



**Government of India
Ministry of Earth Sciences
India Meteorological Department**

Dated: 24 Dec, 2020

Current Weather Status and Outlook for next two weeks (24 Dec 2020 to 6 Jan 2021)

Significant Features of current week ended on 23 Dec 2020

- Movement of two feeble Western Disturbances in mid & upper tropospheric westerlies across higher ridges over Western Himalayan Region without occurrences of any significant weather over this region.
- Movement of easterly wave has caused isolated to scattered rainfall/thunderstorm activity over Andaman & Nicobar Islands, Tamilnadu and Lakshadweep islands during 17-19 Dec 2020, at isolated places over Tamilnadu, Kerala and Lakshadweep islands on 20 and 23 Dec and at isolated places over Andaman & Nicobar Islands on 21 Dec. **Mainly dry weather prevailed over the remaining parts of the country in these dates of the week with mainly dry weather over the whole country on 22 Dec, 2020.**

Weekly Rainfall Scenario (17 to 23 December, 2020)

During the week, rainfall for the country as a whole was below LPA by -48%.

Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
EAST & NORTH-EAST INDIA	1.5	1.8	-16%
NORTH-WEST INDIA	0.0	4.4	-99%
CENTRAL INDIA	0.1	0.9	-92%
SOUTH PENINSULA	6.7	5.4	+23%
country as a whole	1.6	3.0	-48%

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

Seasonal Rainfall Scenario (01 October to 23 December, 2020)

For the country as a whole, cumulative rainfall during this year's post-monsoon season upto 23 December, 2020 is above LPA by 3%. 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
EAST & NORTH-EAST INDIA	142.1	162.5	-13%
NORTH-WEST INDIA	30.7	46.8	-34%
CENTRAL INDIA	84.9	74.8	+13%
SOUTH PENINSULA	317.0	272.6	+16%
country as a whole	123.0	119.0	+3%

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

Weekly minimum Temperature and Day to Day Cold wave/Cold Day Scenario (17 to 23 December, 2020)

- **Weekly minimum Temperature:** The weekly average maximum temperatures were below normal by 1-3°C over most parts of northwest India and western parts of India outside Uttarakhand, apart of Ladakh and remaining parts of India where it was normal or higher than normal(**Annexure III**). The weekly average minimum temperatures were below normal by 1-3°C over central parts of the northwestern plains of India and Kashmiri, parts of Odisha and Telengana with normal to above normal temp over rest parts of the country (**Annexure III**).
- **Day to Day Cold wave Scenario:** **Cold Wave conditions in some pockets with Severe Cold Wave condition** had been occurred in isolated pockets over north Rajasthan on one day(17 Dec), over Punjab, Haryana, Chandigarh & Delhi for one day(19 Dec) over east Uttar Pradesh on three days(19-21 Dec); **Cold Wave conditions** had been occurred in few places to many places over Punjab for three days(18, 22 and 23 Dec) in isolated pockets over Haryana, Chandigarh & Delhi on three days(17, 20 and 23 Dec), west Uttar Pradesh on four days(17-20 Dec) and **over north Rajasthan for one day(18 Dec)**. **Cold wave conditions** had been occurred at isolated places over Bihar and Odisha for four days during 20-23 Dec; for two days each over Chhattisgarh(22 and 23 Dec) and over Gangetic West Bengal(20 and 21 Dec) and one day each over west Madhya Pradesh(20 Dec), east Madhya Pradesh(23 Dec) and Vidarbha(20 Dec). **The lowest minimum temperature of -0.3° C was recorded at Churu (West Rajasthan) on 18th December 2020 over the plains of the country during the week.**
- **Day to Day Cold Day Scenario:** **Cold day to severe cold day conditions** had been occurred at many places over Punjab and Haryana, Chandigarh & Delhi and west Uttar Pradesh on two days each(17 and 18 Dec) during the week. **Cold day conditions at a few places with**

severe cold day conditions at isolated places had been occurred over east Uttar Pradesh for three days (20-22 Dec) during the week. Cold day conditions at isolated places to few places had been occurred over Punjab, Haryana, Chandigarh & Delhi, north Rajasthan and West Madhya Pradesh on two day each(19 Dec and 20 Dec); at isolated places over Bihar for four days(20-23 Dec) during the week.

Day to Day Dense Fog Scenario (17 to 23 December, 2020)

- Dense to very dense fog had been occurred at many places over east Uttar Pradesh on two days (20 and 21 Dec) and at isolated places over its northern parts in the following two days of 22 and 23 Dec; at a few places over Punjab on three days(17th, 18th and 23rd) with isolated places for four days during remaining days of the week ; over north Rajasthan for one day at isolated places on 17th Dec. Dense fog had been occurred at isolated places over Haryana, Chandigarh & Delhi for two days on 22 and 23 Dec, over West Uttar Pradesh for three days on 17, 19 and 23 Dec; over Bihar for four days during 20-23 Dec ; over Himachal Pradesh and Uttarakhand for two days(17 and 18 Dec); over northeastern states for 2 days during 19-20 Dec 2020.

Chief synoptic conditions as on 24 December, 2020

- A feeble Western Disturbance as a cyclonic circulation over Afghanistan & adjoining north Pakistan now lies over north Pakistan & neighbourhood between 3.1 km & 3.6 km above mean sea level with a trough aloft in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level now runs roughly along Long. 70°E to the north of Lat. 32°N.
- In quick succession, another active Western Disturbance is likely to affect Western Himalayan Region from 26th which could cause Scattered to Fairly widespread rainfall/snowfall over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; isolated to scattered rainfall/snowfall over Himachal Pradesh, Uttarakhand and isolated rain/thundershowers over adjoining plains of Northwest India during 27th-28th December, 2020.
- A Low Pressure Area lies lies over southeast Arabian Sea & adjoining Equatorial Indian Ocean. The associated cyclonic circulation extends upto 4.5 km above mean sea level.
- A cyclonic circulation extending upto 3.1 km above mean sea level lies over Malay Peninsula & neighbourhood.

Large scale features as on 24 December, 2020

- 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 the Nino 3.4 region and La Niña conditions likely to during coming seasons.
- At present, neutral Indian Ocean Dipole (IOD) conditions are observed over Indian

Ocean and the latest MMCFS forecast indicates neutral IOD conditions are likely to continue during the coming months.

- The Madden Julian Oscillation (MJO) index is in Phase 1 with weak amplitude. As per the latest projections, it is likely to enter in Phase 2 with weak amplitude from 25 Dec and likely to be in phase 2 till end of week 1. It is Likely to enter into phase 3 in the beginning of week 2 and enter into phase 4 by end of the week 2 with amplitude.

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (24 to 30 December, 2020) and Week 2 (31 Dec 2020 to 6 January, 2021)

Rainfall for week 1: (24 to 30 December, 2020)

- An active Western Disturbance is likely to affect Western Himalayan Region from 26th which could cause Scattered to Fairly widespread rainfall/snowfall over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; isolated to scattered rainfall/snowfall over Himachal Pradesh, Uttarakhand and isolated rain/thundershowers over adjoining plains of Northwest India during 27th-28th December, 2020.
- Easterly waves are likely to cause isolated to scattered rainfall over Tamil Nadu, Kerala & Lakshadweep Islands during week 2.
- Cumulatively, near normal rainfall activity over major parts of the plains of the country outside Tamil Nadu & south Kerala where it could be below normal during week 1. Below normal rain/snow also likely over Western Himalayan Region during week 1. (Annexure IV and V).

Rainfall for Week 2 (31 Dec 2020 to 6 January, 2021)

- An easterly – westerly interaction leading to a wet spell over central India & northern plains is also likely during later part of week 2.
- Rainfall is likely to be above normal rainfall over Tamil Nadu, Kerala & Lakshadweep Islands during week 2. Below normal rain/snow also likely over Western Himalayan Region and adjoining northwestern plains of India during week 2. (Annexure IV and V).

Temperature/fog for week 1 & 2: (24 December 2020-6 Jan 2021)

- **Minimum temperatures** likely to remain below normal by **1-3°C** over major parts of the country outside northeastern states during week 1. Northeastern states likely to get above normal temperature during week 1. (**Annexure VI**).
- Cold wave conditions likely in some parts over western Himalayan region and in isolated pockets over northwest, central & eastern India during 2nd half of the week 1. Cold wave conditions also likely at isolated pockets of Interior Odisha & adjoining

Chhattisgarh during the same period.

- **Minimum temperatures** likely to above normal by **2-4°C over central India and northeastern states during week 2. However, it is likely to remain below normal by 2-3°C over plain of northwest India and Bihar, and 1-2°C above normal over Odisha & adjoining Chhattisgarh during the week 2. (Annexure VI).**
- Cold wave conditions likely in some parts over western Himalayan region and in isolated pockets over northwest India during 1st half of the week 2. In general, it could remain less prevalent in week 2 outside Northwest India.
- During week 2, there would be rise in minimum temperatures over northwest, Central and eastern India as compare to week 1. **(Annexure VI).**
- **Maximum Temperature:** Below normal day temperatures by 1-3°C could prevail over plains of northwest India, central & adjoining peninsular India & above normal by 1-3°C over eastern India (Odisha & adjoining Chhattisgarh, Bihar) during week 1. Similar pattern could continue in week 2, but with slight warming of days, as compared to week 1 **(Annexure VI and VII).**

Dense to very dense fog forecast for week 1

Dense to very dense fog in some pockets very likely over Punjab in the morning hours of 25th and isolated Dense fog in the morning hours of 26th. Dense fog in isolated pockets over northern parts of Uttar Pradesh and Haryana in the morning hours of 25th & 26th December, 2020. Fresh spell of dense fog likely over plains of north India from 29 Dec.

Cyclogenesis: There is no probability of cyclogenesis over north Indian Ocean during week 1 and week 2.

Next weekly update will be issued on next Thursday i.e. 31 December, 2020

Happy new Year-Stay Safe

Annexure I

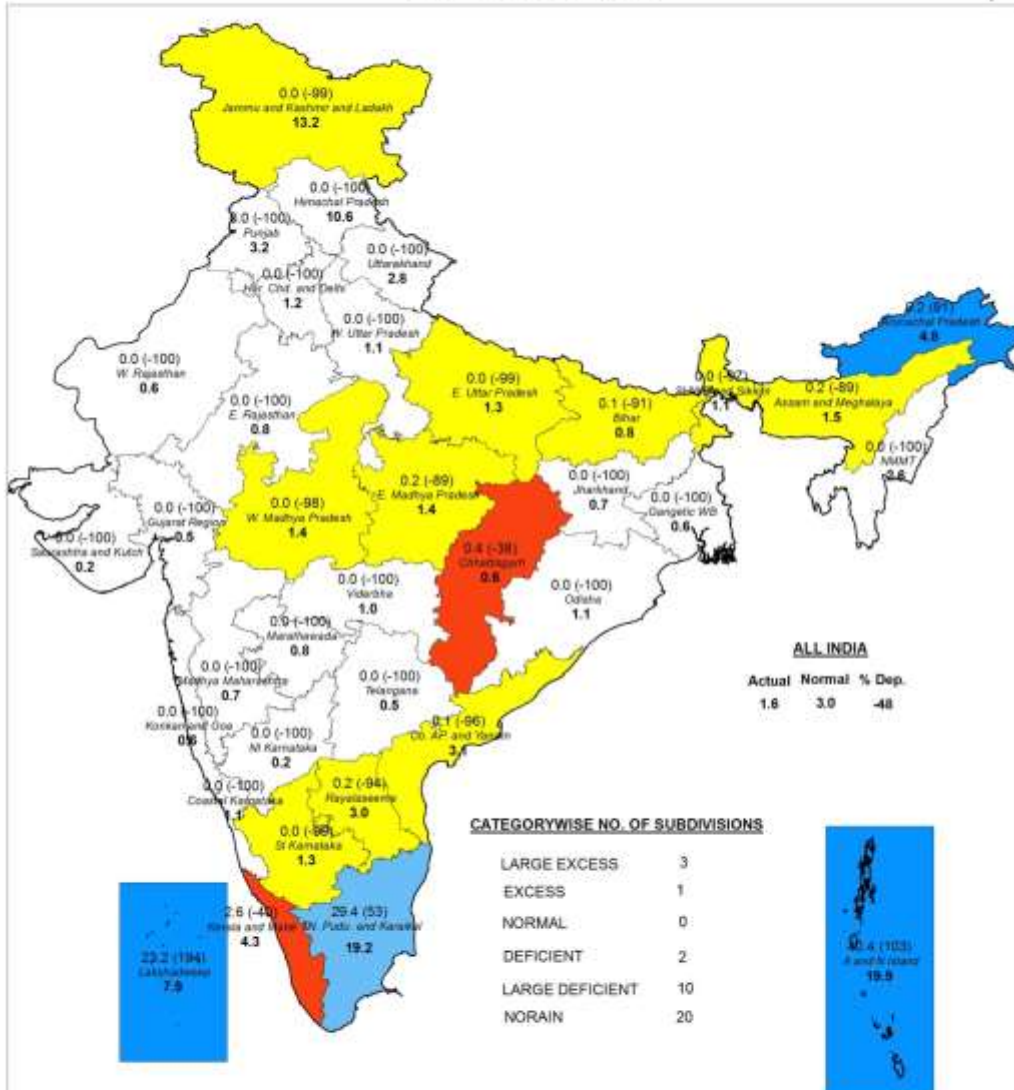


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INDIA METEOROLOGICAL DEPARTMENT

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HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Week : 17-12-2020 To 23-12-2020



Legend

Large Excess [40% or more] Excess [20% to 39%] Normal [-19% to 19%] Deficient [-49% to -20%] Large Deficient [-99% to -40%] No Rain [-100%] No Data

NOTES :

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

Annexure-II

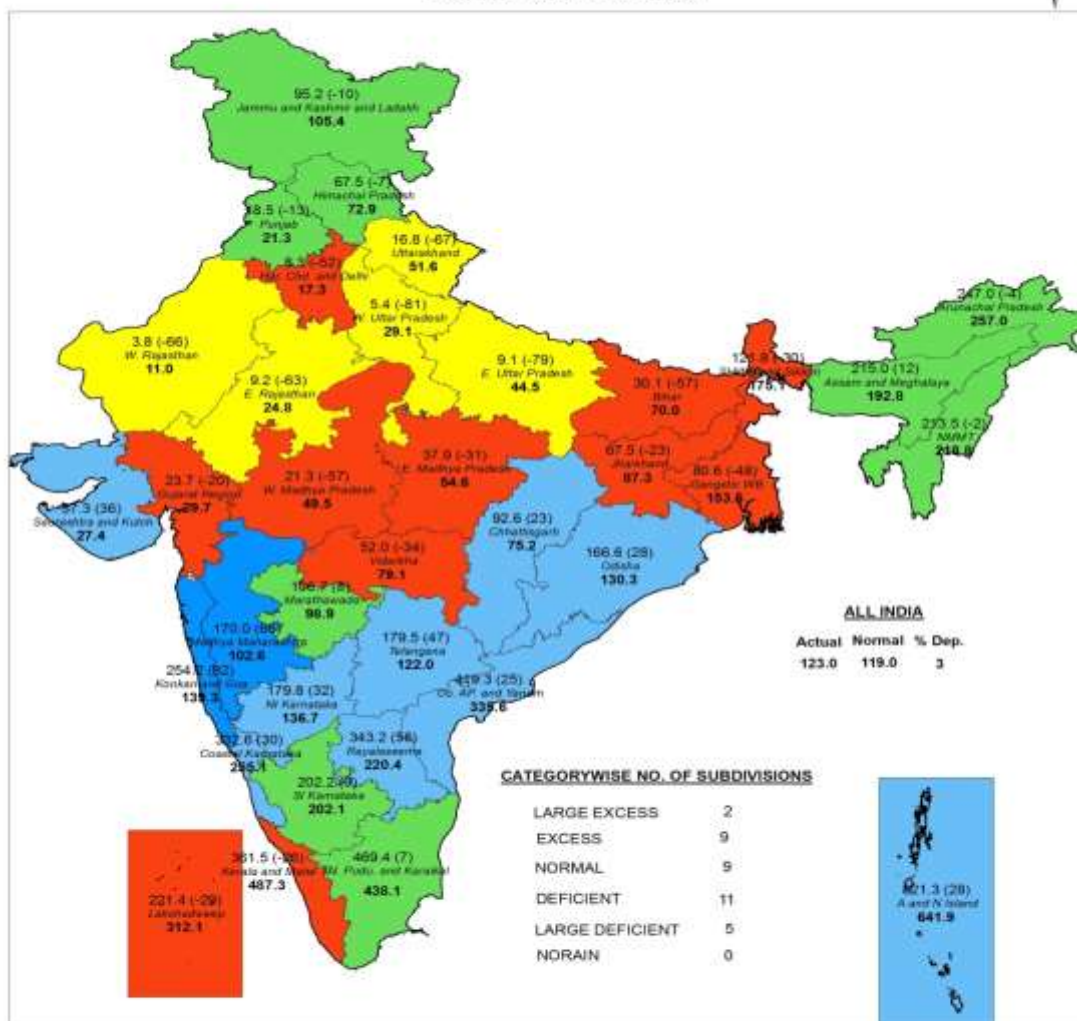


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HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Period : 01-10-2020 To 23-12-2020



Legend

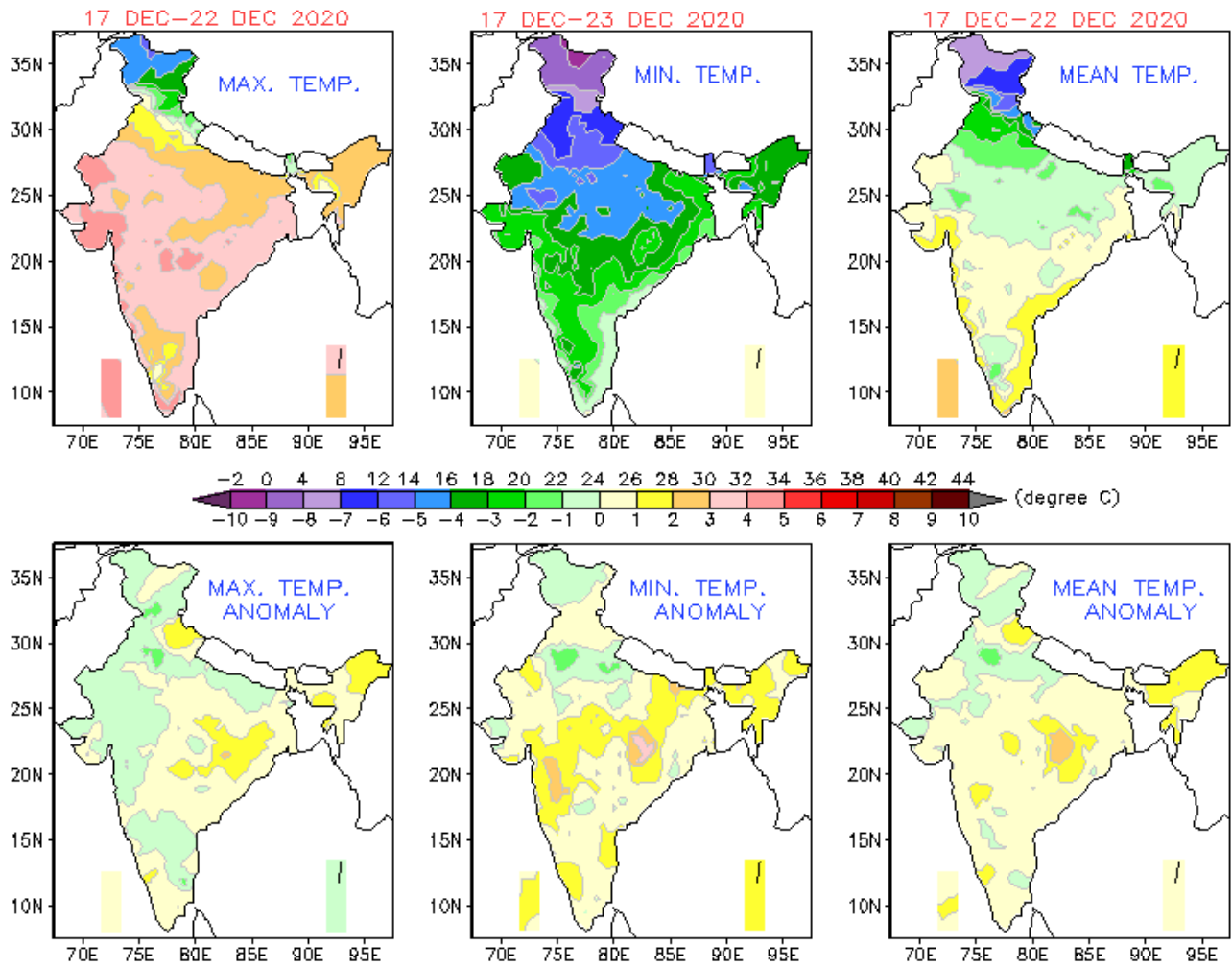
■ Large Excess [60% or more]
 ■ Excess [20% to 59%]
 ■ Normal [-19% to 19%]
 ■ Deficient [-59% to -20%]
 ■ Large Deficient [-99% to -60%]
 No Rain [-100%]
 No Data

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.

Annexure III

TEMPERATURE FOR WEEK ENDING 23 DEC & ITS ANOMALY



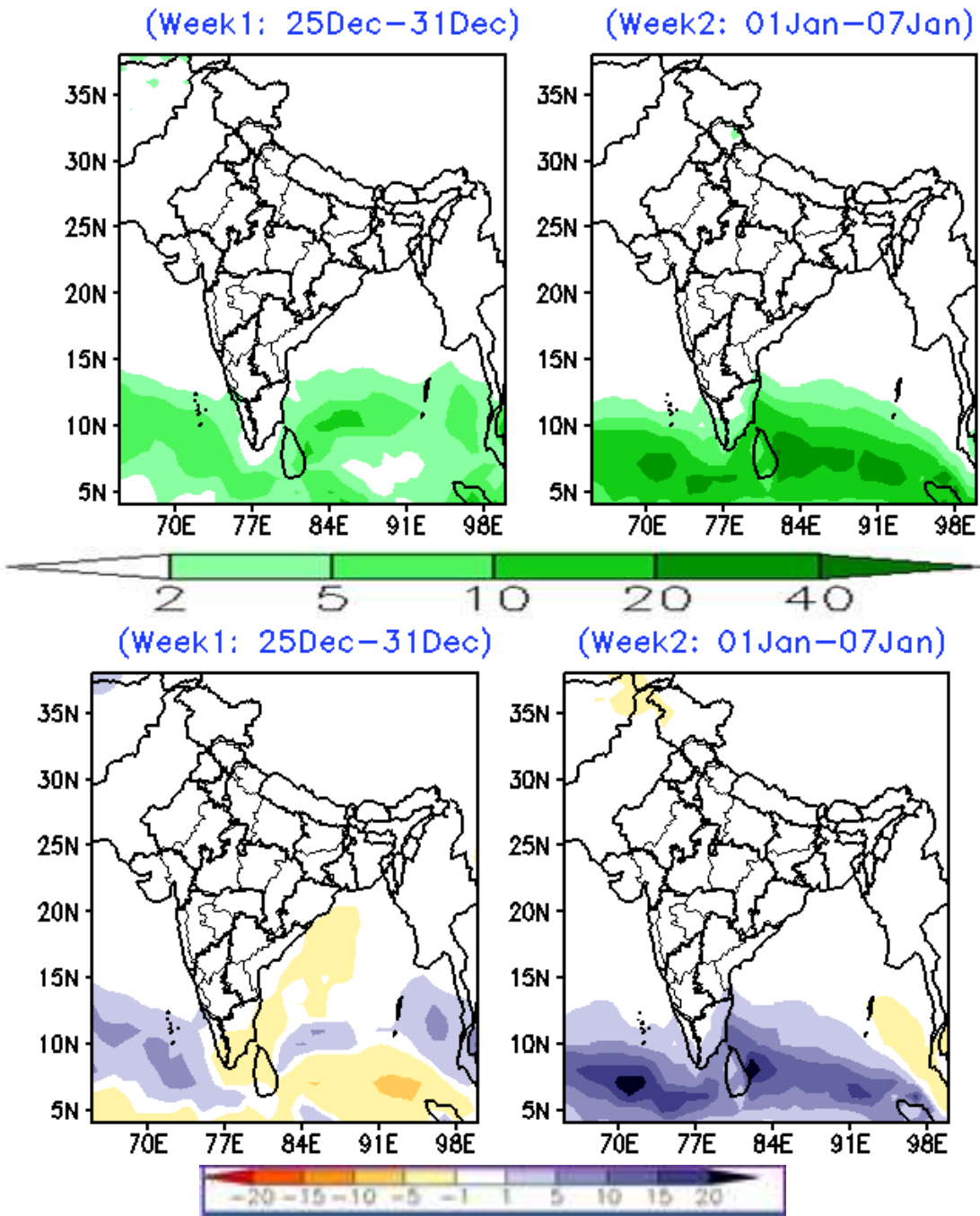
Annexure IV

Sr. No	MET.SUB-DIVISIONS	24 DEC	25 DEC	26 DEC	27 DEC	28 DEC	29 DEC	30 DEC
1	ANDAMAN & NICO.ISLANDS	ISOL	SCT	FWS ^L	SCT	ISOL	ISOL	SCT
2	ARUNACHAL PRADESH	ISOL	ISOL	D	D	D	D	D
3	ASSAM & MEGHALAYA	D	D	D	D	D	D	D
4	NAGA.MANI.MIZO.& TRIPURA	D	D	D	D	D	D	D
5	SUB-HIM.W. BENG. & SIKKIM	ISOL	D	D	D	D	D	D
6	GANGETIC WEST BENGAL	D	D	D	D	D	D	D
7	ODISHA	D	D	D	D	D	D	D
8	JHARKHAND	D	D	D	D	D	D	D
9	BIHAR	D	D	D	D	D	D	D
10	EAST UTTAR PRADESH	D ^F	D ^F	D	D	D	D	D
11	WEST UTTAR PRADESH	D ^F	D ^F	D	ISOL	D	D	D
12	UTTARAKHAND	D	D	D	ISOL	ISOL	D	D
13	HARYANA CHD. & DELHI	D ^F ↓	D ^F	D	ISOL	D	D	D
14	PUNJAB	D ^F ↓	D ^F ↓	D	ISOL	D	D	D
15	HIMACHAL PRADESH	D↓	D	ISOL	SCT	ISOL	D	D
16	JAMMU & KASHMIR AND LADAKH	ISOL	ISOL	ISOL	FWS	ISOL	D	D
17	WEST RAJASTSAN	D	D	D	D	D	D	D
18	EAST RAJASTSAN	D	D	D	D	D	D	D
19	WEST MADHYA PRADESH	D	D	D	D	D	D	D
20	EAST MADHYA PRADESH	D	D	D	D	D	D	D
21	GUJARAT REGION	D	D	D	D	D	D	D
22	SAURASTRA & KUTCH	D	D	D	D	D	D	D
23	KONKAN & GOA	D	D	D	D	D	D	ISOL
24	MADHYA MAHARASHTRA	D	D	D	D	D	D	D
25	MARATHAWADA	D	D	D	D	D	D	D
26	VIDARBHA	D	D	D	D	D	D	D
27	CHHATTISGARH	D	D	D	D	D	D	D
28	COASTAL ANDHRA PR. & YANAM	D	D	D	D	D	D	D
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMIL. PUDU. & KARAIKAL	D	D	D	D	ISOL	SCT ^L	SCT ^L
32	COASTAL KARNATAKA	D	D	D	D	D	D	ISOL
33	NORTH INTERIOR KARNATAKA	D	D	D	D	D	D	D
34	SOUTH INTERIOR KARNATAKA	ISOL	D	D	D	D	ISOL	ISOL
35	KERALA & MAHE	ISOL	ISOL	ISOL	D	D	D	D
36	LAKSHADWEEP	FWS	SCT	D	D	D	D	D

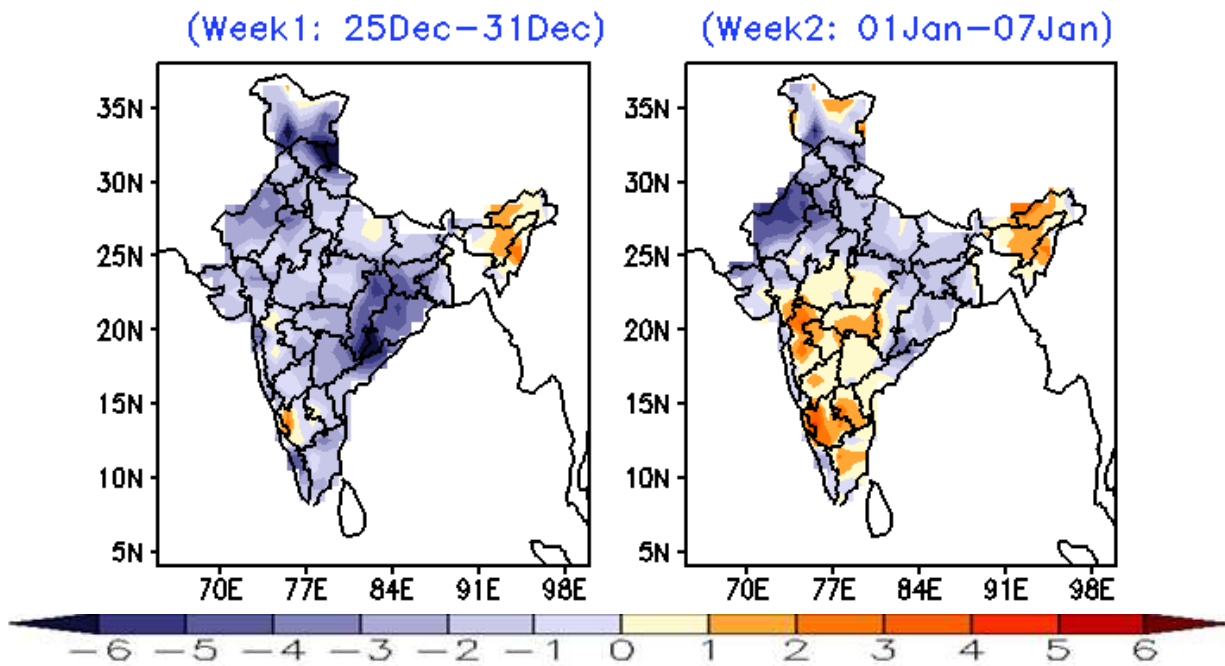
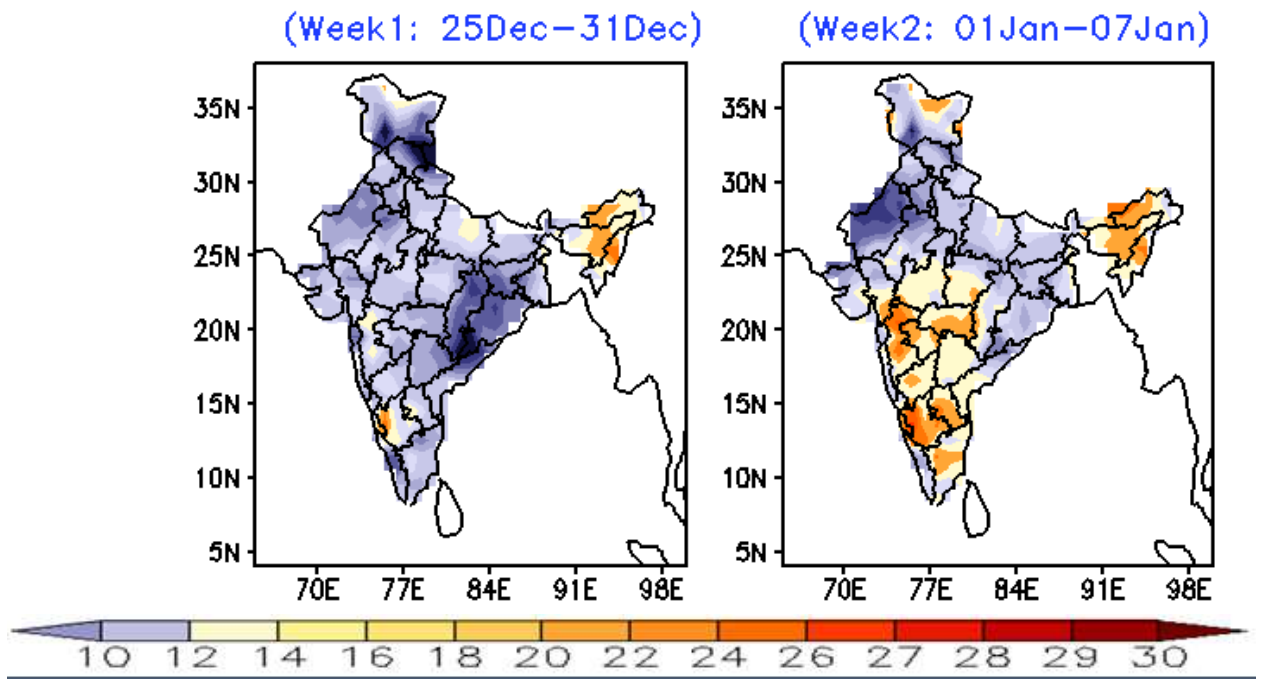
LEGENDS:

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)				

Annexure V- Rainfall Forecast (actual and anomalies) during 25th Dec. 2020 -07th Jan. 2021)



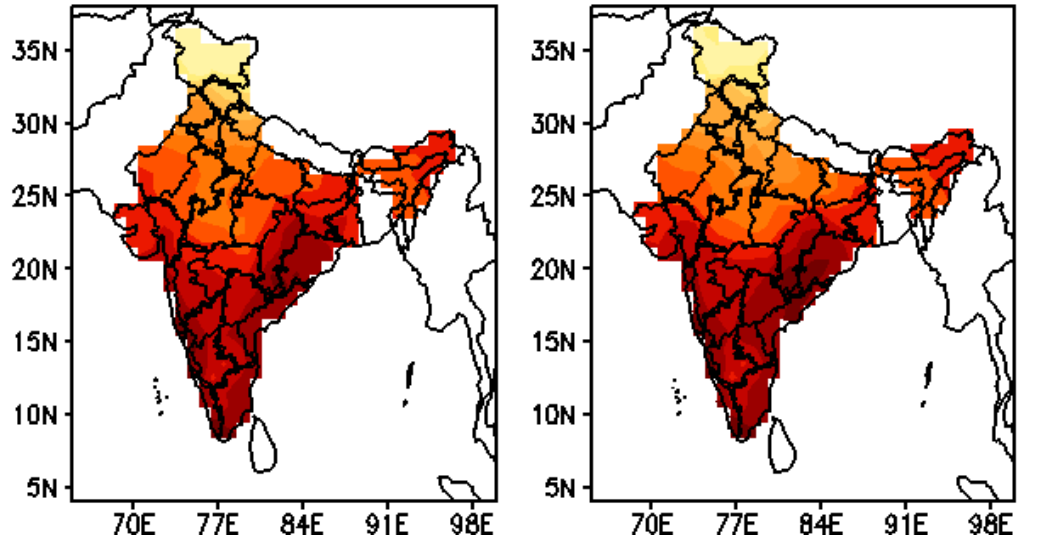
Annexure VI- Minimum temperature Forecast (actual and anomalies) during 25th Dec. 2020 -07th Jan. 2021)



Annexure VII: Maximum temperature Forecast (actual and anomalies) during 25th Dec. 2020 -07th Jan. 2021)

(Week1: 25Dec-31Dec)

(Week2: 01Jan-07Jan)



(Week1: 25Dec-31Dec)

(Week2: 01Jan-07Jan)

