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

Dated: 03 October, 2019

Current Weather Status and Outlook for next two weeks (03 to 16 October, 2019)

Significant Features

- **2019 Southwest Monsoon Season Rainfall: The 2019 southwest monsoon season comes to end with above normal seasonal (June to September) rainfall. Quantitatively monsoon seasonal rainfall was 110% of its Long Period Average (LPA), which is 88 cm. Out of 36 meteorological subdivisions, 2 sub divisions received large excess, 10 received excess and 19 sub divisions received normal monsoon rainfall.**
- **Withdrawal of Southwest Monsoon, 2019: The withdrawal of southwest monsoon is likely to commence from northwest India around 10th October, 2019 against the normal date of 01st September.**
- **Under the influence of last week's Depression & its remnant, there was largely excess (+60% or more) rainfall activity over most of the Sub-divisions of east, central & northwest India. Northwest & Central India received above normal rainfall activity by 504% & 231% respectively above LPA.**
- Isolated **extremely heavy rainfall (≥ 20 cm)** occurred over Bihar, East Uttar Pradesh & Saurashtra & Kutch on one or two days during the week.
- Heavy to very heavy rainfall occurred at isolated places over East Rajasthan & Gujarat Region on three days each; over Bihar, East Uttar Pradesh, East Madhya Pradesh & Saurashtra & Kutch on two days each; over Sub-Himalayan West Bengal & Sikkim, Jharkhand, Uttarakhand, West Madhya Pradesh, Konkan & Goa, Coastal Andhra Pradesh & Yanam & Rayalaseema on one day each during the week.

Weekly Rainfall Scenario (26 September to 02 October, 2019)

During the week, rainfall was above Long Period Average (LPA) by 146% over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	68.9	28.0	146%
Northwest India	51.9	8.6	504%
Central India	80.2	24.2	231%
South Peninsula	41.5	41.3	01%
East & northeast India	111.6	56.8	97%

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

Monsoon 2019 Rainfall Scenario (01 June to 30 September, 2019)

For the country as a whole, cumulative rainfall during 2019 southwest monsoon season is above LPA by 10%. 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	968.3	880.6	10%
Northwest India	586.0	599.5	-02%
Central India	1262.8	976.6	29%
South Peninsula	840.9	726.2	16%
East & northeast India	1240.7	1410.4	-12%

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

Chief synoptic conditions as on 03 October, 2019

- A cyclonic circulation lies over East Uttar Pradesh & neighbourhood at lower levels.
- A cyclonic circulation lies over Haryana & neighbourhood at lower levels.
- A trough from Haryana to Sub-Himalayan West Bengal at lower levels.
- A cyclonic circulation lies over southwest Rajasthan & neighbourhood at lower levels.
- A Western Disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 km above mean sea level runs roughly along Long. 64°E to the north of Lat. 30°N.
- A cyclonic circulation lies over south Tamilnadu & neighbourhood at lower levels.
- A trough runs from the above cyclonic circulation to North Interior Karnataka at lower levels.
- A fresh Western Disturbance is likely to affect western Himalayan Region from 06th October onwards.

Large scale features as on 03 October, 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 (>1). It is very likely to be in same phase with high amplitude during next one week.

Forecast for next two week

Weather systems & associated Precipitation during Week 1(03 to 09 October, 2019) and Week 2 (10 to 16 October, 2019)

Rainfall for week 1: (03 to 09 October, 2019)

- **Due to likely formation of anti-cyclonic circulation over Rajasthan at 1.5 km above mean sea level around 6th October, the withdrawal of southwest monsoon is likely to commence from northwest India around 10th October, 2019.**
- **Under the influence of cyclonic circulation over East Uttar Pradesh & neighbourhood** at lower levels and likely its eastwards movement, scattered to fairly widespread rainfall with **isolated heavy falls** very likely to occur over Bihar during next two days and decrease significantly thereafter.
- Light/moderate scattered to fairly widespread rainfall very likely to occur over northeastern states during week 1. **Isolated heavy falls is also likely over the region during the second half of week 1.**
- Light/moderate scattered to fairly widespread rainfall along with thunderstorm accompanied with lightning very likely to occur East India (Odisha, West Bengal & Sikkim, Bihar and Jharkhand) during most days of week 1.
- **Due to circulation & trough over south Peninsular India,** light/moderate Scattered to fairly widespread rainfall very likely to occur over Maharashtra, Karnataka, Kerala, Tamil Nadu, Telengana and Andhra Pradesh during week 1. **However, intensity of rainfall is very likely to increase during its second half over most of the above mentioned regions**
- Light isolated rainfall is very likely over remaining parts of the country during most days of week 1 except West Rajasthan, Gujarat, Punjab, Haryana and west Uttar Pradesh, where no rain likely to occur during the second half of the week 1(**Annexure III**).
- **Cumulatively, above normal rainfall very likely over Karnataka, Telengana, Andhra Pradesh, Coastal Odisha, Jharkhand, West Bengal & Sikkim and northeastern states. It is likely to be below normal to normal over remaining parts of the country during week 1** (**Annexure V**).

Rainfall for week 2: (10 to 16 October, 2019)

- **During week 2, rainfall activity is likely to confine over south Peninsula with normal to above normal rainfall activity over Maharashtra, Karnataka, Telengana, Andhra Pradesh, Tamilnadu and most parts of northeastern states. It is likely to be below normal ovr remaining parts of the country (Annexure V).**

Cyclogenesis:

- No cyclogenesis expected over North Indian Ocean during next two weeks.

Next weekly update will be issued on next Thursday i.e. 10 October, 2019

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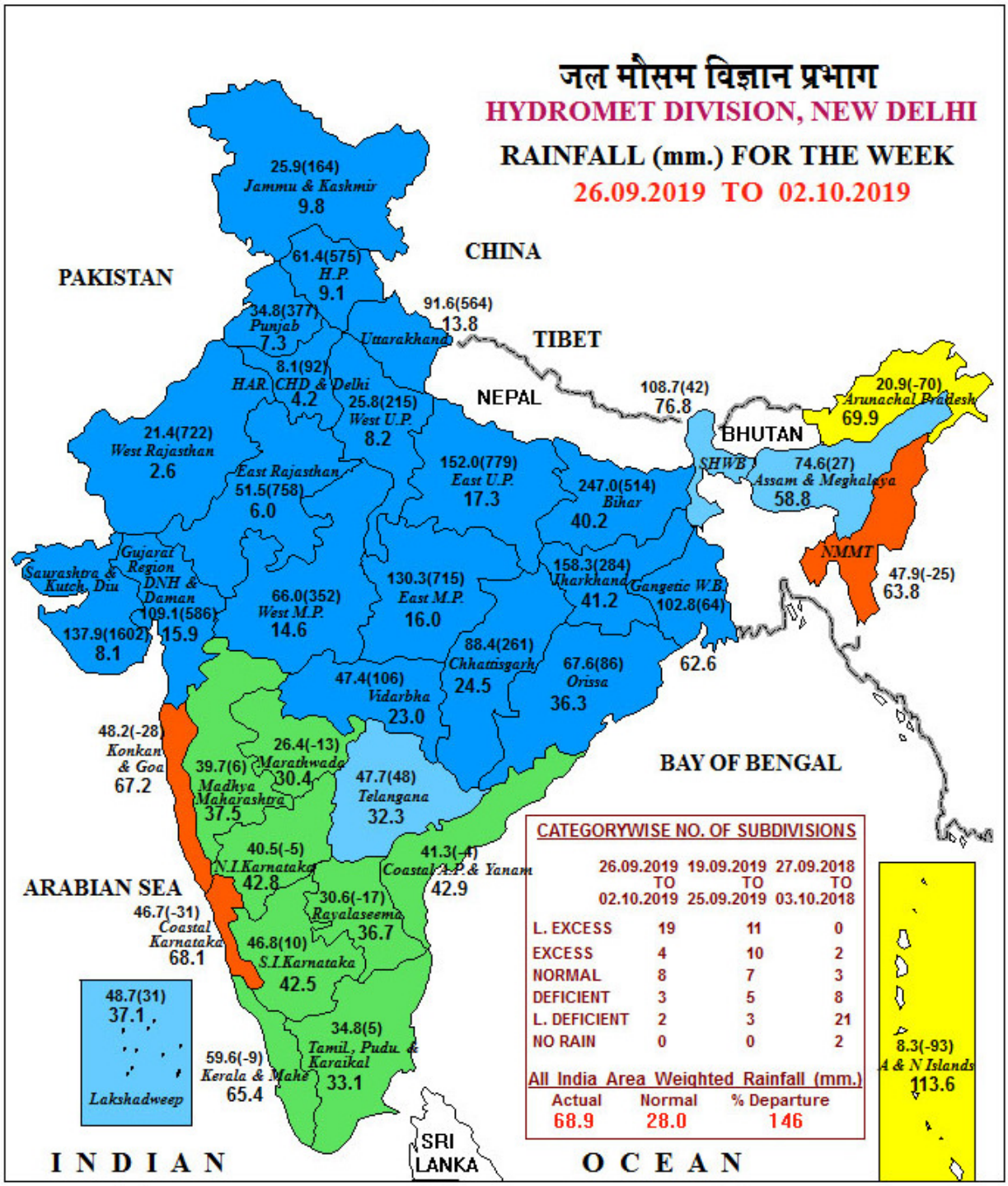
INDIA METEOROLOGICAL DEPARTMENT



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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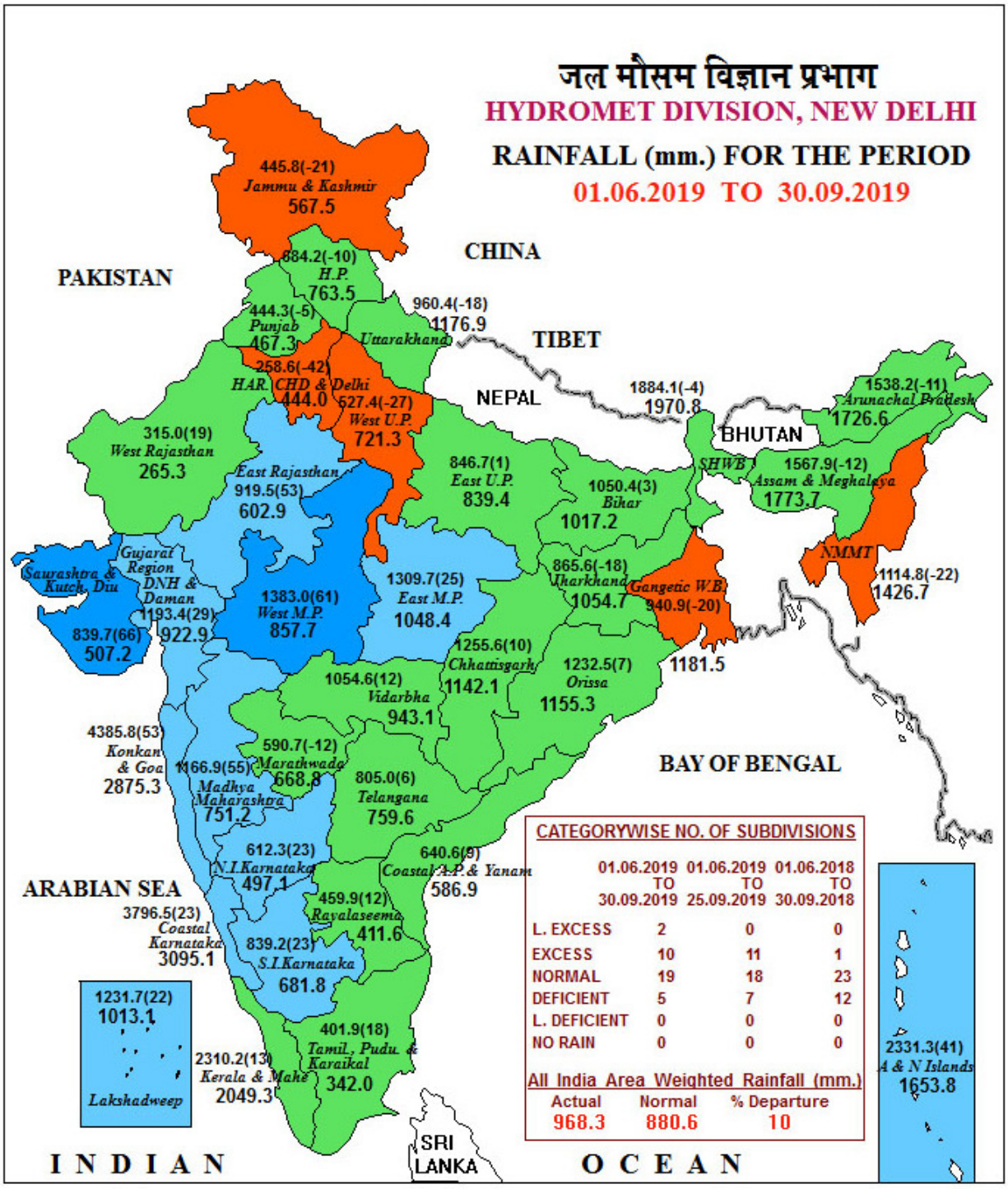

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Annexure III

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

Sr. No	MET.SUB-DIVISIONS	03 OCT	04 OCT	05 OCT	06 OCT	07 OCT	08 OCT	09 OCT
1	ANDAMAN & NICO.ISLANDS	ISOL	ISOL	ISOL	ISOL	SCT	SCT	ISOL
2	ARUNACHAL PRADESH	SCT	SCT	SCT	FWS	FWS•	FWS•	WS•
3	ASSAM & MEGHALAYA	SCT TS	SCT	FWS•	FWS•	FWS•	FWS••	FWS
4	NAGA.MANI.MIZO.& TRIPURA	FWS TS	FWS	FWS•	WS•	WS•	FWS•	FWS
5	SUB-HIM.W. BENG. & SIKKIM	SCT TS	SCT TS	FWS	FWS	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	SCT TS	SCT TS	FWS TS	FWS	FWS	WS TS	FWS TS
7	ODISHA	SCT TS	SCT TS	SCT TS	FWS	FWS	FWS TS	FWS TS
8	JHARKHAND	SCT TS	SCT TS	FWS TS	FWS	FWS	FWS TS	SCT TS
9	BIHAR	SCT•TS	FWS•TS	SCT	ISOL	ISOL	ISOL TS	ISOL
10	EAST UTTAR PRADESH	SCT•	ISOL	ISOL	ISOL	ISOL	ISOL	SCT
11	WEST UTTAR PRADESH	ISOL	ISOL	D	D	D	D	D
12	UTTARAKHAND	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
13	HARYANA CHD. & DELHI	ISOL	ISOL	ISOL	ISOL	D	D	D
14	PUNJAB	ISOL	ISOL	ISOL	ISOL	D	D	D
15	HIMACHAL PRADESH	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
16	JAMMU & KASHMIR	SCT	FWS	SCT	FWS	SCT	SCT	ISOL
17	WEST RAJASTSAN	SCT	SCT	ISOL	ISOL	D	D	D
18	EAST RAJASTSAN	ISOL	ISOL	ISOL	ISOL	ISOL	D	D
19	WEST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
21	GUJARAT REGION D.D. & N.H.	ISOL	ISOL	ISOL	ISOL	D	D	ISOL
22	SAURASTRA KUTCH & DIU	ISOL	ISOL	ISOL	ISOL	D	D	D
23	KONKAN & GOA	ISOL	SCT	SCT	FWS	FWS	FWS	FWS
24	MADHYA MAHARASHTRA	ISOL	SCT TS	SCT TS	FWS•TS	FWS•TS	FWS	FWS
25	MARATSAWADA	ISOL	ISOL TS	SCT TS	SCT TS	SCT TS	SCT	SCT
26	VIDARBHA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	SCT TS
27	CHHATTISGARH	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	SCT TS
28	COASTAL A. PR. & YANAM	SCT	SCT	SCT	SCT	SCT	FWS•	FWS•
29	TELANGANA	SCT	SCT	SCT	SCT	SCT	SCT•	SCT TS
30	RAYALASEEMA	SCT	SCT	FWS	FWS	FWS	SCT•	SCT
31	TAMIL. PUDU. & KARAIKAL	SCT	SCT	SCT	FWS	FWS	SCT•	SCT•
32	COASTAL KARNATAKA	SCT	SCT	FWS	FWS	FWS	FWS	FWS
33	NORTS INT.KARNATAKA	SCT	SCT	FWS	FWS	FWS	FWS	FWS
34	SOUTS INT.KARNATAKA	FWS•	FWS•	FWS•	FWS	FWS	FWS	FWS
35	KERALA & MAHE	FWS•$	FWS	FWS•	FWS•	FWS	FWS	FWS
36	LAKSHADWEEP	FWS$	FWS	FWS	SCT	SCT	SCT	SCT

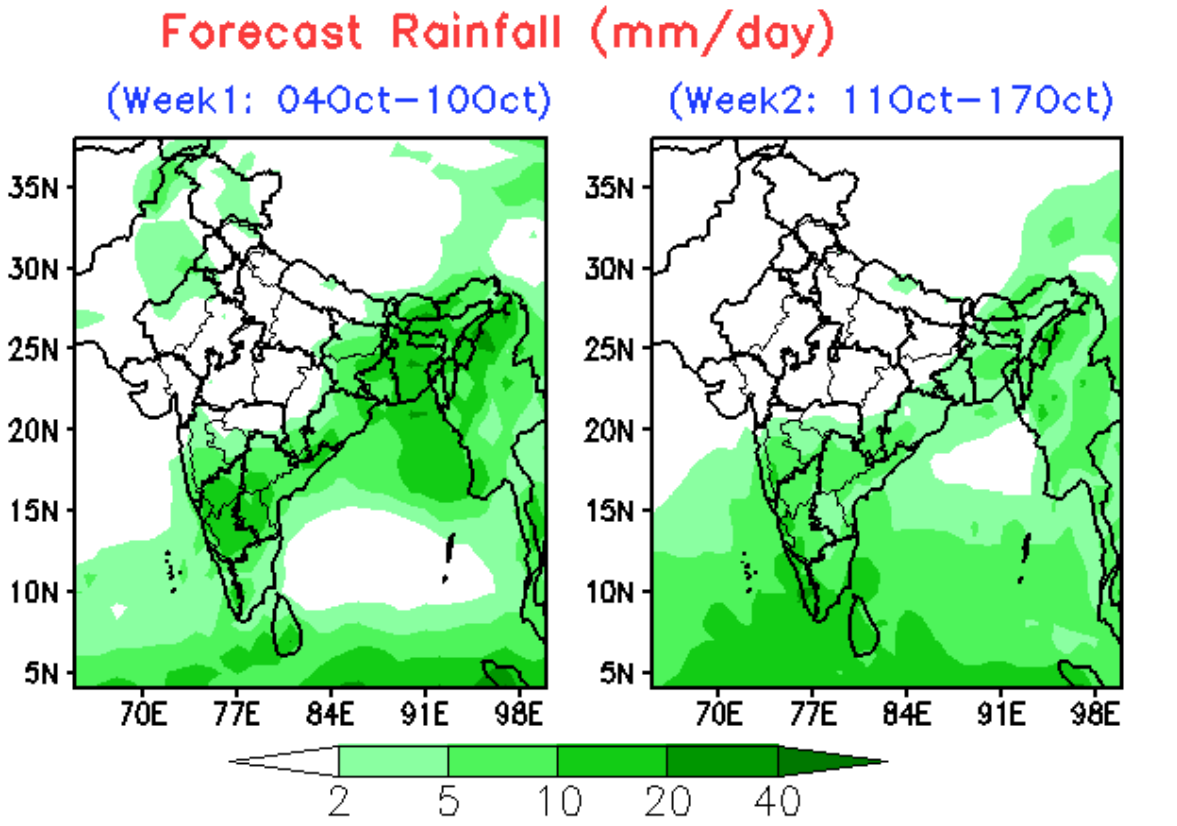
LEGENDS:

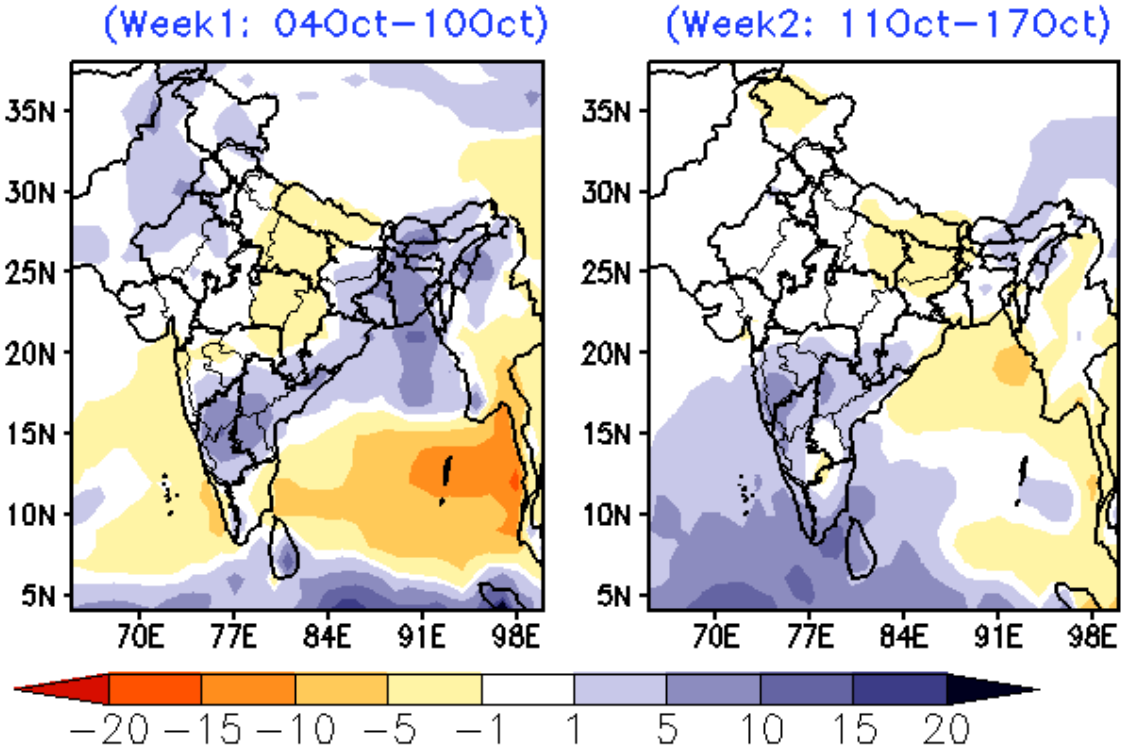
WS	WIDE SPREAD / MOST PLACES (76-100%)	FWS	FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)		
SCT	SCATTERED / FEW PLACES (26% to 50%)	ISOL	ISOLATED (up to 25%)	D/DRY	NIL RAINFALL

• 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	HEAT WAVE (+4.5 °C to +6.4 °C)	++ SEVERE HEAT WAVE (> +6.4)
$ TSUNDERSTORM WITS SQUALL/GUSTY WIND	DS/TS DUST/TSUNDER STORM		COLD WAVE (-4.5 °C to -6.4 °C)	-- SEVERE COLD WAVE (< -6.4)

Annexure IV


Forecast Rainfall (mm/day)
(Week1: 04Oct-10Oct)
(Week2: 11Oct-17Oct)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
2
5
10
20
40


Forecast Rainfall Anomaly (mm/day)
(Week1: 04Oct-10Oct)
(Week2: 11Oct-17Oct)
35N
30N
25N
20N
15N
10N
5N
70E
77E
84E
91E
98E
-20
-15
-10
-5
-1
1
5
10
15
20