



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

Dated: 27 December, 2018

Current Weather Status & Outlook for next two weeks (28 Dec.18 to 10 Jan. 2019)

Significant Features

- **Western disturbance:** Though there had been 3 Western Disturbances which moved across the western Himalayan region during the week, all of them remained feeble. Also the easterly wave activity remained in general confined to the equatorial belt. As a result, cold wave conditions over northwest India gradually became severe as the week progressed.
- **Heavy rain:** Heavy rain at isolated places had been reported over Andaman & Nicobar Islands on the 20 December and over Kerala on 25 December.
- **Fog:** Dense to very dense fog observed at isolated places over Uttarakhand & Punjab on a few days and over Odisha, Tripura, Bihar, West Rajasthan, Haryana, Chandigarh & Delhi and Tamilnadu on one or two days during the week.
- **Cod wave/cold day:** Cold wave to Severe cold wave conditions occurred over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi & north Rajasthan on many days; over Uttar Pradesh, Madhya Pradesh, Bihar and Saurashtra & Kutch on a few days and over Vidarbha and Gujarat region on one or two days during the week. Cold day conditions occurred over Madhya Pradesh on 20 December. **The lowest minimum temperature of (minus) 1°C was recorded at Hissar (Haryana) on 26 December 2018, over the plains of the country.**

Weekly Rainfall Scenario (20 to 26 December, 2018)

During the week, rainfall was below Long Period Average (LPA) by 83 % over the country as a whole. Details are given below:

Regions	Actual Rainfall (mm)	Normal Rainfall (mm)	% Departure from LPA
Country as a whole	0.5	3.1	-83%
Northwest India	0.0	5.8	-100%
Central India	0.0	0.9	-100%
South Peninsula	4.0	-34%	4.0
East & northeast India	0.1	2.5	-95%

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

Post-monsoon Seasonal Rainfall Scenario (01 October to 26 December, 2018)

For the country as a whole, cumulative rainfall during post-monsoon season 2018 (01 October to 26 December, 2018) was below LPA by 43% over the country as a whole. 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	70.9	124.2	-43%
Northwest India	34.8	57.0	-39%
Central India	38.6	79.0	-51%
South Peninsula	173.0	270.6	-36%
East & northeast India	83.2	168.6	-51%

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

Chief synoptic conditions as on 27 December, 2018

- The trough of low at mean sea level lies over central parts of south Arabian Sea and adjoining equatorial Indian Ocean.
- The cyclonic circulation extending upto 0.9 km lies over Comorin area and neighbourhood.
- The trough runs from southeast Madhya Pradesh to South Interior Karnataka across Vidarbha, Marathwada and North Interior Karnataka at 0.9 km above mean sea level.
- The trough in westerlies between 3.1 km & 3.6 km above mean sea level roughly along Long. 93°E to the north of Lat. 25°N.
- The feeble western disturbance as a trough runs roughly along Long. 84°E to the north of Lat. 30°N.
- A fresh feeble western disturbance is likely to affect western Himalayan region from 29 December.

Large scale features as on 27 December, 2018

- Currently, warm El Niño Southern Oscillation (ENSO) neutral conditions are prevailing with above normal Sea Surface Temperatures across most of the equatorial Pacific Ocean. Forecasts from the global climate models indicate strong likelihood of development of weak El Niño conditions during the following couple of months.
- At present, positive Indian Ocean Dipole (IOD) conditions prevail over the equatorial Indian Ocean and the latest MMCFs forecast indicates present positive IOD conditions are likely to turn into neutral IOD conditions during the next month and persist thereafter.
- Madden Julian Oscillation (MJO) index is in Phase 5 with amplitude more than 1, it is likely to move in phase 6 during the week and likely to propagate further into phase 6 during week-2 with amplitude more than 1.

Forecast for next two week

Forecast for next two weeks: Weather systems & associated Precipitation during Week 1 (28 Dec. 2018 to 3 Jan. 2019) and Week 2 (4 to 10 Jan. 2019)

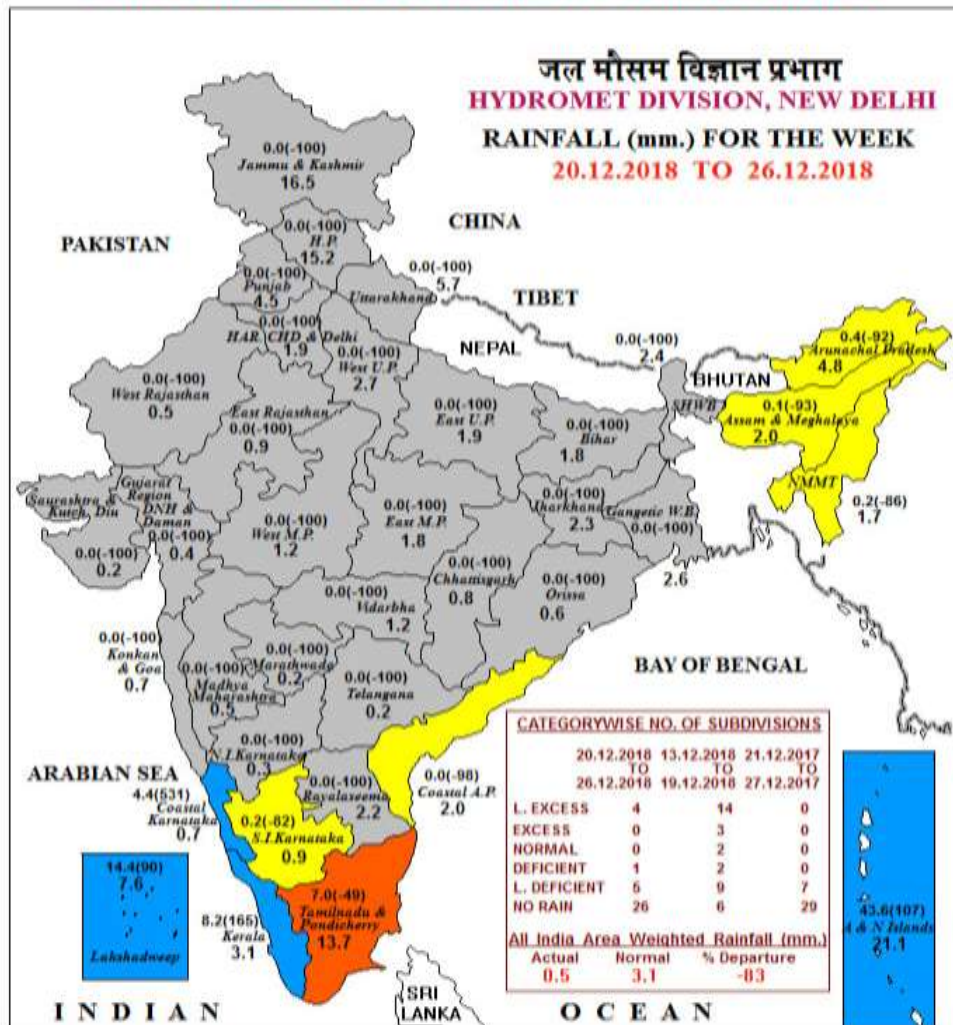
- o A feeble Western Disturbance (WD) is likely to cause isolated snowfall over the higher reaches of Jammu & Kashmir and Himachal Pradesh on 29th & 30th December 2018. This is likely to be followed by a fresh WD which could cause isolated to scattered rain / snow over Jammu & Kashmir, Himachal Pradesh and Uttarakhand during 1st – 3rd January 2019. Then there could be WDs affecting the western Himalayan region in quick succession. Isolated to scattered rain / snow are likely over the western Himalayan region on most of the days during week-2 **(Annexure III & IV)**.
- o Easterly wave activity is likely to remain confined to the equatorial belt during week-1. Dry continental air is likely to prevail and thus no significant rainfall is likely over the northeast monsoon regime during week-1. However, isolated convective activity is likely over Kerala during the initial couple of days of the week, resulting in an above normal weekly cumulative rainfall over this part. The remnant cyclonic vorticity from the current Tropical Depression over the Pacific Ocean is likely to trigger an easterly wave over south Bay of Bengal from the beginning of week-2. This could result in isolate to scattered rainfall over Tamilnadu and neighbouring areas towards the end of the week **(Annexure III & IV)**.
- o Minimum temperatures likely to be below normal over most parts of the country outside northeastern states and peninsular India where it is likely to be above normal during week 1. They are likely to be above normal over some parts of western Himalayan region, northeastern states and south Interior Karnataka and below normal over rest of the country during week 2. Cold wave to severe cold wave conditions are likely to prevail over major parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, north Rajasthan, west Uttar Pradesh and in some parts of Gujarat, Madhya Pradesh, north Maharashtra, Chhattisgarh, Bihar and Jharkhand during 28th – 31st December 2018. From 1st January 2019, the severity of cold wave is likely to reduce significantly over northwest India. At the same time, it is likely to become severe over parts of eastern India (north Chhattisgarh, Bihar, Jharkhand, interior Odisha and Gangetic west Bengal) during 1st – 4th Jan 2019 **(Annexure V)**.
- o Dense fog likely at isolated places over parts of northwest and northeast during next 4-5 days. Shallow to moderate fog likely at isolated pockets over northern plains during next 4-5 days

Cyclogenesis:

- o Cyclo-genesis over Indian Ocean is not likely during next 2 weeks.

Next weekly update will be issued on next Thursday i.e. 3 January, 2019

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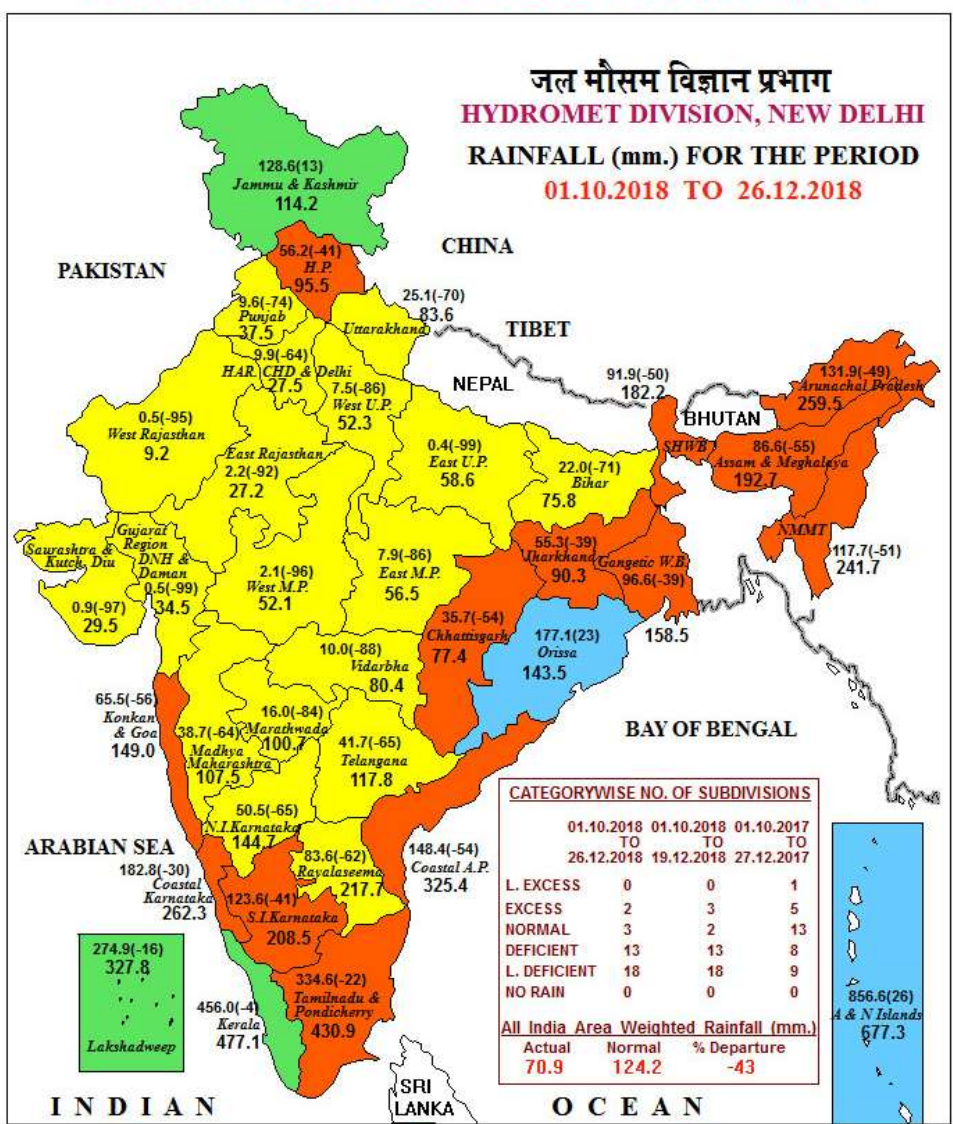
LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) NO DATA

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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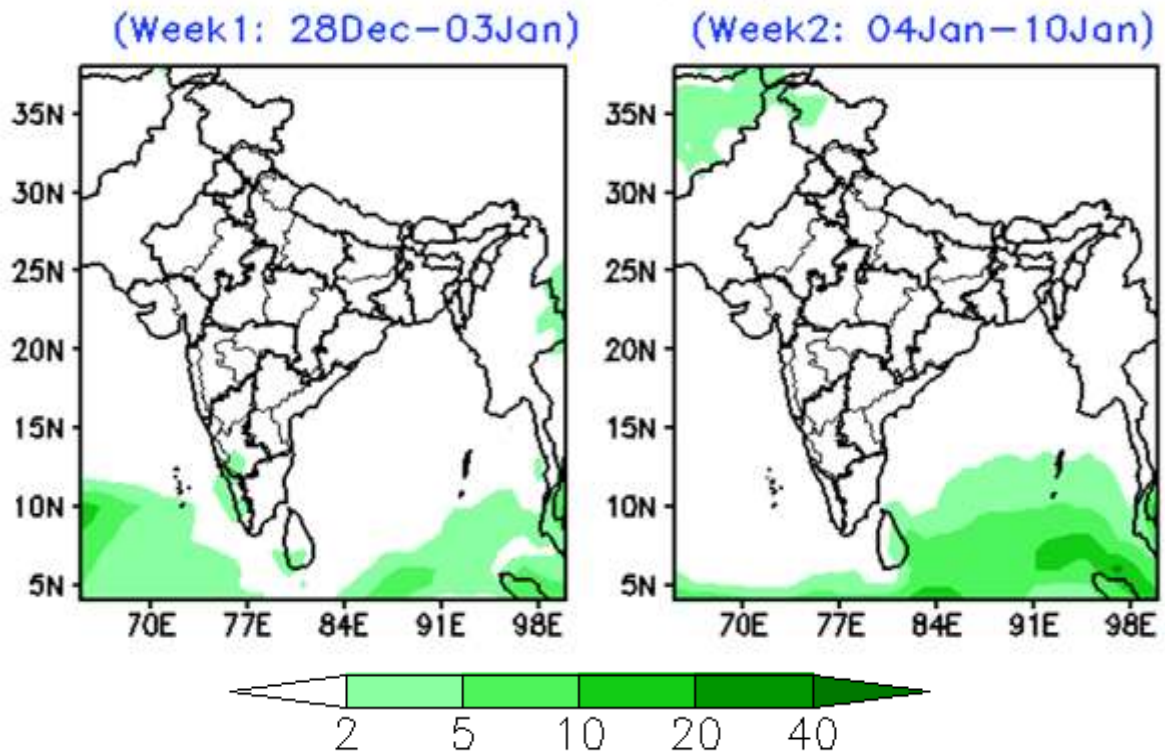
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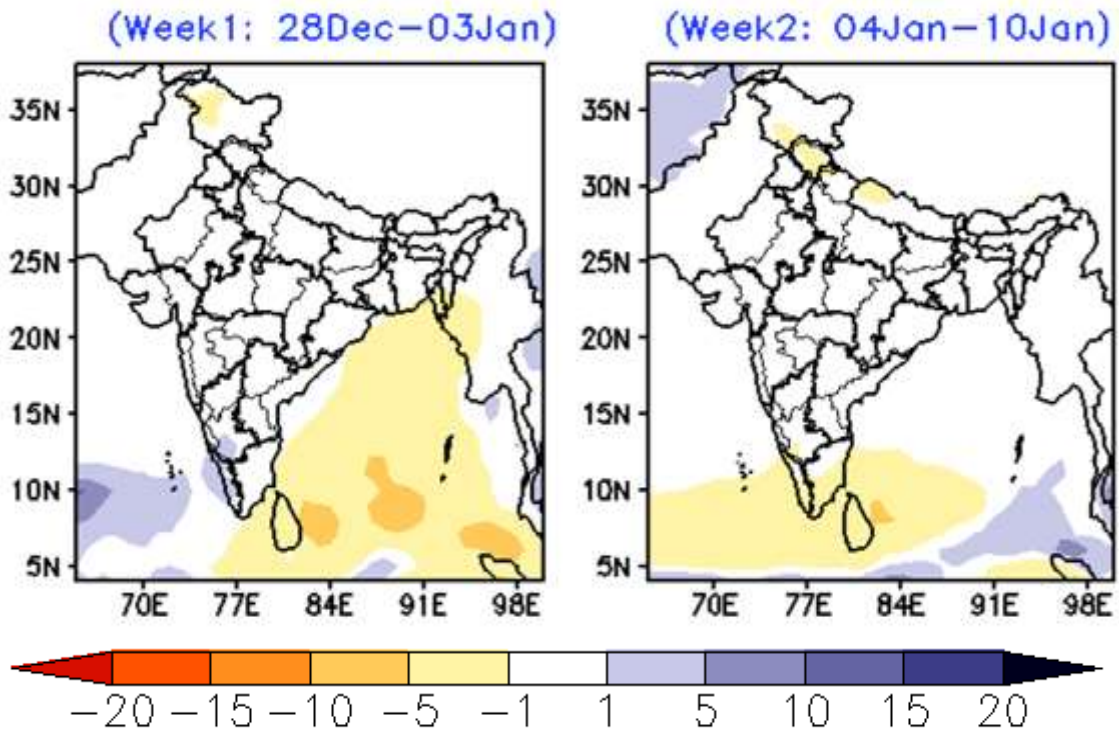
Annexure III

METEOROLOGICAL SUB-DIVISIONWISE WEEKLY RAINFALL FORECAST & Wx. WARNINGS-2018-19								
Sr. No	MET.SUB-DIVISIONS	27 DEC	28 DEC	29 DEC	30 DEC	31 DEC	01 JAN	02 JAN
1	ANDAMAN & NICO.ISLANDS	D	D	D	D	D	ISOL	ISOL
2	ARUNACHAL PRADESH	ISOL	SCT	ISOL	D	D	D	ISOL
3	ASSAM & MEGHALAYA	ISOL	ISOL ^{TS#}	D [•]	D [•]	D [•]	D [•]	D [•]
4	NAGA.MANI.MIZO.& TRIPURA	D	ISOL	D [•]	D [•]	D [•]	D [•]	D [•]
5	SUB-HIM.W. BENG. & SIKKIM	ISOL	ISOL [•]	D [•]	D	D	D	D
6	GANGETIC WEST BENGAL	D	D [•]	D _↓	D _↓	D _↓	D _↓	D
7	ODISHA	ISOL	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	D _↓	D _↓	D _↓	D _↓	D _↓	D _↓	D
12	UTTARAKHAND	D _↓	D _↓	D	D	D	ISOL	ISOL
13	HARYANA CHD. & DELHI	D _↓	D _↓	D _↓	D _↓ [•]	D _↓ [•]	D _↓	D [•]
14	PUNJAB	D _↓ [•]	D _↓	D _↓	D _↓ [•]	D _↓ [•]	D [•]	D [•]
15	HIMACHAL PRADESH	D _↓	D _↓	D	ISOL	D	SCT	ISOL
16	JAMMU & KASHMIR	D _↓	D _↓	ISOL	ISOL	D	SCT	SCT
17	WEST RAJASTHAN	D _↓	D _↓	D _↓	D _↓	D _↓	D _↓	D _↓
18	EAST RAJASTHAN	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	ISOL [•]	D	D _↓	D _↓	D	D	D
28	COASTAL ANDHRA PRADESH	ISOL	ISOL	D	D	D	D	D
29	TELANGANA	D	D	D	D	D	D	D
30	RAYALASEEMA	D	D	D	D	D	D	D
31	TAMILNADU & PUDUCHERRY	D	ISOL	ISOL	ISOL	D	ISOL	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	D	D	ISOL	D	D	D	D
35	KERALA	ISOL	ISOL	ISOL	ISOL	D	D	D
36	LAKSHADWEEP	ISOL	D	ISOL	ISOL	D	D	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			↑ HEAT WAVE (+4.5°C to +6.4°C)		↑↑ SEVERE HEAT WAVE (> +6.4)	
§ THUNDERSTORM WITH SQUALL/GUSTY WIND			DS/TS DUST/THUNDERSTORM		↓ COLD WAVE (-4.5°C to -6.4°C)		↓↓ SEVERE COLD WAVE (< -6.4)	

Forecast rainfall (in mm)



Forecast rainfall anomaly (in mm)



Forecast minimum temperature anomaly (in °C)

(Week1: 28Dec-03Jan)

(Week2: 04Jan-10Jan)

