



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

Press: Dated: 13 Jan, 2022

**Subject: Current Weather Status and Extended range Forecast for next two weeks
(13-26 Jan 2022)**

1. Salient Features for week ending on 12 2021

- The most active western disturbance(WD) of the this Winter season along with induced system moved across northwest, Central and Eastern parts of India, during 7-13 Jan causing fairly wide spread to widespread intense precipitation over these areas with spell over each region lasted for 2-3 days. Isolated Heavy to very heavy precipitation accompanied with isolated thunderstorm and Hail storms also reported over most states of the northwest India, Madhya Pradesh, Chhattisgarh, Vidarbha, Jharkhand, Bihar, West Bengal, Telengana and Odisha on 1 to 3 days during the week.
- Uniqueness of this WD –a)Very Intense WD as cyclonic circulation with Vertical extent of the system seen upto 9000-10000m height Initially which remained stationary over north Pakistan & neighbourhood for almost 2-days during 7-9 Jan and then moved very slowly to eastern parts of India. b)Long amplitude Trough aloft at mid and upper troposphere was observed on almost all dates as it moved from North of lat 20°N along long 65°E on 7th to north of lat 26°N along long 83°E on 13th Jan c)At lower and middle tropospheric level, it Interacted with lower level tropical easterly, resulting very high Moisture feeding both from Arabian Sea during 7-9 Jan and then followed with further support wind confluences from both Arabian Sea and Bay of Bengal observed over central and eastern India during 10-13 Jan which sustain the wet spell for longer period during its life time.
- As the WD moved eastwards, across northwest India, by 11th Jan, and there was a high moistures from wet spell occurred over northwest and adjoining Central India during 7-10 Jan, dense fog/low clouds were observed over some locations in these areas during 2nd half of the week. As a result,

Cold day to Severe Cold Day was reported at isolated to few location over these areas during the same period.

➤ No major cold wave condition over any states during the week over northwest and central India , due to easterly winds, clouds and wet spell impacted by this intense WD during 1st half followed with fog/low clouds occurred during 2nd half of the week

➤ **Weekly overall Rainfall distribution during the current week ending on 12 Jan 2022**

Winter Season’s Rainfall Scenario (01 Jan to 12 Jan, 2022): During the week ending on 12 Jan 2022, for the country as a whole, the weekly cumulative All India Rainfall departure from its long period average (LPA) was very high during the week and it was **+528%** with weekly cumulative over northwest India reached as high as above normal by **+814%**, while all India cumulative rainfall during this year’s Winter Season till 12 Jan, 2022 is above LPA by **+370%** and over northwest India, it is above LPA by **+551%**. Details of the rainfall distribution over the four broad geographical regions of India are given in **Table 1** and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	06.01.2022-12.01.2022			01.01.2022 TO 12.01.2022		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	4.1	3.3	24%	4.3	5.2	-18%
NORTH-WEST INDIA	53.0	5.8	814%	59.2	9.1	+551%
CENTRAL INDIA	15.0	2.2	583%	15.0	3.1	+385%
SOUTH PENINSULA	3.1	3.0	5%	9.6	4.5	+113%
country as a whole	22.6	3.6	528%	25.8	5.5	+370%

2. Large scale features

- Currently La Niña conditions are prevailing over the Equatorial Pacific Ocean and neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest global model forecasts indicate that the La Niña conditions are likely to prevail until March 2022 and neutral IOD conditions are likely to continue during the upcoming seasons.
- The Madden Julian Oscillation (MJO) index currently lies in Phase 8 (West Pacific) with amplitude more than 1. It is likely to be retreat back to phase 7 and stay there during next 2 weeks.

3. Forecast for next two week

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (13 to 19 January, 2022) and Week 2 (20 to 26 January, 2022)

Rainfall for week 1 (13 to 19 January, 2022):

- A feeble Western Disturbance seen as a trough in upper tropospheric levels runs along Long. 72°E to the north of Lat. 32°N.
- A trough runs from North Interior Karnataka to north interior Odisha in lower tropospheric levels.
- A cyclonic circulation lies over south Konkan in lower tropospheric levels.
- Under the influence of above systems:
 - ✓ Isolated light rainfall/snowfall very likely over higher reaches of Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad on 13th &14th January, 2022.
 - ✓ Fairly widespread to widespread light/moderate rainfall very likely over Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Telangana and Coastal Andhra Pradesh during 13th to 14th and isolated to scattered light/moderate rainfall over Vidarbha & Chhattisgarh during 13th to 14th January.
 - ✓ Isolated Heavy rainfall very likely over Odisha, Coastal Andhra Pradesh and Telangana on 13th January, 2022.
 - ✓ Isolated thunderstorms with lightning/Hail very likely over Chhattisgarh, Telangana and Odisha on today, the 13th January.

- ✓ Fairly widespread precipitation very likely over Arunachal Pradesh on 13th and significant decrease thereafter with isolate rainfall on 14th & 15th January. Isolated rainfall very likely over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during 13th -15th January.
- Under the influence of a cyclonic circulation over Southwest Bay of Bengal and another over south Tamil Nadu in lower tropospheric levels; isolated light rainfall/thundershower over Tamilnadu, Puducherry & Karaikal and Kerala & Mahe during next 4-5 days.
- **Two fresh Western Disturbances very likely to affect northwest India, the 1st from 16th January and likely to cause isolated to scattered precipitation on 16th & 17th; the 2nd from 18th and likely to cause light/moderate scattered to fairly widespread precipitation over Western Himalayan Region and light isolated to scattered rainfall over adjoining plains for subsequent 2-3 days.**
- Dry weather very likely over remaining parts of the country during most days of the week.

Rainfall for week 2 (20 to 26 January, 2022):

- **Under the influence of Western Disturbances, Light/moderate fairly widespread to widespread rainfall/snowfall likely over Western Himalayan Region during most days of the week and Light/moderate isolated to scattered rainfall over plains of northwest & adjoining central India mainly during 1st half of the week.**
- **Light/moderate isolated to scattered rainfall/thundershower is likely over northeast & adjoining east India during many days of the week**
- **Overall precipitation activity is likely to be normal to above normal over northwest, east & northeast India.**

Minimum Temperatures for week 1(13 to 19 January, 2022) and week 2(20 to 26 January, 2022)

Minimum Temperatures, cold wave and fog for Week 1(13 to 19 January, 2022):

- Minimum temperatures are above normal by 2-4°C over many parts of Punjab, Haryana, Chandigarh, Uttar Pradesh and east & northeast India; these are near normal or below normal by 2-3°C over rest parts of north India

- No significant change in minimum temperatures very likely over northwest & central India during the week.
- No significant change in minimum temperatures over Gujarat state next 2 days and gradual rise by 2-4°C thereafter.
- No significant change in minimum temperatures over East India during 1st half of the week and fall by 2-3°C thereafter.
- **Cold wave conditions in isolated pockets very likely over northeast Rajasthan, West Uttar Pradesh and West Madhya Pradesh during 1st half of the week.**
- **Cold day conditions in isolated pockets very likely over Gujarat state, Punjab, Haryana & Chandigarh, West Uttar Pradesh, Madhya Pradesh and north Rajasthan during next 2 days.**
- **Dense/Very Dense Fog in isolated pockets in night/morning hours very likely over Western Himalayan region, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 2 days; Punjab, Haryana, Chandigarh & Delhi, north Rajasthan during 1st half of the week and over Uttar Pradesh, Bihar and Sub-Himalayan West Bengal & Sikkim during most days of the week.**

Minimum Temperatures for week 2 (20 to 26 January, 2022):

- **Minimum temperatures likely to be near normal or slightly above normal over most parts northwest, central, east & northeast India and near normal over rest parts of the country.**
- **No significant cold wave is likely over any parts of the country.**
- **However, Dense fog in isolated pockets likely to occur over northern parts of the country during many days of the week. (Refer Annex IV)**

3. Cyclogenesis forecast for North Indian Ocean during next 2 weeks

Various broad scale features and model guidance indicate that no cyclogenesis is likely over the North Indian Ocean during the ensuing 2 weeks

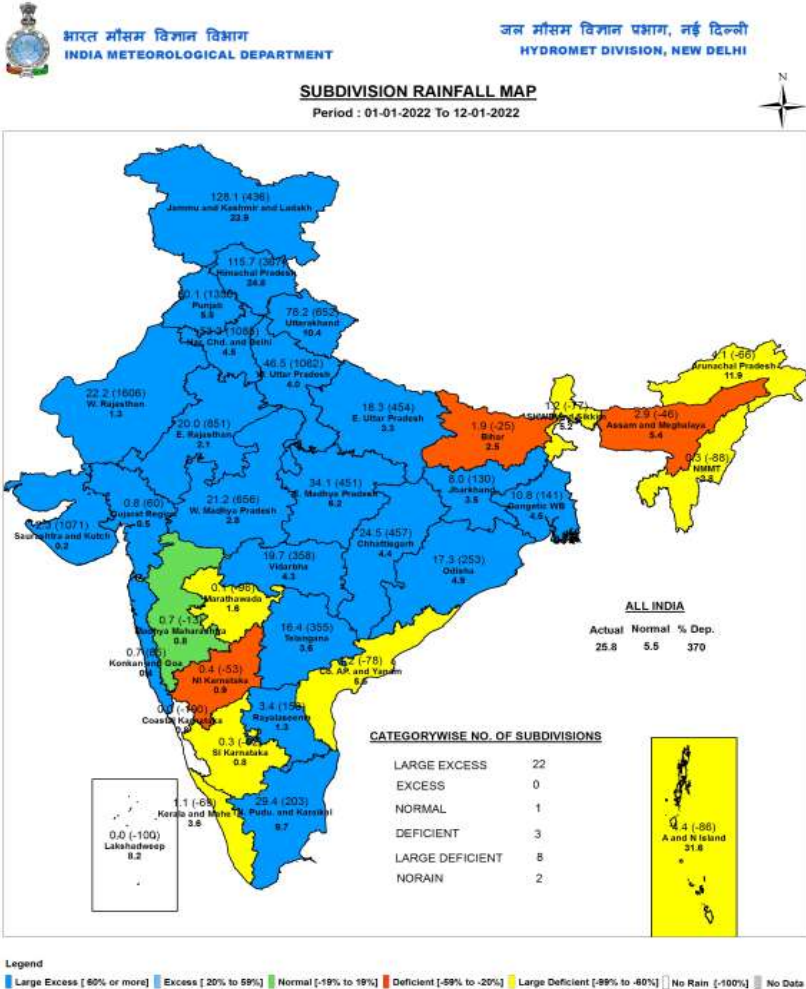
Next weekly update will be issued on next Thursday i.e. 20 Jan 2022

Legends: Heavy Rain: 64.5 to 115.5 mm **Very Heavy Rain:** 115.6 to 204.4 mm, **Extremely Heavy Rain** > 204.4 mm

SPATIAL DISTRIBUTION (% of Stations reporting)			
% Stations	Category	% Stations	Category
76-100	Widespread (WS/ Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)

Probabilistic Forecast	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Annex I



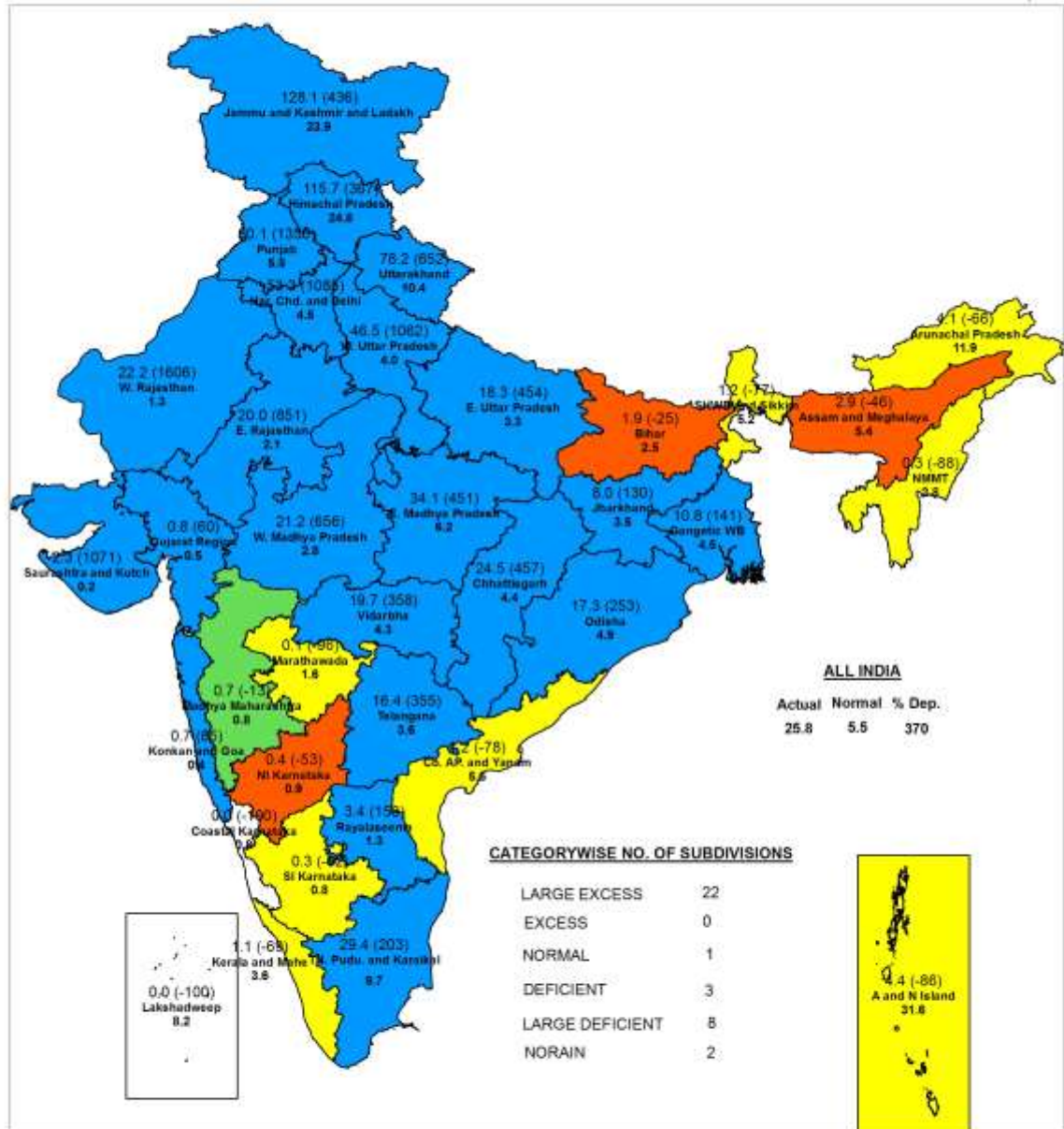


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

जन मौसम विज्ञान पभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Period : 01-01-2022 To 12-01-2022



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

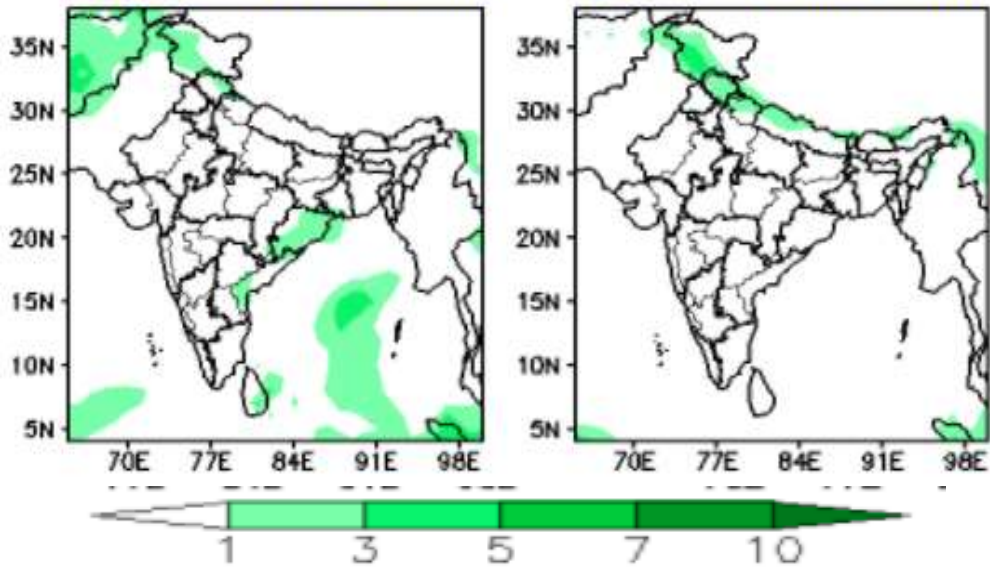
NOTES :

- 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.

Forecast Rainfall (mm/day)

(Week1: 14Jan-20Jan)

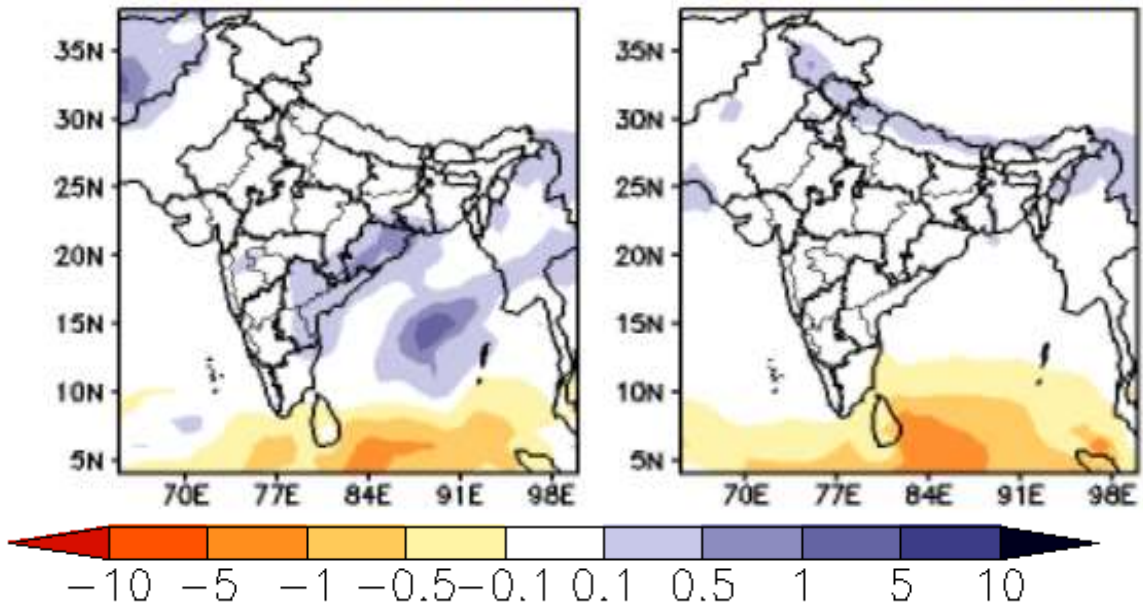
(Week2: 21Jan-27Jan)



Forecast Rainfall Anomaly (mm/day)

(Week1: 14Jan-20Jan)

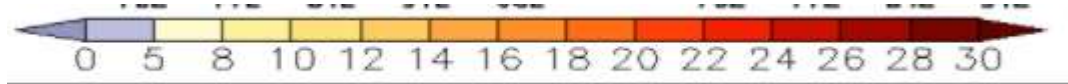
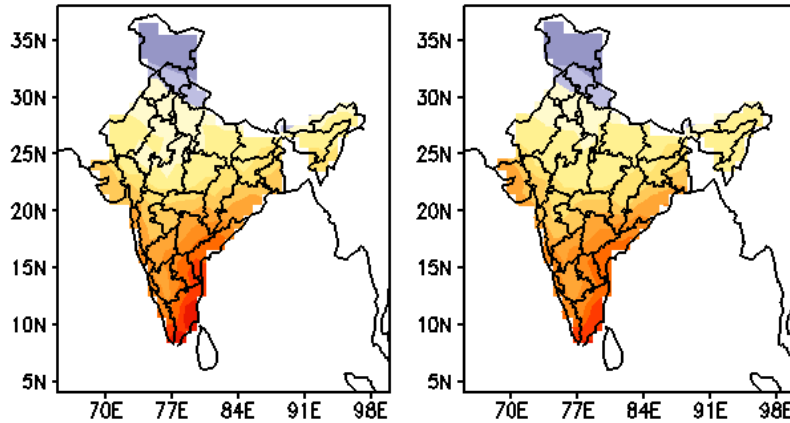
(Week2: 21Jan-27Jan)



MME Bias corrected forecast Tmin (Deg

(Week1: 14Jan–20Jan)

(Week2: 21Jan–27Jan)



MME forecast Tmin anomaly (Deg C)

(Week1: 14Jan–20Jan)

(Week2: 21Jan–27Jan)

