

CAMBODIA FOOD SECURITY AND NUTRITION QUARTERLY BULLETIN

ព្រឹត្តិប័ត្រប្រចាំត្រីមាស ប្រព័ន្ធតាមដានពីសន្តិសុខស្បៀង និងអាហារូបត្ថម្ភនៅកម្ពុជា



HIGHLIGHTS

Rainfall and water level conditions this quarter are favourable compared to last year. This has led to a significant increase in the cultivation of wet season rice and industrial crops, particularly cassava, and the production outlook, barring any major disaster, is positive. However, food price levels are rising, and without a corresponding increase in wages, this will negatively affect the food purchasing power of vulnerable households.

Environmental Conditions

- In 2011, there was no slow onset of the rainy season as in 2010. Rainfall amounts during April 2011 to June 2011 were higher than in 2010 but lower than the historical average.
- River water levels, which were lower than the historical average in the previous quarter, were normal.

Food Availability

- Wet season rice cultivation figures at the end of the current quarter, show that rice planted area – especially for early rice – has significantly increased compared to the corresponding time last year. The 2011-12 wet season rice harvest looks promising assuming there are no major floods or droughts.
- Cassava cultivation for the 2011-12 season has drastically increased, as export prices to Thailand and Vietnam sharply increased due to greater demand.
- Increased cultivation of rice and industrial crops will likely increase agricultural labour opportunities in rural areas.

Food Prices

- Overall price levels and especially food price levels in Cambodia have increased rather sharply in the past quarter, despite international food and rice price levels being stable.
- Higher inflation is stemming from higher transportation costs due to increasing gasoline and diesel prices, greater influx of Vietnamese goods, and a weaker US dollar.

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- Rice prices started increasing a few months earlier than last year, but the sharp increases in April and May leveled off in June. However, inflation-adjusted rice prices this quarter are around 30% higher than in the corresponding quarter in 2007, before the food price crisis of 2008.

Health and Nutrition

- Preliminary results of the CDHS 2010, once validated, provide evidence that improvement in the nutritional status of children has stagnated since 2008.
- At 10.9%, the level of acute malnutrition is classified as an Acute Food and Livelihood Crisis by the Integrated Food Security Phase Classification.
- Chronic malnutrition remains widespread, with 40% of children under 5 experiencing stunted growth.

The Cambodia Food Security and Nutrition Quarterly Bulletin aims to provide decision makers with a regular overview of trends and emerging threats relating to food and nutrition security in Cambodia. It is a collaborative effort between the Council for Agricultural and Rural Development (CARD), the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Water Resource and Meteorology (MoWRAM), the Ministry of Health (MoH), the National Committee for Disaster Management (NCDM) and the National Institute of Statistics (NIS), with technical and financial support from UNICEF, the World Food Programme, the EC-FAO Food Security Programme and the World Health Organization.

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This bulletin conducts secondary analysis of government administrative data and publically available data on a list of standard indicators – from regularly collected government data – agreed upon in the terms of reference of the Food Security and Nutrition Data Analysis Team.

ENVIRONMENTAL CONDITIONS AND HAZARDS

Rainfall

On 30 March 2011, the Ministry of Water Resources and Meteorology (MOWRAM) reported that the wet season would start in the second week of May and end in early November. MOWRAM forecasted that rainfall would be evenly distributed throughout the country and that rainfall levels would be higher compared to 2010.

In the first quarter of 2011 (January to March), Cambodia experienced rainfall levels significantly lower than in previous years. The cumulative rainfall in the first quarter of 2011 was 34.5% and 20% lower, respectively, than the cumulative rainfall in the corresponding period of 2010 and 2000-2010.

However, rainfall levels started picking up in March, and in April 2011 rainfall levels were significantly above 2010 and the 10 year average (Table 1). In May 2011, rainfall levels were still 35.9% higher than in May 2010, but 22% below the 10-year historical average for May. In June 2011, rainfall levels were similar to the 10-year historical average for June (3.8% lower than the average).

Table 1: Average rainfall in Cambodia in April, May and June

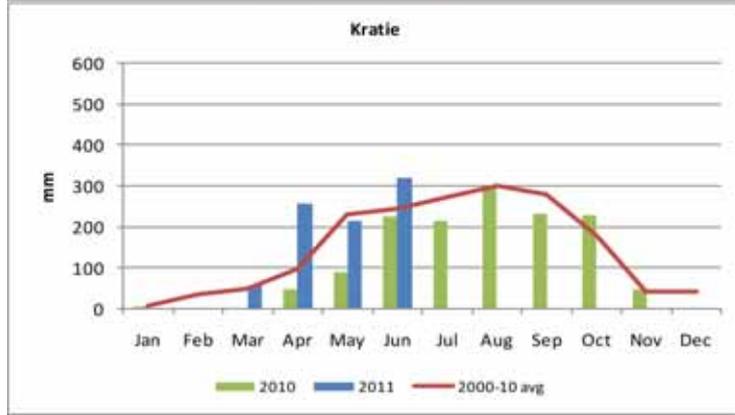
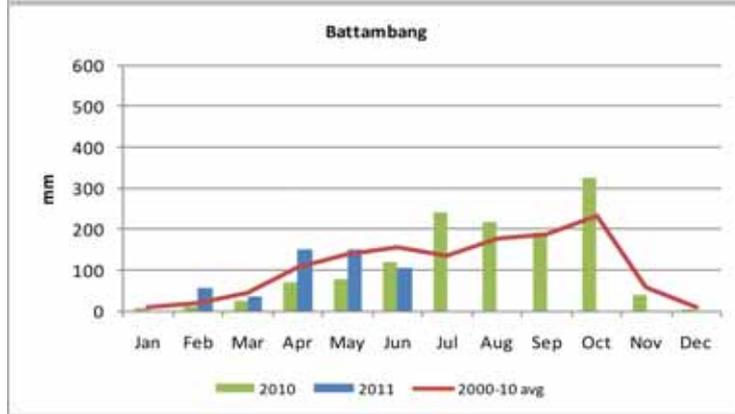
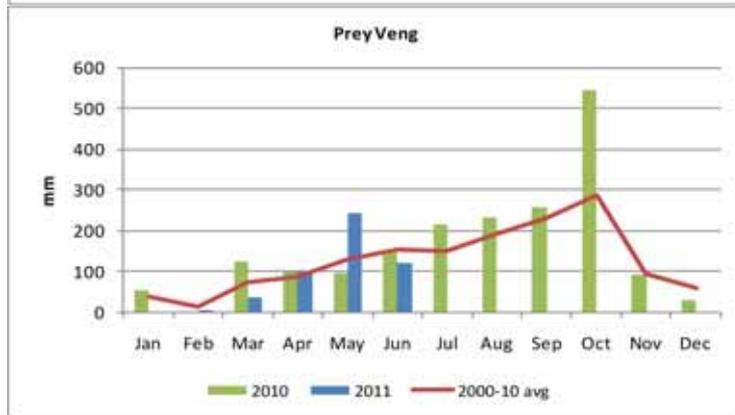
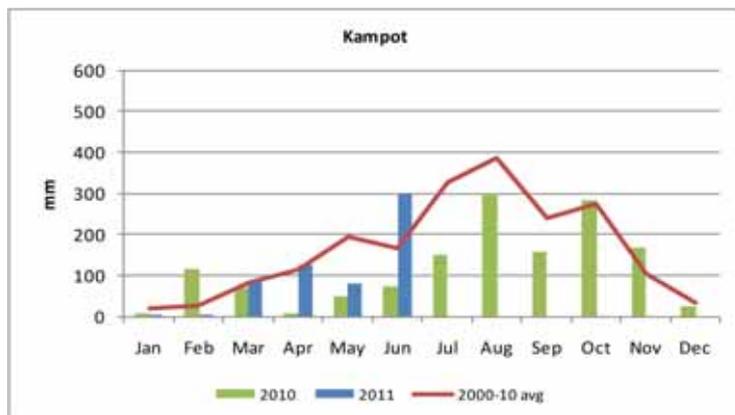
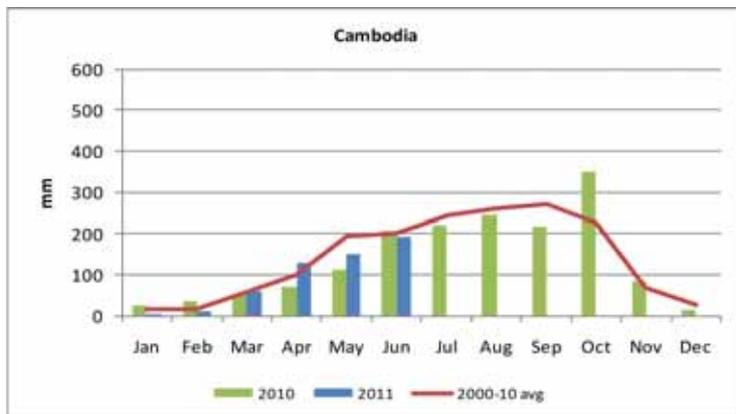
	2000-10 avg (mm)	2010 (mm)	2011 (mm)
April	98.7	70.3	129.6
May	192.8	110.6	150.3
June	201.9	205.9	194.3

Source: Ministry of Water Resources and Meteorology

The cumulative rainfall in all provinces in Cambodia in the second quarter of 2011 (April to June 2011) was 3.9% below the 2000-10 historical average for the same time period, but 22.6% higher than in 2010 Q2.

Rainfall patterns in four selected provinces¹ representing the main agro-ecological zones are reported in Figure 1.

Figure 1: Rainfall levels in Cambodia and selected provinces



Source: Ministry of Water Resources and Meteorology

The differential of the past quarter’s rainfall (April to June 2011) to the 10 year historical rainfall levels during the same period is displayed below in Map 1.

¹ Kampot is in the Coastal zone, Prey Veng in Plains zone, Battambang in Tonle Sap zone, Kratie in Plateau/Mountain zone

Map 1: Rainfall surplus and deficit

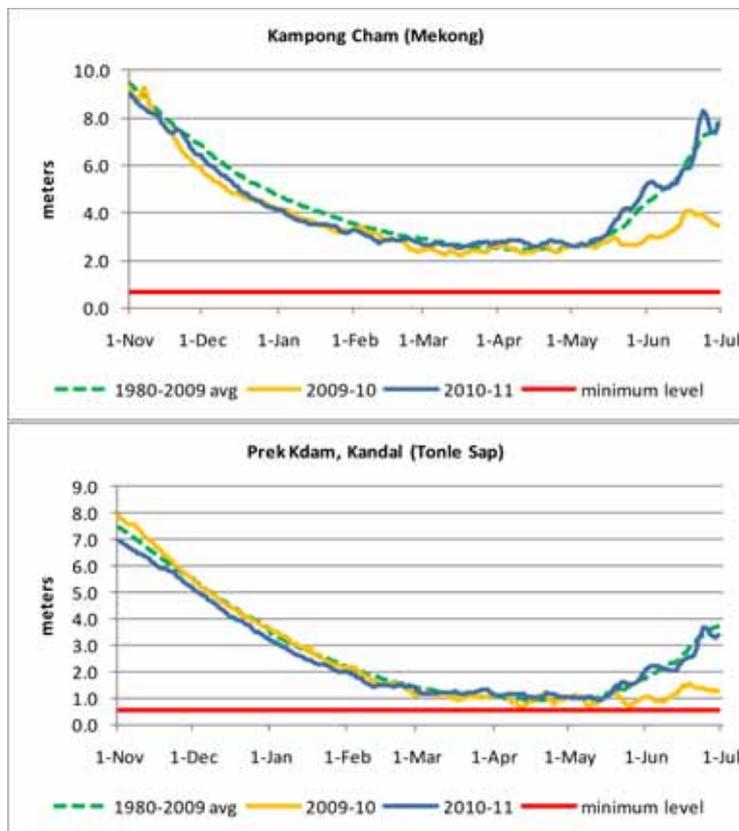


River water levels

Water levels of both the Mekong and Tonle Sap rivers, were significantly lower than the 30-year historical average for the first half of the dry season (November – mid February).

However, in mid-February, the water levels in both the Mekong and Tonle Sap rivers started to rise and since March 2011 were similar to the 30 year average (Figure 2). At the end of June 2011, river water levels in both the Mekong and Tonle Sap rivers were significantly above levels in 2010, as the exceptionally low water levels in the first 2010 were caused by the slow onset of rains in the wet season.

Figure 2: Water levels in selected stations in Mekong and Tonle Sap rivers



Source: Mekong River Commission

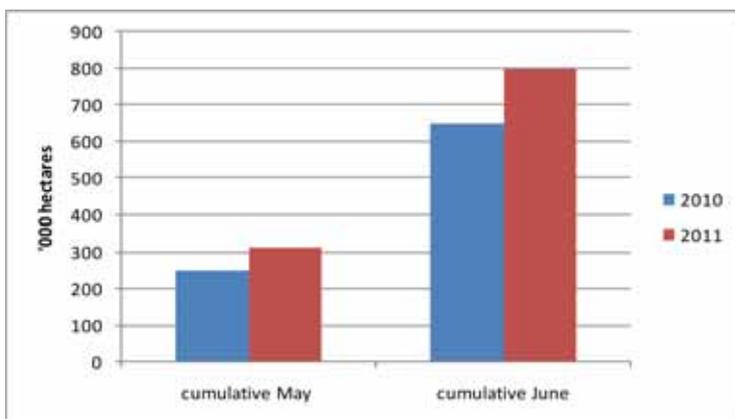
FOOD AVAILABILITY

Rice cultivation

In 2010, the slow onset of rains at the beginning of the wet season, resulted in a delay in rice-planting by farmers. In 2011, earlier rains has meant that rice farmers could start planting earlier.

By the end of June 2011, the total planted area for all types of rice was 799,399 hectares, 23% higher than the total planted area by the end of June 2010 (Figure 3).

Figure 3: Rice planted area, cumulative by month



Source: Ministry of Agriculture, Forestry and Fisheries

Table 2 below compares the rice planted area in key rice-cultivating provinces at the end of June in 2011 and 2010. The last column presents the proportion of the total planned wet season rice cultivation that has already been achieved at the end of June.

Compared to last year, the rice planted area in Banteay Meanchey and Battambang at the end of June slightly increased by 2.9% and 5.1%, respectively. The rice planted area in Takeo and Prey Veng at the end of June increased significantly compared to last year, as rainfall levels in May and June were exceptionally high this year.

Table 2: Rice planted area, by province

	through Jun-10 (ha)	through Jun-11 (ha)	2010-11 annual change (%)	achieved /planned (%)
Banteay Meanchey	175,851	180,949	2.9%	82.2%
Battambang	154,268	162,160	5.1%	64.9%
Prey Veng	57,698	82,024	42.2%	32.8%
Siem Reap	62,820	75,945	20.9%	42.4%
Kampong Thom	55,538	60,713	9.3%	31.1%
Takeo	15,640	45,263	189.4%	26.6%
Kampong Cham	29,103	39,817	36.8%	24.1%
others	98,960	152,528	54.1%	16.9%
total	649,878	799,399	23.0%	34.3%

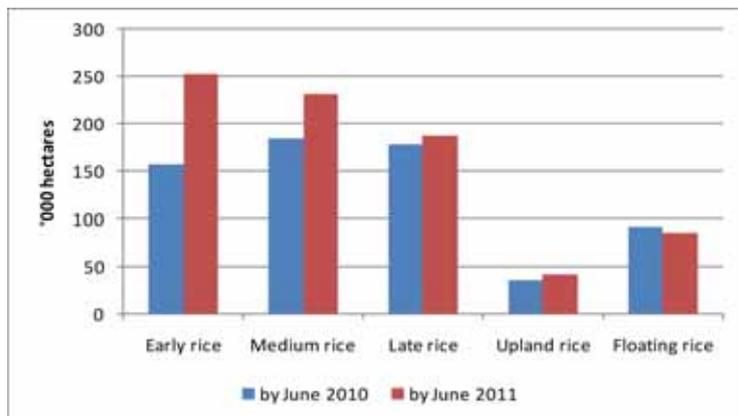
Source: Ministry of Agriculture, Forestry and Fisheries

In the current wet season, early rice was the most widely planted of the three types of rainfed lowland rice (early, medium and late) as of June. This is in contrast to 2010, when medium rice and late rice were more widely planted than early rice by June.

Planted area of early rice was 252,917 hectares in June 2011, 60.3% higher than in June 2010 (Figure 4). This accounted for 63.6% of the total increase of planted area of all types of rice in June compared to last year.

This substantial increase in the planting of early rice can be attributed to the government's promotion of ten varieties of rice in 2011. The increase in early rice production could be favourable for the yield and production of rice in the current wet season, as early rice can be easily double-cropped.

Figure 4: Rice planted area, by type

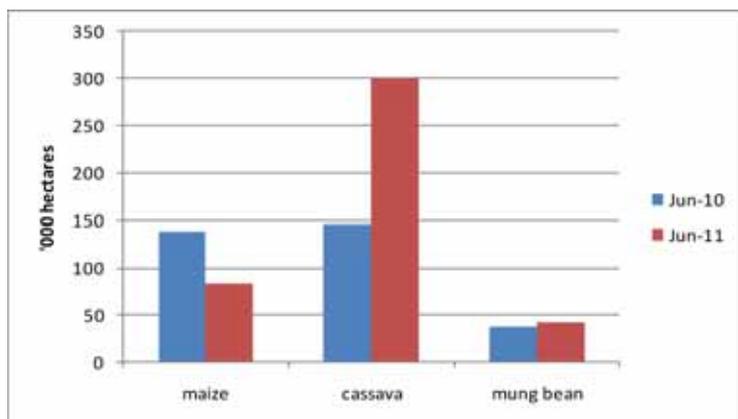


Source: Ministry of Agriculture, Forestry and Fisheries

Subsidiary and industrial crop cultivation

Figure 5 compares the planted area of three key subsidiary and industrial crops in June 2011 with June 2010. While the cultivation of mung beans by June 2011 slightly increased compared to June 2010, the cultivation of maize and cassava saw drastic changes. Maize cultivation decreased by 40.1% compared to last year, while cassava cultivation more than doubled (106% increase).

Figure 5: Planted area of key subsidiary and industrial crops



Source: Ministry of Agriculture, Forestry and Fisheries

The price of cassava has risen rapidly, driven by increased demand in international markets, chiefly Thailand and Vietnam. After the end of the 2010-11 cassava harvest in February², cassava prices were 50-100% higher than they were after the 2009-10 harvest³.

Cambodia's cassava exports increased by 74% in the first five months of 2011, according to the Ministry of Commerce's Camcontrol division. Exports between January and May exceeded 212,000 tonnes

² Cassava is planted in March or April and harvested from December to February in Cambodia.

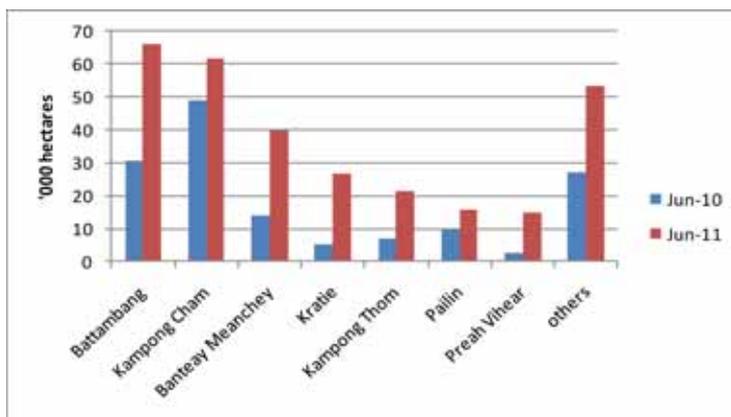
³ Cassava price increases are estimated from price quotes from Malay district market in Banteay Meanchey (Agricultural Marketing Office, MAFF).

from the 121,500 tonnes shipped during the corresponding period of 2010. Revenue from cassava exports reached US\$10.3 million, up from US\$4.4 million in the first five months of 2010.

As cassava is easier to grow than other crops, this increase in cassava prices has pushed farmers to increase cassava cultivation this year. The decrease in the cultivation of maize can be explained as a substitution away from maize to cassava.

This is clearly observed in Battambang, the province with the highest cultivation of both cassava and maize so far this year. Cumulative maize cultivation in Battambang in June 2011 decreased by 36,586 hectares compared to last year, while cassava cultivation increased by 35,445 hectares (Figure 6).

Figure 6: Planted area of cassava, by province



Source: Ministry of Agriculture, Forestry and Fisheries

The increased cultivation of rice and industrial crops compared to last year could result in increased demand for agricultural labour activities. Higher agricultural labour demand in rural areas and a likely increase in agricultural wage rates will have a positive effect on the food purchasing power of vulnerable households who depend on unskilled wages, but only if the increase in wage rates outpaces the increase in food prices.

FOOD PRICES⁴

International food and rice prices

The FAO Food Price Index⁵, measuring the international price level of a basket of key food commodities, averaged 232 points in May 2011, decreasing by 1% month-on-month but 37% higher than May 2010 (Figure 7). The slight decline in the index was caused by declines in international prices of cereals and sugar, which outweighed the increase in meat and dairy prices. Oil prices were stable.

International rice prices were stable in May 2011 as the FAO All Rice Price Index⁶ averaged 245 points, seeing no change from April 2011. However, the index was 22.5% higher than in May 2010. Although global rice prices are not nearly as high as its recent peak during the food price crisis of 2007/8, in May 2011 they were still significantly higher than pre-crisis levels – 64% higher than January 2007 even after adjusting for inflation⁷.

⁴ The daily wage of unskilled labour could be used to calculate the terms of trade for unskilled labour and rice, a proxy for the food purchasing power of households. However, regular data collection and reporting of unskilled wages are not available.

⁵ The FAO Food Price Index consists of the average of commodity group price indices (i.e. meat, dairy, cereals, oils/fats, and sugar) weighted with the average export shares of each of the groups for 2002-2004.

⁶ Based on 16 rice export quotations.

⁷ The Rice Price Index has been deflated using the World Bank Manufacturers Unit Value index (MUV) rebased from 1990=100 to 2002-04=100.

Figure 7: FAO Food and Rice Price Indices (100 = 2002-04)



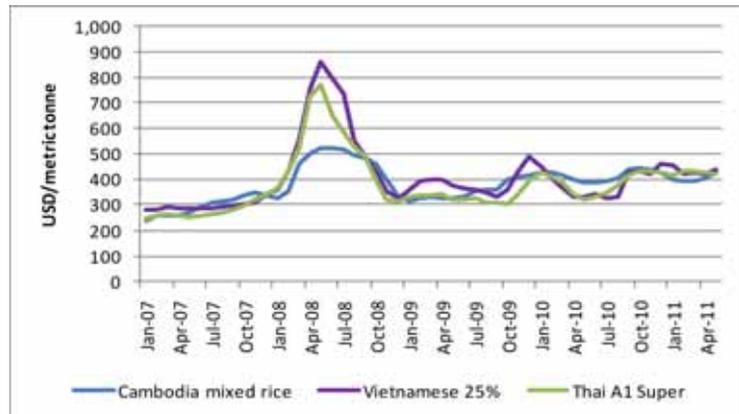
Source: FAO, <http://www.fao.org/worldfoodsituation/FoodPricesIndex/en/>

Regional rice prices

In May 2011, the f.o.b. prices⁸ of Thai A1 Super white rice (100% broken) and Vietnamese white rice (25% broken), two benchmark prices for Asia, were 419 USD/mt and 438 USD/mt, respectively.

The Thai A1 Super white rice price decreased by 1% month-on-month, but increased by 30.9% year-on-year. The Vietnamese 25% white rice price increased by 4% month-on-month and increased by 31.9% year-on-year (Figure 8). Prices are significantly higher than in 2010 as the dip in prices stemming from sluggish international demand in mid-2010 was not seen in 2011.

Figure 8: Export price of Thai and Vietnamese white rice



Source: FAO, <http://www.fao.org/es/esc/prices/PricesServlet.jsp?lang=en>

Local Consumer Price Index and Food Price Index

The general Consumer Price Index⁹ (CPI) measures the cost of a consumption basket composed of 259 items. Each item is weighted based on their importance in an average household's expenditure¹⁰. In May 2011¹¹, the general CPI increased by 1.5% month-on-month. The inflation rate, as measured by the year-on-year increase in the consumer price index, was 6.5%¹² in May (Figure 9).

The Food Price Index (FPI) measures the cost of the food items in the general CPI's consumption basket. Food items make up 50.4% of the

8 Free on board (f.o.b.) price includes all charges up to the placing of goods on board a ship at the port of departure specified by the buyer.

9 The CPI is collected and reported by the National Institute of Statistics (NIS).

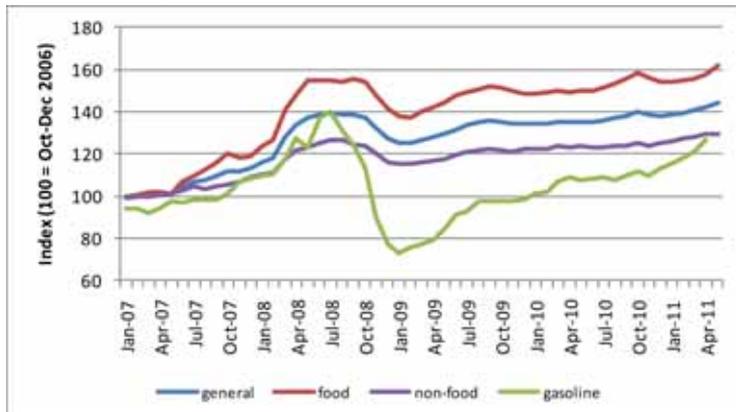
10 Relative item expenditure weights are derived from the 2004 Cambodia Socio-Economic Survey and adjusted to October-December 2006 price levels.

11 CPI data for June 2011 was not available at the time of publication.

12 The International Monetary Fund (IMF) forecasted that the inflation rate in Cambodia in 2011 would average 6.5% (World Economic Outlook 2011, IMF). The UN-ESCAP forecast at 6%, the World Bank at 5%, ADB at 5.5%, and the government of Cambodia at below 5 percent.

total consumption basket. The food price inflation, at 8.3% year-on-year and 2.8% month-on-month, was driving overall inflation. Non-food inflation was 4.7% year-on-year and 0.2% month-on-month.

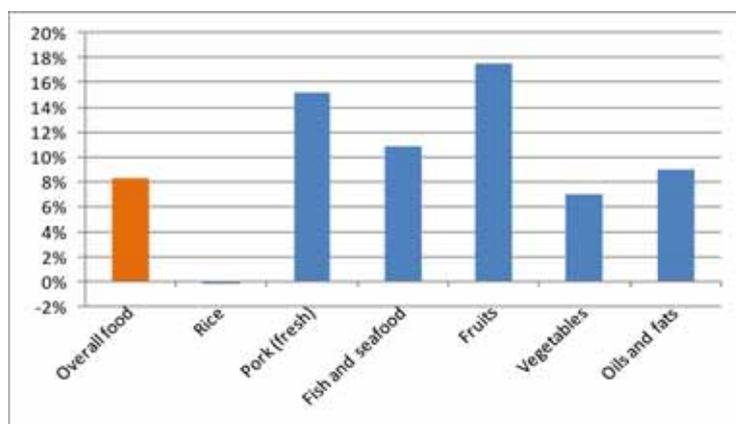
Figure 9: Relative change in general consumer prices, food prices and non-food prices (base = Oct-Dec 2006)



Source: National Institute of Statistics

The high year-on-year food price inflation is caused by increasing prices of fresh pork, fish/seafood and fruits over the past year (Figure 10). The Consumer Price Index report of the National Institute of Statistics reported that in May 2011 fruit prices increased by 17.6% year-on-year. Pork and fish/seafood prices increased by 15.2% and 10.9%, respectively, on an annual basis.

Figure 10: Year-on-year change (%) in food prices and key food commodity prices (from May 2010 to May 2011)



Source: National Institute of Statistics

Both the annual overall inflation rate and food inflation rate were at their highest levels since February 2010. Several underlying factors are contributing to rising price levels in Cambodia.

One is the rapid increase in the price of gasoline and diesel. Both gasoline and diesel prices have increased for the fifth consecutive month and have increased by 16.2% and 24.9% year-on-year, respectively, closely tracking international oil price trends (Figure 9). Higher gasoline and diesel prices increase transportation costs and are directly transmitted to wholesale and retail prices.

High inflation rates in Vietnam could be contributing to increasing prices in Cambodia, due to higher prices of imported Vietnamese goods. The General Statistics Office of Vietnam reported that Vietnam's inflation rate topped 20% in June 2011, the highest since November 2008. During the first five months of 2011, Vietnam exported US\$891 million to Cambodia, a 139% increase compared to the first five months of 2010, according to the Vietnam Trade Office in Cambodia.

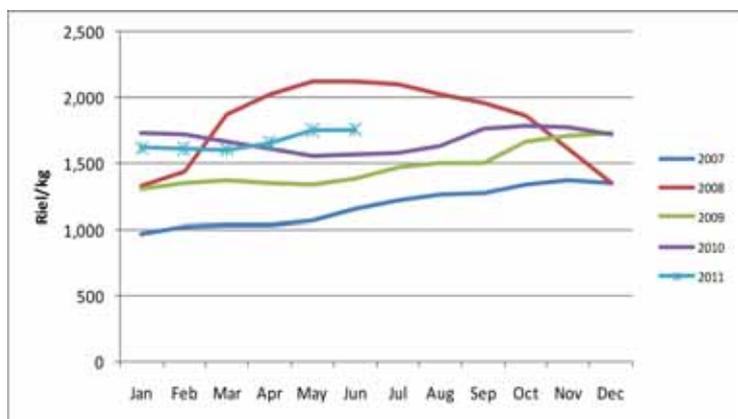
Finally, the depreciating dollar is a factor in higher price levels in a highly dollarized economy like Cambodia as a weaker dollar could mean a loss of purchasing power and higher imported inflation from neighboring countries whose currencies have strengthened against the dollar.

Local wholesale rice prices¹³

Price reports from the Agricultural Marketing Office of the Ministry of Agriculture, Forestry and Fisheries show that in June 2011 the average wholesale price of mixed rice¹⁴ in Cambodia increased by 0.3% month-on-month, slowing down from a 3.2% and 5.8% month-on-month increase in April and May, respectively (Figure 11).

From the end of the previous quarter to the end of the current quarter – from March to June 2011 – the wholesale price of rice increased by 9.6% in Cambodia. During the corresponding period in 2010, wholesale rice prices decreased by 6.3%.

Figure 11: Wholesale price of mixed rice¹⁵



Source: Cambodia Agricultural Market Information Service, MAFF

Prices in June 2011 were 12.5% above prices in June 2010, although prices in January to March 2011 were below prices in January to March 2010. Immediately after the end of the main wet season rice harvest in January 2011, the successful rice harvest pushed rice prices below the previous year’s level, as the 2010-11 wet season rice harvest was 9.4% higher than the previous year, according to the Ministry of Agriculture, Forestry and Fisheries.

However, in 2011, rice prices started to increase 2 to 3 months earlier than in 2010. Several factors could be contributing to this trend. From the supply side, the rapid increase in gasoline and diesel prices have most likely put upward pressure on prices as transportation costs are higher (as mentioned in previous section; Figure 9).

From the demand side, it is likely that stronger international demand for Thai and Vietnamese rice in the current quarter compared to the corresponding period in 2010 has put upward pressure on the price of Cambodian rice due to a higher demand of Cambodia paddy rice from Thailand and Vietnam.

Since the food price crisis in 2008, wholesale rice prices seem to have stabilized. Although nominal and real rice prices are much lower than the 2008 peak, prices are still significantly higher than pre-crisis levels. Rice price levels in the current quarter are around 30% higher than the corresponding quarter in 2007, even after adjusting for

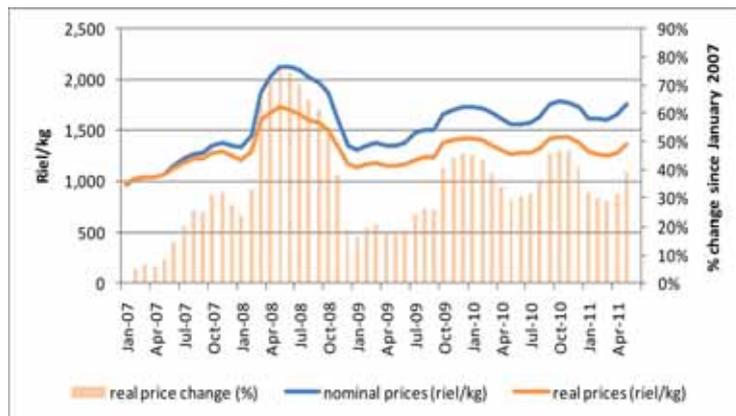
13 Data analysis on food expenditure data of CSES 2009 is expected to be available by the next issue of this bulletin.

14 Mixed rice is considered a low quality rice.

15 Wholesale rice prices are calculated with price quotes from urban markets or rice mills in the following provinces: Kampong Chhnang, Kampong Cham, Takeo, Siem Reap, Prey Veng, Phnom Penh, Kampot, Battambang, Banteay Meanchey.

non-food inflation (Figure 12). This trend is in line with international and regional rice price trends, though to a lesser degree.

Figure 12: Nominal and real wholesale price of mixed rice and change of real price since January 2007



Source: Cambodia Agricultural Market Information Service, MAFF; NIS

HEALTH AND NUTRITION¹⁶

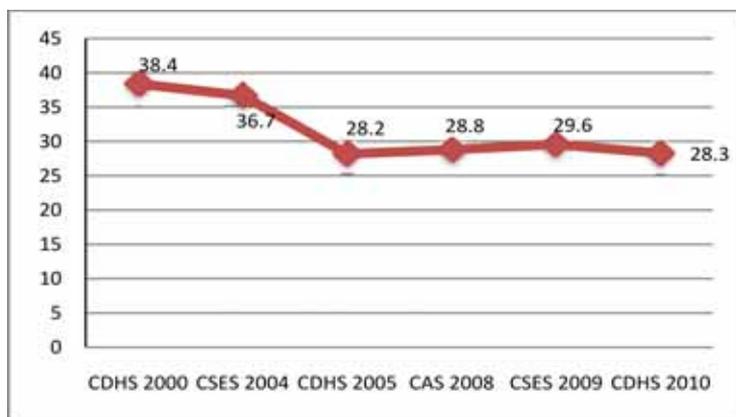
Nutritional status of children - Anthropometric indicators

Sustained high food prices could lead to reduced dietary diversity and higher malnutrition, especially for the vulnerable population who spend a higher proportion of their income on food.

Preliminary results from the 2010 Cambodia Demographic and Health Survey (CDHS) provide the most up-to-date information on the nutritional status of children under 5 years of age. The CDHS is the third national survey carried out since the 2008 food price crisis and the information provided from multiple sources gives a very reliable picture of the situation.

Underweight (weight-for-age) is a composite indicator that includes children experiencing malnutrition in the form of stunted growth (short) and wasting (thin). Underweight is the easiest indicator to measure and thus the best indicator to use for trend analysis. There is now sufficient evidence that improvement in the nutritional status of children has halted, as seen by the flat slope in Figure 13. In 2010 28.3% of Cambodian children are underweight; this is 11 times higher than the percentage expected in a healthy population.

Figure 13: Percentage of under-5 children underweight from 2000-2010 in Cambodia

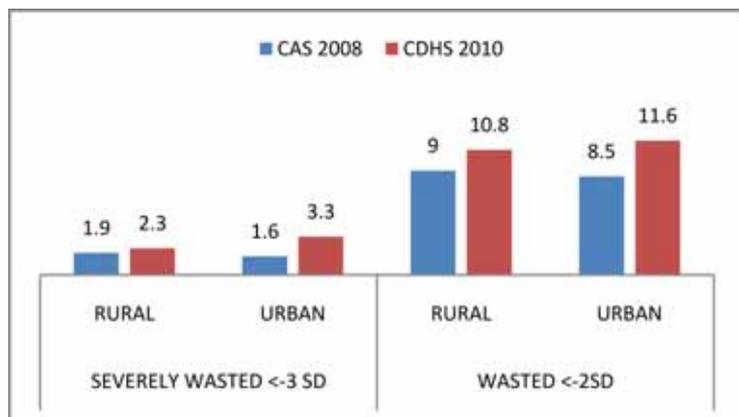


Source: National Institute of Statistics

16 The Health Information System (HIS) of the Ministry of Health (MoH) does not collect regular nutrition data. Acute watery diarrhea data is available from Communicable Disease Control Department of MoH but was not received for this bulletin.

Wasting (weight-for-height) measures the current status of nutrition; it is the indicator most responsive to short-term change and is used to identify children that need medical treatment for malnutrition. Since 2005 the percentage of wasted children has increased from 8.4% to 10.9%. The Integrated Food Security Phase Classification describes 10%-15% wasting¹⁷ as an Acute Food and Livelihood Crisis. It is estimated that the annual incidence of severe wasting is 68,653 cases¹⁸. Currently, 2% of these cases are receiving treatment. 2010 is the first year that urban areas appear to be more affected by wasting than rural areas (Figure 14).

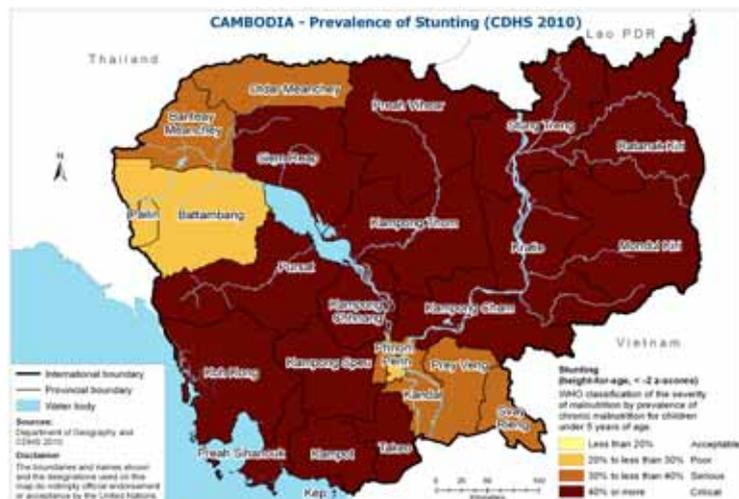
Figure 14: Percentage of under-5 children wasted by residence from 2008-2010



Source: National Institute of Statistics

Stunting (height-for-age) is a measurement that is most sensitive to sustained, or chronic, nutritional deprivation. CDHS 2010 shows that this indicator is no longer improving; the level of stunting is stagnant at 40%. The percentage of stunted children is 16 times higher than the level expected in a healthy population. Stunting is common throughout the country (Map 2).

Map 2: Prevalence of stunting in Cambodia (CDHS 2010)



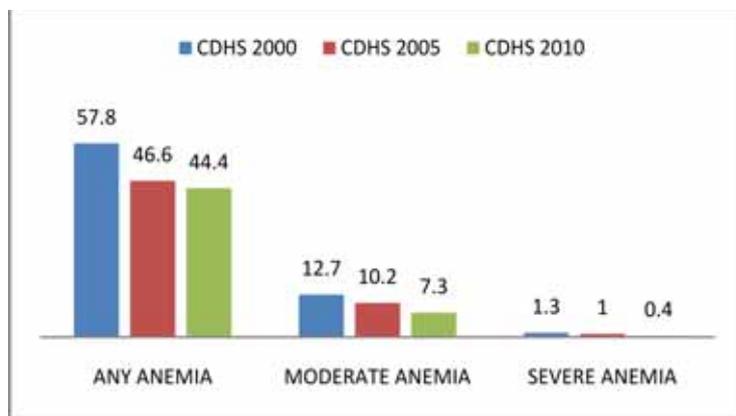
Nutritional status of women – Micronutrient deficiency

Not all malnutrition is visible. Deficiencies in vitamins and minerals can lead to impaired growth, increased morbidity and mortality, and lower productivity. In 2010 44.4% of women were classified as anemic (Figure 15). Anemia puts a woman at higher risk for mortality during childbirth and it is estimated that one-third of anemia in

Cambodia is caused by iron deficiency. Iron deficiency is typically related to inadequate intake of high-value food items such as meat.

From 2000 to 2010 there has been a reduction of anemia among women age 15-49. However, this progress appears to be slowing down. There appears to be a shift away from severe deficiency which is likely caused by increased consumption of meat.

Figure 15: Percentage of Cambodian women age 15-49 with anemia from 2000-2010



Source: National Institute of Statistics

17 Additional indicators are required to definitively classify; a full description is available at <http://www.ipcinfo.org/>

18 Incidence = total population (13,395,682) * % of children under 5 (.1025) * prevalence of SAM (.025) * annual incidence multiplying factor (2.0)