



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

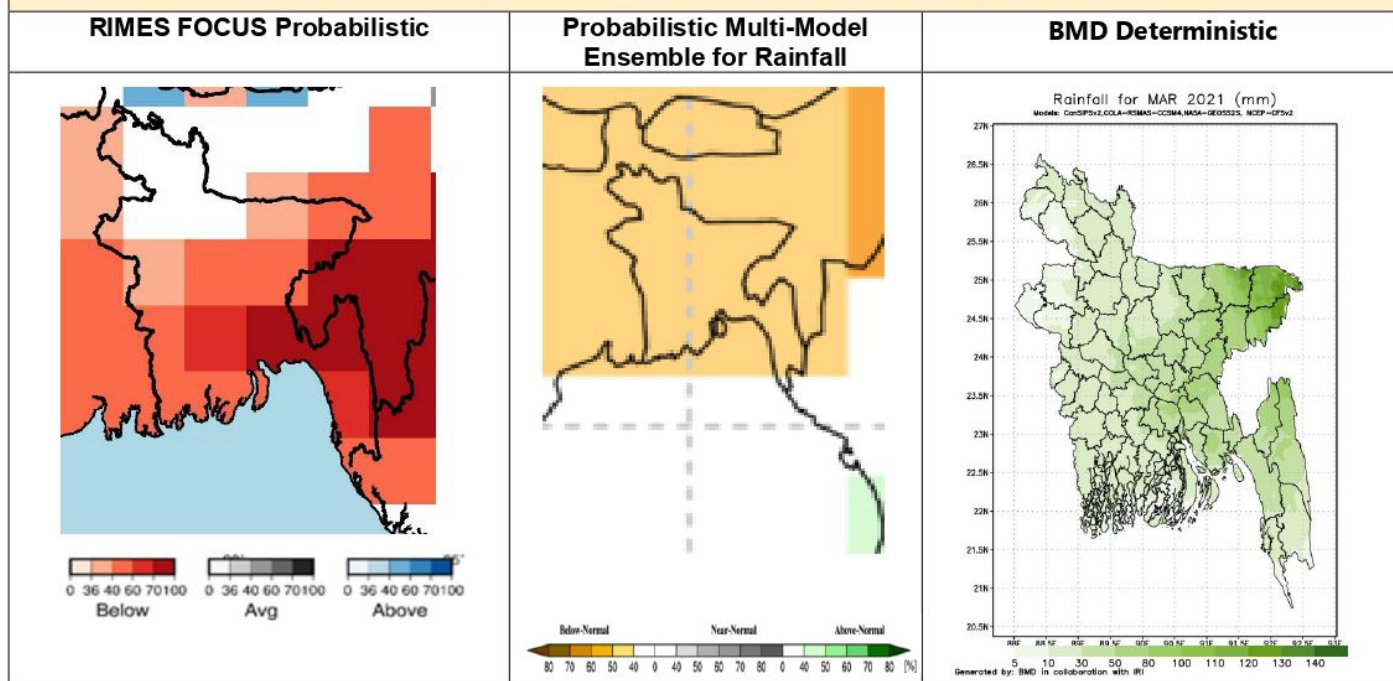
Issued on March 07, 2021
For the Month March and March-April-May

Observed Climate in February 2021

The cumulative rainfall for the month of February 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 February. For reference, based on the climatology (1980 - 2018) the normal cumulative rainfall for the month of February is 18 mm in Cox's Bazar and 11 mm in Teknaf. The overall rainfall scenario was Below Normal for the Chattogram and Cox's Bazar region.

Outlook for March 2021

Considering World Meteorological Organization (WMO) designated global center model outputs, RIMES FOCUS probabilistic outlook, it is highly likely that the month of March would bring 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 March in Cox's Bazar is 17 mm and Teknaf is 35 mm. And there is more than 60% chance of Below Normal rainfall during the month of March in Cox's Bazar region. Overall the whole Chattogram and Cox's Bazar region may experience below normal rainfall during March.

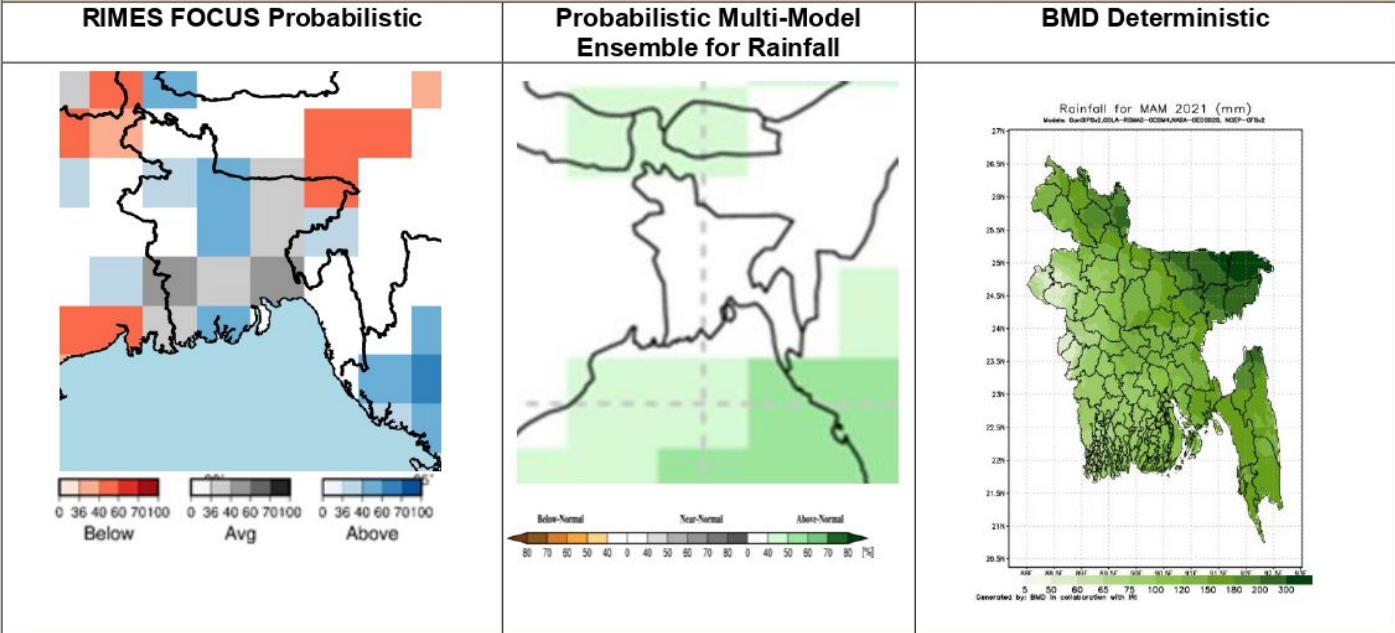


The bulletin is prepared under the 'Disaster Risk Management in Cox's Bazar' project of UNDP supported by Swiss Agency for Development and Cooperation (SDC) and European Union Civil Protection and Humanitarian Aid (ECHO) and from the People of Japan with technical support from Regional Integrated Multi-Hazard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

1-2 thunderstorm and hailstorm event may occur at the end of March, 2021. However, no conclusion can be made on a monthly scale on possibilities of any extreme event. And day night temperature may gradually increase but average temperature may remain normal.

Outlook for March-April-May, 2021

Considering WMO designated global center model outputs, RIMES FOCUS probabilistic outlook and, it is highly likely that the months of March-April-May would bring Below normal rainfall for the Chattogram-Cox’s Bazar region. Based on the climatology (1980 - 2018) the normal cumulative rainfall for the three months March-April-May in Cox’s Bazar is 150 mm and in Teknaf is 120 mm. Overall, analyzing different models there is more than 40% probability that during March-April-May, normal to above normal rainfall may occur 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 March and for the next three months of pre-monsoon season (March-April-May). 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 end of March 2021.