Years of Service to the Nation
राष्ट्र सेवा के 150 वर्ष

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

Press Release: Dated: 02nd January, 2025

Subject: Current Weather Status and Extended range Forecast for the next two weeks (02nd to 15th January 2025)

1. Salient Observed Features for the week ending 01st January 2025:

- **Under the influence of an active Western Disturbance**, fairly widespread to widespread rainfall/snowfall activity was observed over the Western Himalayan region & adjoining plains of Northwest and Central India with isolated thunderstorm and hailstorm on 28th & 29th December. Heavy rainfall/snowfall was observed at isolated places over Jammu Kashmir on 28th December, Uttarakhand on 29th December. Heavy rainfall was also observed at isolated places of Haryana on 28th December.
- **Heavy to very heavy rainfall** was recorded at isolated places over south Tamil Nadu on 31st December and 1st January. **Heavy rainfall** was recorded at isolated places over Odisha on 26th December; Rayalaseema and coastal Andhra Pradesh on 27th December; Tamil Nadu on 27th, 28th & 30th December.
- **Dense to very Dense Fog** was observed in isolated pockets of Haryana on 26th December; Jammu-Kashmir, Punjab, East Rajasthan, Himachal Pradesh and Haryana-Chandigarh on 30th December; Chandigarh, East Rajasthan, Chhattisgarh, Sub-Himalayan West Bengal on 31st December; Haryana, West Rajasthan, West Bengal, Assam & Meghalaya on 1st January. **Dense Fog** was observed in isolated pockets of Delhi, Rajasthan, Meghalaya and Manipur on 26th December; Odisha and Meghalaya on 27th December; Vidarbha, Jammu Kashmir, Punjab, East Uttar Pradesh, Rajasthan on 28th December; Punjab, Haryana, Rajasthan, East Uttar Pradesh on 29th December; Meghalaya and West Rajasthan on 30th December; Punjab, West Uttar Pradesh, Assam & Meghalaya, Tripura on 31st December; Himachal Pradesh, Delhi, Odisha, Chhattisgarh and Tripura on 1st January.
- **Cold wave to severe cold wave** conditions observed in isolated pockets of Himachal Pradesh on 26th December.
- **Cold day to severe cold day** conditions observed in isolated pockets of Haryana from 30th December to 1st January, Chandigarh on 30th & 31st December, Rajasthan on 30th & 31st December; Punjab, Delhi, Himachal Pradesh on 31st December, East Rajasthan and East Madhya Pradesh on 1st January.

- **Weekly Average Minimum temperature** was above normal by 2-4ºC over the country during this week. **Weekly Average Maximum temperature** was below normal by 2-4ºC over north and northwest India and near normal over rest parts of the country during this week.
- **Temperature Scenario:** The lowest minimum temperature of **3.5ºC** had been recorded at **Uttarlai IAF (Uttar Pradesh)** on **31st December 2024** over the plains of the country during the week.

- **Analysis of weekly overall rainfall distribution during the week ending on 01st January and Post-monsoon Season's Rainfall Scenario (1st October – 31st December, 2024):** The country as a whole, the weekly cumulative All India Rainfall (for 26th December 2024 to 01st January 2025) in % departure from its long period average (LPA) is 120%. All India Seasonal cumulative rainfall % departure during this year's post-monsoon Season Rainfall (01st October – 31st December 2024) is -3%. 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 **Annexure I & II** respectively.

Table 1: Rainfall status (Week and season)

Region	Week			Season		
	26.12.2024 TO 01.01.2025			01.10.2024 TO 31.12.2024		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
East & Northeast India	0.3	3.1	-91%	154.3	158.9	-3%
Northwest India	14.3	6.7	+114%	23.4	52.6	-55%
Central India	7.2	1.2	+496%	68.5	76.1	-10%
South Peninsula	6.5	4.0	+63%	317.9	274.1	+16%
Country as a Whole	8.1	3.7	+120%	117.4	121.0	-3%

2. Large scale features:

- Currently, neutral El Niño-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific. The probability forecast indicates a highest probability of La Niña conditions during the DJF and JFM seasons.
- Above-average sea surface temperatures (SSTs) are currently seen across most of the Indian Ocean. Currently, neutral Indian Ocean Dipole (IOD) conditions are observed over the Indian Ocean. The latest MMCFS forecast indicates that the neutral IOD conditions are likely to continue for the next several months.
- The Madden Julian Oscillation (MJO) index is currently in Phase 8 with an amplitude nearing 1. It is likely to continue to move in phase 8 during the first half of week 1 with amplitude < 1. Thereafter, during the latter half of week 1 it will continue to move in Phase 8 with amplitude becoming > 1. By the start of Week 2,

it is likely to propagate to Phase 1 with amplitude remaining> 1 and will remain in Phase 1 for the entire Week 2 with amplitude remaining> 1.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (02 to 08 January, 2025) and Week 2 (09 to 15 January, 2025)

Weather systems & associated Precipitation during Week 1 (02 to 08 January, 2025):

- A **Western disturbance** as a cyclonic circulation lies over Jammu & adjoining north Pakistan in lower tropospheric levels. Another **western disturbance** as a cyclonic circulation lies over central parts of Iran in lower & middle tropospheric levels with a trough aloft in upper tropospheric westerlies with its axis at 7.6 km above mean sea level roughly along Long. 54°E to the north of Lat. 25°N. An induced cyclonic circulation is also likely to form over Punjab & neighbourhood on 05th January. In addition, moisture feeding from Arabian Sea to northwest India is also likely during 05th to 07th January 2025**. Under its influence;**
  - ✓ Light isolated to scattered rainfall/snowfall over Western Himalayan region from 02nd to 04th and scattered to fairly widespread rainfall/snowfall over the region from 05th to 06th January. **Heavy rainfall/snowfall** at isolated places also likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 05th & 06th January.
  - ✓ Light isolated to scattered rainfall also likely over the plains of Northwest India during 04th to 06th January.
  - ✓ Isolated thunderstorm accompanied with lightning also likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and Himachal Pradesh on 05th & 06th January.

Precipitation for week 2 (09 to 15 January, 2025):

- Under the influences of active western disturbance, light to moderate scattered/fairly widespread rainfall/snowfall likely over Western Himalayan Region and isolated to scattered rainfall over adjoining plains of northwest India during 1st half of the week.
- Isolated to scattered rainfall/thunderstorm is also likely over central India due to confluence between westerly winds in association with Western Disturbance and easterly winds.
- Under the influence of likely formation of cyclonic circulation/ Low Pressure area, isolated to scattered rainfall likely over South Peninsular & adjoining central India during some days of the week.

- Overall, rainfall is likely to be above normal over most parts of Central & South Peninsular India; normal to above normal over many parts of plains of northwest India; below normal over rest parts of the country during the week (**Annexure III**).

Minimum temperature and Fog forecast & warning for Week 1 (02 to 08 January, 2025) and Week 2 (09 to 15 January, 2025)

Minimum temperature and Fog forecast & warning for Week 1 (02 to 08 January, 2025):

Temperature Conditions during past 24 hours till 0830 hours IST of today (Annexure IV):

- Minimum temperatures were **below 0°C** over many parts of Jammu, Kashmir & Ladakh; **4-9°C** over many parts of Northwest & Central India and Jharkhand; **9-14°C** over many parts of East India, **14-18°C** over many parts of West India. Today, the lowest minimum temperature of 4.4°C is reported at **Dehri (Bihar)** over the plains of the country.
- There has been a fall in minimum temperature by 2-4ºC over many parts of Central India and by 1-2ºC over many parts of Northwest & East India during past 24 hours and rise in minimum temperature by 1-2ºC over some parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, East Rajasthan and Gujarat State.
- Minimum temperatures are **below normal (-1°C to -3°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Madhya Pradesh and Saurashtra & Kutch. These are **appreciably above normal (3°C to 5°C)** at a few places over Madhya Maharashtra & Odisha; at isolated places over Punjab and Marathwada; **above normal (1°C to 3°C)** at many places over Telangana, Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam; at a few places over East Uttar Pradesh, East Madhya Pradesh, Bihar, Gujarat Region, Konkan & Goa, Gangetic West Bengal, Rayalaseema and Kerala & Mahe; at isolated places over Haryana, Andaman& Nicobar Islands, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Vidarbha and near normal over rest parts of the country.

Forecast of temperature:

- Gradual rise in minimum temperatures by 2-3℃ likely over Northwest India during next 5 days.
- No significant change in minimum temperatures likely over Central & East India during next 3 days and gradual rise by 2-3℃ thereafter.
- Fall in minimum temperatures by 2-3℃ likely over Maharashtra region during next 2 days and no significant change thereafter.
- No significant change in minimum temperatures likely over Gujarat state during next 5 days.

Cold Day Warnings:

Cold Day conditions very likely in some parts of Punjab, Haryana, Chandigarh on 02nd and in isolated pockets of Uttar Pradesh, Rajasthan and West Madhya Pradesh on 02nd January.

Dense Fog Warnings:

Dense fog conditions very likely to prevail during late night/early morning hours in isolated pockets of Punjab, Haryana-Chandigarh, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Odisha on 02nd, Himachal Pradesh, Madhya Pradesh on 02nd & 03rd and Assam & Meghalaya & Nagaland, Manipur, Mizoram & Tripura during 02nd-06th January.

Ground Frost Warnings:

Ground Frost conditions very likely in isolated pockets of Arunachal Pradesh, Meghalaya & Nagaland, Manipur, Mizoram during 02nd–03rd January.

Minimum temperature forecast and dense fog warning for Week 2 (09 to 15 January, 2025):

- Minimum temperatures are likely to be between 4-8°C over many parts of north India (excluding Western Himalayan Region) and above 8°C over rest parts of the country during the week.
- Minimum temperatures are likely to be near normal or slightly above normal over most parts of northwest & adjoining central India and northeast India. It is likely to below normal by 1-3°C over Peninsular & adjoining east India during the week **(Annexure IV).**
- There is a low to moderate probability of cold wave conditions at isolated places over Punjab, Haryana, adjoining north Rajasthan & Himachal Pradesh during some days of the week (**Annexure V**).
- **Dense fog is likely to occur in isolated places of Indo Gangetic plains during some days of the week.**

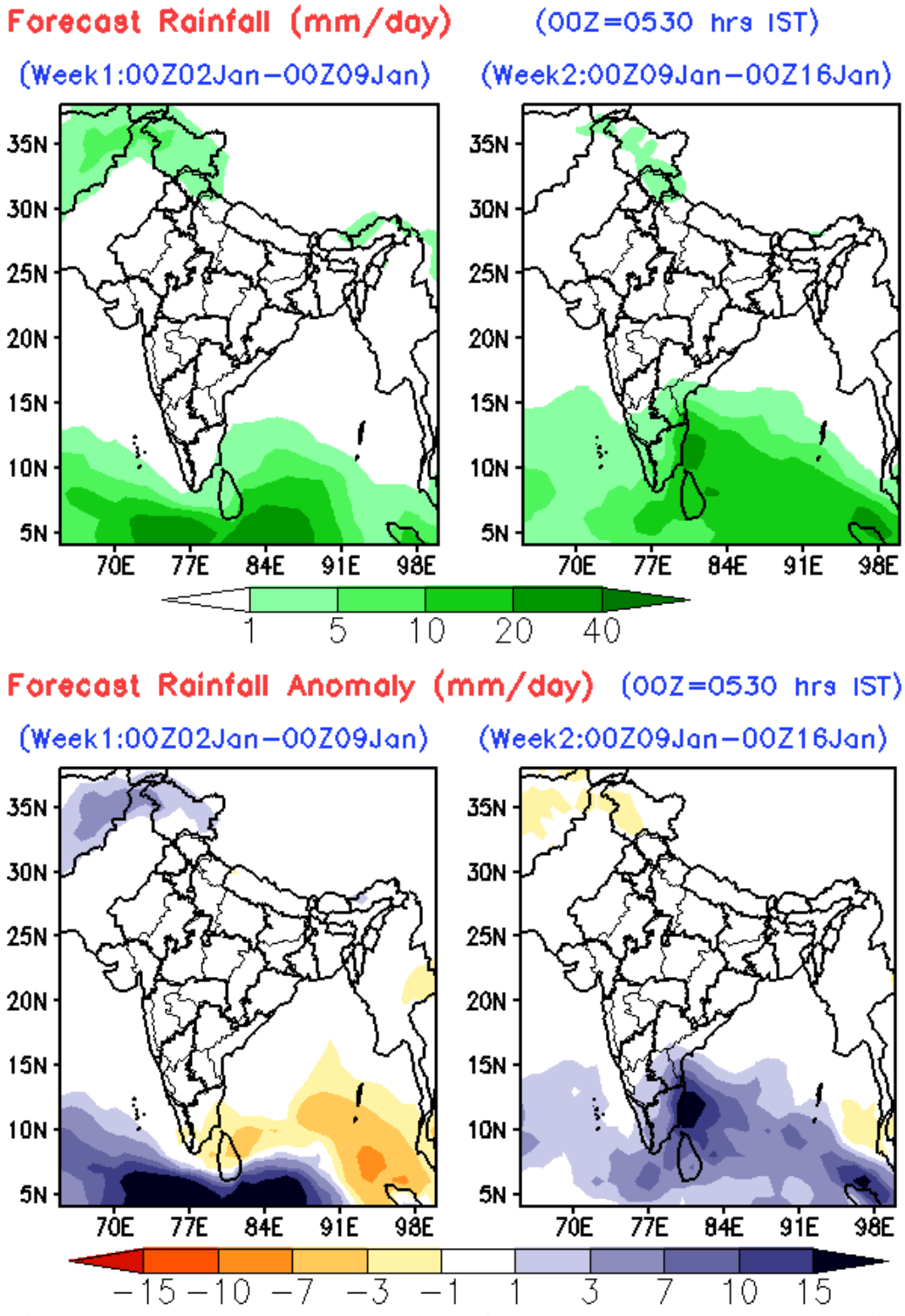
Annexure I


भारत मौसम विज्ञान विभाग
India Meteorological Department
जल मौसम विज्ञान प्रभाग, नई दिल्ली
Hydromet Division, New Delhi
SUBDIVISION RAINFALL MAP
Week: 26-12-2024 to 01-01-2025
150
Years of Service to the Nation
N
23.6 (16%)
J & K AND LADAKH
20.3
41.9 (217%)
HIMACHAL PRADESH
13.2
21.3 (479%)
PUNJAB
3.7
30.2 (292%)
UTTARAKHAND
7.7
24.1 (792%)
HAR. CHD & DELHI
2.7
11.3 (334%)
WEST U.P
2.6
2.2 (439%)
WEST RAJ.
0.4
1.1 (-51%)
EAST U.P
2.2
10.4 (1058%)
EAST RAJASTHAN
0.9
0.0 (-99%)
BIHAR
2.1
0.6 (-84%)
SHWB&SIKKIM
3.9
1.2 (-81%)
ARUNACHAL PRADESH
6.6
0.1 (-96%)
ASSAM & MEGHALAYA
2.6
0.0 (-100%)
NMMT
1.5
19.8 (662%)
EAST M.P
2.6
0.0 (-98%)
JHARKHAND
1.8
15.4 (806%)
WEST M.P
1.7
0.0 (-100%)
SAURASHTRA & KUTCH
0.1
0.2 (115%)
GUJARAT
0.1
0.1 (-98%)
GANGETIC WB
3.9
4.1 (192%)
CHHATTISGARH
1.4
10.6 (1221%)
ODISHA
0.8
1.9 (1%)
VIDARBHA
1.9
0.0 (-97%)
MARATHWADA
1.3
1.5 (15%)
M.MAHARASHTRA
0.6
0.0 (-100%)
KONKAN & GOA
0.2
1.3 (-13%)
TELENGANA
1.5
0.2 (-83%)
N. I. KARNATAKA
1.4
3.0 (208%)
COASTAL A. R& YANAM
3.0
10.7 (297%)
RAYALASEEMA
2.7
0.5 (-70%)
COASTAL KARNATAKA
1.7
1.4 (-15%)
S. I. KARNATAKA
1.6
15.8 (68%)
TAMIL... PUDU. & KARAIKAL
9.4
3.8 (-49%)
LAKSHADWEEP
7.5
2.4 (-48%)
KEARALA &MAHE
4.7
ALL INDIA
Actual Normal %Dep
8.1 3.7 120%
21.6 (-9%)
A & N ISLAND
23.6
Legend
Large Excess [60% or more]
Excess [20% to 59%]
Normal [-19% to 19%]
Deficient [-59% to -20%]
Large Deficient [-99% to -60%]
No Data
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annexure II

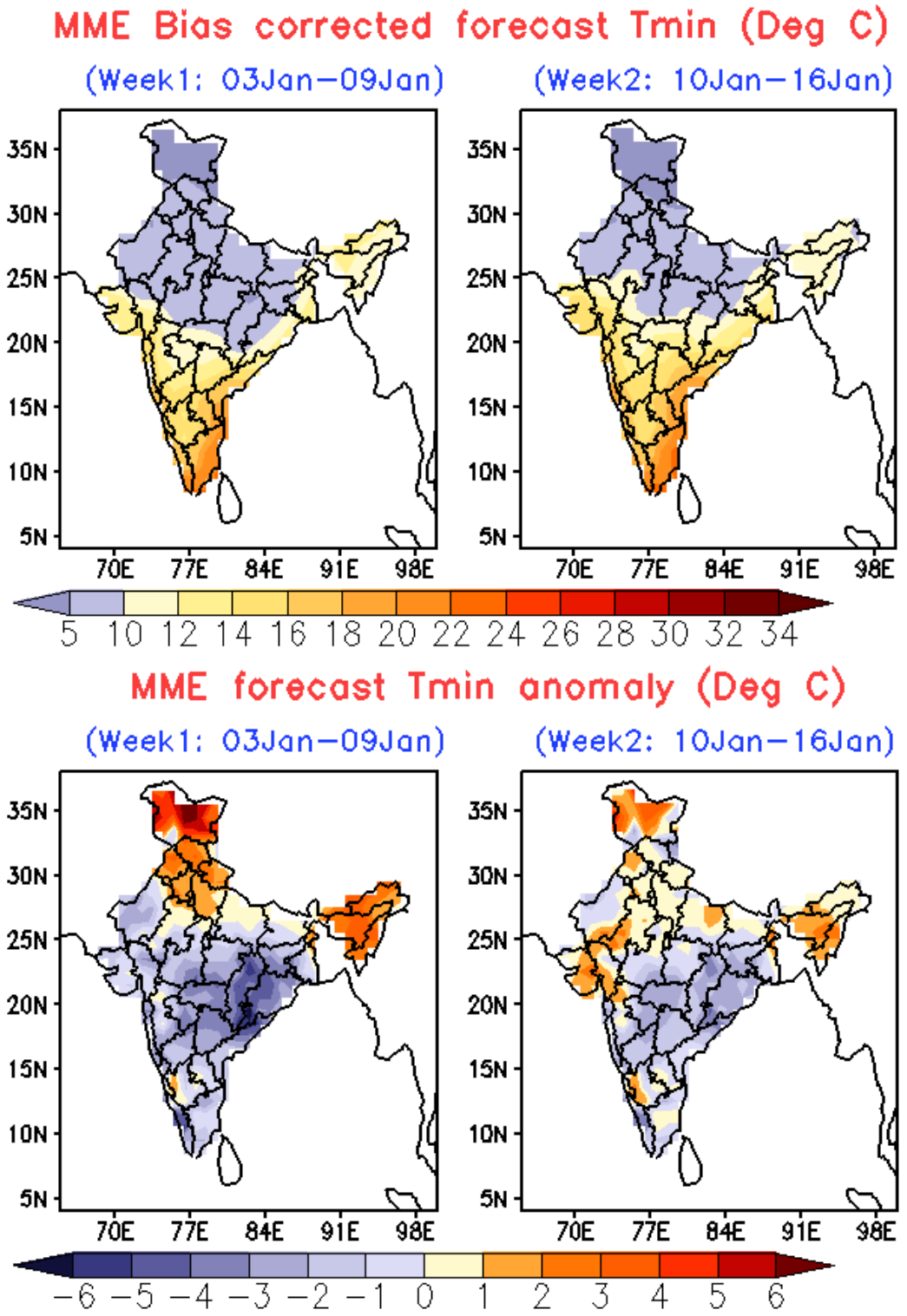

भारत मौसम विज्ञान विभाग
India Meteorological Department
जल मौसम विज्ञान प्रभाग, नई दिल्ली
Hydromet Division, New Delhi
SUBDIVISION RAINFALL MAP
Period: 01-10-2024 to 31-12-2024
150
Years of Service to the Nation
N
44.6 (-65%) J & K AND LADAKH 127.7
50.0 (-40%) HIMACHAL PRADESH 82.9
27.1 (11%) PUNJAB 24.1
36.6 (-33%) UTTARAKHAND 55.0
26.9 (38%) HARYANA, CHD & DELHI 19.4
11.9 (-60%) WEST U.P 30.1
7.5 (-38%) WEST RAJ. 12.1
4.7 (-89%) EAST U.P 42.3
1.9 (-15%) EAST RAJASTHAN 25.9
19.7 (-71%) BIHAR 67.1
176.6 (5%) SHWB&SIKKIM 168.3
385.6 (18%) ARUNACHAL PRADESH 241.5
211.9 (11%) ASSAM & MEGHALAYA 190.1
139.0 (-30%) NMMT 199.1
36.9 (-34%) EAST M.P 55.7
62.9 (-29%) JHARKHAND 89.1
50.4 (8%) WEST M.P 46.5
49.8 (74%) SAURASHTRA & KUTCH 28.6
81.3 (26%) GUJARAT 132.8
308.5 (19%) GANGETIC WB 175.0
37.5 (-50%) CHHATTISGARH 75.3
119.4 (-15%) ODISHA 140.8
44.3 (-42%) VIDARBHA 76.2
73.1 (-24%) MARATHWADA 96.7
106.1 (3%) MAHARASHTRA 103.5
241.4 (72%) KONKAN & GOA 140.7
82.4 (-34%) TELENGANA 124.1
136.4 (4%) N. I. KARNATAKA 131.5
282.3 (-13%) COASTAL A. P& YANAM 322.9
344.4 (46%) RAYALASEEMA 236.4
353.2 (34%) COASTAL KARNATAKA 264.0
284.4 (43%) S. I. KARNATAKA 199.0
589.9 (33%) TAMIL., PUDU. & KARAIKAL 443.3
325.9 (-3%) LAKSHADWEEP 334.9
487.2 (-1%) KEARALA & MAHE 491.9
726.1 (8%) A & N ISLAND 670.5
ALL INDIA
Actual Normal %Dep
117.4 121.0 -3%
Legend
Large Excess [60% or more]
Excess [20% to 59%]
Normal [-19% to 19%]
Deficient [-59% to -20%]
Large Deficient [-99% to -60%]
No Data
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annexure III



Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME

Annexure IV



Extended range forecast of weekly distribution of Minimum Temperature in °C (top panel) and anomalies (lower panel) from IMD Bias Corrected Forecast

Annexure V

EXTENDED RANGE OUTLOOK FOR COLDWAVE

Week 1: 03.01.2025- 09.01.2025

Week2: 10.01.2025- 16.01.2025

PROBABILITY OF COLDWAVE CONFIDENCE

LOW (1-33% PROBABILITY)

MODERATE (34-67% PROBABILITY)

HIGH (68-100% PROBABILITY)