PRESS RELEASE
New Delhi, 1st March , 2021

भारत सरकार
Government of India
पृथ्वीविज्ञानमंत्रालय (एम. ओ. ई. एस.)
Ministry of Earth Sciences (MoES)
भारत मौसम विज्ञानविभाग
INDIA METEOROLOGICAL DEPARTMENT

Seasonal Outlook for the Temperatures during March to May, 2021

Highlights

- During the upcoming hot weather season (March to May), above normal seasonal maximum temperatures are likely over most of the subdivisions of north, northwest and northeast India, few subdivisions from eastern and western parts of central India and few coastal subdivisions of north peninsular India. However, below normal seasonal maximum temperatures are likely over most of the subdivisions of south peninsula and adjoining central India.
- Above normal seasonal minimum temperatures are likely over most of the subdivisions of north India along the foot hills of Himalayas, northeast India, western part of central India and southern part of peninsular India. However, below normal season minimum temperatures are likely over most of the subdivisions of eastern part of the central India and few subdivisions of extreme northern part of the country

Since 2016, India Meteorological Department (IMD), Ministry of Earth Sciences (MoES) has been issuing seasonal forecast outlooks for subdivision scale temperatures over the country for both hot and cold weather seasons based on predictions from the Monsoon Mission Coupled Forecasting System (MMCFS) Model developed under the monsoon mission project, launched by MoES.IMD has now prepared Seasonal outlook for the subdivision averaged temperatures for the upcoming summer season (March to May 2021) and the same is presented here.

The MMCFS has a spatial resolution of about 38 km and improved modules of model physics. The model climatology was prepared based on retrospective forecasts for 16 years (2003-2018). The seasonal temperature forecast outlook was prepared using MMCFS simulations based on the 2021 February initial conditions. The forecast was prepared using 31 ensemble member forecasts. The model hindcasts and forecasts were bias corrected using the probability distribution function (pdf) method. The model hindcasts show moderate skill over many subdivisions over northwest and central India during the period 2003-2018.

2. Forecast for the MAM Season (March to May 2021)

Fig.1 and Fig.2 show the probability and anomaly (departures from the long term normal) forecasts for the subdivision averaged minimum and maximum temperatures respectively for the March to May 2021 (MAM) season. The probability forecast for maximum temperatures(Fig. 1) indicates above normal maximum temperatures over most of the subdivisions of north, northwest and northeast India, few subdivisions of eastern (Chhattisgarh and Odisha) and western (Gujarat region and Saurashtra & Kutch) parts of central India, and few coastal subdivisions (Konkan &Goa and Coastal Andhra Pradesh) of north peninsular India. On the other hand, most of the subdivisions of south peninsular India and adjoining central India are likely to experience below normal maximum temperatures.

The probability forecast for minimum temperatures (Fig.2) indicates that above normal minimum temperature are likely over most of the subdivisions of north India along the foothills of Himalayas, northeast India, western part of central India and, southern parts of peninsular India. Most of the subdivisions of east and adjoining central India and few subdivisions of extreme northern part of the country are likely to experience below normal minimum temperatures.

3. La Niña conditions in the Pacific Ocean

Currently, moderate La Niña conditions are prevailing over the equatorial Pacific and sea surface temperatures (SSTs) are below normal over the central and eastern equatorial Pacific Ocean. The latest MMCFS forecast indicates that La Niña conditions are likely to sustain during the upcoming hot weather season (March to May).

4. Extended Range Forecast Services

IMD also provides extended range forecasts (7 –day averaged forecasts for the next four weeks) of maximum and minimum temperatures over the country updated every week. This is based on the Multi-model ensemble dynamical Extended Range Forecasting System currently operational at IMD, New Delhi.

The forecasts are available through IMD, Delhi website
(https://mausam.imd.gov.in/imd_latest/contents/extendedrangeforecast.php)

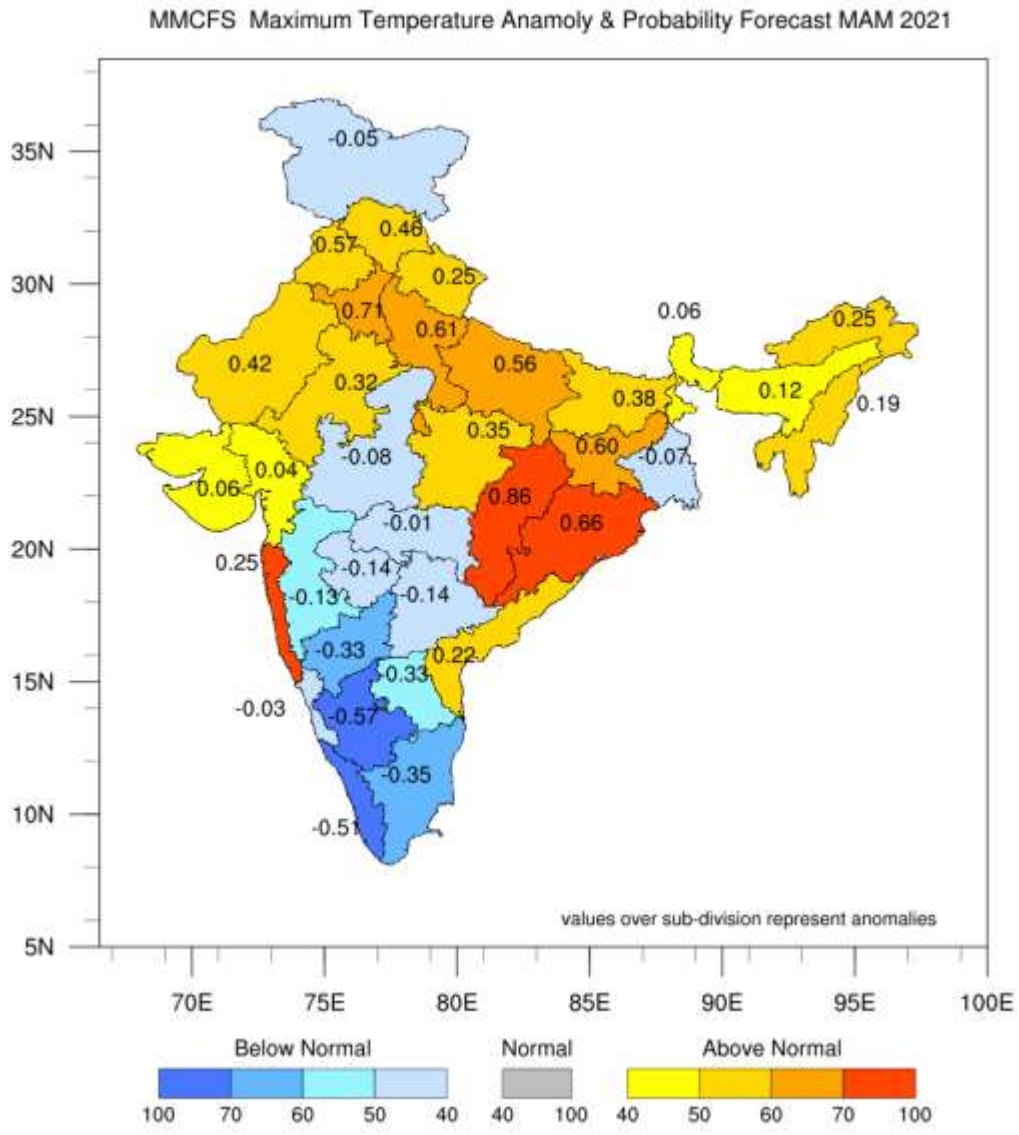

Fig.1. Subdivision averaged Maximum Temperature Anomaly forecast for March to May 2021 based on February Initial Conditions.

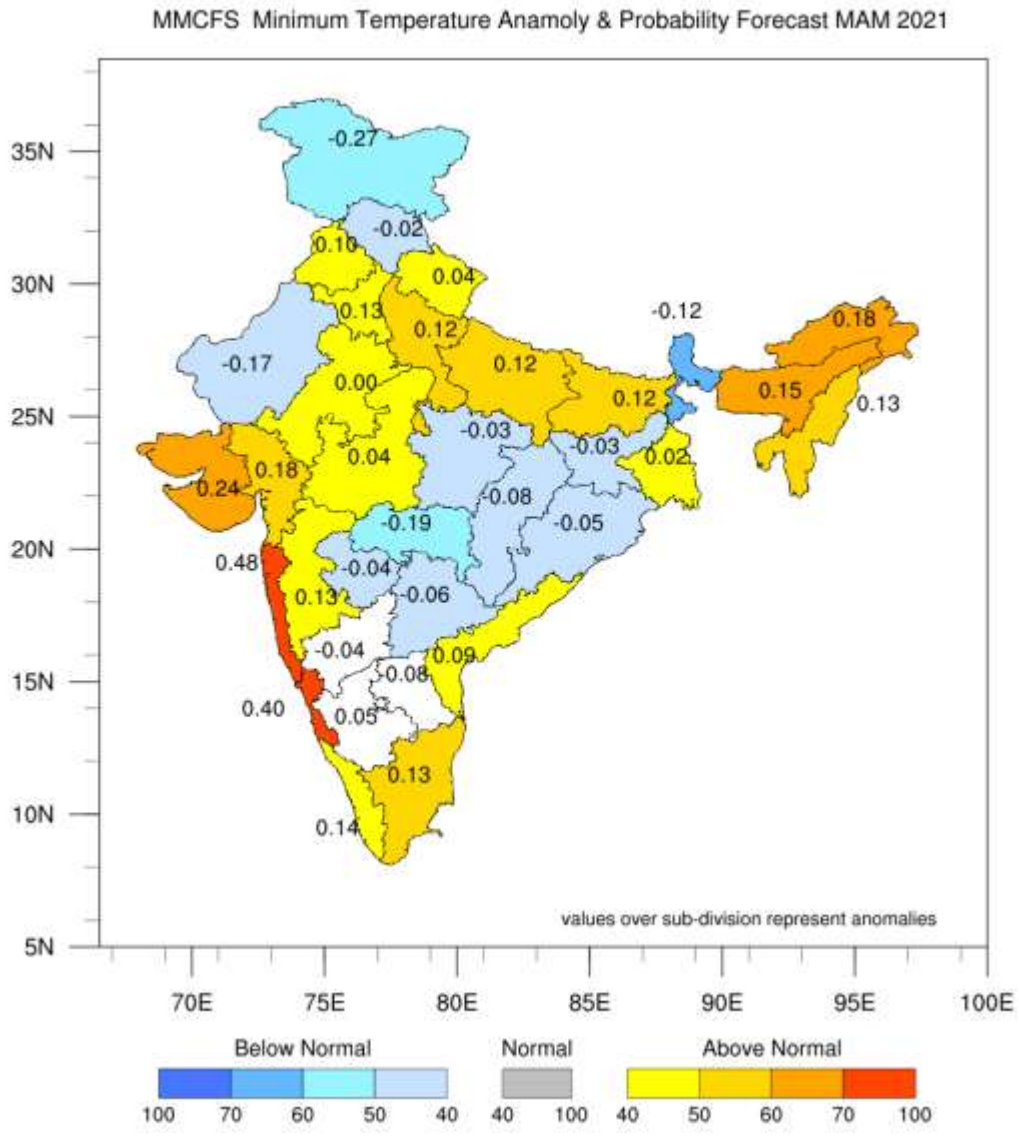

Fig.2. Subdivision averaged Minimum Temperature Anomaly forecast for March to May 2021on February Initial Conditions