace and Development

The last three monthly roundtable meetings of COPCEL have continued to focus on the issue of voter registration, in addition to the role of the media. In December, the Ministry of the Interior sent three high-ranking, national police officials to COPCEL to present the security plan of the government during the election process. In response to a request of the local residents, the CPD training team returned to Samlot district in Battambang province between November 25–30, to provide further training on conflict prevention, managing change and development. From December 9–13, CPD delivered the first module of a conflict management-training course to CIDSE staff. The CPD training team will conduct a second workshop on managing change and development, in Srey Snam district, Siem Reap province from January 20–25, in response to a request from local commune council members. During pilot tests in high schools in the last quarter of the year, *The Buddha as Peacemaker*, an illustrated book on conflict prevention and peacebuilding, was well received by teachers and students. The first Working Group meeting for review of the draft lexicon of peacebuilding terminology will be held in mid-January 2003.

(Continued on page 19)

គំនិតសិទ្ធិប្រជាជនកម្ពុជា ក្នុងការស្វែងរកដំណោះស្រាយសម្រាប់ប្រជាជន  
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