



WFP Bangladesh Report on

**EARLY WARNING and
MONITORING**

Issue 9

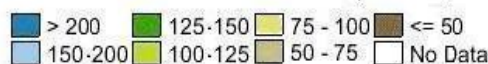
7 September 2006

HIGHLIGHTS

- § Rainfall was significantly below average for most of the country during the period 21st August thru 31st August. Cumulative rain for the 2006 Monsoon continues to be significantly below average, giving cause for concern.
- § Many rivers across the country are flowing at low levels; more than 2 meters below their respective danger levels.
- § There is growing apprehension about the drought like conditions; and their potential impact on the Nov/ Dec Aman harvest. Additional information and analysis is required.
- § Water-logging in the low-lying Southwest districts of Jessore, Satkhira and Khulna remains a problem, affecting approximately 100,000 house holds. Although relief interventions have increased in the recent period, there is a general consensus that more assistance is needed.



Dekadal Percent of Normal Rainfall (21-31 Aug 2006)



**RAINFALL CONTINUES TO RUN
BELOW AVERAGE**

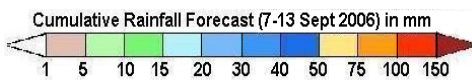
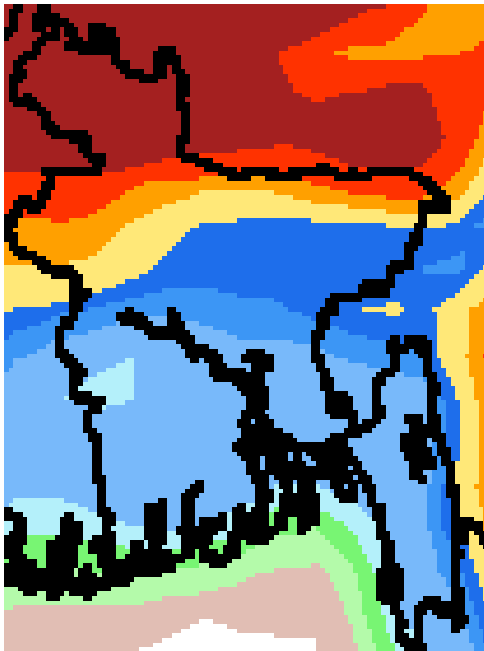
Rainfall during the 21st-31st August was much below average for most of the country, particularly in the Northwest and Southeast of the country. Rainfall during the month of August was -50% below the long term average in the Northwest Rajshahi division and -44% below average in the Southeast Chittagong division, according to the Bangladesh Meteorological Department (BMD).

The overall rainfall shortage in Bangladesh during the month of August was -32%; a continuation of a longer seasonal trend. The unusually low rainfall since the beginning of 2006 Monsoon (1 June thru 31 August) as reported by BMD is -24% below long-term average. This dry drought like situation during the period of Aman rice cultivation warrants close monitoring.

Map Source:

<http://www.pecad.fas.usda.gov/cropexplorer/imageview.cfm?regionid=sasia>

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RAINFALL FORECAST

The cumulative rainfall forecast for the period 7th thru 13th September as depicted on the map on the left, is predicted to range between 20 -50 mms for much of the country. The extreme Northwest of the country is forecast to receive considerably more rain (75mms. to over 150 mms.) Such rain should be beneficial, as the Northwest region has been one of the most rainfall deficit regions during the recent period (see previous Early Warning and Monitoring Report; 18th August 2006; p.1).

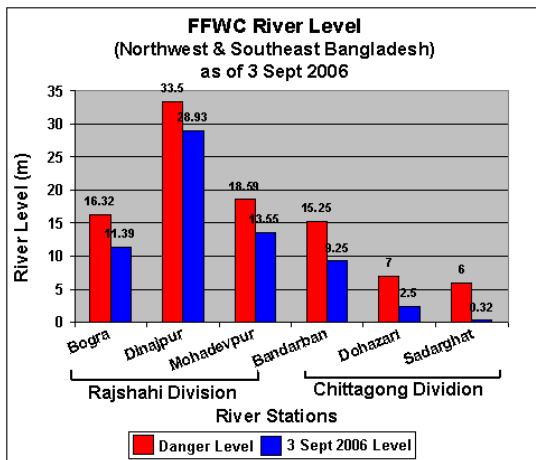
Limited portions of the Northeast near the border w/ India (northernmost parts of Sylhet, Sunamganj, and Netrokona) are also forecast to receive between 75 -150 mms. .

The Bangladesh Meteorological Departments (BMD) forecast for the period 1st to 10th September indicates that rainfall activity is likely to increase during the period 6th – 10th September. The BMD forecast is generally consistent with the forecasts of the US based Climate Prediction Center.

Map Source: <http://www.cpc.ncep.noaa.gov>

MONITORING RIVER WATER LEVELS

Many rivers across the country are flowing at low levels. As of the 3rd September, of the 82 FFWC monitoring stations for which data is available, 46 stations (56%) were flowing at 2 or more meters below their respective danger levels.



Flood Forecasting Warning Center (FFWC) officials have noted their strong concern, emphasizing that this years river levels are well below historical norms. Although the phenomenon is not limited to any particular region in the country; the regions of Rajshahi and Chittagong are of particular concern, where river levels are very low. The graphs on the left highlight 3 stations in Rajshahi (Bogra, Dinajpur, and Mohadevpur - Naogoan district) and 3 stations in Chittagong (Bandarban, Dohazari, and Sadarghat) where river levels are 4.5 to 6.3 meters below their respective danger levels.

The low water levels are a result of both deficit rainfall in Bangladesh, as well as deficit rainfall within the upstream basin (border areas in India). The table on the left highlights deficit/surplus rainfall for four bordering Indian subdivisions or basins; for the 2006 Monsoon; covering the period 1st June thru 30th August. As can be seen in the table; 3 of the four subdivisions have received significantly below average rainfall, ranging from -21% to -40%, for the season. Only Gangetic West Bengal; has received above average seasonal rainfall (+14%). Rainfall in this area has undoubtedly contributed to the waterlogging problem that South West Bangladesh currently suffers from.

2006 Cumulative Rainfall Percent Departure from Normal	
Indian Subdivision(s) or Basins	1 st June thru 30 th August
West Bengal (Gangetic Plain)	+13%
West Bengal (Shillong Heights)	-21%
Assam and Meghalaya	-40%
NMMT (Nagaland, Monipur, Mizoram, Tripura)	-26%

UNCERTAINTY OVER THE AMAN HARVEST

Bangladesh has three rice crops/seasons within a year; the Boro crop, the Aman crop, and the Aus crop; accounting for approximately 50%, 43%, and 7% of total annual rice production respectively. Monsoon rains are most important for the Aman crop, harvested in November/December.

Most Aman is transplanted between mid July to mid August; however planting can occur as late as the last week of September (source: FAO).

Due to the shortage of rain during July -August, agricultural officials are concerned that this year's Aman harvest could fall short of targets and plans. While rainfall deficits and low river levels have affected many areas of the country; concern is particularly high in Northwest Bangladesh. For example, in Bogra district Department of Agriculture Extension officials have speculated that Aman production losses could vary between 15 - 50% depending on locality and late season rains.

Farmers' have also faced problems with accessing key agricultural inputs (fuel and fertilizer). Distribution and supply has been unsteady, contributing to higher and more volatile prices.

Many of the above observations regarding water, diesel, and fertilizer supply do not bode well for the coming Aman harvest. However, not all available information leads to a foregone conclusion that the Aman harvest outcome will be negative. For example, a U.S. Department of Agriculture (USDA) report of 31 July 2006¹ actually forecast a slight increase in Aman 2006/07 forecasted harvest (12,500,000 MTs) as compared to the 2005/06 Aman production level of 12,200,000 MTs. It should be noted that this was a mid -year forecast, likely utilizing only information available prior to the recent drought like conditions.

Other data, such as satellite imagery of ground vegetation (also known as NDVI), suggests favorable growing season conditions for the Aman crop. Numerous studies have established a positive correlation between NDVI and crop yields. A comparison of 2006 July -August NDVI vs. long term average values for the same months suggests that plant growth is above average for many parts of the country. Such images can be accessed at the FAO website at <http://metart.fao.org/>

In closing, prospects for the Aman harvest are uncertain. Weather has not been favorable to date, thereby raising apprehension and speculation about a possible disappointing harvest. However more data collection and analysis is needed, as not all sources and indicators are leading to the same expectations or conclusions.

SOUTHWEST WATERLOGGING

The Water-logging situation in the low -lying Southwest districts of Jessore, Satkhira and Khulna remains a serious concern, affecting about 100,000 households. Poorly designed or poorly maintained flood/water management and drainage systems are the underlying cause of this situation. Heavy rains in mid -late July, have exacerbated the circumstances. Although the GoB and NGOs have come forward with food, non -food and cash assistance, longer -term recovery assistance has become an urgent issue. WFP's Regional Office in Jessore is closely monitoring the situation.



Jessore Source: Islamic Relief

The Disaster and Emergency Response/DER group; a forum for UN agencies, NGOs and GoB are coordinating response efforts.

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Get this Report also from LCG DER Website at: <http://www.lcgbangladesh.org/subGroup.php?q=1&s=1>

¹ USDA FAS GAIN Report BG6006 31July2006.