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

Dated: 28 November, 2019

Current Weather Status and Outlook for next two weeks (28 November to 11 December, 2019)

Significant Features

- Under the influence of an active Western Disturbance along with its induced cyclonic circulation, fairly widespread to widespread rainfall/snowfall activity occurred over Western Himalayan Region and scattered to fairly widespread rainfall/thunderstorm activity over the adjoining plains of northwest India during the 2nd half of the week. As a result, northwest India received 72% above Long period Average (LPA) during the week (14 to 20 November, 2019)
- **Heavy to very heavy** rainfall occurred at isolated places over Tamilnadu, Puducherry & Karaikkal on one day and **heavy** rainfall occurred at isolated places over Tamilnadu, Puducherry& Karaikkal on five days during the week.
- **Dense to very dense fog** observed at isolated places over Assam & Meghalaya on three days; over East Uttar Pradesh on two days; over Uttarakhand, Bihar, Odisha and West Rajasthan on one day each during the week.

Weekly Rainfall Scenario (21 to 27 November, 2019)

During the week, rainfall was below Long Period Average (LPA) by 44% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	3.2	5.7	-44%
Northwest India	6.2	3.6	72%
Central India	0.0	2.6	-99%
South Peninsula	6.6	15.6	-58%
East & northeast India	0.0	4.3	-99%

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

Seasonal Rainfall Scenario (01 October to 27 November, 2019)

For the country as a whole, cumulative rainfall during this year's post- monsoon season upto 27 November, 2019 is above LPA by 29%. 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	135.2	104.5	29%
Northwest India	57.1	33.9	69%
Central India	118.9	67.9	75%
South Peninsula	277.6	239.3	16%
East & northeast India	144.9	151.7	-05%

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

Chief synoptic conditions as on 28 November, 2019

- A Western Disturbance as a cyclonic circulation lies over north Pakistan & adjoining Jammu & Kashmir between 3.1 & 3.6 km above mean sea level with trough aloft roughly along Long. 71°E to the north of Lat. 30°N at mid -tropospheric levels.
- An induced cyclonic circulation lies over northwest Rajasthan & neighborhood at lower levels.
- A trough in easterlies runs from north Gujarat region to north Rajasthan at lower levels.

Large scale features as on 28 November, 2019

- Currently, El Niño Southern Oscillation (ENSO)-neutral conditions are prevailing over equatorial Pacific Ocean. Latest Monsoon Mission Coupled Forecast System (MMCFS) forecast indicates that these conditions are likely to continue during next one month.
- At present, positive Indian Ocean Dipole (IOD) conditions are observed over Indian Ocean and the latest MMCFS forecast indicates that positive IOD conditions are likely to continue during next one month.
- The Madden–Julian Oscillation (MJO) at present lies over Phase-1 with high amplitude nearly one. It is very likely to be in same phase with same amplitude during next one week.

Forecast for next two week

Weather systems & associated Precipitation during Week 1(28 November to 04 December, 2019) and Week 2 (05 to 11 December, 2019)

Week 1: (28 November to 04 December, 2019)

- Under the influence of the current Western Disturbance, isolated to scattered rain/snow is very likely over Jammu & Kashmir, Himachal Pradesh & Uttarakhand and isolated rainfall over Uttar Pradesh on today. Thereafter, under influence of a fresh feeble

Western Disturbance, isolated rain/snow very likely to occur over Jammu & Kashmir during 30th November to 2nd December, 2019. Light isolated rain/snow very likely over Arunachal Pradesh during 1st half of the week 1.

- Light Isolated rainfall is likely to occur over Andaman & Nicobar Islands during the week.
- Light to moderate isolated/scattered rainfall along with thunderstorm activity very likely to occur over south Peninsular India during most days of the week 1. **Isolated heavy falls** is also likely to occur over Tamilnadu, Puducherry & Karaikal during most days of the week (**Annexure III**).
- Weather is very likely to be dry over remaining parts of the country.
- **Cumulatively, near normal rainfall very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand; above normal rainfall likely over south Peninsular India and Nicobar Islands and no weather over remaining parts of the country during week 1** (**Annexure IV**)**.**

Rainfall for week 2: (05 to 11 December, 2019)

- **Under the influence of fresh Western Disturbances and associated induced cyclonic circulation, above normal rainfall likely over northwest & central India and under the influence of easterly wave south Peninsular India also likely to receive above normal rainfall activity. Below normal rainfall is likely over Andaman & Nicobar Islands and no weather over remaining parts of the country during week 2** (**Annexure IV**)

Minimum Temperature for week 1 & 2: (28 November to 11 December, 2019)

- **Minimum temperatures are likely to be above normal by 1-3°C over most parts of the country outside Western Himalayan region, Rajasthan, Punjab, Haryana, Chandigarh & Delhi, Odisha, north Coastal Andhra Pradesh, where these are likely to be below normal by 2-4°C during week 1.**
- **During week 2, minimum temperatures are likely to be below normal by 1-3°C over Western Himalayan region & adjoining plains of northwest India, west coast and east India; above normal by 1-3°C over remaining parts of the country.** (**Annexure V**)**.**

Cyclogenesis:

- A low pressure area is likely to form over southwest Arabian Sea & adjoining equatorial Indian Ocean during the later part of week 1 with 'Low' probability for its intensification into a depression over the same region with gradual west-northwestward movement towards Somalia coast.

Next weekly update will be issued on next Thursday i.e. 05 December, 2019

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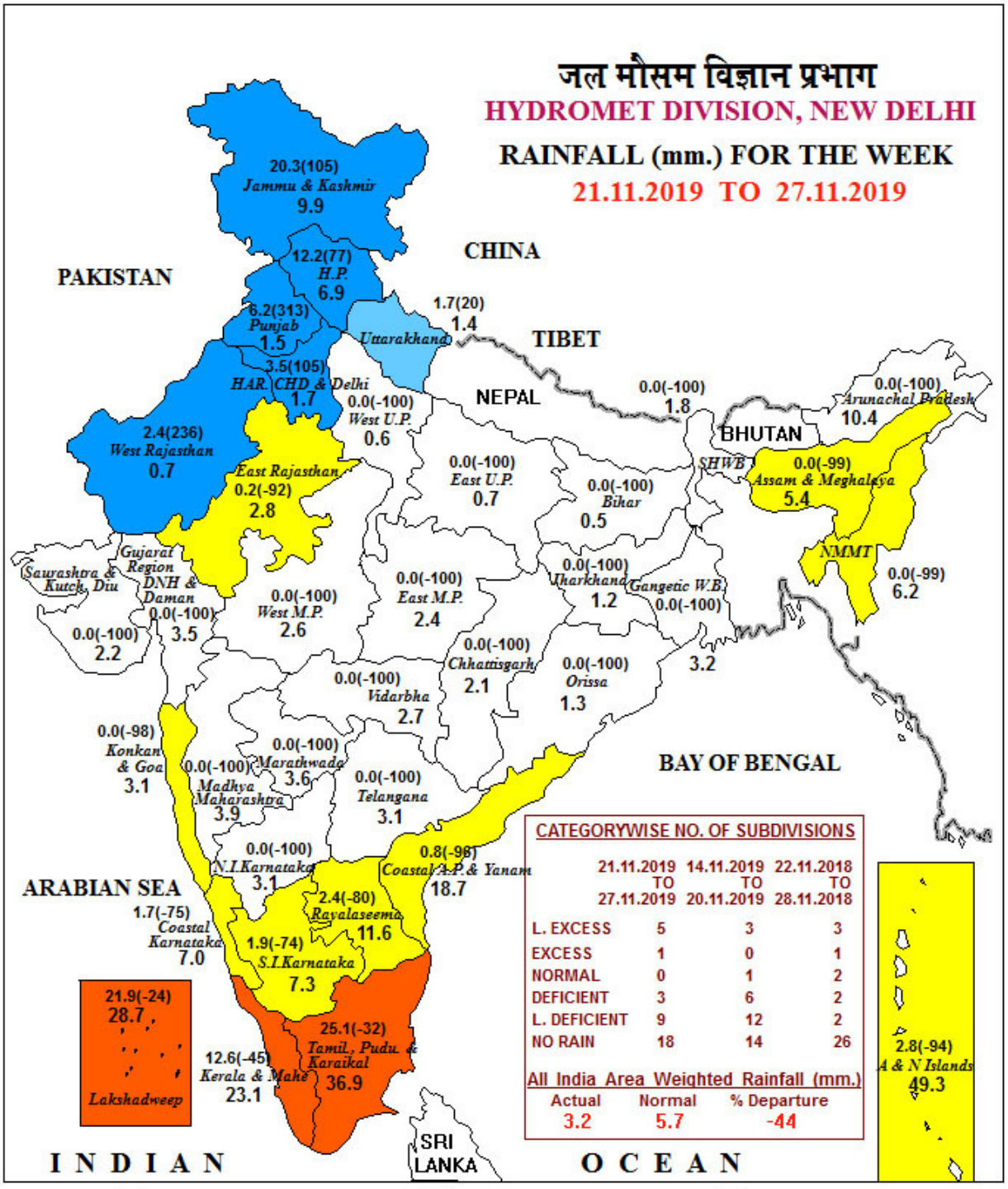

LEGEND: L. EXCESS (+60% OR MORE) | EXCESS (+20% TO +59%) | NORMAL (+19% TO -19%) | DEFICIENT (-20% TO -59%) | L. DEFICIENT (-60% TO -99%) | NO RAIN (-100%) | NO DATA

NOTES:
(a) Rainfall figures are based on operational data.
(b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
Percentage Departures of Rainfall are shown in Brackets.

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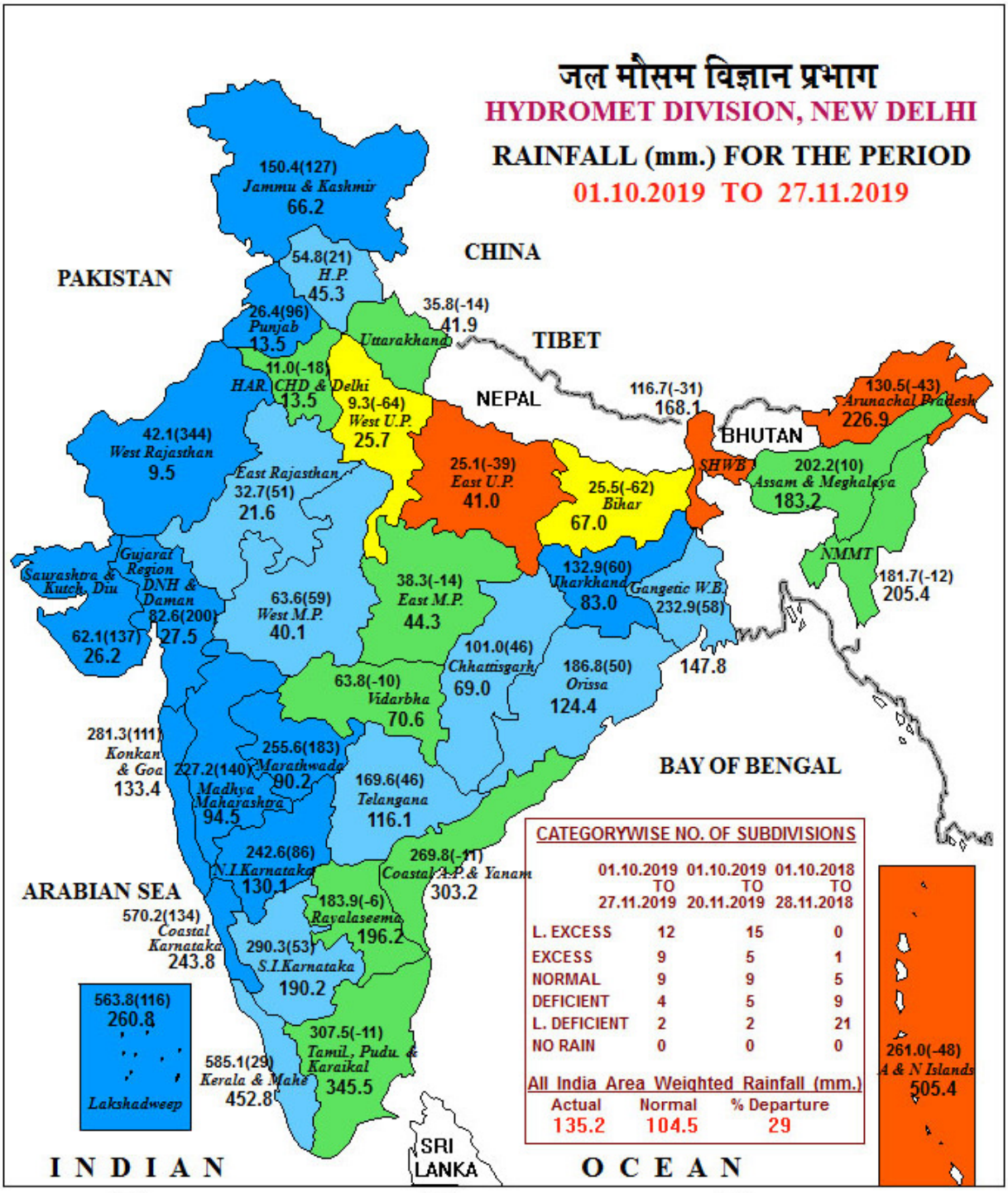

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Annexure III

METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2019

Sr. No	MET.SUB-DIVISIONS	28 NOV	29 NOV	30 NOV	01 DEC	02 DEC	03 DEC	04 DEC
1	ANDAMAN & NICO.ISLANDS	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
2	ARUNACHAL PRADESH	ISOL	ISOL	ISOL	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	D	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	D	D	D	D	D	D
11	WEST UTTAR PRADESH	ISOL DS/TS	D	D	D	D	D	D
12	UTTARAKHAND	ISOL DS/TS	D	D	D	D	D	D
13	HARYANA CHD. & DELHI	ISOL DS/TS	D	D	D	D	D	D
14	PUNJAB	ISOL	D	D	D	D	D	D
15	HIMACHAL PRADESH	SCT DS/TS	D	D	D	D	D	D
16	JAMMU & KASHMIR	ISOL DS/TS	D	ISOL	ISOL	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. & N.H.	D	D	D	D	D	D	D
22	SAURASTRA KUTCH & DIU	D	D	D	D	D	D	D
23	KONKAN & GOA	D	D	D	D	D	D	D
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 A. PR. & YANAM	ISOL DS/TS	ISOL DS/TS•	ISOL DS/TS•	ISOL DS/TS•	ISOL	ISOL	ISOL
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	ISOL DS/TS	ISOL DS/TS	ISOL DS/TS•	ISOL DS/TS•	ISOL	ISOL	ISOL
31	TAMIL. PUDU. & KARAIKAL	SCT DS/TS•	SCT DS/TS••	FWS DS/TS••	FWS DS/TS••	FWS DS/TS•	SCT	ISOL
32	COASTAL KARNATAKA	D	D	D	D	D	D	D
33	NORTH INT.KARNATAKA	D	D	D	D	D	D	D
34	SOUTH INT.KARNATAKA	ISOL	ISOL	ISOL	ISOL DS/TS•	ISOL DS/TS	D	D
35	KERALA & MAHE	ISOL DS/TS	ISOL DS/TS	SCT DS/TS•	SCT DS/TS••	SCT DS/TS•	ISOL	D
36	LAKSHADWEEP	ISOL	D	ISOL DS/TS	SCT DS/TS	SCT DS/TS	ISOL	D

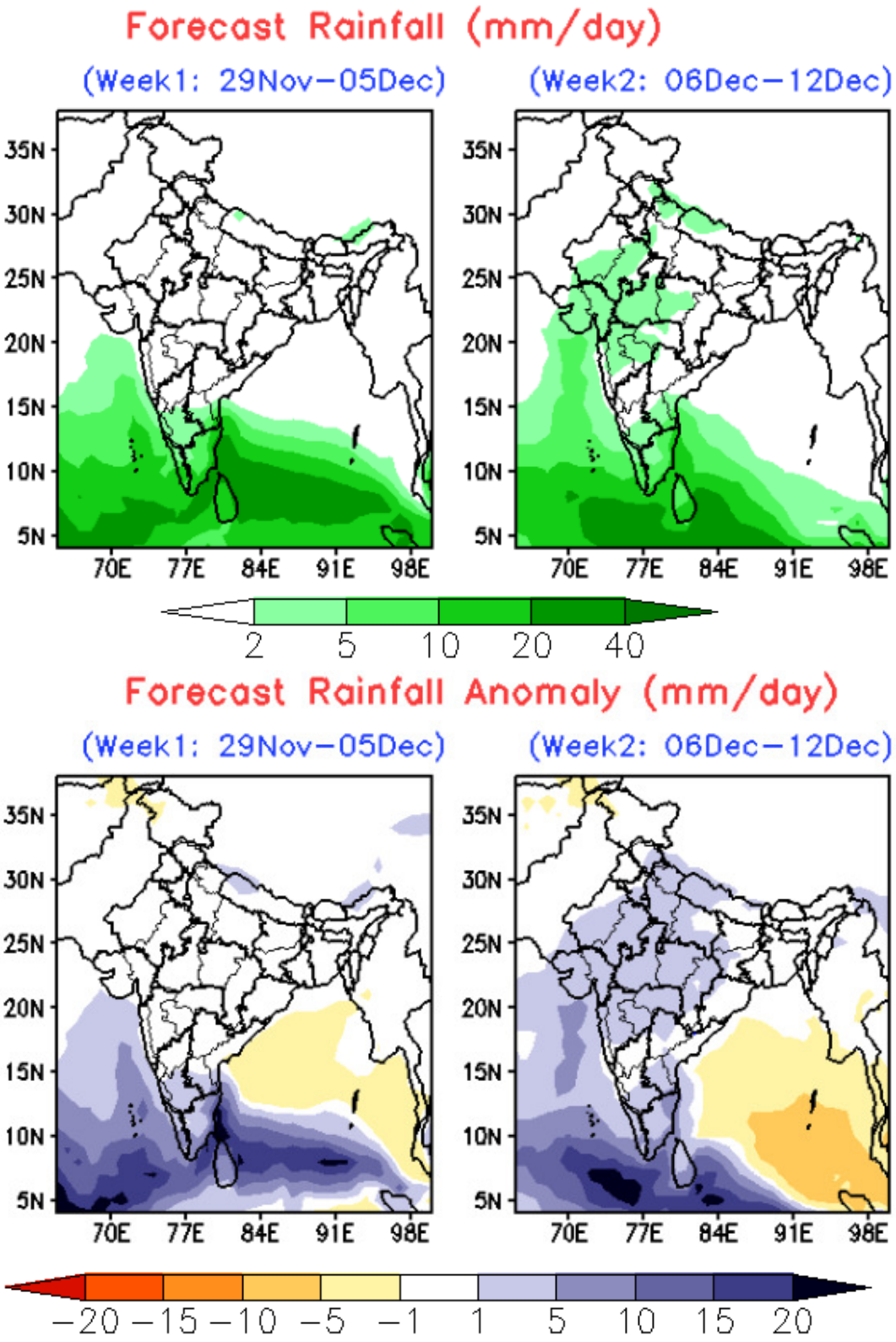
LEGENDS:

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	NIL RAINFALL

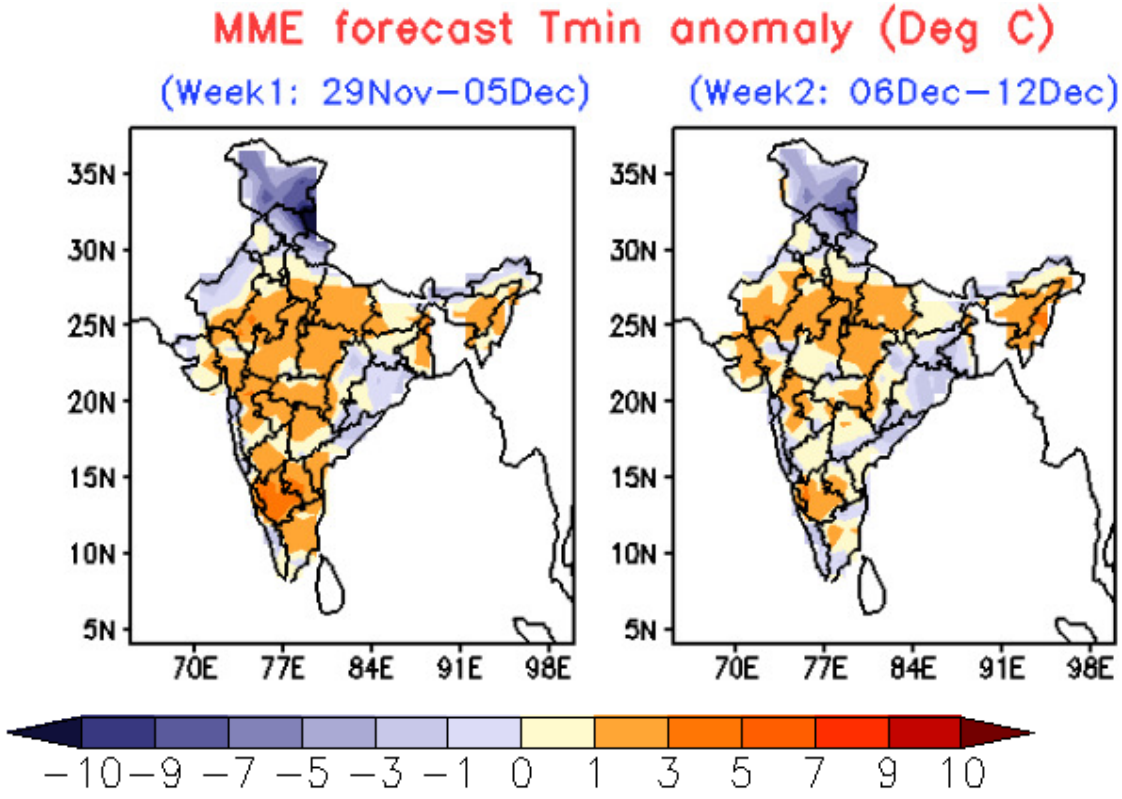
• Heavy Rainfall (64.5-115.5 mm)	•• Heavy to Very Heavy Rainfall (115.6-204.4 mm)	••• Extremely Heavy Rainfall (204.5 mm or more)

FOG	* SNOWFALL	# HAILSTORM	COLD WAVE (-4.5 °C to -6.4 °C)	SEVERE COLD WAVE (< -6.4)
$ TSUNDERSTORM WITS SQUALL/GUSTY WIND	DS/TS DUST/TSUNDERSTORM		HEAT WAVE (+4.5 °C to +6.4 °C)	HEAT WAVE (> +6.4)

Annexure IV


Forecast Rainfall (mm/day)
(Week1: 29Nov-05Dec)
(Week2: 06Dec-12Dec)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
2
5
10
20
40
Forecast Rainfall Anomaly (mm/day)
(Week1: 29Nov-05Dec)
(Week2: 06Dec-12Dec)
-20
-15
-10
-5
-1
1
5
10
15
20

Annexure V


MME forecast Tmin anomaly (Deg C)
(Week1: 29Nov-05Dec)
(Week2: 06Dec-12Dec)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
-10 -9 -7 -5 -3 -1 0 1 3 5 7 9 10