



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

Dated:23 April 2020

Current Weather Status and Outlook for next two weeks (23 April-6 May, 2020)

Significant Features

- **Many Parts of India continued to experience convective activities accompanied with rainfall. No Heat Wave conditions were observed.**
- Strong wind convergence in the lower levels and favourable upper level features were further supported by Persistence favourable position of anticyclone in the Bay of Bengal leading to continuous moisture incursions **over Northeast and adjoining parts of East India. As a result, fairly widespread to widespread rainfall/thunderstorm activity were reported over these regions along with isolated very intense rainfall activity. Very severe thunderstorms accompanied with squalls and hailstorms also had been reported from these regions during the week.**
- Trough/wind discontinuities in the lower levels have caused **scattered to fairly widespread rainfall/thunderstorms over parts of Peninsular India and isolated to scattered rainfall/thunderstorm activity over parts of West and Central India, along with isolated intense rainfall activity. Isolated hailstorm activity also had been reported from these regions during the week.**
- Movement of a Western Disturbance and its induced cyclonic circulation has caused **scattered to fairly widespread rainfall/thunderstorm activity over Western Himalayan Region and isolated to scattered rainfall/thunderstorm activity over adjoining plains of northwest India during the week.** Isolated hailstorm activity also had been reported from these regions along with isolated intense rainfall activity over Himachal Pradesh, during the passage of the system.
- **Heavy rainfall (≥ 64.5 mm)** had been observed at isolated places over Assam & Meghalaya and Tamil Nadu, Puducherry & Karaikkal on three days each; over Himachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Bihar, Odisha, Madhya Maharashtra, Chattisgarh, Kerala & Mahe and South Interior Karnataka on one day each during the week. **Heavy to Very heavy rainfall** had been also observed at isolated places over Arunachal Pradesh and Odisha on one day each during the week.
- **Temperature Scenario:** The highest maximum temperature of **43.9°C** had been recorded at **Akola (Vidarbha)** on **16th April 2020** over the plains of the country during the week.

LEGEND: Few days-(3 days), Many days-4 to 5 days and Most days-6 to 7 days during the week.

Weekly Rainfall Scenario (16-22 April, 2020)

During the week, rainfall was above Long Period Average (LPA) by 52% over the country as a whole. Details are given below:

Regions	Actual Rainfall(mm)	Normal Rainfall(mm)	%Departure from LPA
Country as a whole	14.7	9.7	52%
Northwest India	9.8	6.9	42%
Central India	6.1	2.4	155%
South Peninsula	5.8	8.8	-34%
East & northeast India	53.4	31.1	72%

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

Seasonal Rainfall Scenario (1 March till 22 April 2020)

For the country as a whole, cumulative rainfall during this year's pre monsoon season upto 22 April 2020 was above Long Period Average (LPA) by 22%. 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	69.9	57.4	22%
Northwest India	102.3	70.2	46%
Central India	37.2	14.8	151%
South Peninsula	34.9	37.1	-6%
East & northeast India	119.5	147.5	-19%

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

Chief synoptic conditions as on 16 April 2020

- A Western Disturbance lies as a trough in mid tropospheric westerlies with its axis at 5.8 km above mean sea level and runs roughly along longitude 73°E to the north of latitude 34°N.
- Another trough in upper tropospheric westerlies lies with its axis at 9.5 km above mean sea level and runs roughly along longitude 92°E to the north of latitude 25°N.
- A cyclonic circulation lies over west Vidarbha & neighbourhood extending upto 0.9 km above mean sea level.
- A trough/wind discontinuity lies at 0.9 km above mean sea level and runs from the above cyclonic circulation to Comorin area across Marathwada, Interior Karnataka and interior Tamilnadu.
- A cyclonic circulation lies over south Assam & neighbourhood extending upto 0.9 km above mean sea level.

Large scale features as on 23 April 2020

- The Madden–Julian Oscillation (MJO) is currently in Phase-2 with amplitude greater than 1. It is likely to move in phase 3 with amplitude greater than 1 during 2nd half of week-1. Thereafter it is likely to remain in Phase 3 with gradual reduction in amplitude till the end of week-2.
- Currently, ENSO-neutral conditions are prevailing over equatorial Pacific Ocean and the latest MMCFS forecast indicates these conditions are likely to continue for the entire forecast period.
- At present, near neutral IOD conditions are observed over Indian Ocean and the latest MMCFS forecast indicates same e IOD conditions are likely to continue during the entire forecast period.

Forecast for next two week

Weather systems & associated Precipitation during Week 1 (23-29 April 2020) and Week 2 (30 April- 6 May 2020)

Week 1: (23-29 April 2020)

- Due to continued moisture incursion to eastern and northeastern parts of India from Bay of Bengal's favourable position of an Anticyclonic circulation at lower levels and associated strong wind convergence and conducive upper level features, fairly widespread to widespread rainfall activity is very likely to continue over parts of East and Northeast India during next 5-6 days. Isolated heavy rainfall, thundersquall (wind speed reaching 50-60 kmph over Eastern India and more than 60 kmph over Northeast India) & hailstorms are also very likely over West Bengal & Sikkim, Odisha, Jharkhand, Bihar, Assam & Meghalaya, Arunachal Pradesh and Nagaland, Manipur, Mizoram & Tripura during this period.
- Fairly widespread to widespread rainfall/thundershower activity along with isolated heavy rainfall likely over Kerala & Mahe during next 5 days. Rainfall activity likely to increase over Andhra Pradesh, Telangana, Tamilnadu, Puducherry & Karaikal from 25th April onwards. Thunderstorms, hailstorms, lightning, gusty winds & heavy rainfall are also likely over these regions during this period.
- Under the influence of a new Western Disturbance from night of today, parts of Northwest India likely to experience isolated to scattered rain/thundershower activity during next 2 days
- Another fresh Western Disturbance likely to cause isolated to scattered rain/thundershower activity over Northwest India from 26th April onwards. Isolated hailstorm activity is also likely over the region during 24th-25th April, 2020.
- **Cumulatively Rainfall for week 1**, near normal to excess rainfall very likely over Western Himalayan Region, adj plains of north India, parts of eastern India and Adj northeastern states and across southern parts of peninsular India and Nicobar Islands during week 1 (Ref Annexure III for day today and Annexure IV for cumulative for Week 1).

Week 2: (30 April-6 May 2020)

Fairly widespread to widespread rain/thundershowers with isolated heavy falls likely over East and Northeast India and over parts of southwestern peninsular India. Scattered to fairly widespread rain/thundershowers are likely over the parts of Northwest India. Cumulatively rainfall during week 2, normal to above normal rainfall likely across Western Himalayan Region and adjoining plains of north India, Kerala, and eastern parts and Northeastern

States with mainly dry weather likely over rest parts of the country(**Annexure IV**).

Maximum Temperature for week 1 & 2: (23 April-6 May, 2020)

During week 1, Maximum temperatures are likely to be below normal by 1-3 deg C over most parts of India except Kashmir, Kokan and Goa, south Odisha and adj southeastern coast of India where it is very likely above normal by 1-3degC. (Annex. V).

During week 2, maximum temperatures likely to increase by 1-2°C over Western Himalayan region, Gujarat State, Odisha, northeastern parts of India, west coast of India with near normal values over other parts of India (Annexure V).

Cyclogenesis:

- Cyclogenesis is expected over southeast Bay of Bengal and neighbourhood during the initial part of week- 2. Considering the prevailing environmental parameters, along with the probable Cyclogenesis from majority of the numerical models, **there is high probability for formation of a Depression and its further intensification over southeast bay of Bengal & neighbourhood during the initial half of week-2.**

Next weekly update will be issued on next Thursday i.e. 30th April, 2020

Annexure I

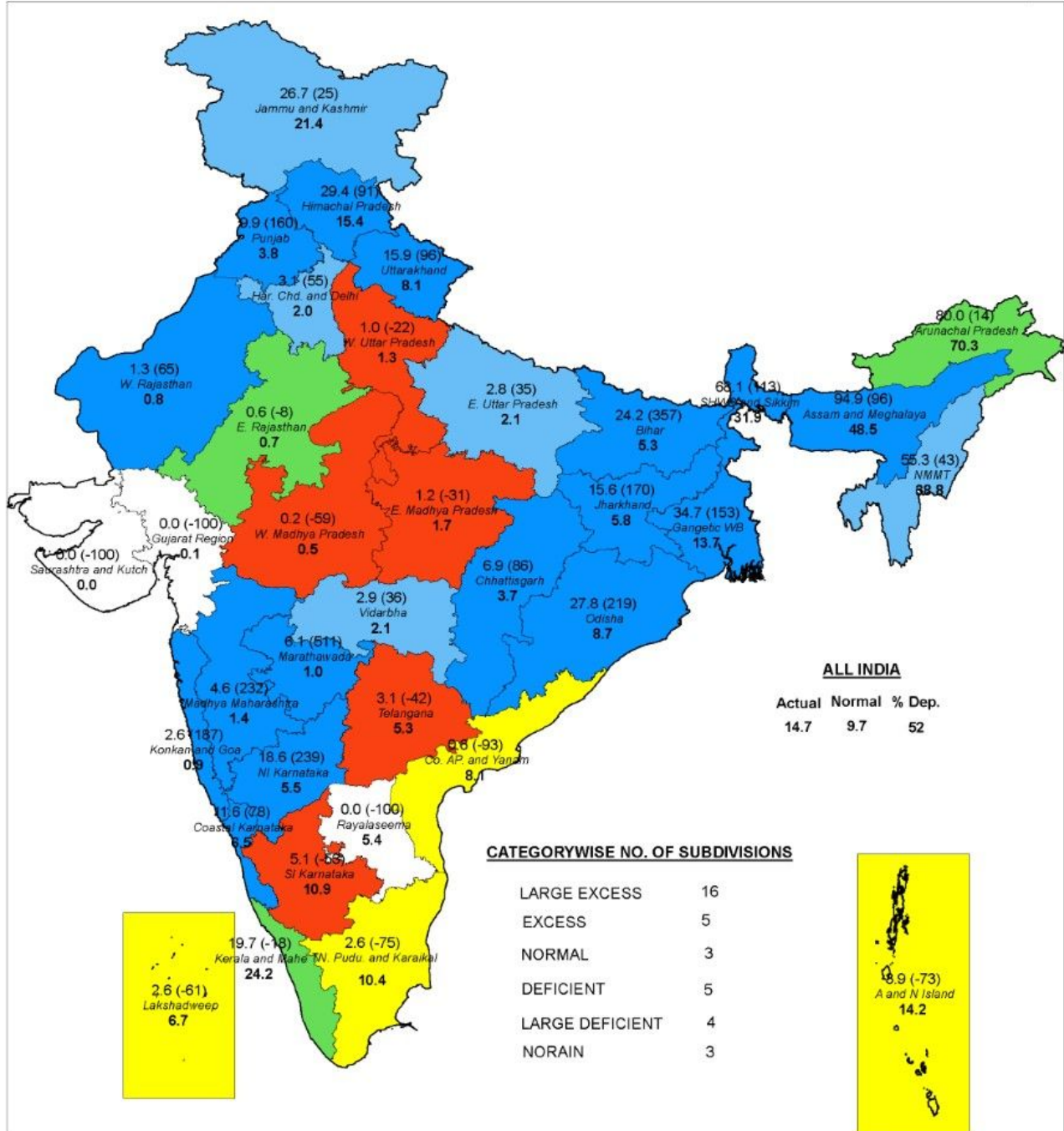


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Week : 16-04-2020 To 22-04-2020



Legend

Large Excess [60% 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.

Annexure III

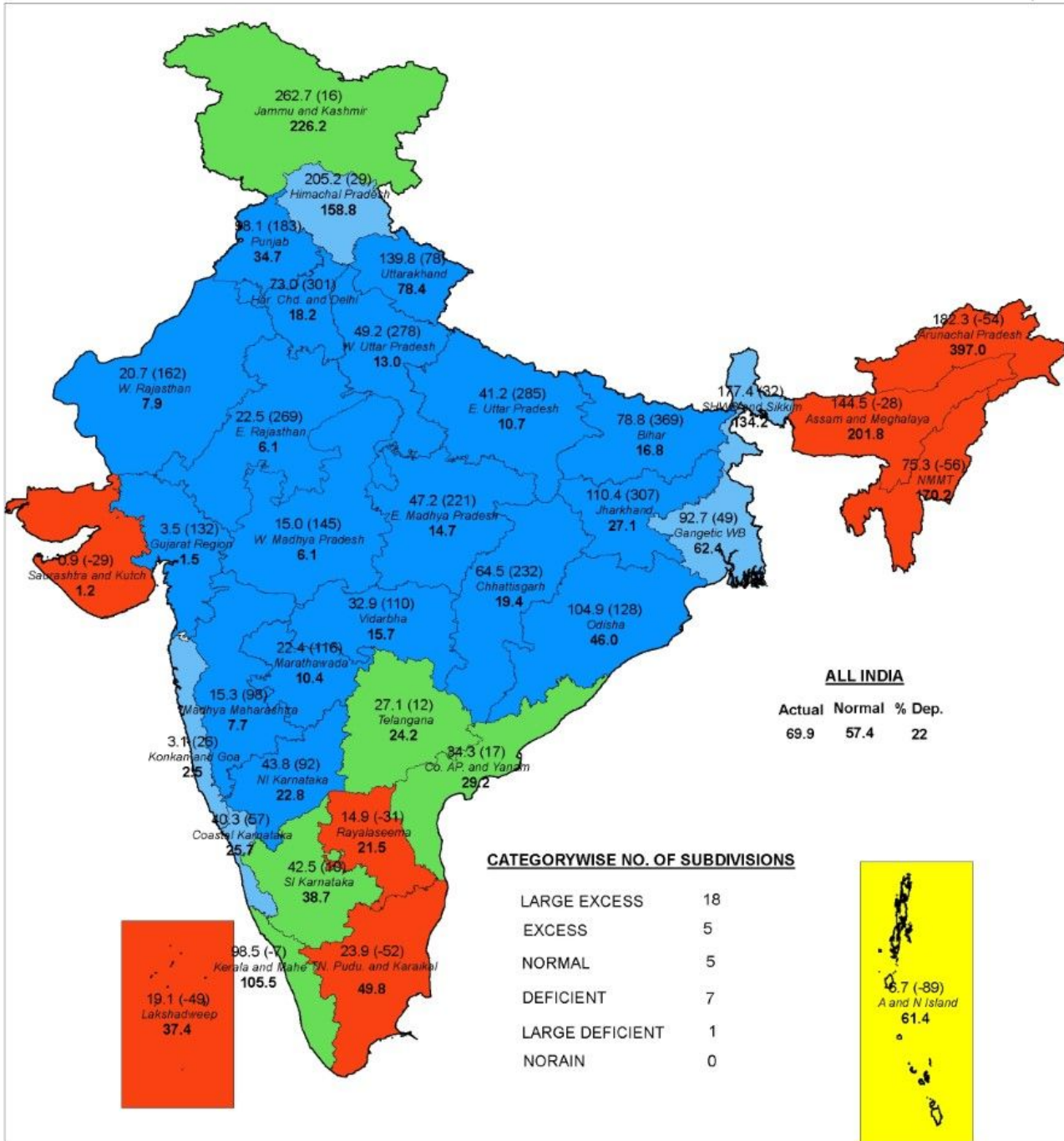


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI

SUBDIVISION RAINFALL MAP

Period : 01-03-2020 To 22-04-2020



CATEGORYWISE NO. OF SUBDIVISIONS

LARGE EXCESS	18
EXCESS	5
NORMAL	5
DEFICIENT	7
LARGE DEFICIENT	1
NORAIN	0

Legend

Large Excess [60% 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.

Annexure III

METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2020								
Sr. No	MET.SUB-DIVISIONS	23 APR	24 APR	25 APR	26 APR	27 APR	28 APR	29 APR
1	ANDAMAN & NICO.ISLANDS	ISOL	SCT ^{TS}	SCT ^{TS}	FWS ^{TS}	FWS	WS	FWS [*]
2	ARUNACHAL PRADESH	WS ^{TS}	WS ^{TS*}	FWS ^{TS*}	FWS	SCT	FWS ^{TS}	FWS ^{TS}
3	ASSAM & MEGHALAYA	FWS ^{5#}	WS ^{5#*}	WS ^{TS*}	FWS ^{TS}	SCT ^{TS}	FWS ^{TS}	WS ⁵
4	NAGA.MANI.MIZO.& TRIPURA	FWS ^{5#}	WS ^{5#*}	WS ^{TS*}	WS ^{TS*}	FWS ^{TS}	FWS ^{TS}	FWS ^{TS}
5	SUB-HIM.W. BENG. & SIKKIM	FWS ^{TS}	WS ^{5#*}	FWS ^{TS#}	FWS ^{TS}	FWS ^{TS}	FWS ^{TS}	WS ^{TS}
6	GANGETIC WEST BENGAL	FWS ^{TS}	WS ^{5*}	WS ^{TS#*}	WS ^{TS*}	WS ^{TS*}	FWS ^{TS}	WS ⁵
7	ODISHA	SCT ^{TS}	WS ^{5#*}	WS ^{TS*}	FWS ^{TS*}	FWS ^{TS*}	FWS ^{TS}	SCT ^{TS}
8	JHARKHAND	ISOL ^{TS}	SCT ^{5#}	SCT ^{TS}	FWS ^{TS*}	FWS ^{TS*}	FWS ⁵	FWS ⁵
9	BIHAR	SCT ^{TS}	SCT ^{TS}	ISOL ^{TS}	FWS ^{TS}	FWS ^{TS}	FWS ^{TS}	WS ⁵
10	EAST UTTAR PRADESH	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS}	FWS ^{TS}	SCT ^{TS}	ISOL
11	WEST UTTAR PRADESH	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS}	SCT ^{TS}	ISOL
12	UTTARAKHAND	SCT	ISOL	ISOL	SCT ^{TS#}	FWS ^{TS#}	SCT ^{TS#}	ISOL ^{TS}
13	HARYANA CHD. & DELHI	SCT ^{TS#}	ISOL	ISOL	SCT ^{TS#}	ISOL	ISOL	ISOL
14	PUNJAB	SCT ^{TS}	ISOL	ISOL	SCT ^{TS#}	ISOL	ISOL	ISOL
15	HIMACHAL PRADESH	ISOL	D	ISOL	SCT ^{TS#}	FWS ^{TS#}	SCT ^{TS#}	ISOL
16	JAMMU & K. AND LADAKH	ISOL	D	ISOL	ISOL	SCT ^{TS#}	ISOL	D
17	WEST RAJASTSAN	ISOL ^{DS/TS}	ISOL ^{DS/TS}	ISOL	ISOL	ISOL ^{DS/TS}	ISOL ^{DS/TS}	ISOL
18	EAST RAJASTSAN	ISOL ^{DS/TS}	ISOL ^{DS/TS}	ISOL	ISOL	ISOL ^{DS/TS}	ISOL ^{TS}	ISOL
19	WEST MADHYA PRADESH	ISOL ^{TS#}	ISOL ^{TS}	D	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS#}
20	EAST MADHYA PRADESH	ISOL ^{TS#}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS#}
21	GUJARAT REGION D.D. & N.H.	D	D	D	D	D	ISOL ^{TS}	ISOL
22	SAURASTRA KUTCH & DIU	D	D	D	D	D	D	D
23	KONKAN & GOA	D	D	D	D	D	ISOL ^{TS}	ISOL ^{TS}
24	MADHYA MAHARASHTRA	D	D	D	D	D	ISOL ^{TS}	ISOL ^{TS}
25	MARATHAWADA	D	D	D	D	ISOL	ISOL ^{TS}	ISOL ^{TS#}
26	VIDARBHA	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS#}	SCT ^{TS#}
27	CHHATTISGARH	ISOL ^{TS}	SCT ^{TS#}	ISOL ^{TS}	SCT ^{TS#}	SCT ^{TS#}	SCT ^{TS#}	SCT ^{TS#}
28	COASTAL A. PR. & YANAM	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS*}	FWS ^{TS*}	SCT ^{TS*}	FWS ^{TS*}	SCT ^{TS}
29	TELANGANA	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS#}	SCT ^{TS#}	ISOL ^{TS}	FWS ^{TS*}	SCT ^{TS}
30	RAYALASEEMA	ISOL	ISOL	ISOL ^{TS#}	SCT ^{TS}	SCT ^{TS}	SCT ^{TS}	SCT ^{TS}
31	TAMIL. PUDU. & KARAICAL	ISOL ^{TS}	ISOL ^{TS}	SCT ^{TS#*}	SCT ^{TS}	SCT ^{TS*}	SCT ^{TS}	SCT ^{TS}
32	COASTAL KARNATAKA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
33	NORTH INT.KARNATAKA	ISOL	D	D	ISOL	ISOL	ISOL	ISOL ^{TS}
34	SOUTH INT.KARNATAKA	SCT ^{TS}	SCT ^{TS}	ISOL ^{TS*}	SCT ^{TS}	SCT ^{TS}	SCT ^{TS}	ISOL ^{TS}
35	KERALA & MAHE	FWS ^{TS*}	WS ^{TS*}	FWS ^{TS*}	WS ^{TS*}	WS ^{TS*}	FWS ^{TS*}	WS ^{TS*}
36	LAKSHADWEEP	SCT ^{TS}	SCT ^{TS}	SCT	SCT	SCT	FWS ^{TS}	FWS ^{TS}

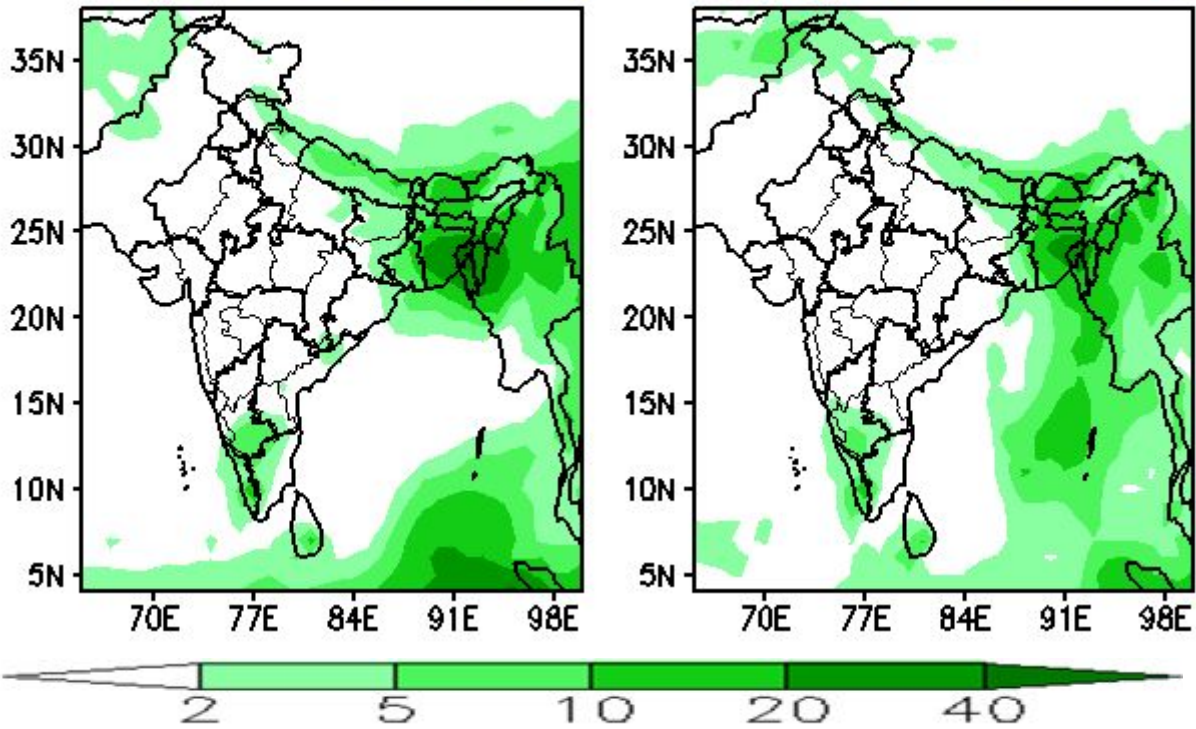
LEGENDS:					
WS	WIDE SPREAD / MOST PLACES (76-100%)	FWS	FAIRLY WIDE SPREAD / MANY PLACES (51% to 75%)		
SCT	SCATTERED / FEW PLACES (26% to 50%)	ISOL	ISOLATED (up to 25%)	D/DRY	NIL RAINFALL
* Heavy Rainfall (64.5-115.5 mm)		** Heavy to Very Heavy Rainfall (115.6-204.4 mm)		*** Extremely Heavy Rainfall (204.5 mm or more)	
☁ FOG	* SNOWFALL	# HAILSTORM		⚡ COLD WAVE (-4.5°C to -6.4°C)	⚡ SEVERE COLD WAVE (< -6.4)
5 TSUNDERSTORM WITS SQUALL/GUSTY WIND		DS/TS DUST/TSUNDERSTORM	🔥 HEAT WAVE (+4.5°C to +6.4°C)	🔥 SEVERE HEAT WAVE (> +6.4)	

Annexure IV

Forecast Rainfall (mm/day)

(Week1: 24Apr-30Apr)

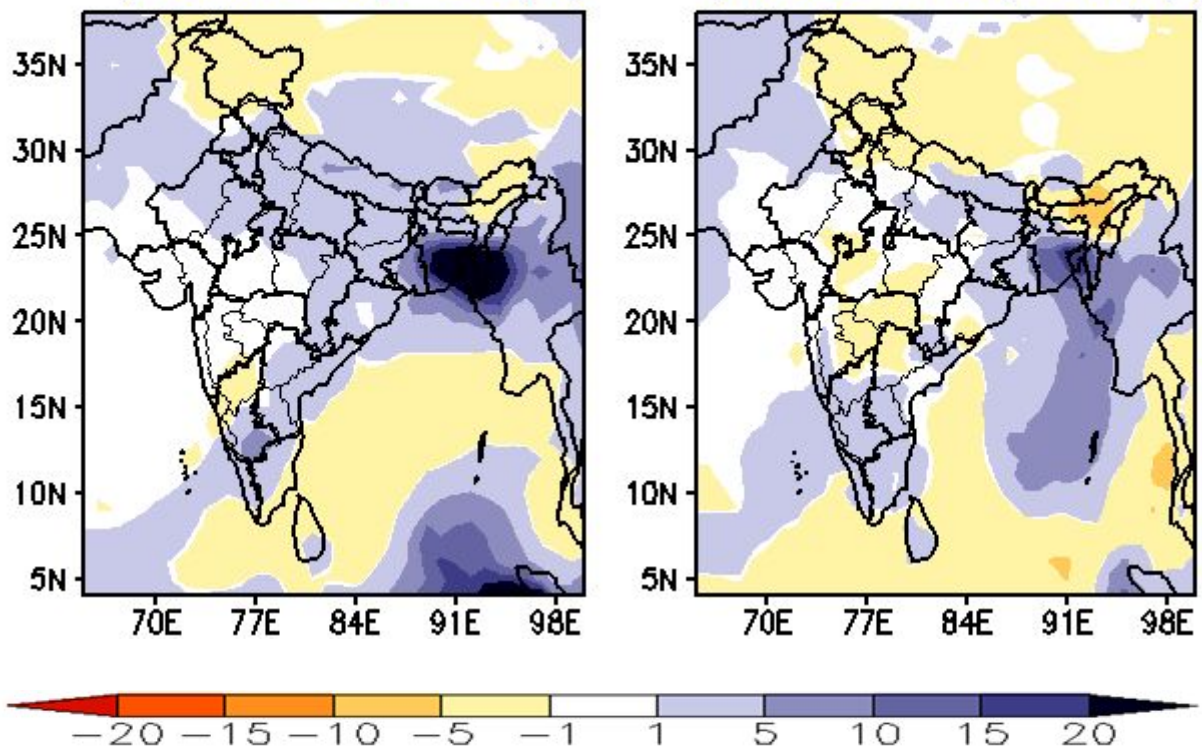
(Week2: 01May-07May)



Forecast Rainfall Anomaly (mm/day)

(Week1: 24Apr-30Apr)

(Week2: 01May-07May)



Annexure V

MME forecast Tmax anomaly (Deg C)

(Week1: 24Apr-30Apr)

(Week2: 01May-07May)

