Government of India

Earth System Science Organization

Ministry of Earth Sciences

India Meteorological Department

Press Release: Dated: 28th November, 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (28th November – 11th December 2024)

1. Salient Observed Features for the week ending 27th November 2024:

- **Deep Depression over Southwest Bay of Bengal:-**Under the influence of an upper air cyclonic circulation over east Equatorial Indian Ocean & adjoining south Andaman Sea & southeast Bay of Bengal, a **Low Pressure Area** formed over east Equatorial Indian Ocean & adjoining southeast Bay of Bengal at 0830 hours IST of 23rd November. It moved west-northwestwards and lay as a **Well-Marked Low Pressure Area** over southeast Bay of Bengal & adjoining east Equatorial Indian Ocean at 0530 hrs IST of 24th November. It further moved west-northwestwards and intensified into a **Depression** and lay centred at 0830 hours IST of 25th November over central parts of South Bay of Bengal & adjoining East Equatorial Indian Ocean near latitude 5.0°N and longitude 85.3°E, about 600 km southeast of Trincomalee and 880 km southeast of Nagapattinam. It further intensified into a **Deep Depression** and lay centred at 0830 hours IST of 26th November over the same region near latitude 6.3°N and longitude 82.8°E, about 310 km southeast of Trincomalee, 590 km south-southeast of Nagapattinam; it lay over the southwest Bay of Bengal near latitude 8.5°N and longitude 82.3°E, about 120 km east-southeast of Trincomalee and 370 km southeast of Nagapattinam at 0830 hours IST of 27th November.
- Due to the above system and strengthening of northeasterly winds along and off Tamil Nadu coast, **heavy to very heavy rainfall** was observed at isolated places over Tamil Nadu, Puducherry & Karaikal on 27th November, and **heavy rainfall** was observed over Andaman & Nicobar Islands on 26th November.
- **Extremely Heavy Rainfall** was observed at isolated places over Tamil Nadu, Puducherry & Karaikal on 21st November.
- **Fog Condition: Dense to very Dense Fog** was observed in isolated pockets of Haryana on 25th November. **Dense Fog** was observed in isolated pockets of East Uttar Pradesh on 21st and 23rd November; East and West Uttar Pradesh on 26th and 27th November; Odisha on 22nd, 23rd,26th and 27th November; Punjab on 25th November; Meghalaya on 25thand 26thNovember; Tripura on 26th November.

- **Minimum temperature** was below normal by 1-3°C over central India and near normal over rest parts of the country during this week. **Maximum temperature** was below normal by 1-3°C over southeast peninsula during second half of the week and near normal over rest parts of the country during this week.
- **Temperature Scenario:** The lowest minimum temperature of **6.6°C** had been recorded at **Adampur IAF (Punjab)** on **27th November 2024** and the highest maximum temperature of **36.9°C** had been recorded at **Karwar (Coastal Karnataka)** on **24th November 2024** over the plains of the country during the week.

- **Analysis of weekly overall rainfall distribution during the week ending on 27th November and Post monsoon Season's Rainfall Scenario (01st October to 27th November 2024):** The country as a whole, the weekly cumulative All India Rainfall (for 21th to 27th November 2024) in % departure from its long period average (LPA) is -64%. All India Seasonal cumulative rainfall % departure during this year's post monsoon Season Rainfall (01st October – 27th November 2024) is -14%. 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		
	21.11.2024 TO 27.11.2024			01.10.2024 TO 27.11.2024		
	Actual (mm)	Normal (mm)	Departure (%)	Actual (mm)	Normal (mm)	Departure (%)
EAST & NORTHEAST INDIA	**1.7**	**3.3**	**-48%**	**147.6**	**144.1**	**+2%**
NORTH WEST INDIA	**0.4**	**3.1**	**-88%**	**7.7**	**32.4**	**-76%**
CENTRAL INDIA	**0.0**	**2.1**	**-100%**	**55.4**	**69.7**	**-21%**
SOUTH PENINSULA	**8.1**	**16.2**	**-50%**	**223.9**	**237.5**	**-6%**
COUNTRY AS A WHOLE	**2.0**	**5.4**	**-64%**	**88.5**	**103.1**	**-14%**

2. Large scale features:

- Currently, neutral El Nino-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific. The probability forecast indicates a highest probability of La Niña conditions during the NDJ and DJF 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 propagating in Phase 4 with amplitude >1, and is propagating to Phase 5 by the mid of week 1. The amplitude is likely to become <1, during the start of Week 2 and will continue to remain < 1 in Phase 5 and will propagate to Phase 6 by the end of Week 2 with amplitude nearing 1.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (28 November to 04 December, 2024) and Week 2 (05 to 11 December, 2024)

Weather systems & associated Precipitation during Week 1 (28 November to 04 December, 2024:

Weather Systems:

- The **Deep Depression** over Southwest Bay of Bengal moved north-northwestwards and lay centred at 0830 hours IST of today, the 28th November 2024 over the same region near latitude 9.1°N and longitude 82.1°E, about 110 km east-northeast of Trincomalee, 310 km southeast of Nagapattinam, 410 km southeast of Puducherry and 480 km south-southeast of Chennai. It is very likely to move nearly north-northwestwards skirting Sri Lanka coast during next 12 hours. Thereafter, it will continue to move north-northwestwards and cross north Tamil Nadu-Puducherry coasts between Karaikal and Mahabalipuram around morning of 30th November as a **deep depression** with a wind speed of 50-60 Kmph gusting to 70 kmph. There is a possibility of marginal intensification of the deep depression into a Cyclonic Storm with wind speed 65-75 Kmph gusting to 85 Kmph over southwest Bay of Bengal during the evening of 28th November to morning of 29th November 2024.
- A Western disturbance seen as a trough in middle tropospheric westerlies runs roughly along Long.50°E to the north of Lat. 30°N.

Forecast & Warnings (upto 7 days) (Annexure II&III):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm & lightning very likely over Tamil Nadu& Puducherry, Andhra Pradesh & Yanam during 28th November- 02nd December, South Interior Karnataka during 29th–02ndDecember, Telangana, Kerala & Mahe &

Rayalaseema during 30th November-02nd December, Coastal & North Interior Karnataka and Lakshadweep on 01st & 02nd December.

- ✓ Light to moderate rainfall at many places over Andaman & Nicobar Islands during the week.
- ✓ Isolated **heavy to very heavy rainfall** at a few places **with extremely heavy falls** at isolated places very likely over north Tamil Nadu on 29th & 30th; **heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over south Andhra Pradesh & Yanam and Rayalaseema on 29thNovember.
- ✓ **Heavy to very heavy rainfall** at isolated places very likely over Kerala & Mahe, South Interior Karnataka on 30th November & 01st December, Coastal Andhra Pradesh & Yanam & Rayalaseema on 30thNovember and Tamil Nadu, Puducherry & Karaikal on 01st December.
- ✓ **Heavy rainfall** at isolated places very likely over coastal Tamil Nadu on 28th, Kerala & Mahe and South Interior Karnataka on 29th November & 02nd December, Andaman & Nicobar Islands on 30thNovember,and Lakshadweep on 02nd& 03rd December.

❖ **Overall, rainfall is likely to be above normal over south Peninsular India and parts of east & northeast India during the week.**

Precipitation for week 2 (05 to 11 December, 2024):

- ❖ No active western disturbance is likely to affect northwest India during the week.
- ❖ Overall, rainfall is likely to be normal to above normal over most parts of south Peninsular & central India; below normal over northwest, east & northeast India during the week.

Minimum temperature and Fog forecast & warning for Week 1 (28 November to 04 December, 2024) and Week 2 (05 to 11 December, 2024)

Minimum temperature and Fog forecast & warning for Week 1 (28 November to 04 December, 2024:

Temperature Conditions during past 24 hours till 0830 hours IST of today, 14 November, 2024:

No significant change in minimum temperature observed over most parts of the country during past 24 hours. Minimum temperatures are **appreciably above normal (3°C to 5°C)** at isolated places over Bihar; **above normal (1°C to 3°C)** at a few places over Rajasthan, Gujarat State and Gangetic West Bengal; at isolated places over West Uttar Pradesh, Tamil Nadu, Puducherry & Karaikal, Kerala &

Mahe. These are **appreciably below normal (-5°C to -3°C)** at most places over Marathwada, Vidarbha; at a few places over Madhya Maharashtra& Telangana; **below normal (-3°C to -1°C)** at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh, Madhya Pradesh, Konkan & Goa, Assam & Meghalaya, Odisha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and near normal over rest parts of the country. Today, **the lowest minimum temperature** of **6.5°C** is reported at **Mandla (East Madhya Pradesh)** over the plains of the country.

Forecast of temperature:

- No large Change in minimum temperatures very likely over northwest & east India and Madhya Pradesh during most days of the week.
- Gradual rise in minimum temperatures by 2-4°C very likely over west & central India (except Madhya Pradesh) during next 4-5 days and no large thereafter for remaining days of the week. **(Annexure V).**

Dense fog Warnings:

- **Dense fog conditions** very likely to prevail during late night/early morning hours in isolated pockets of Himachal Pradesh, Punjab & Haryana-Chandigarh & Bihar till 30th November and Uttar Pradesh till 02nd December morning hours.
- Shallow to moderate fog conditions very likely to prevail in isolated pockets of North India during remaining days of the week.

Minimum temperature forecast and dense fog warning for Week 2 (05 to 11 December, 2024):

- Minimum temperatures are likely to be near normal over most parts of country except parts of Northeast India and south Peninsular India, where these are likely to be above normal by 1-2°C.
- No cold wave expected over any part of the country during the week **(Annexure VI).**
- **No significant dense to very dense fog is likely over Indo Gangetic plains during the week.**

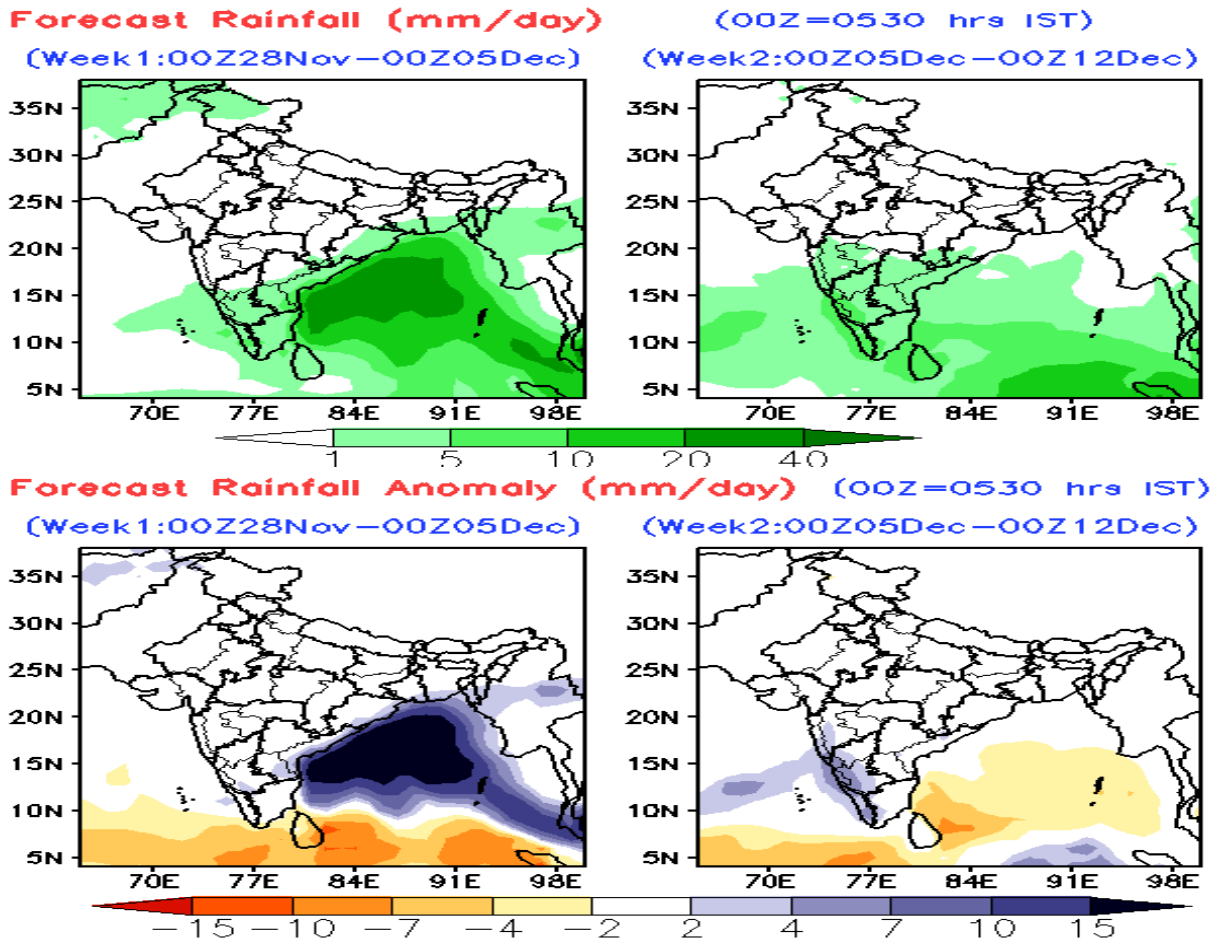
Annexure I


भारत मौसम विज्ञान विभाग
India Meteorological Department
जल मौसम विज्ञान प्रभाग, नई दिल्ली
Hydromet Division, New Delhi
SUBDIVISION RAINFALL MAP
Week: 21-11-2024 to 27-11-2024
150 Years of Service to the Nation
N
1.7 (-81%) J & K AND LADAKH 8.7
0.2 (-97%) HIMACHAL PRADESH 5.9
0.0 (-100%) PUNJAB 1.4
0.0 (-100%) UTTARAKHAND 1.4
0.0 (-100%) HAR. CHD & DELHI 1.6
0.0 (-100%) WEST U.P 0.7
0.0 (-100%) WEST RAJ. 0.7
0.0 (-100%) EAST U.P 0.8
0.0 (-100%) EAST RAJASTHAN 2.5
0.0 (-100%) BIHAR 0.4
1.7 (-12%) SHWB&SIKKIM 1.5
1.8 (-56%) ARUNACHAL PRADESH 8.6
0.9 (-83%) ASSAM & MEGHALAYA 5.0
6.2 (59%) NMMT 3.9
0.0 (-100%) EAST M.P 2.3
0.0 (-100%) JHARKHAND 0.0
0.0 (-100%) WEST M.P 2.0
0.0 (-100%) SAURASHTRA & KUTCH 1.5
0.0 (-100%) GUJARAT 2.7
0.0 (-100%) GANGETIC WB 1.7
0.0 (-100%) CHHATTISGARH 1.4
0.0 (-100%) VIDARBHA 2.1
0.0 (-100%) ODISHA 0.8
0.0 (-100%) MARATHWADA 3.5
0.0 (-100%) M.MAHARASHTRA 3.7
0.0 (-100%) KONKAN & GOA 3.0
0.0 (-100%) TELENGANA 2.5
0.0 (-100%) N. I. KARNATAKA 2.6
3.2 (-91%) COASTAL A. R& YANAM 17.0
2.6 (-92%) RAYALASEEMA 14.4
0.0 (-100%) COASTAL KARNATAKA 7.3
0.2 (-98%) S. I. KARNATAKA 6.9
31.5 (-22%) TAMIL, PUDU. & KARAIKAL 40.1
1.8 (-94%) LAKSHADWEEP 29.6
3.9 (-84%) KEARALA &MAHE 24.0
ALL INDIA
Actual Normal %Dep
2.0 5.4 -64%
77.0 (44%) A & N ISLAND 53.4
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

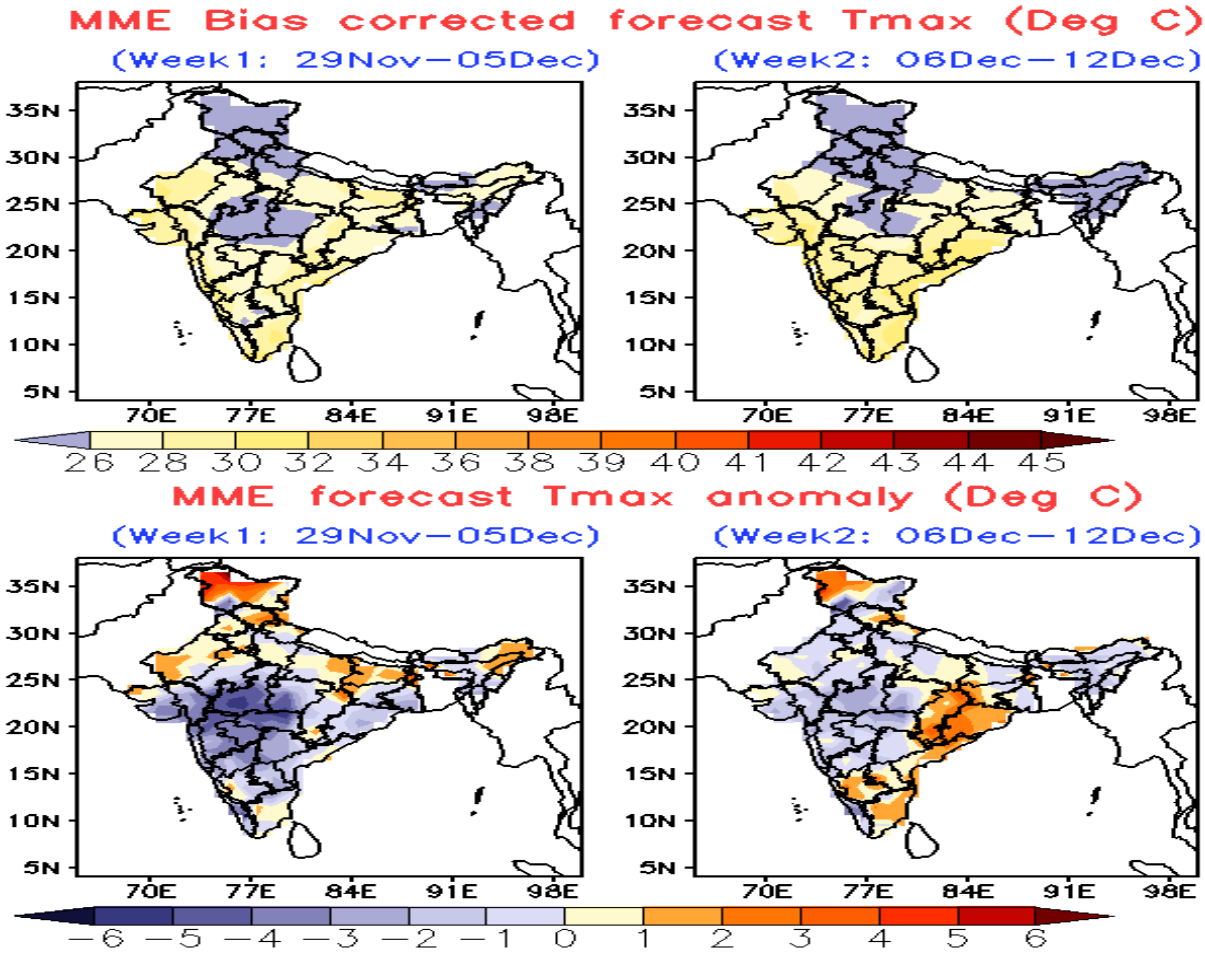

भारत मौसम विज्ञान विभाग
India Meteorological Department
जल मौसम विज्ञान प्रभाग, नई दिल्ली
Hydromet Division, New Delhi
SUBDIVISION RAINFALL MAP
Period: 01-10-2024 to 27-11-2024
Years of Service to the Nation
N
19.5 (-70%)
J & K AND LADAKH
64.5
0.9 (-98%)
HIMACHAL PRADESH
42.2
2.5 (-80%)
PUNJAB
12.6
3.5 (-90%)
UTTARAKHAND
36.8
0.6 (-96%)
HAR. CHD & DELHI
13.0
4.5 (-58%)
WEST RAJ.
10.6
0.3 (-99%)
WEST U.P
23.1
3.1 (-92%)
EAST U.P
36.6
11.4 (-48%)
EAST RAJASTHAN
22.2
19.7 (-68%)
BIHAR
61.4
173.0 (11%)
SHWB&SIKKIM
156.5
271.8 (31%)
ARUNACHAL PRADESH
208.0
209.6 (19%)
ASSAM & MEGHALAYA
176.8
120.2 (-36%)
NMMT
186.3
16.8 (-63%)
EAST M.P
45.6
34.9 (-7%)
WEST M.P
37.6
49.8 (80%)
SAURASHTRA & KUTCH
87.7
91.1 (34%)
GUJARAT
130.7
60.7 (-26%)
JHARKHAND
81.6
301.2 (29%)
GANGETIC WB
27.6 (-60%)
CHHATTISGARH
69.5
74.1 (-45%)
ODISHA
133.8
41.7 (-40%)
VIDARBHA
69.2
71.9 (-20%)
MARATHWADA
89.9
102.8 (6%)
MAHARASHTRA
97.0
239.6 (75%)
KONKAN & GOA
136.6
66.4 (-44%)
TELENGANA
117.9
128.3 (2%)
N. I. KARNATAKA
125.5
297.7 (-32%)
COASTAL A. P& YANAM
290.3
236.3 (15%)
RAYALASEEMA
206.3
284.0 (12%)
COASTAL KARNATAKA
253.3
352.9 (35%)
S. I. KARNATAKA
186.9
347.2 (1%)
TAMIL., PUDU. & KARAIKAL
342.4
266.9 (0%)
LAKSHADWEEP
266.4
355.5 (-22%)
KEARALA &MAHE
454.8
ALL INDIA
Actual Normal %Dep
88.5 103.1 -14%
494.1 (-2%)
A & N ISLAND
505.2
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



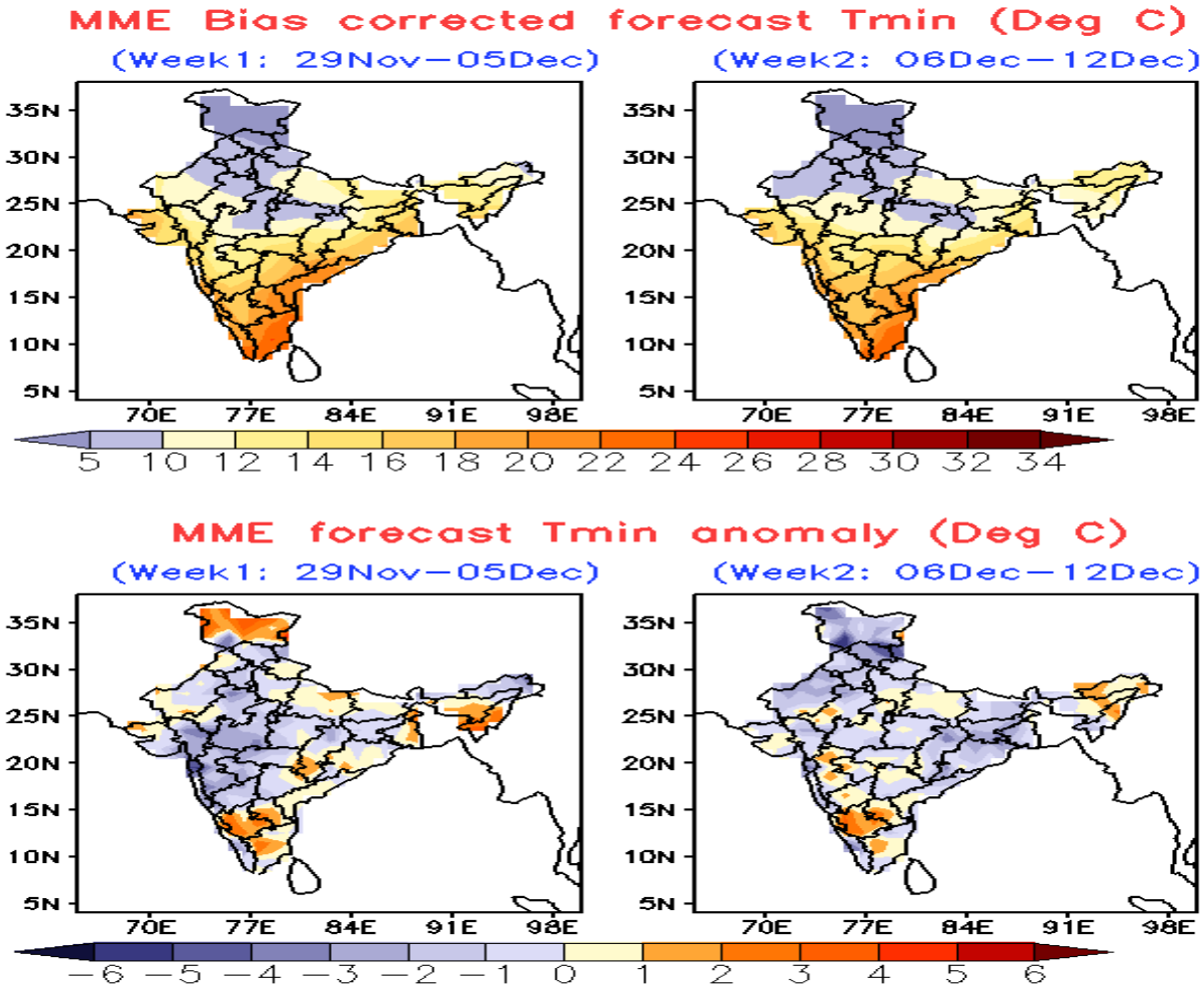
Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panel) from IMD MME

Annexure IV



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

Annexure V



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

Annexure VI

Cold Wave forecast during next 2 weeks

EXTENDED RANGE OUTLOOK FOR COLDWAVE

Week 1: 29.11.2024- 05.12.2024

Week2: 06.12.2024-12.12.2024

PROBABILITY OF HEATWAVE CONFIDENCE

LOW (1-33% PROBABILITY)

MODERATE (34-67% PROBABILITY)

HIGH (68-100% PROBABILITY)

Cold wave warning:

There is NIL probability of Cold Wave event over any parts of the country during next 2 weeks.