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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 Mondulkiri, 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 for more information). The bulletin is prepared by the

national FIVIMS¹ 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, Bantey Meanchey, Kampong Thom, Battambang, Pochengtong, Prey Veng and Pailin. Other provinces reported rainfall between 1,440mm and 2,720mm.

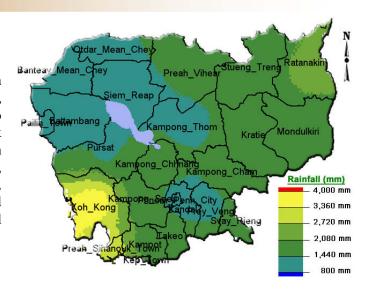


Figure 2: Distribution of rainfall in 2007

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.

¹ 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 V	's 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.

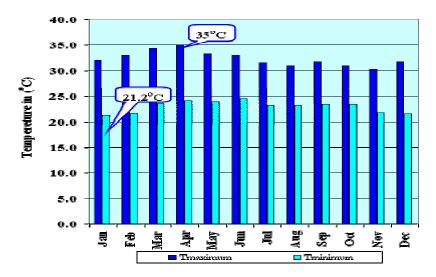


Figure 3: Monthly temperature 2007

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 Kampot 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

⁻ Financial supported by EC/FAO Food Security Information for Action Phase II





⁻ Technical supported by Food Agriculture Organization (FAO)

Crop Condition in December 2007

In December 2007, the harvesting of early rice, upland rice and medium rice ended in the whole country and the harvesting of late rice started. About 84% of the total cultivated areas, i.e. 2,241,020 ha, have already been harvested. The average yield is estimated to be 2.3 tons/ha. This represents an increase of about 0.3 tons/ha compared with last year (2,0 tons/ha in December 2006), because this year, the average yield of medium and late rice are higher. At the end of December, some provinces such as Kandal Koh Kong, Kratie, Mondulkiri, Otdar Meanchey, Krong Kep and Pailin finished harvesting rice.

The following estimates are obtained by applying the Rice Yield Forecasting Model. The map shows the yield estimated across the country in 24 provinces. In December 2007, the highest rice yields, between 2.8 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 Mondulkiri, Rotanakiri, Otdar Mean Chev. Siem Reap and Kep. In other provinces, the yield ranged between 2.0 tons/h and 2.4 (Preah Sihanouk, Preah Vihear, Koh Kong, Kampong Speu, Pursat, Kampong Thom, Battambang, Kampong Chhnang, Banteay Mean Chey and Svay Rieng).

The estimated average rice yield may still change from now until the end of January 2008, when harvesting will be completed.

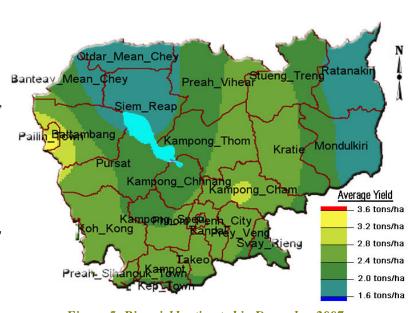


Figure 5: Rice yield estimated in December 2007

Glossary

Dekad: Ten day period

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