



## Monthly and Seasonal Outlook of Rainfall for Chattogram and Cox's Bazar Region, Bangladesh

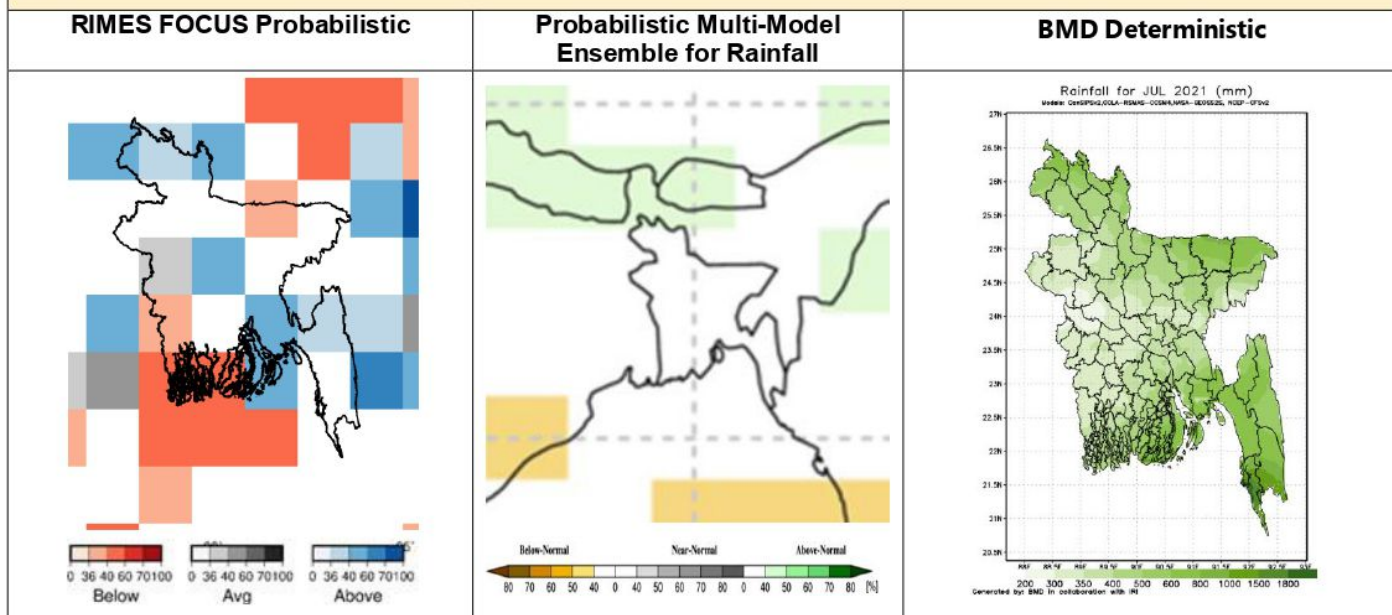
Issued on July 06, 2021  
For the Month July and July-August-September

### Observed Climate in June 2021

The cumulative rainfall for the month of June in Cox's Bazar was 808 mm and in Teknaf was 843 mm which indicates below normal rainfall in Cox's Bazar (5%) and (-16%) in Teknaf during June. For reference, based on the climatology (1980 - 2018) the normal cumulative rainfall for the month of June is 854 mm in Cox's Bazar and 1001 mm in Teknaf. The overall rainfall scenario was normal for the Cox's Bazar and Teknaf region. There was a low pressure in the northwest Bay of Bengal.

### Outlook for July 2021

Considering World Meteorological Organization (WMO) designated global center model outputs, RIMES FOCUS probabilistic outlook and BMD's deterministic forecast, it is highly likely that the month of July would bring normal to above normal rainfall for the Chattogram-Cox's Bazar region. For reference, based on the climatology (1980 - 2018) the normal cumulative rainfall for the month of July in Cox's Bazar is 969 mm and Teknaf is 1145 mm. Considering the available model output there is tercile probabilities or 33.33% chance of normal, below normal or above normal rainfall during the month of July in Cox's Bazar region. Overall the whole country may receive normal rainfall during July, 2021.

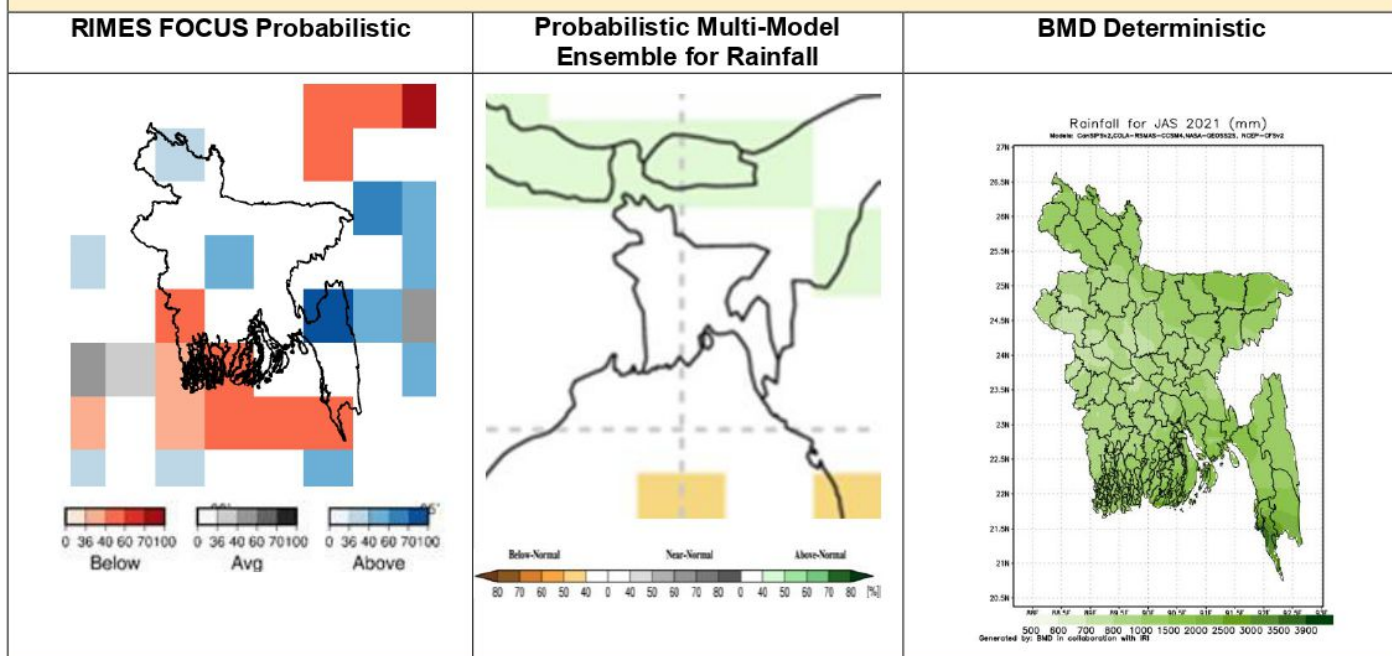


The bulletin is prepared under the 'Disaster Risk Management in Cox's Bazar' project of UNDP supported by Swiss Agency for Development and Cooperation (SDC) and European Union Civil Protection and Humanitarian Aid (ECHO) and from the People of Japan with technical support from Regional Integrated Multi-Hazard Early Warning System in collaboration with Bangladesh Meteorological Department

There may possible to occur 1-2 low pressures which may turn depression during July, 2021. However, no conclusion can be made on a monthly scale on possibilities of any extreme event.

### Outlook for July-August-September, 2021

Considering WMO designated global center model outputs, RIMES FOCUS probabilistic outlook and BMD's deterministic forecast, it is highly likely that the months of July-August-September would bring normal rainfall for the Chattogram-Cox's Bazar region. Based on the climatology (1980 - 2018) the normal cumulative rainfall for the three months July-August-September in Cox's Bazar is 684 mm and in Teknaf is 829 mm. Overall, analyzing different models there is tercile probabilities or 33.33% chance of normal, below normal or above normal rainfall during July-August-September over the Chattogram-Cox's Bazar region. The whole country may receive normal rainfall during these three months' period.



### Overview

The climate outlooks provide a broader perspective of the possible climate for the coming month and season. This outlook is generated by analyzing various global models and the Bangladesh Meteorological Department analysis for the month of July and for the next three months of monsoon season (July-August-September). The outlooks generated by the RIMES FOCUS tool is also included (which shall be tested experimentally for this season).

### Interpretation of climate outlooks

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In general, the climate outlooks are presented in two different ways. But first we need to explain **Normal**. Normal in climate terms is the Long Period Average (LPA) of the rainfall over a location using 30 years or more of rainfall data (measured at a station). The average is considered as the “Normal” rainfall for the region. And seasonal climate outlook is to estimate if the season will have more than Normal, less than Normal rainfall or equivalent to normal rainfall.

#### **Forecast methods:**

1. **Deterministic:** Deterministic forecast explains the percentage (%) departure from the Normal. If we expect 20% or less than Normal rainfall, we call it be **Below Normal**, if we expect 20% or more, we can it **Above Normal** and anything within the  $\pm 20\%$  is called the **Near Normal** rainfall for the season.

2. **Probabilistic:** The probabilistic approach explains the possibility (chance) of a certain amount of rainfall happening. For example, what is the chance of the season to be Below normal, or Normal or above Normal. If we say 45% Below normal, 30 % Normal and 25 % Above Normal. There is highly likely chance for the season to be Normal to Below Normal with a combined (75%) chance.

#### **Important Note**

Below Normal rainfall does not indicate there will be no or less extreme rainfall events. There can be high intensity rainfall within short period of time followed by extended dry spells which may still sum up as Below Normal for the month. Users are advised to follow short and medium range forecast of BMD to keep track of extreme weather events. This outlook will be updated at the first week of August 2021.