



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

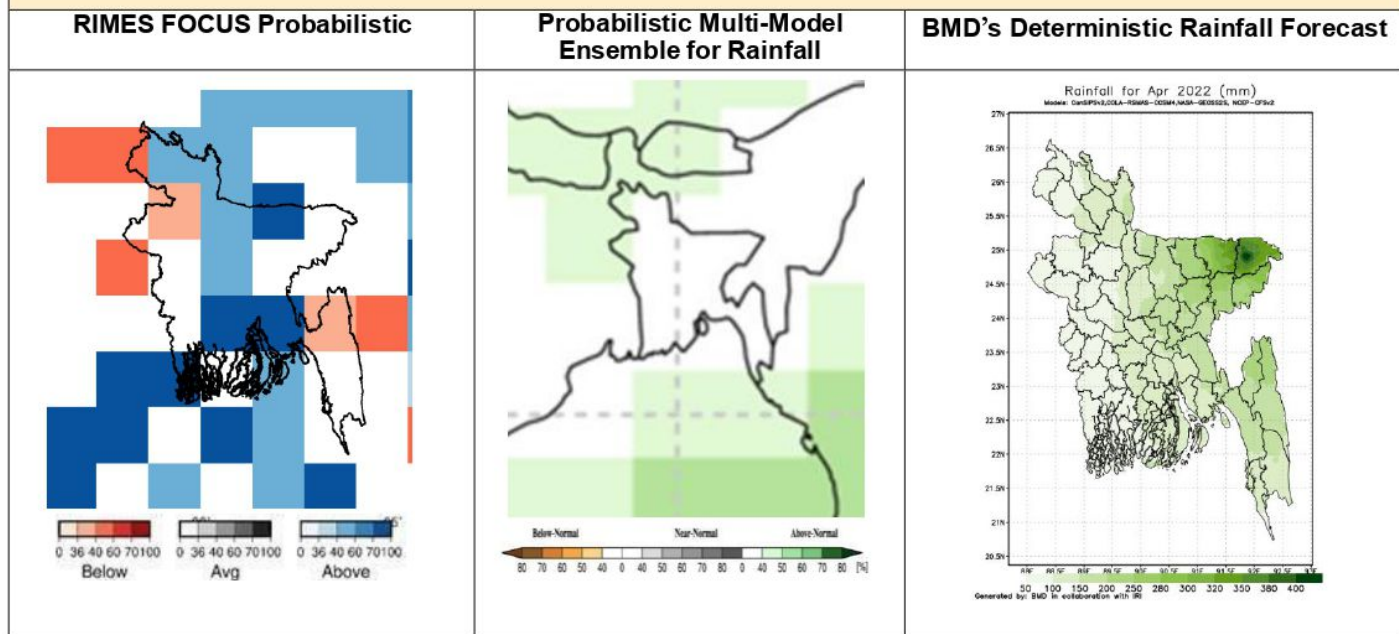
Issued on April 03, 2022
For the Month April and April-May-June

Observed Climate in March 2022

The cumulative rainfall for the month of March in Cox's Bazar was 3 mm and in Teknaf was 0 mm which indicates below normal rainfall in Cox's Bazar (-97%) and Teknaf (-100%) during March. For reference, based on the climatology (1980-2018) the normal cumulative rainfall for the month of March is 35.33 mm in Cox's Bazar and 16 mm in Teknaf. The overall rainfall scenario was below normal for the Cox's Bazar and Teknaf region. There was a mild heatwave in the region.

Outlook for April 2022

Considering World Meteorological Organization (WMO) designated global center model outputs, RIMES FOCUS probabilistic outlook, and BMD's deterministic forecast, there is an equal chance of normal or below-normal or above-normal rainfall in Cox's Bazar region during the month of April. 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 36 mm. Overall, analyzing the available model output, it is likely to be near normal rainfall for the whole country during the month of April.

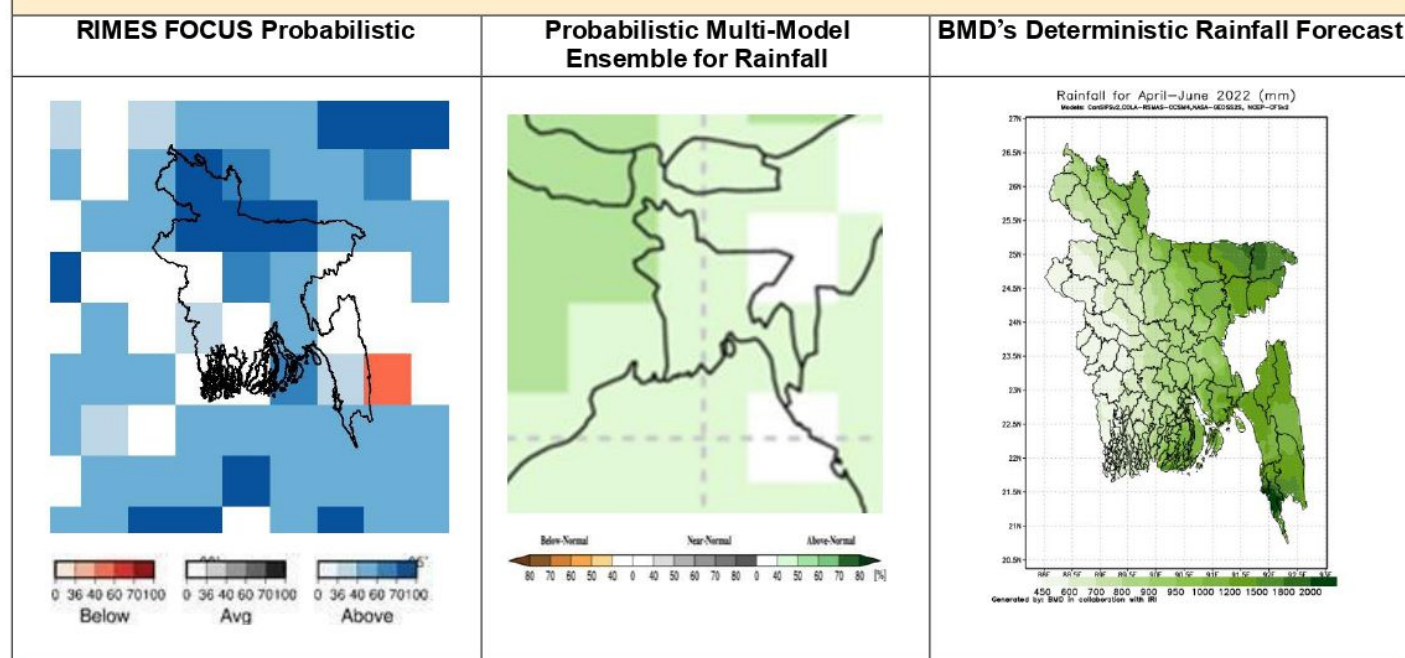


The bulletin is prepared by the Regional Integrated Multi-Hazard Early Warning System for Asia and Africa (RIMES) in collaboration with the Bangladesh Meteorological Department (BMD).

Overall, the whole country may receive near normal to above normal rainfall during April 2021. There may occur 1-2 low pressures during April 2022. However, no conclusion can be made on a monthly scale on the possibilities of any extreme event.

Outlook for April-May-June, 2022

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 April-May-June would bring above normal rainfall for the Chattogram and Cox's Bazar region. Based on the climatology (1980-2018) the normal cumulative rainfall for April-May-June in Cox's Bazar is 423 mm and in Teknaf is 448 mm. Considering the available model output there is a 40-50% chance of above-normal rainfall in the Cox's Bazar region. Overall, the whole country may receive above-normal rainfall during this three-month period.



Overview

The climate outlook provides a broader perspective of the possible climate for the coming month and season. This monthly and seasonal outlook (April & April-May-June) is generated by analyzing various global models and the monthly forecast of the Bangladesh Meteorological Department. In this outlook, the forecast generated by the RIMES FOCUS tool is also included (which shall be tested experimentally for Bangladesh).

Interpretation of climate outlooks

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 to be **Below Normal**, if we expect 20% or more, we call it **Above Normal** and anything within the $\pm 20\%$ is called **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 a 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 a 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 forecasts of BMD to keep track of extreme weather events. This outlook will be updated in the first week of May 2022.