



# Crop Monitoring and Forecasting Bulletin

Food Insecurity and Vulnerability Information and Mapping System

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Figure 1: Sunshine recorder

## Highlights

- Cambodia experiences less rainfall in December 2007 than previous month and weather continues to be dry and cold.
- Maximum temperatures in 2007 were lower in all provinces, compared with long term average.
- Overall rainfall in 2007 is higher than long term average (1990-2006), but lower than in 2006.
- Using the Crop Yield Forecasting Model, the average yield in December 2007 is estimated to be 2.3tons/ha. This represents an increase of about 0.3 tons/ha, compared with last year. The highest rice yields, between 2.6 and 3.6 tons/ha, were recorded in Kampong Cham, Kandal, Kratie, Phnom Penh, Prey Veng, Stueng Treng, Takeo and Pailin. The lowest yields, between 1.6 and 1.8 tons/ha, were recorded in Monduliri, Rotanakiri, Otdar Mean Chey, Siem Reap and Kep. In Other provinces, the yields ranged between 2.0 and 2.4 tons/h.

## Introduction

This bulletin aims at informing decision-makers, analysts and technicians of the crop situation during the agricultural campaign. Plans are to publish it every month from September 2007 until January 2008. This is the fourth issue. The bulletin is produced through collaboration between the Ministry of Agriculture, Forestry and Fisheries (MAFF) and the Ministry of Water Resource and Meteorology (MoWRAM). It includes information on climatic conditions and a forecast of rice yield and production, using crop condition monitoring and forecasting techniques (see: [http://www.foodsec.org/tr/cm/CM\\_Box\\_4.pdf](http://www.foodsec.org/tr/cm/CM_Box_4.pdf) for more information). The bulletin is prepared by the

national FIVIMS<sup>1</sup> Secretariat with support from the EC-FAO Food Security “Information for Action” Programme (<http://www.foodsec.org/>), in collaboration with the FAO Asia FIVIMS Project. The EC/FAO Programme is funded by the European Commission (EC) and implemented by the Food and Agriculture Organization of the United Nations (FAO).

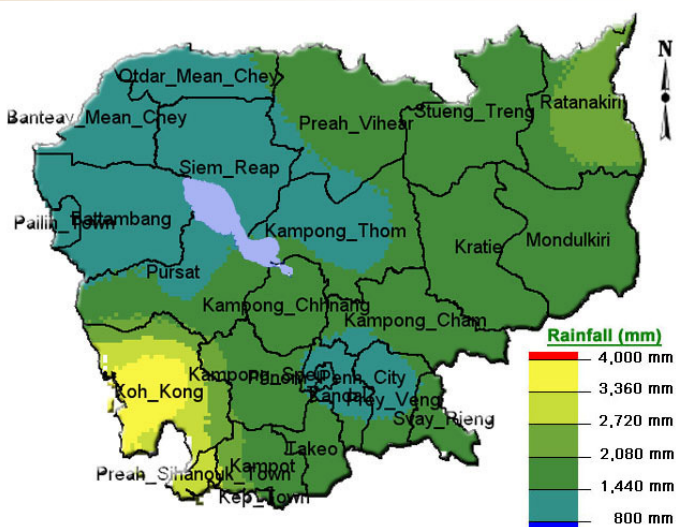
## Weather Summary December 2007

During December 2007, the weather continued to be dry and cold. No significant rainfall was recorded in the country, except in the provinces of Koh Kong, Kampot, Shihanouk Ville, Prey Veng, Svay Reing and Takeo.

In December, the warmest temperature 32.7°C and lowest temperature 19.4 °C were observed in Ratanakiri. Daily average relative humidity value ranged from 60% to 75%. During this month the wind blew mainly from North (N) and Northeast (NE).

## Rainfall Situation in 2007

The map shows the distribution of rainfall in 2007 across the country in 23 stations. In 2007, the highest rainfalls ranged from 2,720 mm to 4,000 mm in Koh Kong, followed by Shihanouk Ville. The lowest rainfalls 800 mm –1,440 mm were recorded in the provinces of Kandal, Siemreap, Banteay Meanchey, Kampong Thom, Battambang, Pochengtong, Prey Veng and Pailin. Other provinces reported rainfall between 1,440mm and 2,720mm.



**Figure 2: Distribution of rainfall in 2007**

## Rainfall analysis for year 2007

Table 1 shows rainfall recorded from 20 stations. The variations between 2007 and 2006 range from -33% in Kompong Thom to +53% in Kompong Spue. The variations between 2007 and long term average are between -24% in Siemreap to +65% in Basac.

<sup>1</sup> FIVIMS stands for Food Insecurity and Vulnerability Information and Mapping Systems. For more information, see <http://www.foodsecurity.gov.kh/FIVIMS/index.htm>

Table 1: Rainfall analysis for year 2007

| Station         | 2007   | 2007 Vs 2006 |           | 2007 Vs Long term Average (1990-2006) |           |
|-----------------|--------|--------------|-----------|---------------------------------------|-----------|
|                 |        | 2006         | Variation | Long Term                             | Variation |
| Battambang      | 1321.8 | 1228.1       | 8%        | 1255.3                                | 5%        |
| Basac           | 2097.3 | 1438.1       | 46%       | 1274.5                                | 65%       |
| Bantey Meanchey | 1272.6 | 1233.4       | 3%        | 1146.1                                | 11%       |
| Kompong Cham    | 1575.5 | 1591.1       | -1%       | 1504.8                                | 5%        |
| Kompong Chhnang | 1793.0 | 1459.0       | 23%       | 1524.5                                | 18%       |
| Kompong Thom    | 1302.7 | 1952.5       | -33%      | 1495.2                                | -13%      |
| Kompong Spue    | 1642.0 | 1074.9       | 53%       | 1152.4                                | 42%       |
| KohKong         | 3859.8 | 4868.1       | -21%      | 3341.1                                | 16%       |
| Kompot          | 1878.8 | 2453.7       | -23%      | 1962.1                                | -4%       |
| Kandal          | 1096.7 | 953.1        | 15%       | 1216.9                                | -10%      |
| Kratie          | 1840.3 | 1717.8       | 7%        | 1701.8                                | 8%        |
| Preyveng        | 1374.7 | 1187.7       | 16%       | 1255.4                                | 10%       |
| Pochentong      | 1375.0 | 1028.6       | 34%       | 1364.8                                | 1%        |
| Pursat          | 1373.2 | 1390.7       | -1%       | 1368.5                                | 0.3%      |
| Ratanakiri      | 2234.4 | 2793.8       | -20%      | 2189.1                                | 2%        |
| Stung Treng     | 1546.3 | 1537.3       | 1%        | 1853.4                                | -17%      |
| Svay Reing      | 1694.6 | 1615.7       | 5%        | 1698.4                                | -0.2%     |
| Siemreap        | 1106.1 | 1515.5       | -27%      | 1456.8                                | -24%      |
| Shihanouk Ville | 3252.3 | 4056.4       | -20%      | 3075.4                                | 6%        |
| Takeo           | 1501.1 | 1128.3       | 33%       | 1259.3                                | 19%       |

### Temperature in 2007

Regarding the temperature, the highest temperature in 2007 (35.0 °C) was observed in April, while the lowest temperature (21.2° C) was observed in January.

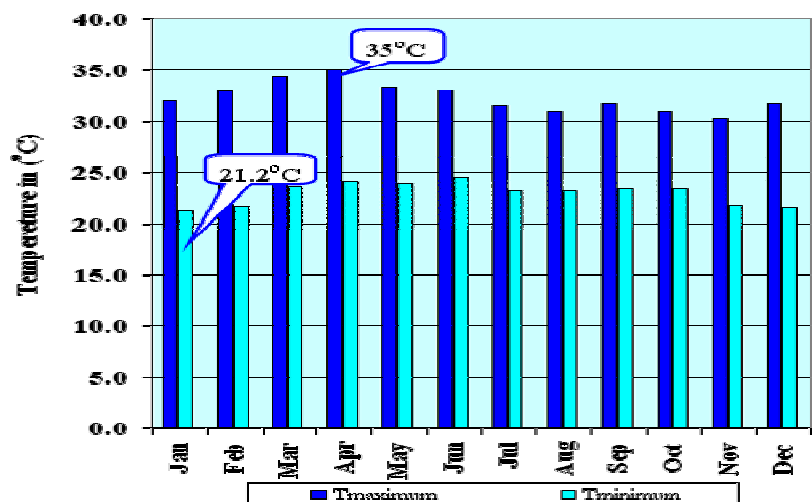


Figure 3: Monthly temperature 2007

## Temperature analysis for year 2007

Table 2 shows the comparison between the temperatures in 2007, 2006 and long term average (1990-2006) from 12 stations. Comparing year 2007 with 2006, the maximum temperatures reached during year 2007 were lower than during 2006. Only province, Koh Kong is warmer, and Sihanouk Ville remains the same (31.0 °C).

Compared with long term average, maximum temperatures in 2007 were lower in all provinces. Comparing year 2007 with 2006, minimum temperatures in 2007 were lower than in 2006, except in Kratie, Prey Veng, Ratanakiri and Sihanouk Ville, while in Kompot the minimum temperatures were the same in 2007 and 2006.

Compared with long term average, minimum temperature in 2007 were lower in all provinces, except Kompot, Kratie, Pochentong and Sihanouk.

**Table 2: Temperature analysis for year 2007**

| Stations       | Temperature | 2007 | 2007 Vs 2006 |        | 2007 Vs Long Term average(1990-2006) |        |
|----------------|-------------|------|--------------|--------|--------------------------------------|--------|
|                |             |      | 2006         | Depart | Long Term                            | Depart |
| Kompong Cham   | Max         | 30.5 | 32.5         | -2.0   | 32.6                                 | -2.1   |
|                | Min         | 23.2 | 24.5         | -1.3   | 24.3                                 | -1.1   |
| Kompong Thom   | Max         | 31.1 | 32.7         | -1.6   | 32.0                                 | -0.9   |
|                | Min         | 21.0 | 21.5         | -0.5   | 22.9                                 | -1.9   |
| Koh Kong       | Max         | 31.7 | 31.6         | 0.1    | 31.7                                 | -0.0   |
|                | Min         | 24.1 | 24.4         | -0.3   | 24.5                                 | -0.4   |
| Kompot         | Max         | 31.1 | 31.7         | -0.6   | 31.5                                 | -0.4   |
|                | Min         | 24.1 | 24.1         | 0.0    | 23.7                                 | 0.4    |
| Kratie         | Max         | 32.2 | 33.1         | -0.9   | 32.8                                 | -0.6   |
|                | Min         | 23.7 | 23.3         | 0.4    | 23.0                                 | 0.7    |
| Pochentong     | Max         | 31.3 | 33.5         | -2.2   | 32.8                                 | -1.5   |
|                | Min         | 24.7 | 24.8         | -0.1   | 24.0                                 | 0.7    |
| Prey Veng      | Max         | 31.3 | 32.9         | -1.6   | 32.8                                 | -1.5   |
|                | Min         | 23.1 | 22.9         | 0.2    | 23.7                                 | -0.6   |
| Pursat         | Max         | 31.3 | 33.2         | -1.9   | 32.8                                 | -1.5   |
|                | Min         | 23.6 | 23.7         | -0.1   | 23.7                                 | -0.1   |
| Ratanakiri     | Max         | 31.6 | 34.7         | -3.1   | 34.0                                 | -2.4   |
|                | Min         | 21.7 | 21.5         | 0.2    | 22.1                                 | -0.4   |
| Siem Reap      | Max         | 31.5 | 32.7         | -1.2   | 32.8                                 | -1.3   |
|                | Min         | 23.4 | 23.5         | -0.1   | 23.5                                 | -0.1   |
| Sihanouk Ville | Max         | 31.0 | 31.0         | 0.0    | 31.1                                 | -0.1   |
|                | Min         | 24.5 | 24.3         | 0.2    | 24.0                                 | 0.5    |
| Svay Reing     | Max         | 31.5 | 32.5         | -1.0   | 32.5                                 | -1.0   |
|                | Min         | 22.6 | 23.0         | -0.4   | 23.7                                 | -1.1   |

