



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

Issued on April 06, 2021

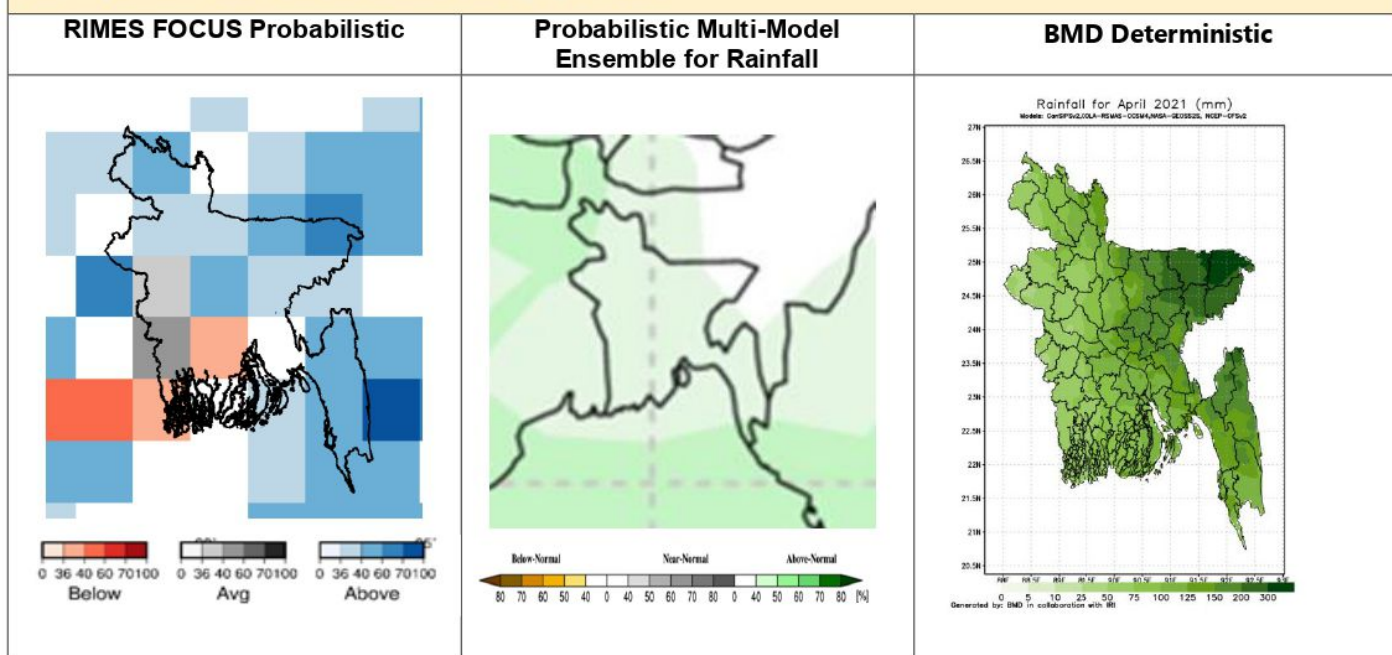
For the Month April and April-May-June

### Observed Climate in March 2021

The cumulative rainfall for the month of March in Cox's Bazar was 0 mm and in Teknaf was 0 mm which indicates Below below normal rainfall in Cox's Bazar (-100%) and (-100%) in Teknaf during March. For reference, based on the climatology (1980 - 2018) the normal cumulative rainfall for the month of March is 35 mm in Cox's Bazar and 17 mm in Teknaf. The overall rainfall scenario was Below Normal for the Chattogram and Cox's Bazar region. There was a mild heat wave during the month of March at Chottogram region.

### Outlook for April 2021

Considering World Meteorological Organization (WMO) designated global center model outputs, RIMES FOCUS probabilistic outlook, it is highly likely that the month of April 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 April in Cox's Bazar is 98 mm and Teknaf is 63 mm. And there is more than 60% chance of normal to above normal rainfall during the month of April in Cox's Bazar region. Overall the whole Chattogram and Cox's Bazar region may experience above normal rainfall during April, 2021.

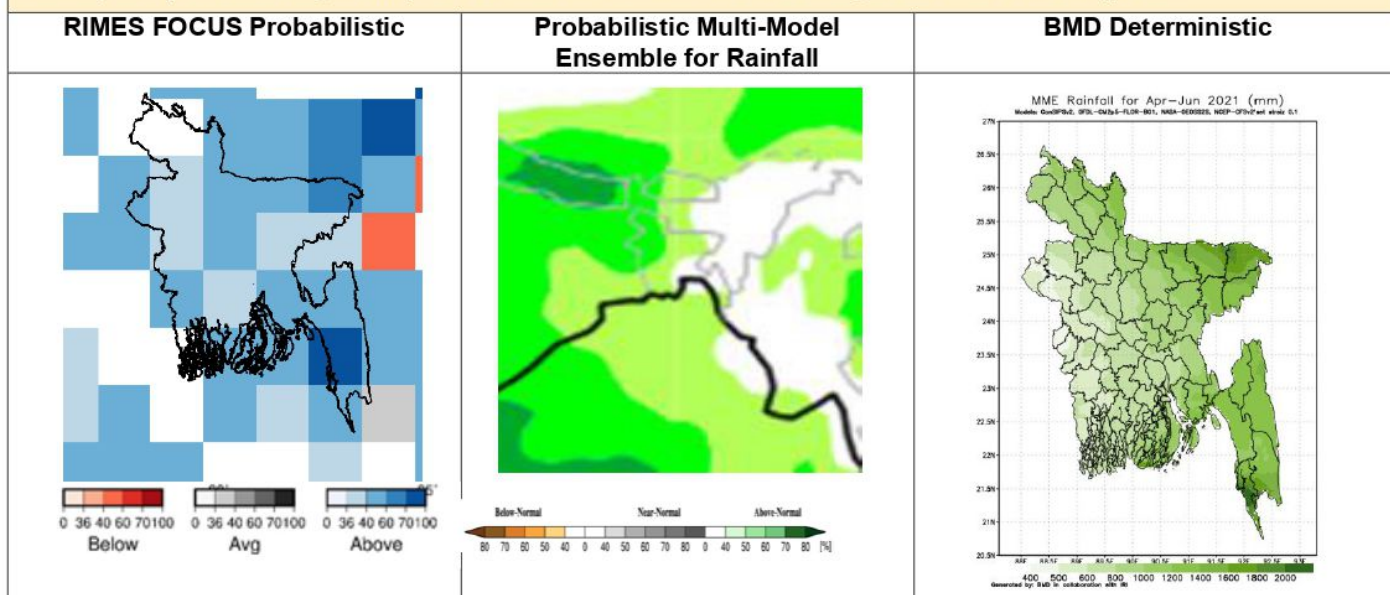


The bulletin is prepared under the 'Disaster Risk Management in Cox's Bazar' project of UNDP supported by Swiss Agency for Development and Cooperation (SDC) and European Union Civil Protection and Humanitarian Aid (ECHO) and from the People of Japan with technical support from Regional Integrated Multi-Hazard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

There may possible to occur 1-2 low pressures, thunderstorm and hailstorm events at Chattogram and Cox's Bazar during April, 2021. However, no conclusion can be made on a monthly scale on possibilities of any extreme event.

### Outlook for April-May-June, 2021

Considering WMO designated global center model outputs, RIMES FOCUS probabilistic outlook and, it is highly likely that the months of April-May-June would bring normal to above normal rainfall for the Chattogram-Cox's Bazar region. Based on the climatology (1980 - 2018) the normal cumulative rainfall for the three months April-May-June in Cox's Bazar is 423 mm and in Teknaf is 448 mm. Overall, analyzing different models there is more than 70% probability that during April-May-June, normal to above normal rainfall may occur over the Chattogram-Cox's Bazar region. The whole country except western region may receive normal to above 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 April and for the next three months of pre-monsoon season (April-May-June). The outlooks generated by the RIMES FOCUS tool is also included (which shall be tested experimentally for this season).

### Interpretation of climate outlooks

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

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(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 May 2021.