



2008, No. 02

## IMPACT OF HIGH FOOD PRICES IN CAMBODIA

## Chan Sophal\*

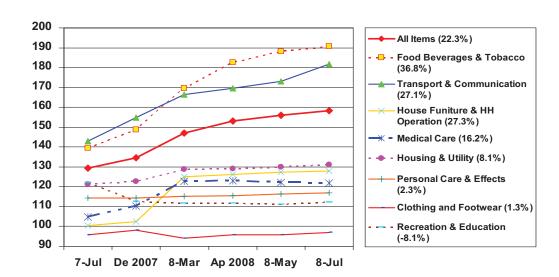
Like many other countries, Cambodia in 2008 has experienced soaring prices, especially of fuels and food, pushing year-on-year inflation above 20 percent during March–August. Food prices increased by 36.8 percent, followed by a 27 percent increase in transportation and housing materials (Figure 1). This inflation is mainly caused by rising world and, to some extent, local demand, while supply is contracted or more costly

due to increasing fuel costs. In this situation, the Cambodian economy has received both negative impacts on consumers and opportunities for producers to earn more.

High inflation impacts more severely on the poor. The prices of all varieties of rice, the staple food, jumped by 100 percent between March–July 2007 and March–July 2008. Meat prices increased by 50–70 percent, while fish

Figure 1. Consumer Price Index in Phnom Penh, July 2007 to July 2008 (Figure in parentheses is percentage change between July 2007 and July 2008)

Index: July-December 200 = 1000



Source: National Institute of Statistics, Ministry of Planning

<sup>\*</sup> Chan Sophal is senior research manager, CDRI. This is based on the study on the impact of rising food prices sponsored by The United Nations World Food Programme, The United Nations Development Programme, The World Bank, Oxfam America, The NGO Forum on Cambodia and The Food and Agriculture Organisation of the United Nations.

Table 1. Landholdings (% of households)

|           | landless | <0.5 ha | 0.5–1 ha | 1–3 ha | >3 ha | Total |
|-----------|----------|---------|----------|--------|-------|-------|
| Plains    | 24.8     | 26.3    | 21.6     | 20.0   | 7.2   | 100.0 |
| Tonle Sap | 19.2     | 17.3    | 20.5     | 29.7   | 13.3  | 100.0 |
| Plateau   | 11.1     | 20.6    | 27.4     | 31.3   | 9.5   | 100.0 |
| Coastal   | 22.8     | 34.1    | 22.0     | 17.9   | 3.3   | 100.0 |
| Total     | 21.1     | 23.4    | 22.1     | 24.4   | 9.1   | 100.0 |

Source: National survey of 2,235 households in June 2008 conducted by CDRI

and vegetables rose by 20–30 percent. Rising food prices have negatively affected all walks of life. However, the extent of the adverse impact varies according to economic status; the poorest 40 percent of the population spend 70 percent of their incomes on food, according to the Cambodia Socio-Economic Survey 2004. The poor and net food buyers were the worst hit by these soaring prices. They generally reside in poor rural areas. Most of the food-insecure households are in the Tonle Sap and plains regions. The urban poor have also been badly affected, although there have been adequate income opportunities for them.

On the bright side, there has been an increase in prices for many agricultural commodities received by the farmers who have surplus to sell, which is about one third. Our study found that farmers who this year produced dry season rice, cassava, maize or soybeans, all accounting for about 25 percent of all the farmers, have received net benefits from the higher prices. However, this positive impact was limited because not all rural

residents produce a surplus to sell. Only about 34 percent did so, because 21 percent of rural households are landless and another 45 percent land poor (owning not more than one hectare). Table 1 presents the landholding situation by region. The landless and land poor require higher nominal incomes in order to keep up with rising food prices.

Fortunately, wages for day labour, such as transplanting rice, harvesting, weeding and clearing degraded forest, which are the main source of income for the landless and land poor, increased by around 50 percent in the past year. On average, daily wages increased from 7500 to 11,000 riels (USD1.83–2.68) between the second half of 2007 and first half of 2008 (Table 2). This market-based adjustment enabled many to maintain the status quo or not fall into more severe poverty. Nevertheless, only about 30 percent of households or about 50 percent of the landless and land poor did some day labour during January–April 2008 (Table 3). While some of the

**Table 2. Median Wages of Day Labour** 

|                     | 2007                       | 2008        | 2008     | % change          |  |
|---------------------|----------------------------|-------------|----------|-------------------|--|
| Task for day labour | Wet season                 | Dry season  | May–June | July–Dec. 2007 to |  |
|                     | (July-Dec.)                | (Jan.–Apr.) |          | May–June 2008     |  |
|                     | (Riels per day per person) |             |          |                   |  |
| Transplanting       | 6000                       | 9250        | 10,000   | 67                |  |
| Harvesting          | 7500                       | 9000        | 11,000   | 47                |  |
| Weeding             | 7500                       | 9000        | 11,000   | 47                |  |
| Planting crops      | 8000                       | 10,000      | 11,000   | 38                |  |
| Clearing bush or    |                            |             |          |                   |  |
| degraded forests    | 9000                       | 12,500      | 13,000   | 44                |  |
| Construction        | 10,000                     | 11,000      | 13,500   | 35                |  |

Source: National survey of 2235 households in June 2008 conducted by CDRI

Table 3. Percentage of Households Doing Day Labour

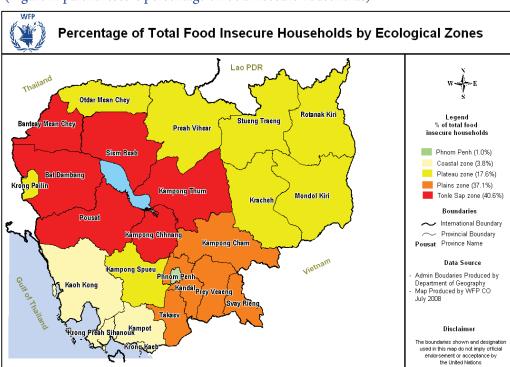
|           | July–December 2007 | January–April 2008 | May-June 2008 |
|-----------|--------------------|--------------------|---------------|
| Plains    | 35                 | 33                 | 26            |
| Tonle Sap | 51                 | 31                 | 25            |
| Plateau   | 42                 | 32                 | 23            |
| Coastal   | 34                 | 13                 | 14            |

Source: National survey of 2235 households in June 2008 conducted by CDRI

landless and land poor had work other than day labour, at least one-fourth of them were unable to generate more income due to lack of employment and were therefore hit hardest by rising food prices. These people tend to be located in the poorest areas, especially the Tonle Sap and part of the plains region, where there was little potential for income generation. There were considerable job opportunities in the plateau region, where conversion of degraded forests to farm land was on the rise.

For the very poor, both urban and rural, obtaining sufficient food is a daily struggle. Forming 20 percent of the population, they live "from hand to mouth", using their USD2-3 per day to buy rice and other essential food within the same day. Using the World Food Programme's definition, the survey found that 19.1 percent of the households did not have "acceptable" food consumption: 7.0 percent had "poor" consumption, 12.1 percent had "borderline" consumption, and the rest had acceptable food consumption (Figure 2). About 50 percent of households reported cutting back on food as a way of coping with rising food prices. This threatens their nutritional status and worsens health, and

Figure 2. Location of Food-Insecure Households



(Figure in parentheses is percentage of food insecure households)

might result in lasting adverse impacts. The school drop-out problem was highest for food-insecure households: 13 percent of them had children dropping out of school in January 2008, and 22 percent in June 2008. This also confirmed concern over the long-term impact of high food prices.

Fishing communities are among those most severely affected. The doubled rice price pushed fishing households deeper into poverty. Their average daily income deteriorated due to a decreasing fish catch, while the daily expenditure increased. The prices of their catch rose, but by only about 20 percent, which did not compare with the rising costs of inputs or fishing gear.

There were still four to five months until the next rice harvest in late 2008. About 74 percent of households will run out of their current stock

of rice and have to rely on purchasing from the market before the next harvest. From June to December, a total of 328,890 tonnes of paddy rice (worth about \$115 million) were needed in the sample villages. However, if there is no net outflow from the existing paddy rice and if existing stocks in the country are reserved for local distribution and consumption, then there is no net shortage in the country.

Some net rice producers, which are likely among the 35 percent of rural households owning more than one hectare of agricultural land, have benefited or will likely to benefit from the sharp price rise. Based on the costs of agricultural inputs and market prices of paddy in the observation period, June 2008, it is projected that rice production in 2008 will be more profitable than

Table 4. Impact of Price Rises on Profitability of Crops (per hectare per season)

| Commodity                     | <b>Dry Season</b> |      | Wet Season |      |       |          |
|-------------------------------|-------------------|------|------------|------|-------|----------|
|                               | 2007              | 2008 | % change   | 2007 | 2008* | % change |
| Rice                          |                   |      |            |      |       |          |
| Yield (tonne)                 | 3.7               | 3.7  | 0          | 1.9  | 1.9   | 0        |
| Price at farm gate (\$/tonne) | 180               | 250  | 39         | 225  | 320   | 42       |
| Gross Revenue (\$)            | 663               | 921  | 39         | 427  | 608   | 42       |
| Total Production Cost (\$)    | 233               | 350  | 50         | 150  | 225   | 50       |
| Gross Margins (\$)            | 430               | 571  | 33         | 277  | 383   | 38       |
| Maize                         |                   |      |            |      |       |          |
| Yield (tonne)                 |                   |      |            | 4.0  | 4.0   | 0        |
| Price at farm gate (\$/tonne) |                   |      |            | 150  | 250   | 67       |
| Gross Revenue (\$)            |                   |      |            | 600  | 1,000 | 67       |
| Total Production Cost (\$)    |                   |      |            | 205  | 280   | 37       |
| Gross Margins (\$)            |                   |      |            | 395  | 720   | 82       |
| Soybeans                      |                   |      |            |      |       |          |
| Yield (tonne)                 |                   |      |            | 1.5  | 1.5   | 0        |
| Price at farm gate (\$/tonne) |                   |      |            | 400  | 580   | 45       |
| Gross Revenue (\$)            |                   |      |            | 600  | 870   | 45       |
| Total Production Cost (\$)    |                   |      |            | 260  | 375   | 44       |
| Gross Margins (\$)            |                   |      |            | 340  | 495   | 46       |
| Cassava                       |                   |      |            |      |       |          |
| Yield (tonne)                 |                   |      |            | 8.0  | 8.0   | 0        |
| Price at farm gate (\$/tonne) |                   |      |            | 75   | 160   | 113      |
| Gross Revenue (\$)            |                   |      |            | 600  | 1,280 | 113      |
| Total Production Cost (\$)    |                   |      |            | 288  | 420   | 46       |
| Gross Margins (\$)            |                   |      |            | 312  | 860   | 176      |

<sup>\*</sup> The figures in 2008 are forecast based on current prices and yield.

Source: Households surveys for rice; focus group discussions for other crops

Table 5. Constraints on Increased Production, by Crop (% households)

|                                     | Wet season | Dry season |       |         |        |       |
|-------------------------------------|------------|------------|-------|---------|--------|-------|
|                                     | rice       | rice       | maize | cassava | others | total |
| not enough money for fertiliser     | 25.1       | 26.4       | 18.4  | 13.7    | 18.4   | 24.2  |
| not possible to irrigate            | 15.6       | 7.6        | 19.5  | 2.2     | 11.2   | 14.1  |
| not enough labour/draught animal    | 10.4       | 6.5        | 10.3  | 15.8    | 13.4   | 10.2  |
| not enough money for pesticides     | 9.2        | 16.7       | 4.6   | 5.8     | 7.8    | 9.8   |
| flood/drought                       | 9.3        | 3.1        | 5.7   | 1.4     | 5.3    | 7.9   |
| not enough machinery                | 5.9        | 6.8        | 1.1   | 21.6    | 6.9    | 6.5   |
| not enough money to hire labour     | 5.7        | 6.3        | 9.2   | 18.7    | 5.3    | 6.3   |
| not enough money for seed           | 3.8        | 7.4        | 8.0   | 2.9     | 4.4    | 4.4   |
| do not have knowledge/training      | 4.0        | 1.7        | 8.0   | 5.8     | 10.3   | 4.2   |
| not enough money for irrigation     | 2.7        | 8.0        | 5.7   | 1.4     | 2.5    | 3.3   |
| no time/have other job              | 0.5        | 0.2        | 2.3   | 2.2     | 1.6    | 0.6   |
| cannot obtain credit                | 0.4        | 0.3        | 1.1   | 2.2     | 1.2    | 0.5   |
| high interest rate                  | 1.2        | 0.9        | 1.1   | 1.4     | 1.9    | 1.2   |
| lack of transport                   | 2.4        | 2.3        | 2.3   | 2.9     | 3.1    | 2.5   |
| lack of access to market            | 0.4        | 0.2        | 1.1   | 0.0     | 1.9    | 0.5   |
| land conflict/fear of land conflict | 0.1        | 0.0        | 0.0   | 0.0     | 0.3    | 0.1   |
| other                               | 3.4        | 5.6        | 1.1   | 2.2     | 4.7    | 3.8   |
| total                               | 100.0      | 100.0      | 100.0 | 100.0   | 100.0  | 100.0 |

Source: National survey of 2235 households in June 2008 conducted by CDRI

in 2007. Dry-season rice farmers found their gross margins up by 32 percent, despite production costs rising by 50 percent. Table 4 summarises the profitability of major crops in 2008. If the price of wet-season paddy remains at the present level, producers' gross margins will be up by 40 percent. Meanwhile, wet-season rice farmers are bearing the 50 percent increase of production costs and doubtful rainfall. Rather than reducing inputs such as fertiliser, whose price doubled or tripled, farmers are seeking loans or purchase inputs expensively on credit.

Higher prices of rice have encouraged production. At least three percentage points more households reported that they would cultivate their land in the coming season rather than leaving it idle or renting it out, as they had done last year. However, there are long-standing constraints on the expansion and intensification of agriculture. Many farmers reported the sharp rise of fertiliser as a constraint. The others most cited were the lack of family labour or draught animals and absence

of irrigation. Table 5 indicates constraints for the major crops studied.

There should be a way to reduce the price of fertiliser, which increased two- or three-fold over the past year. All chemical fertilisers are imported, reportedly through highly inefficient channels that rely heavily and informally on Vietnamese and Thai traders. Importing fertilisers in bulk directly might cut costs considerably. The government and development partners may consider address this largest constraint cited by farmers and also pay attention to appropriate use of chemical fertilisers.

Lack of water or irrigation is a fundamental problem, although there has been a significant increase in public provision of and commitment to irrigation. A controlled water supply, which is now available for only 22 percent of rice fields, provides stability and certainty to crop production. It is a critical prerequisite for farmers to apply other inputs such as fertiliser and higher yielding seeds. A reliable water supply enables

- 56 Street 315, Tuol Kork, Phnom Penh, Cambodia
- PO Box 622, Phnom Penh, Cambodia
- **(855-23)** 881-384/881-701/881-916/883-603/012 867-278
- **(855-23) 880-734**

E-mail: cdrimail@online.com.kh Website: http://www.cdri.org.kh

**Table 6: Loans Status** 

|            | % of households having debt | % of households contracting new debts in past 6 months |
|------------|-----------------------------|--|
| Phnom Penh | 33                          | 20   |
| Plains     | 52                          | 23   |
| Tonle Sap  | 63                          | 49   |
| Plateau    | 44                          | 34   |
| Coastal    | 50                          | 29   |
| Total      | 53                          | 32   |

crop intensification and reduces the costs of production. Without irrigation, and drainage systems, production in many areas is impossible or too risky to apply good inputs.

Many farmers did not have the capital to start or expand production. Some could obtain loans, mostly at high interest rates, to maintain production. This plus borrowing for consumption put about half the households in debt, which is a worrying sign (Table 6). Farmers need to borrow more money to meet rising production costs, essentially fertiliser, pesticide, machinery and labour. It is imperative for government and development partners to inject funds to creditors and earmark them for agriculture. This would need an effective monitoring system to ensure that funds reach the right farmers and the right activities.

Technical support through extension services should be also expanded. Increased availability of vaccines for livestock would also be a great contribution to increasing the supply of food and bringing down prices. Local and international agricultural market information should be more widely available to traders and farmers so that they receive the right market signals. One suggestion is supporting and using existing farmer groups to disseminate the information. With improved conditions, agricultural producers will be able to seize the opportunity of rising agricultural prices

by increasing production for export.

Cambodia need to be able to know how much paddy is exported so that national food availability can be known. Currently much of paddy export is carried out informally and is not recorded. Particular attention should be paid for the next season, which is currently hampered by drought in parts of the country.

A long-term strategy should include broader agricultural and rural dvelopment programmes and a better land allocation and management policy. A current goal of maintaining forest coverage at 60 percent of the country area is perhaps desirable but not realistic when demographic and economic pressures are paramount. Because of this goal, new agricultural lands have an unclear legal status, which tends to favour those with the financial means, power or backing to take them.

As for the poor and very poor hard hit by rising prices, immediate interventions by government, development partners and civil society organisations are needed. Food aid and/or food for work should be the best solutions to meet their short-term needs. This requires enhanced cooperation among government agencies, development partners and civil society. These kinds of assistance are much preferred by needy populations and have been implemented before in times of flood and drought.