



**Government of India
Earth System Science Organization
Ministry of Earth Sciences
India Meteorological Department**

Dated: 18 February, 2021

Subject: Current Weather Status and Outlook for next two weeks (18 Feb to 3 March, 2021)

Salient Features

- A Western Disturbance (WD) moved across Western Himalayan during 14-16 Feb and caused isolated light rain/snow over northern parts of the Uttarakhand during the period. Then, it was intensified to a deep trough in westerly at mid-troposphere and seen from Kutch to Uttarakhand on 17 Feb and from northeast Arabian Sea to northwest Uttar Pradesh on 18th Feb and impacted weather over central and western parts of India by interacting with an intense trough/wind discontinuity observed in low level easterlies over central India supported by enhanced moisture incursion from Bay of Bengal. Under the influence of interaction of both of these systems, isolated to scattered rainfall/thunderstorm activity had been reported over Central India and adjoining areas of Northwest and East India mainly during 15-18 Feb; isolated hailstorm activity also had been reported over Central India on 16-17 Feb and over interior Maharashtra on 17th Feb.
- Movement of easterly waves has caused isolated to scattered rainfall/thunderstorm activity over Andaman & Nicobar Islands along with isolated heavy rainfall on one day during the week.
- **Dense to very dense fog had occurred for longer duration at night and mornings at many to most pockets over Punjab during almost all days of the week(11-17 Feb) and over Haryana, Chandigarh & Delhi during 11-14 Feb; at a few places over Haryana during 15-18 Feb.**
- **No cold wave/Cold day was observed over any parts of the country. Weekly mean minimum temperatures show it was 2-4degC above normal over north, central and**

eastern and northeastern parts of India.

Weekly Rainfall Scenario (11 to 17 February, 2021)

During the week, rainfall for the country as a whole was below Long Period Average (LPA) by -83%. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	1.0	6.1	-83%
Northwest India	0.1	12.3	-99%
Central India	2.2	2.3	-4%
South Peninsula	0.4	2.2	-84%
East & northeast India	1.0	6.9	-86%

The Meteorological sub-division-wise rainfall for the week is given in **Annexure I**.

Winter Rainfall Scenario (01 January to 17 February, 2021)

For the country as a whole, cumulative rainfall during this year's winter season till 17 February, 2021 has been deficient and is below LPA by 25%. Details of the rainfall distribution over the four broad geographical regions of India are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	22.7	30.3	-25%
Northwest India	32.8	57.9	-43%
Central India	6.0	12.7	-53%
South Peninsula	46.5	12.6	269%
East & northeast India	9.5	36.4	-74%

Cumulative seasonal rainfall is given in **Annexure II**.

Weekly minimum Rainfall Scenario (11to 17 February, 2021)

- No cold wave/Cold day was observed over any parts of the country. Weekly mean minimum temperatures show it was 2-4degC above normal over north, central and eastern and northeastern parts of India. (**Annexure III**).

Chief synoptic conditions as on 18 February, 2021

- ◆ The Western Disturbance lies over northwest Uttar Pradesh at middle tropospheric levels
- ◆ A cyclonic circulation seen over south Madhya Maharashtra at lower levels.
- ◆ A trough at lower level easterly runs from north Kerala coast to the above cyclonic circulation.
- ◆ Another trough in low level easterlies lies over Southwest Bay of Bengal off Sri Lanka coast.
- ◆ A cyclonic circulation lies over Bangladesh & neighbourhood at 2.1 km above sea level
- ◆ **A fresh feeble Western Disturbance is likely to affect Western Himalayan Region from 20th Feb.**

Large scale features as on 18 February, 2021

- Currently, moderate La Niña conditions are prevailing over equatorial Pacific and Sea Surface Temperatures (SSTs) are below normal over central and eastern equatorial Pacific Ocean. The latest Monsoon Mission Climate Forecasting System (MMCFS) forecast indicates that colder than normal SST anomaly is most likely to persist over Nino 3.4 region and La Niña conditions likely to continue during coming seasons.
- At present, neutral Indian Ocean Dipole (IOD) conditions are observed and the latest Monsoon Mission Coupled Forecasting System (MMCFS) forecast indicates neutral IOD conditions are likely to continue during next two weeks.
- The Madden Julian Oscillation (MJO) index is currently in Phase 7 with amplitude more than 1. It is likely to remain in the same Phase with amplitude becoming less than 1 during first half of week 1. Thereafter, it will move to phase 6 with amplitude remaining less than 1 during later part of week 1. It will then move to phase 7 with amplitude becoming more than 1 during week 2. Hence, there will be suppressed convective activity over north Indian ocean during next two weeks.

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (18 to 24 February, 2021) and Week 2 (25 Feb to 3 March, 2021)

Rainfall for week 1: (18 to 24 February, 2021)

- There is a wind discontinuity in the lower levels over Central India with moisture inflow from Bay of Bengal. It is likely to move southwestward and persist during next 24 hours. Under its influence: i) Light to moderate rainfall at a few places with isolated thunderstorm, lightning & hailstorm very likely over Marathwada and Madhya Maharashtra during next 24 hours.
- Under the influence of current Western Disturbance isolated rainfall/snowfall accompanied with thunderstorm, lightning/hailstorm very likely over Uttarakhand today on 18 Feb.
- Under the influence of an easterly wave, a fresh spell of isolated to scattered rain/thundershower very likely to occur over southeast Peninsular India towards end of the week 1(20-22 Feb 2021)(**Annexure IV**).
- A fresh feeble Western Disturbance is likely to affect Western Himalayan Region from 20th February which is likely to cause isolated to scattered light to moderate rainfall/snowfall over the region during 20-23 Feb 2021.
- 2021. In association of another fresh Western Disturbance, a fresh spell of rainfall/snowfall is likely to occur over western Himalayan region from 23rd to 26 Feb 2021.
- **Cumulatively, below normal rain very likely over northern parts of country including Western Himalayan Region with above normal rainfall activity over southern peninsular India and adjoin central India (Annexure V).**

Rainfall for week 2: (25 Feb to 3 March, 2021)

- A fresh Western Disturbance likely to cause fresh spell of rainfall/snowfall over western Himalayan region during 23rd-26th February, 2021 with peak activity on 24th & 25th February.
- **In the absence of any significant synoptic system, sub-dued rainfall a likely over western and Peninsula India with mainly dry weather likely over central and northern plains of India.**
- **Cumulatively, above normal rain very likely over Western Himalayan Region**

with mainly dry weather over central and western Parts of India and below normal rainfall over southern peninsular India and eastern and northeastern parts of India (Annexure V).

Temperature for week 1 & 2: (18 Feb-3 March, 2021)

- Minimum temperatures are above normal by 2 to 4°C over most parts of Gujarat, Jammu and Kashmir, most parts of central & east India. These are near normal or slightly below normal over remaining parts of India.
- Warmer night temperatures are likely to continue over the plains of Western, North India, central and adjoining parts of eastern and northeastern India during 18-21 Feb **followed by fall of 2-3°C during 22-24 Feb mainly over central and eastern parts of India**
- **Cold Wave and cold day conditions are unlikely over northern India during week 1.**
- During week 2, **the minimum temperatures likely to continue to be normal to above normal over northwest & adjoining central India and northeastern states except western parts of Rajasthan, where it is likely to be below normal. These are likely to be below normal by 2-3°C over remaining parts of the country (Annexure VI).**

Fog

- Due to availability of moisture at lower levels and other favorable meteorological features, Dense to Very Dense Fog in some pockets over Punjab, Haryana, Chandigarh & Delhi and in isolated pockets over northwest Rajasthan in the morning hours of 19th February and reduction in intensity & spatial coverage thereafter.

Cyclogenesis:

- No cyclogenesis is likely over the north Indian Ocean during next two weeks.

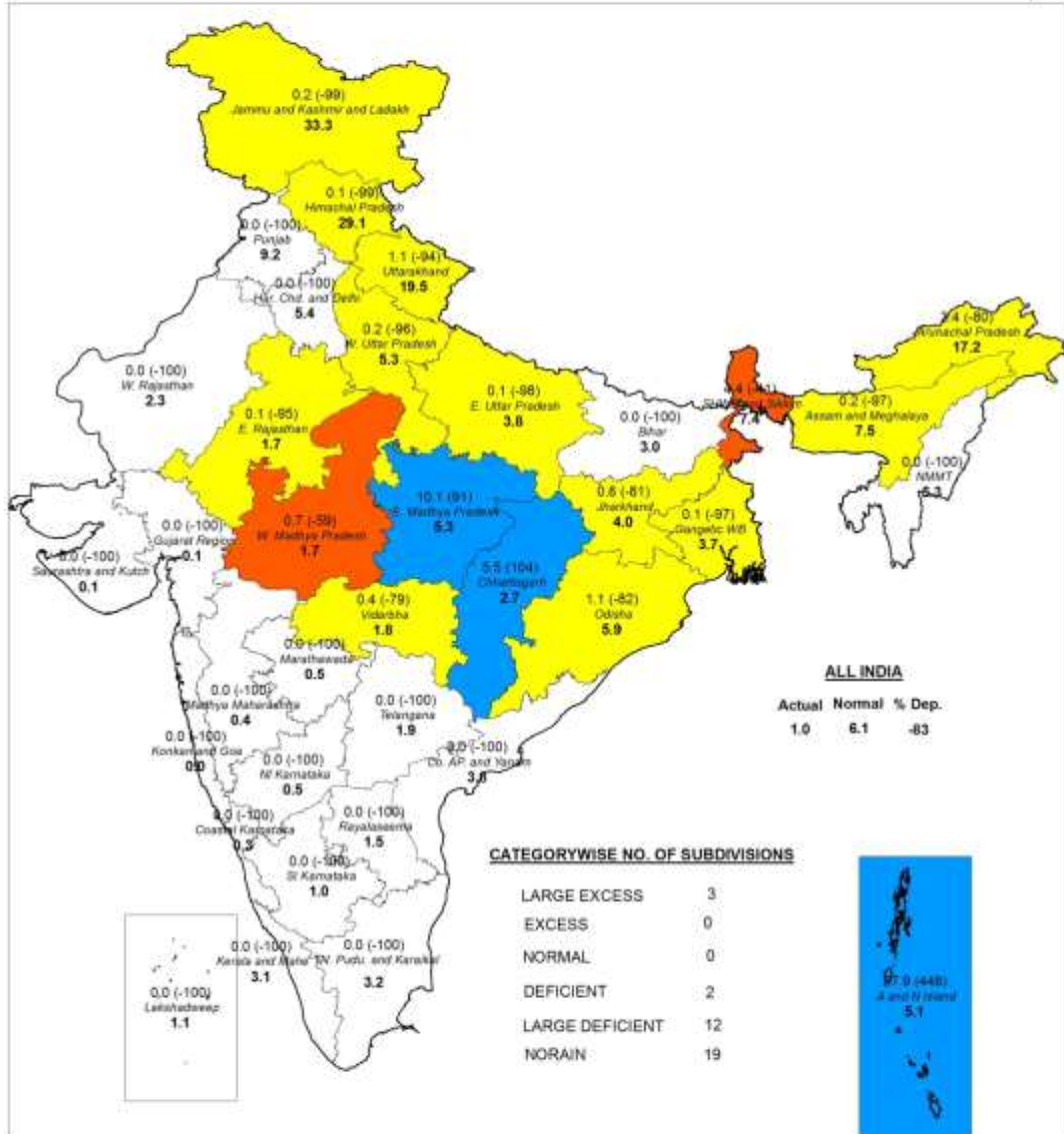
Next weekly update will be issued on next Thursday i.e. 25 February, 2021

Annexure I



SUBDIVISION RAINFALL MAP

Week : 11-02-2021 To 17-02-2021



Legend

Large Excess [80% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-99% to -60%] No Rain [-100%] No Data

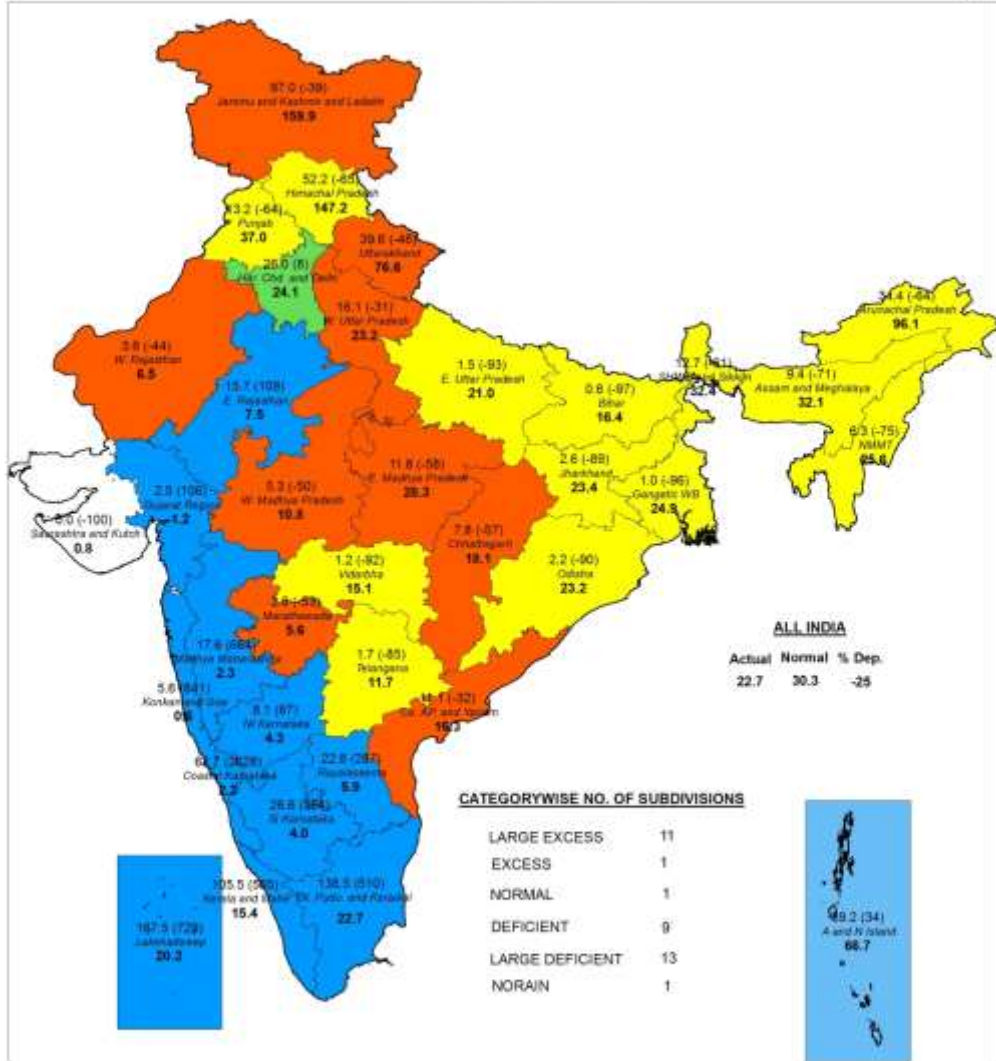
NOTES :

- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.



SUBDIVISION RAINFALL MAP

Period : 01-01-2021 To 17-02-2021



Legend

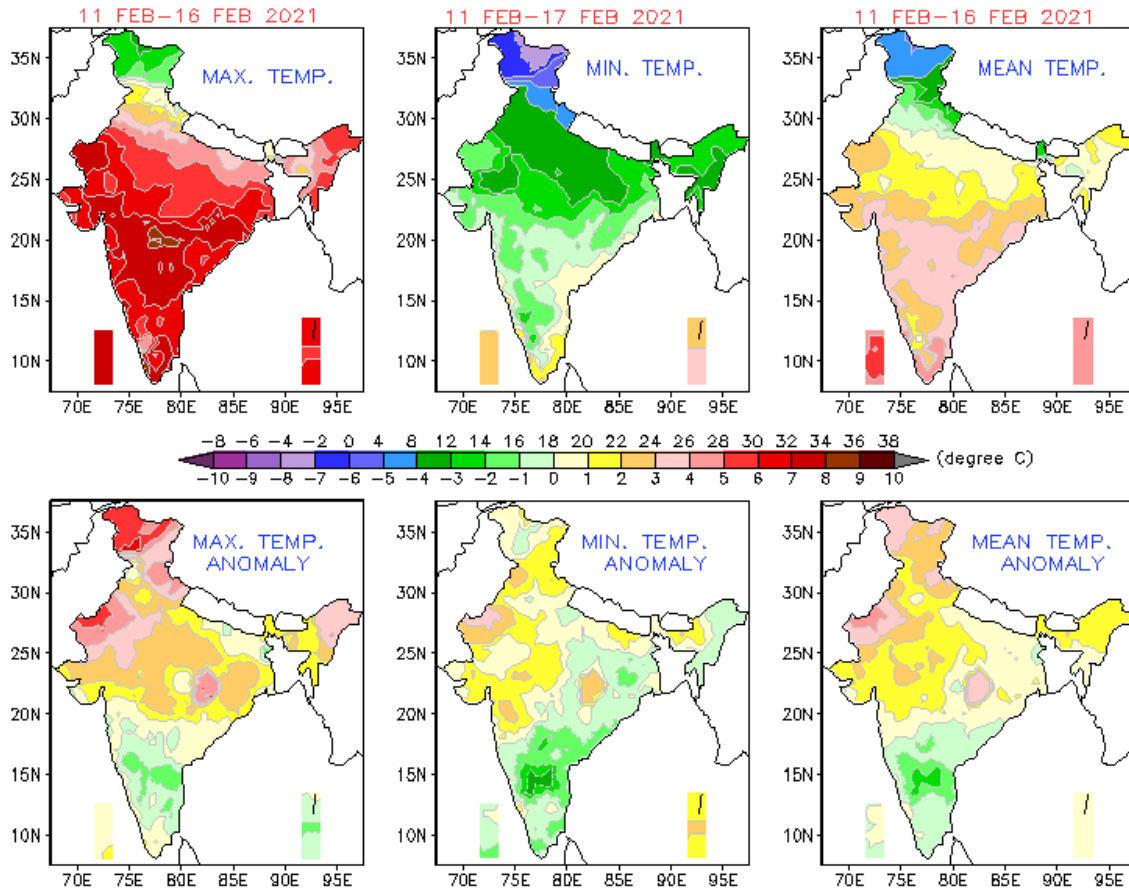
Large Excess [80% or more] Excess [20% to 80%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-89% to -60%] No Rain [-100%] No Data

NOTES :

- a) Rainfall figures are based on operation data.
- b) Small figures indicate actual rainfall (mm), while bold figures indicate Normal rainfall (mm).
- c) Percentage Departures of rainfall are shown in brackets.

Annexure III

TEMPERATURE FOR WEEK ENDING 17 FEB & ITS ANOMALY



Sr. No	MET.SUB-DIVISIONS	18 FEB	19 FEB	20 FEB	21 FEB	22 FEB	23 FEB	24 FEB
1	ANDAMAN & NICO.ISLANDS	SCT ^L	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	ISOL ^L	ISOL	ISOL	D	D	ISOL	ISOL
3	ASSAM & MEGHALAYA	ISOL ^L	ISOL	D	D	D	D	D
4	NAGA.MANI.MIZO.& TRIPURA	ISOL ^L	ISOL	ISOL ^L	D	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	ISOL ^L	D	D	D	D	ISOL	ISOL
6	GANGETIC WEST BENGAL	ISOL ^L	ISOL	D	D	D	D	D
7	ODISHA	ISOL ^L	ISOL	D	D	D	D	D
8	JHARKHAND	ISOL ^L	ISOL	D	D	D	D	D
9	BIHAR	ISOL ^L	D	D	D	D	D	D
10	EAST UTTAR PRADESH	ISOL ^L	D	D	D	D	D	D
11	WEST UTTAR PRADESH	D	D	D	D	D	D	D
12	UTTARAKHAND	ISOL ^{T#}	D	D	D	ISOL ^L	ISOL	SCT
13	HARYANA CHD. & DELHI	D ^F	D ^F	D	D	D	D	D
14	PUNJAB	D ^F	D ^F	D	D	D	D	D
15	HIMACHAL PRADESH	D	D	D	ISOL ^L	ISOL ^L	SCT	FWS
16	JAMMU & KASHMIR AND LADAKH	D	D	ISOL ^L	SCT ^{L#}	FWS ^{L#}	SCT	FWS
17	WEST RAJASTSAN	D ^F	D	D	D	D	D	D
18	EAST RAJASTSAN	D	D	D	D	D	D	D
19	WEST MADHYA PRADESH	ISOL	D	D	D	D	D	D
20	EAST MADHYA PRADESH	ISOL	D	D	D	D	D	D
21	GUJARAT REGION	ISOL ^L	D	D	D	D	D	D
22	SAURASTRA & KUTCH	D	D	D	D	D	D	D
23	KONKAN & GOA	ISOL ^{L,T}	ISOL	D	D	D	D	D
24	MADHYA MAHARASHTRA	SCT ^{T#}	ISOL ^L	D	D	D	D	D
25	MARATHAWADA	SCT ^{T#}	ISOL ^L	D	D	D	D	D
26	VIDARBHA	SCT ^L	ISOL ^L	D	D	D	D	D

27	CHHATTISGARH	SCT ^L	ISOL ^L	D	D	D	D	D
28	COASTAL ANDHRA PR. & YANAM	D	ISOL	SCT ^L	ISOL	D	D	D
29	TELANGANA	SCT ^L	ISOL	D	D	D	D	D
30	RAYALASEEMA	D	D	ISOL	ISOL	D	D	D
31	TAMIL. PUDU. & KARAIKAL	ISOL	SCT ^L	FWS ^L	ISOL	ISOL	D	D
32	COASTAL KARNATAKA	ISOL	ISOL	D	D	D	D	D
33	NORTH INTERIOR KARNATAKA	ISOL ^L	ISOL ^L	ISOL	D	D	D	D
34	SOUTH INTERIOR KARNATAKA	ISOL	ISOL ^L	SCT	ISOL	ISOL	D	D
35	KERALA & MAHE	SCT ^L	SCT ^L	D	ISOL	ISOL	ISOL	ISOL
36	LAKSHADWEEP	SCT	SCT	D	D	D	ISOL	ISOL

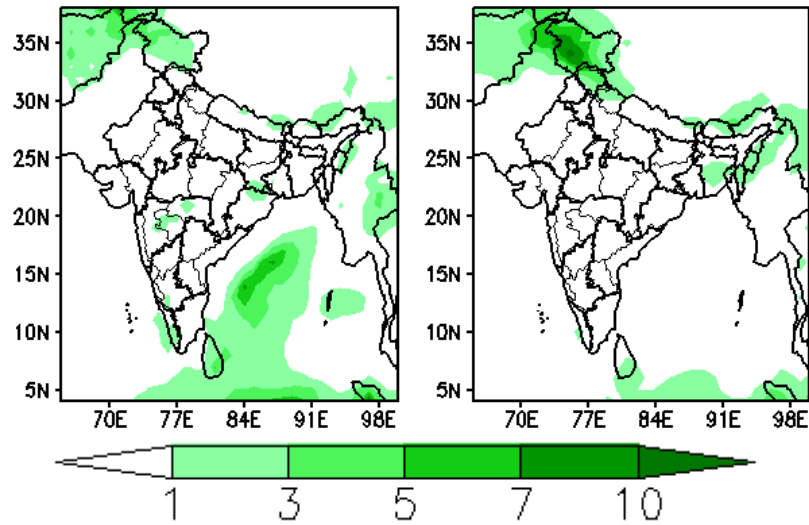
LEGENDS:

WS - WIDE SPREAD / MOST PLACES (76-100%)			FWS - FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)					
SCT - SCATTERED / FEW PLACES (26% to 50%)			ISOL - ISOLATED (up to 25%)			D / DRY - NO RAINFALL		
° Heavy Rainfall (64.5-115.5 mm)		°° Heavy to Very Heavy Rainfall (115.6-204.4 mm)			°°° Extremely Heavy Rainfall (204.5 mm or more)			
F Fog	* Snowfall	D Duststorm	S Thunderstorm with Squall		L Thunderstorm with Lightning		# Thunderstorm with Hail	
↓ Cold Wave (Minimum temperature departure from Normal -4.5 °C to -6.4 °C)				↓ Severe Cold Wave (Minimum temperature departure from Normal ≤ -6.5 °C)				
↑ Heat Wave (Maximum temperature departure from Normal +4.5 °C to +6.4 °C)				↑ Severe Heat Wave (Maximum temperature departure from Normal ≥ +6.5 °C)				

Forecast Rainfall (mm/day)

(Week1: 19Feb-25Feb)

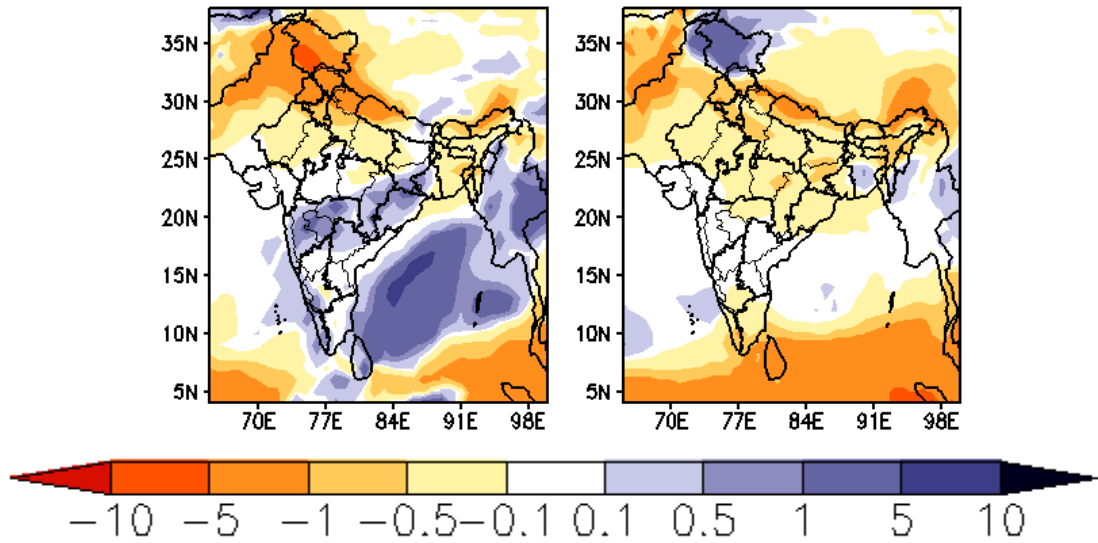
(Week2: 26Feb-04Mar)



Forecast Rainfall Anomaly (mm/day)

(Week1: 19Feb-25Feb)

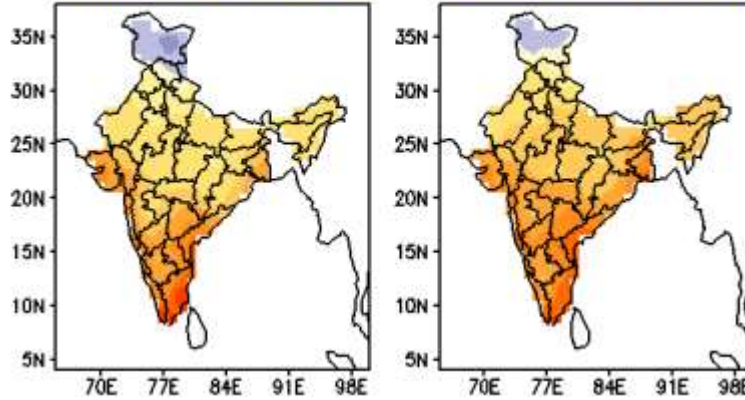
(Week2: 26Feb-04Mar)



MME Bias corrected forecast Tmin (Deg

(Week1: 19Feb-25Feb)

(Week2: 26Feb-04Mar)



MME forecast Tmin anomaly (Deg C)

(Week1: 19Feb-25Feb)

(Week2: 26Feb-04Mar)

