

भारत मौसम विज्ञान विभाग

पृथ्वी विज्ञान मंत्रालय



INDIA METEOROLOGICAL DEPARTMENT

Ministry of Earth Sciences

WEEKLY WEATHER REPORT साप्ताहिक मौसम विवरण

for the week ending on 4th April 2018 (14th Chaitra 1940 Saka)

CHIEF FEATURES: 1) Severe heat wave conditions were observed over some parts of Jammu & Kashmir and Himachal Pradesh and over one or two pockets of Saurashtra & Kutch on one or two days during the week. 2) Heat wave to severe heat wave conditions had been observed over West Rajasthan almost on all the days during the week, the areal spread of the same getting reduced with the progress of the week. 3) Heat wave conditions were observed over some parts of Gujarat Region, Jammu & Kashmir, East Rajasthan and East Madhya Pradesh on one day each and at one or two pockets over Saurashtra & Kutch, Gujarat Region, Himachal Pradesh and Madhya Pradesh on one or two days during the week.

SEMI-PERMANENT FEATURES:

1. **Intertropical Convergence Zone (ITCZ):** During the week, it meandered between 8°N to 14°N over the Indian region.
2. **Sub Tropical Westerly Jet (STWJ):** During the week, its core oscillated between Lat 24°N to 26°N with the wind speed varying between 57-143 kts around 200 hpa. The highest wind speed of 143 kts at 108 hPa was recorded over Patiala on 29th.
3. **Sub Tropical Ridge (STR):** It was oscillating between Equator to Lat. 10°N at 200 hPa.

MAXIMUM TEMPERATURES:

Severe heat wave Conditions prevailed in some parts of Himachal Pradesh on 29th and 30th, at some parts of west Rajasthan on 31st March and west Rajasthan on 1st April.

Heat wave Conditions prevailed in some parts of Uttarakhand and west Rajasthan on 29th, at isolated places over west Rajasthan and Gujarat state on 30th, at one or two pockets over Himachal Pradesh and Gujarat state on 31st March, at Himachal Pradesh, Jammu division, east Rajasthan and Madhya Pradesh and in remaining parts of west Rajasthan on 1st April and some parts of west Rajasthan on 2nd, 3rd & 4th April.

The highest maximum temperature recorded over the plains was 43.4°C on on 30th March at Idar (Gujarat Region)

MINIMUM TEMPERATURES:

The lowest minimum temperature recorded was. 13.2°C on 30th March at Amritsar (Punjab).

WEATHER AND ASSOCIATED SYNOPTIC FEATURES:

- The remnant western disturbance as a trough in mid & upper tropospheric westerlies with its axis at 5.8 kms a.s.l. ran roughly along Long. 85°E to the north of Lat. 27°N on 29th, ran roughly along Long. 86°E to the north of Lat. 25°N on 30th, ran with its axis at 7.6 kms a.s.l. roughly along Lat. 35°N / Long. 94°E to Lat. 25°N / Long. 87°E on 31st, ran from west Arunachal Pradesh to southeast Madhya Pradesh across west Bihar and southeast Uttar Pradesh with its axis at 7.6 kms a.s.l. on 1st, ran with its axis at 5.8 kms a.s.l. from east Arunachal Pradesh to interior Odisha across west Assam & Meghalaya - Gangetic West Bengal on 2nd, ran with its axis at 7.6 kms a.s.l. from east Arunachal Pradesh to northwest Bay of Bengal off Odisha coast across Assam on 3rd, ran from east Arunachal Pradesh to north Bay of Bengal across Assam and Bangla Desh on 4th.
- The core of sub - tropical westerly Jet stream continued mainly over northeast India and passed between Lat 23°N & 26°N at 9.5 kms a.s.l. over the Indian region on 29th, seen embedded in the above trough on 30th, at 9.5 kms a.s.l. over the Indian region embedded in the above trough on 31st March to 1st April.
- The east - west trough upto 0.9 km a.s.l. from northern parts of Bihar to Manipur ran from northern parts of Bangla Desh to Manipur across Assam & Meghalaya on 29th, became less marked on 30th.
- A trough extending upto 1.5 kms a.s.l. ran from east Bihar to south interior Odisha across northeast Jharkhand and Gangetic West Bengal on 30th, became less marked on 31st.
- The cyclonic circulation at 0.9 km a.s.l. over Gangetic West Bengal and adjoining Jharkhand lay over Odisha and neighbourhood on 29th, lay over east Jharkhand and adjoining West Bengal and Bihar and extended upto 0.9 km a.s.l. and lay ebedded in the above trough on 30th, over Jharkhand and adjoining Gangetic Bengal and extended upto 3.1 kms a.s.l. on 31st, became less marked on 1st.

- A north - south trough at 0.9 km a.s.l. ran from southeast Uttar Pradesh to south interior Karnataka across east Madhya Pradesh, Vidarbha, Telangana and north interior Karnataka on 29th. The cyclonic circulation over north interior Karnataka and adjoining areas of Telangana and Marathwada has merged with the above trough on 29th. The trough became less marked on 30th.
- The cyclonic circulation extending upto 1.5 kms a.s.l. over equatorial Indian Ocean and adjoining Sri-Lanka and Comorin area lay over Comorin area and neighbourhood on 29th, became less marked on 30th.
- The cyclonic circulation over south interior Karnataka and neighbourhood became less marked on 29th.
- A trough extending upto 1.5 kms a.s.l. runs from south Madhya Maharashtra to Comorin area across interior Karnataka and interior Tamil Nadu on 30th, ran from Telangana to Comorin area across Rayalaseema and interior Tamil Nadu on 31st, became less marked on 1st.
- A fresh western disturbance as a trough in mid & upper tropospheric westerlies ran roughly along Long. 42°E to the north of Lat. 28°N. on 31st March to 1st April, ran roughly along Long. 52°E to the north of Lat. 28°N. on 2nd, ran roughly along Long. 60°E to the north of Lat. 30°N at 3.1 kms a.s.l. on 3rd, ran roughly along Long. 60°E to the north of Lat. 30°N seen as a cyclonic circulation over north Pakistan and neighbourhood on 4th.
- A cyclonic circulation extending upto 1.5 kms a.s.l. lay over east Rajasthan and neighbourhood on 31st, became less marked on 1st.
- A cyclonic circulation lay over west Uttar Pradesh and adjoining Haryana, Chandigarh & Delhi and a trough ran from this cyclonic circulation to central parts of south Uttar Pradesh at 1.5 kms a.s.l. on 31st, become less marked on 1st.
- A cyclonic circulation lay over northeast Madhya Pradesh and neighbourhood and extended upto 1.5 kms a.s.l. on 1st, lay over north Chhattisgarh and neighbourhood on 2nd, lay over north Chhattisgarh and adjoining Jharkhand on 3rd, became less marked on 4th.
- A trough ran from the above cyclonic circulation to Comorin area across west Vidarbha, interior Karnataka and interior Tamil Nadu and extended upto 0.9 km a.s.l. on 1st, over north Chhattisgarh to south interior Karnataka across Vidarbha, Marathwada and north interior Karnataka and extended upto 1.5 kms a.s.l. on 2nd, became less marked on 3rd.
- A cyclonic circulation lay over east Bangla Desh and neighbourhood and extended upto 1.5 kms a.s.l. on 1st, became less marked on 2nd,
- A cyclonic circulation lay over Comorin area and neighbourhood and extended upto 1.5 kms a.s.l. on 1st, over Lakshadweep area and neighbourhood on 2nd, became less marked on 3rd.
- A cyclonic circulation extending between 2.1 & 4.5 kms a.s.l. lay over northern parts of Odisha and neighbourhood on 2nd, lay over northeast Jharkhand and adjoining Gangetic West Bengal on 3rd- 4th, lay between 1.5 & 3.1 kms a.s.l. on 4th.
- A cyclonic circulation extending upto 1.5 kms a.s.l. lay over Haryana and neighbourhood on 3rd, merged with the northeast Rajasthan, west Madhya Pradesh, western parts of Vidarbha and Marathwada trough on 4th.
- A north - south trough at 0.9 km a.s.l. ran from west Madhya Pradesh to north Kerala coast across west Vidarbha, Marathwada and interior Karnataka on 3rd, has merged with the northeast Rajasthan, west Madhya Pradesh, western parts of Vidarbha and Marathwada trough on 4th.
- A cyclonic circulation extending upto 0.9 km a.s.l. lay over Sri-Lanka and neighbourhood on 3rd, became less marked on 4th.
- A cyclonic circulation extending upto 0.9 kms a.s.l. lay over Punjab and adjoining north Pakistan on 4th.
- A trough at 0.9 km a.s.l. ran from the above cyclonic circulation to north interior Karnataka across northeast Rajasthan, west Madhya Pradesh, western parts of Vidarbha and Marathwada on 4th.
- A trough in easterlies at 1.5 kms a.s.l. ran from Comorin area to south interior Karnataka across interior Tamil Nadu on 4th.

Details of the rainfall received under the influence of these synoptic systems are given in the subsequent Figures and Tables.

Media Reports: The rains and hailstorm affected the standing crops such as paddy and mango groves causing huge loss to the farming community in Telangana. (The Hindu 1st April) 2) High velocity winds accompanied by rain, hails and lightning, uprooted trees, electricity poles and blew away rooftops of several houses in parts of Jharkhand, Ranchi. (Hindustan times 2nd April).

(Dr. A. K. Srivastava)

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Rainfall % Departure For the week ending

4th April 2018

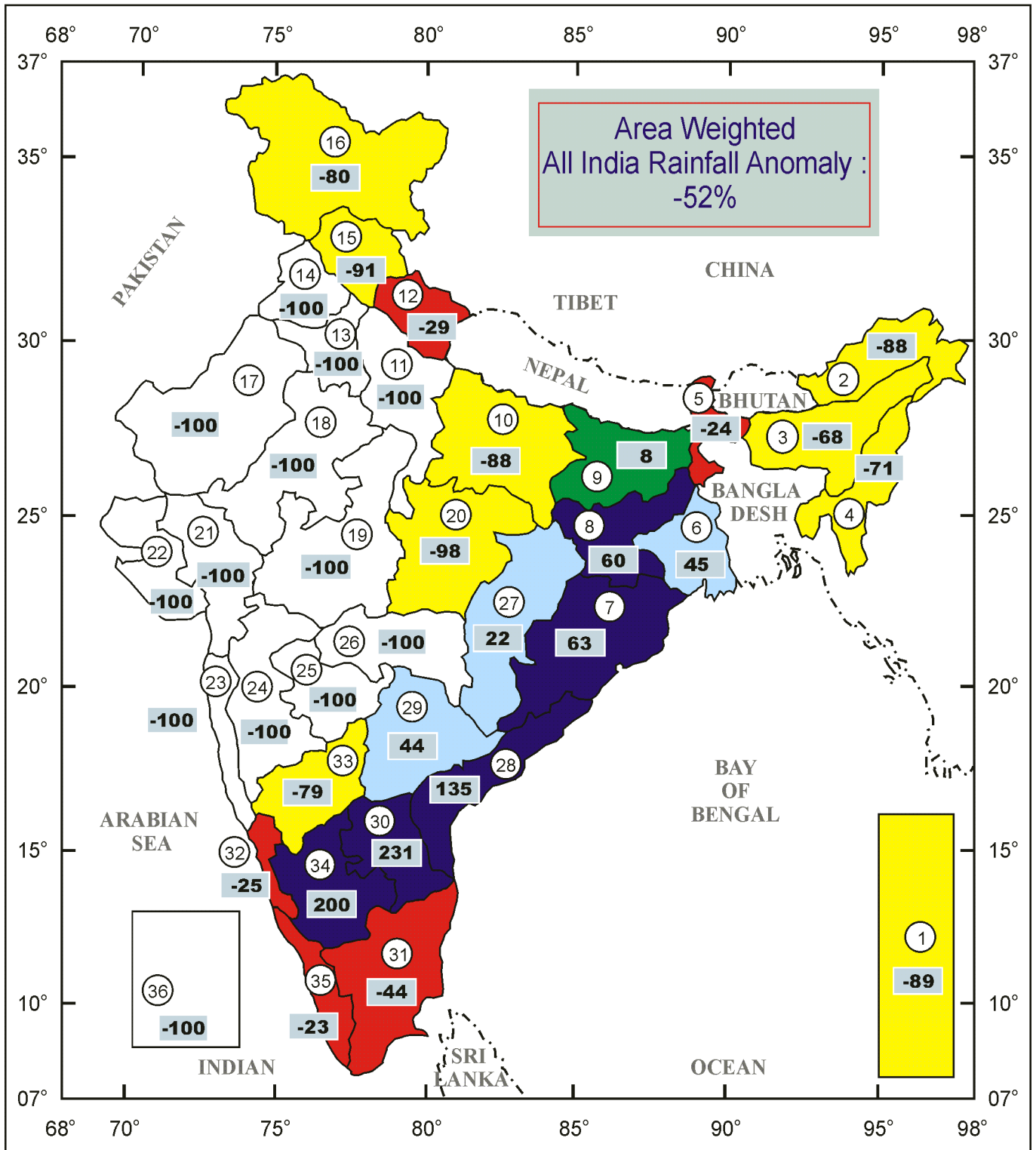


Figure in ○ Indicates sub-division number.

Figure in □ indicates rainfall anomaly.



Rainfall % Departure For the period

1st March to 4th April 2018

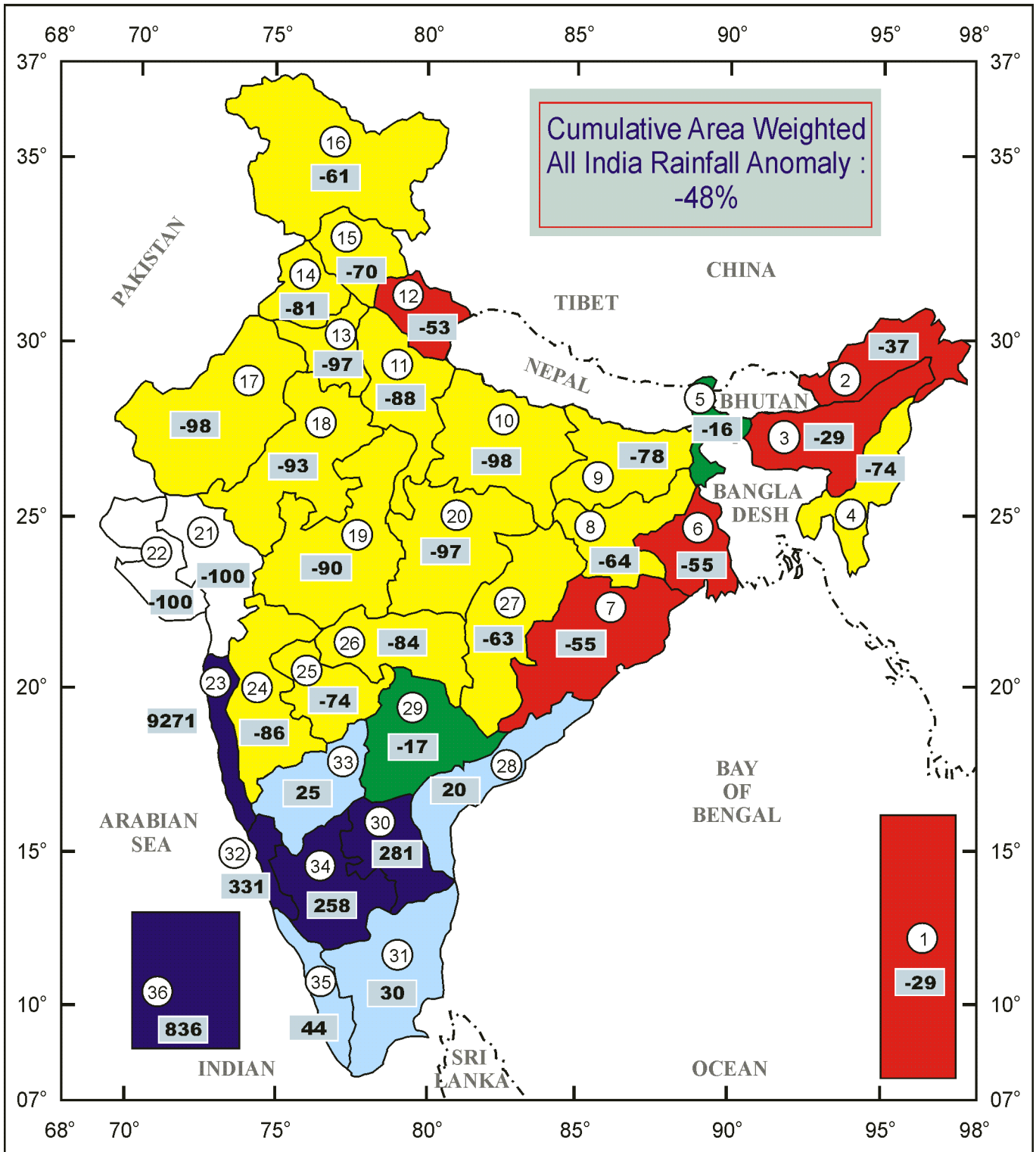


Figure in ○ Indicates sub-division number.

Figure in □ indicates rainfall anomaly.

Large Excess
+60% and above **05**

Excess
+20% to +59% **04**

Normal
-19% to +19% **02**

Deficient
-20% to -59% **06**

Large Deficient
-60% to -99% **17**

No Rain
-100% **02**