



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

Issued on June 07, 2021

For the Month June and June-July-August

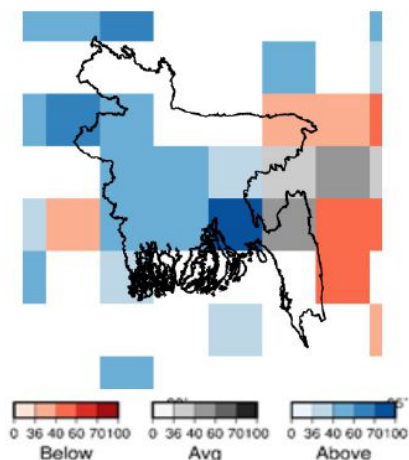
### Observed Climate in May 2021

The cumulative rainfall for the month of May in Cox's Bazar was 167 mm and in Teknaf was 29 mm which indicates below normal rainfall in Cox's Bazar (-47%) and (-86%) in Teknaf during May. For reference, based on the climatology (1980 - 2018) the normal cumulative rainfall for the month of May is 317 mm in Cox's Bazar and 281 mm in Teknaf. The overall rainfall scenario was below normal for the Chattogram and Cox's Bazar region. There was a cyclone "YAAS" formed over the North Bay of Bengal and made landfall over north Odisha coast.

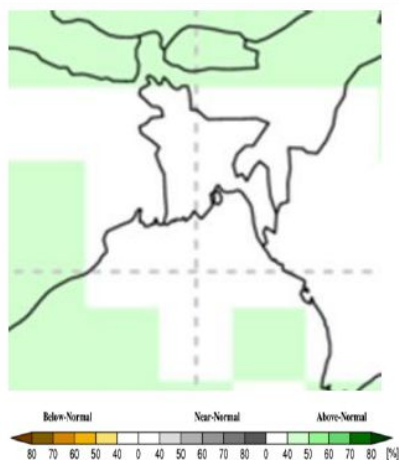
### Outlook for June 2021

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 May would normal to below 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 May in Cox's Bazar is 854 mm and Teknaf is 1000 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 June in Cox's Bazar region. Overall considering the whole Chattogram and Cox's Bazar region may experience normal rainfall during June, 2021.

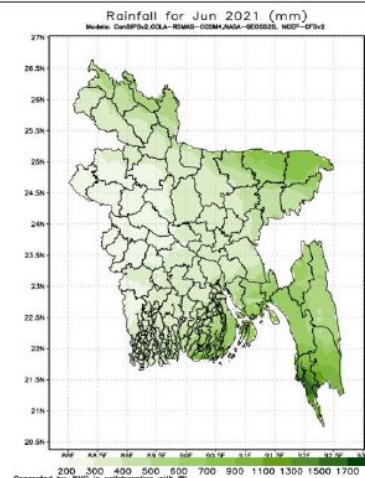
#### RIMES FOCUS Probabilistic



#### Probabilistic Multi-Model Ensemble for Rainfall



#### BMD Deterministic

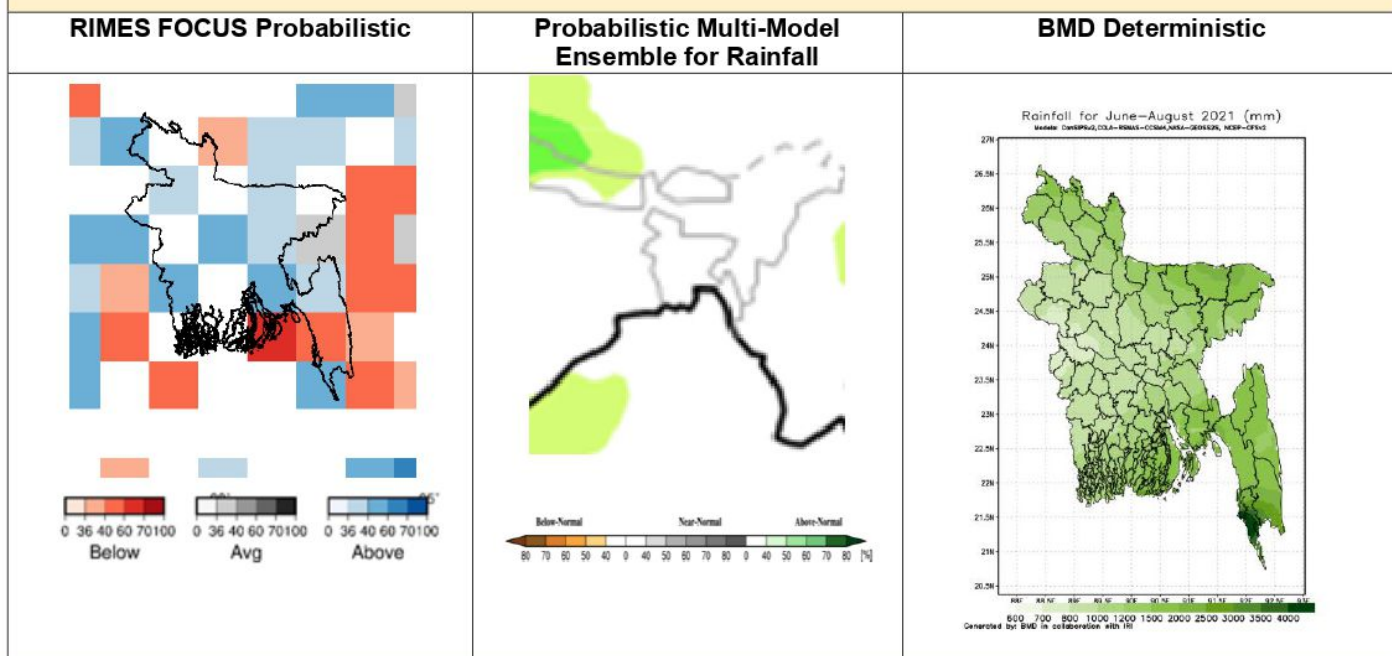


The bulletin is prepared under the 'Disaster Risk Management in Cox's Bazar' project of UNDP supported by Swiss Agency for Development and Cooperation (SDC) and European Union Civil Protection and Humanitarian Aid (ECHO) and from the People of Japan with technical support from Regional Integrated Multi-Hazard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

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

### Outlook for June-July-August, 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 June-July-August 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 June-July-August in Cox's Bazar is 834 mm and in Teknaf is 1012 mm. Overall, analyzing different models there is more than 40% probability that during June-July-August near normal rainfall may occur over the Chattogram-Cox's Bazar region. The whole country except north and north eastern region 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 June and for the next three months of monsoon season (June-July-August). 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 way. 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 July 2021.