

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 **15<sup>th</sup> May 2024 (25 Vaisakha 1946 Saka)**

**CHIEF FEATURES:** 1) Due to the occurrence of rainfall accompanied with thunderstorm activities and gusty winds over many parts of the country, no heat wave conditions were observed during the week except at isolated pocket over west Rajasthan on initial two days and over Gujarat Region on the last day of the week. 2) The thunderstorms along with rainfall were reported over eastern India during first half of the week; over southeast peninsular India on most of the days; over northwest India on first day; over central India all throughout the week and over western parts of India including Maharashtra and Gujarat during the later half of the week. The rainfall over northwest India was mainly due to an active western disturbance over the region. The rainfall over the eastern and central India was due to a cyclonic circulation in lower tropospheric level over the region coupled with moisture incursion due to an anticyclonic circulation over Bay of Bengal. The rainfall over the southeast peninsular India was due to the presence of north-south trough/wind discontinuity.

#### SEMI-PERMANENT FEATURES:

**Inter Tropical Convergence Zone (ITCZ):** During the week, it was located between Lat.10°N and Lat.16°N over the Indian region.

**Sub-Tropical Ridge (STR):** It oscillated between Lat.5°N and Lat.10°N at 200 hPa.

**Sub-Tropical Westerly Jet (STWJ):** The highest wind speed of 70 knots was recorded over New Delhi on 10<sup>th</sup> May at 223 hPa.

#### MAXIMUM TEMPERATURE:

The **highest maximum temperature** of 46.2°C was recorded at Phalodi (west Rajasthan) on 9<sup>th</sup> May over the plains of the country.

#### SYNOPTIC WEATHER:

**Heat wave** conditions prevailed at a few places over west Rajasthan on 9<sup>th</sup>, 10<sup>th</sup> and at isolated places over Gujarat Region 15<sup>th</sup> May.

**Thundersquall/Gusty winds** were observed at a few places over Uttarakhand, Punjab, Haryana, Chandigarh, Delhi, west Uttar Pradesh, Rajasthan and Madhya Pradesh and at isolated places over Tamil Nadu, Puducherry, Karaikal, Chhattisgarh and Marathwada on 11<sup>th</sup>; at a few places over Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Bihar, east Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat Region, Madhya Maharashtra, Marathwada, Telangana, interior Karnataka and Tamil Nadu on 12<sup>th</sup>; at a few places over Haryana, Chhattisgarh, Gangetic West Bengal, Jharkhand, Odisha, Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada, Telangana, interior Karnataka and Tamil Nadu on 13<sup>th</sup>.

**Hailstorms** were reported at a few places over Madhya Pradesh and at isolated places over Himachal Pradesh, Uttarakhand, east Rajasthan and Vidarbha on 9<sup>th</sup>; at a few places over Madhya Pradesh and at isolated places over Himachal Pradesh, Vidarbha and Jharkhand on 10<sup>th</sup>; at isolated places over Uttarakhand, Haryana, west Uttar Pradesh, east Rajasthan, Madhya Pradesh, Vidarbha and Chhattisgarh on 11<sup>th</sup>; at isolated places over Jharkhand, west Madhya Pradesh and Madhya Maharashtra on 12<sup>th</sup>; at isolated places over Jammu, Kashmir, Uttarakhand, west Uttar Pradesh, Madhya Pradesh, Vidarbha, Marathwada, Telangana and Madhya Maharashtra on 13<sup>th</sup>; at isolated places over Uttarakhand, east Uttar Pradesh, Madhya Pradesh, Konkan and Madhya Maharashtra on 14<sup>th</sup> and at isolated places over Madhya Pradesh, Konkan, Marathwada, Vidarbha and Madhya Maharashtra on 15<sup>th</sup> May.

**Duststorms** were reported at isolated places over east Uttar Pradesh and Rajasthan on 12<sup>th</sup>.

#### WEATHER AND ASSOCIATED SYNOPTIC FEATURES:

- A cyclonic circulation lay over south Haryana & neighbourhood at 0.9 km above m.s.l. on 15<sup>th</sup>.
- A cyclonic circulation lay over northwest Uttar Pradesh & neighbourhood between 1.5 km & 3.1 km above m.s.l. on 15<sup>th</sup>.
- A cyclonic circulation lay over central parts of Madhya Pradesh & neighbourhood at 1.5 km above m.s.l. on 15<sup>th</sup>.
- A cyclonic circulation lay over southwest Bay of Bengal & adjoining south Sri Lanka which extended upto 4.5 km above m.s.l. tilting southwestwards with height on 15<sup>th</sup>.
- A trough ran from the cyclonic circulation over southwest Bay of Bengal & adjoining south Sri Lanka to Lakshadweep between 1.5 km & 4.5 km above m.s.l. on 15<sup>th</sup>.
- A trough in westerlies ran roughly along Long.88°E to the north of Lat.21°N at 3.1 km above m.s.l. on 14<sup>th</sup> which persisted over the same region on 15<sup>th</sup>.
- A cyclonic circulation lay over west Vidarbha & neighbourhood at 0.9 km above m.s.l. on 14<sup>th</sup>. It lay over east Vidarbha & neighbourhood at the same level on 15<sup>th</sup>.
- A cyclonic circulation lay over southeast Arabian sea & adjoining Kerala which extended upto 1.5 km above m.s.l. on 14<sup>th</sup>. It merged with the trough from the cyclonic circulation over southwest Bay of Bengal & adjoining south Sri Lanka to Lakshadweep on 15<sup>th</sup>.
- A trough ran from south interior Karnataka to northwest Madhya Pradesh across Madhya Maharashtra at 0.9 km above m.s.l. on 13<sup>th</sup>. Lying at 0.9 km above m.s.l., it ran from the cyclonic circulation over southeast Arabian sea & adjoining Kerala to Marathwada across Karnataka on 14<sup>th</sup> and from south interior Karnataka to east Vidarbha on 15<sup>th</sup>.
- A cyclonic circulation lay over southeast Bihar & neighbourhood on 12<sup>th</sup> morning which lay over east Jharkhand & neighbourhood at 1.5 km above m.s.l. on the same day. Lying at 1.5 km above m.s.l., it persisted over the same region on 13<sup>th</sup> and lay over southwest Bangladesh & neighbourhood on 14<sup>th</sup>. It lay over Assam & neighbourhood at 0.9 km above m.s.l. on 15<sup>th</sup>.
- A fresh western disturbance lay as a trough in middle tropospheric westerlies with its axis at 5.8 km above m.s.l. ran roughly along Long.50°E to the north of Lat.30°N on 9<sup>th</sup>. It lay as a cyclonic circulation over Iran at 3.1 km above m.s.l. with the trough aloft in middle tropospheric westerlies with its axis at 5.8 km above m.s.l. roughly along Long.58°E to the north of Lat.26°N on 10<sup>th</sup>. It lay as a trough in middle tropospheric westerlies with its axis at 5.8 km above m.s.l. roughly along Long.64°E to the north of Lat.28°N on 11<sup>th</sup>. It lay as a cyclonic circulation over north Pakistan & neighbourhood at 3.1 km above m.s.l. with the trough aloft in middle & upper tropospheric westerlies with its axis at 5.8 km above m.s.l. roughly along Long.68°E to the north of Lat.28°N on 12<sup>th</sup>. It lay over Jammu & Kashmir and neighbourhood at 3.1 km above m.s.l. on 13<sup>th</sup> morning and became less marked. However, the trough aloft in middle & upper tropospheric westerlies with its axis at 5.8 km above

m.s.l. roughly along Long.73°E to the north of Lat.32°N persisted on 13<sup>th</sup>. With its axis at 5.8 km above m.s.l., it ran roughly along Long.81°E to the north of Lat.32°N on 14<sup>th</sup> and roughly along Long.81°E to the north of Lat.25°N on 15<sup>th</sup>.

- A cyclonic circulation lay over Comorin Area between 1.5 & 3.1 km above m.s.l. on 13<sup>th</sup>. It lay over north Equatorial Indian Ocean & adjoining Comorin area between the same levels on 14<sup>th</sup> which became unimportant for Indian region on 15<sup>th</sup>.
- Last week's cyclonic circulation over northeast Assam and neighbourhood persisted between 3.1 & 5.8 km above m.s.l. on 9<sup>th</sup>. It persisted over the same region between 1.5 & 3.1 km above m.s.l. on 10<sup>th</sup>; between 1.5 & 5.8 km above m.s.l. on 11<sup>th</sup> and at 3.1 km above m.s.l. on 12<sup>th</sup>. It persisted over the same region and extended upto 1.5 km above m.s.l. on 13<sup>th</sup> which became less marked on 14<sup>th</sup>.
- A cyclonic circulation lay over south interior Karnataka & neighbourhood at 1.5 km above m.s.l. on 12<sup>th</sup>. It persisted over the same region and extended upto 1.5 km above m.s.l. on 13<sup>th</sup> which further merged with the trough from the cyclonic circulation over southeast Arabian sea & adjoining Kerala to Marathwada on 14<sup>th</sup>.
- A cyclonic circulation lay over northwest Madhya Pradesh & neighbourhood at 1.5 km above m.s.l. on 13<sup>th</sup> and became less marked on 14<sup>th</sup>.
- Last week's cyclonic circulation over northeast Arabian sea and adjoining Gujarat coast lay over northeast Arabian sea at 3.1 km above m.s.l. on 9<sup>th</sup>. It lay over northeast Arabian sea off Gujarat coast at 1.5 km above m.s.l. on 10<sup>th</sup>. Lying at 1.5 km above m.s.l., it lay over south Pakistan & adjoining northeast Arabian sea on 11<sup>th</sup>, 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- A cyclonic circulation lay over northwest Rajasthan and neighbourhood at 0.9 km above m.s.l. on 9<sup>th</sup>. It persisted over the same region and extended upto 1.5 km above m.s.l. on 10<sup>th</sup>. Extending upto 1.5 km above m.s.l., it lay over west Uttar Pradesh & neighbourhood on 11<sup>th</sup>, 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- A cyclonic circulation lay over southeast Assam & neighbourhood at 1.5 km above m.s.l. on 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- A trough/wind discontinuity ran from Marathwada to Comorin area across interior Karnataka and Kerala at 0.9 km above m.s.l. on 11<sup>th</sup>. It ran from east Madhya Pradesh to Comorin area across Vidarbha, Marathwada, interior Karnataka & Tamil Nadu at 0.9 km above m.s.l. on 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- A cyclonic circulation lay over south Rajasthan & neighbourhood at 0.9 km above m.s.l. on 11<sup>th</sup>. It persisted over the same region on 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- An east-west trough ran from the cyclonic circulation over northwest Rajasthan to south Assam across Madhya Pradesh, Jharkhand and Gangetic West Bengal at 0.9 km above m.s.l. on 10<sup>th</sup>. Lying at 0.9 km above m.s.l., it ran from the cyclonic circulation over west Uttar Pradesh to south Assam across east Uttar Pradesh, Bihar and Sub-Himalayan West Bengal on 11<sup>th</sup>, 12<sup>th</sup> and became less marked on 13<sup>th</sup>.
- A cyclonic circulation extending upto 1.5 km above m.s.l. lay over south Kerala and neighbourhood on 10<sup>th</sup>. It lay over southeast Arabian sea off Kerala coast at 1.5 km above m.s.l. on 11<sup>th</sup> and became less marked on 12<sup>th</sup>.
- A cyclonic circulation lay over north Bangladesh & neighbourhood at 1.5 km above m.s.l. on 11<sup>th</sup> which became less marked on 12<sup>th</sup>.
- A cyclonic circulation lay over north Bihar and neighbourhood at 3.1 km above m.s.l. on 10<sup>th</sup> and became less marked on 11<sup>th</sup>.
- A trough ran from the cyclonic circulation over north Bihar to north Odisha across Jharkhand and Gangetic West Bengal at 3.1 km above m.s.l. on 10<sup>th</sup> which became less marked on 11<sup>th</sup>.
- A cyclonic circulation lay over central Madhya Pradesh and neighbourhood at 1.5 km above m.s.l. on 10<sup>th</sup> and became less marked on 11<sup>th</sup>.
- Last week's cyclonic circulation over Bangladesh and neighbourhood lay over east Bangladesh and neighbourhood at 1.5 km above m.s.l. on 9<sup>th</sup> and became less marked on 10<sup>th</sup>.
- Last week's cyclonic circulation over northeast Rajasthan and neighbourhood persisted at 1.5 km above m.s.l. on 9<sup>th</sup> which became less marked on 10<sup>th</sup>.
- A cyclonic circulation extending upto 1.5 km above m.s.l. lay over Madhya Maharashtra and neighbourhood on 9<sup>th</sup> which became less marked on 10<sup>th</sup>.
- The trough/wind discontinuity from the cyclonic circulation over northeast Rajasthan to south interior Karnataka ran from the cyclonic circulation over Madhya Maharashtra to south interior Karnataka across north interior Karnataka which extended upto 1.5 km above m.s.l. on 9<sup>th</sup>. It became less marked on 10<sup>th</sup>.
- A trough ran from the cyclonic circulation over northwest Rajasthan to west Vidarbha across west Madhya Pradesh at 0.9 km above m.s.l. on 9<sup>th</sup> which became less marked on 10<sup>th</sup>.
- A trough ran from east Assam to north Odisha across Gangetic West Bengal at 0.9 km above m.s.l. on 9<sup>th</sup> and became less marked on 10<sup>th</sup>.
- Last week's cyclonic circulation over north Haryana and neighbourhood became less marked on 9<sup>th</sup>.
- Last week's cyclonic circulation over Tamil Nadu became less marked on 9<sup>th</sup>.
- Last week's trough from the cyclonic circulation over northeast Rajasthan to south Assam across Uttar Pradesh, Jharkhand & Gangetic West Bengal became less marked on 9<sup>th</sup>.

#### **MEDIA REPORTS:**

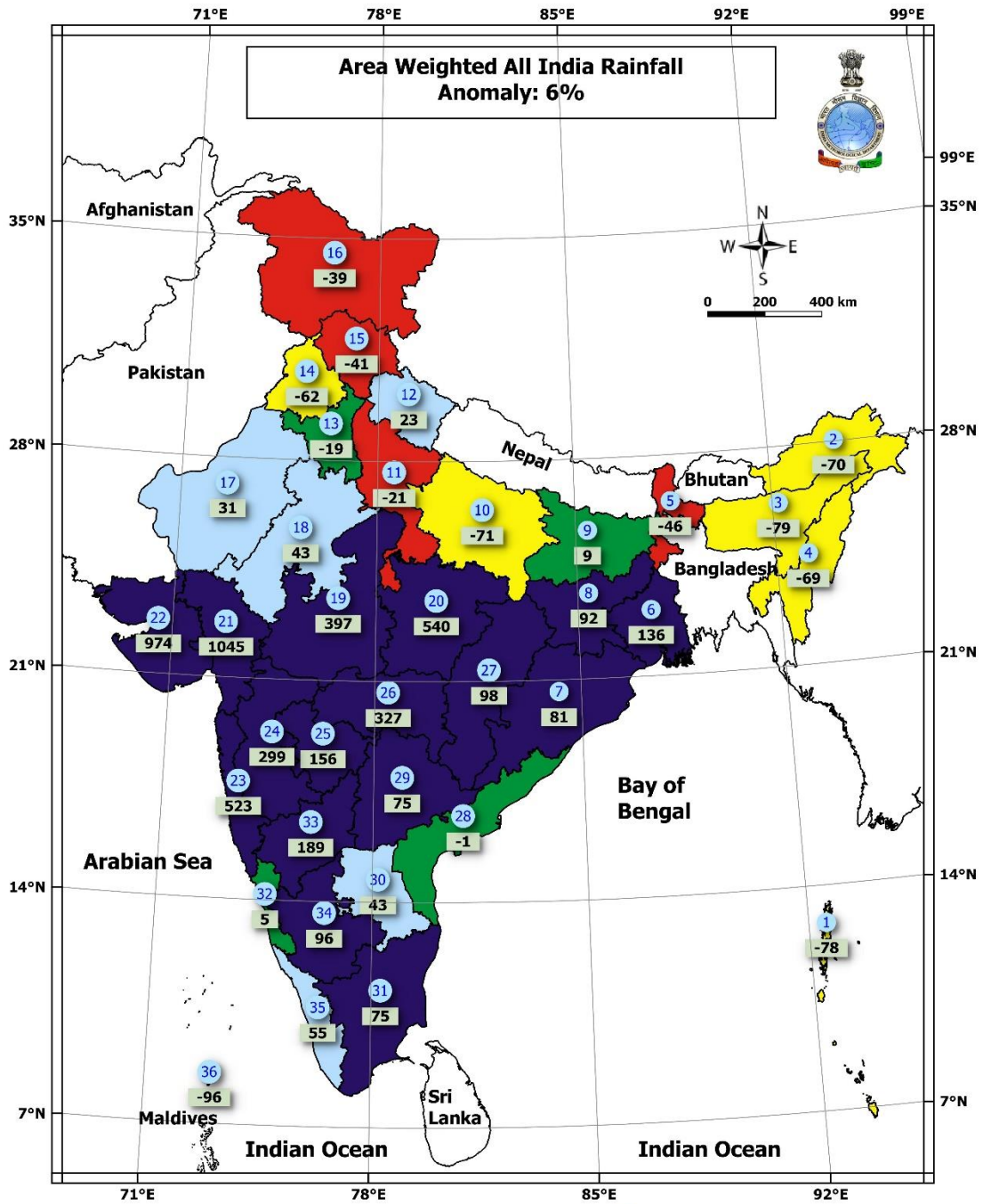
**Thunderstorms accompanied with heavy rains and gusty winds** took toll of 17 persons in Mumbai (Maharashtra) due to collapse of massive hoarding on 13<sup>th</sup> which also disrupted Road, Metro, Train and Air transport (ABP Majha); 3 people died on 10<sup>th</sup> and 11<sup>th</sup> in National Capital Region, northwest Delhi and disrupted Rail & Air traffic. Also, many trees were uprooted in Delhi (Relief Web); one person was killed due to tree collapse in Mandya (Karnataka) on 13<sup>th</sup> (Deccan Herald); one person died due to house collapse in Palghar (Maharashtra) on 15<sup>th</sup> (Mid-Day).

**Thunderstorms accompanied with lightning strike** killed 11 persons in Rohtas and three other districts of Bihar on 12<sup>th</sup> (Lokmat); one person died in Satara (Maharashtra) on 11<sup>th</sup>; two persons died in Nagpur district and one woman also died in Nasik district of Maharashtra on 12<sup>th</sup> (Lokmat); one person died in Panjim (Goa) on 14<sup>th</sup> (TOI); 3 women died and 6 livestock perished in Surendranagar (Gujarat) on 14<sup>th</sup> and 15<sup>th</sup> May (Times Now).

**15<sup>th</sup> May 2024**  
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Head, Weather Forecasting Division,  
O/o The Climate Research & Services, Pune

# Rainfall % Departure For the Week ending 15 May 2024



Indicates rainfall anomaly
  Indicates sub-division number

Large Excess (+60% and above) **16**
 Excess (+20% to +59%) **05**
 Normal (-19% to +19%) **04**

Deficient (-20% to -59%) **04**
 Large Deficient (-60% to -99%) **07**
 No Rain (-100%) **00**

# Rainfall % Departure For the Season ending 1 March to 15 May 2024

