



Government of India  
Ministry of Earth Sciences  
India Meteorological Department



Press Release  
Date: 16<sup>th</sup> June, 2025  
Time of Issue: 1430 hours IST

**Subject:** (i) Conditions are favourable for further advance of Southwest monsoon over remaining parts of North Arabian Sea; some more parts of Gujarat & Madhya Pradesh; remaining parts of Vidarbha, Chhattisgarh & Odisha; some parts of Gangetic West Bengal, Jharkhand; remaining parts of Northwest Bay of Bengal, Sub-Himalayan West Bengal; some parts of Bihar and East Uttar Pradesh during next 2-3 days.  
(ii) Monsoon likely to be in active phase with heavy to very heavy rainfall at a few places and extremely heavy falls (>20 cm) at isolated places over south peninsular India and Konkan & Goa till 16<sup>th</sup> June, 2025.

**Southwest Monsoon: (Annexure I):**

- ❖ Southwest monsoon has further advanced into remaining parts of central Arabian Sea; some parts of north Arabian Sea and Gujarat; remaining parts of Konkan, Madhya Maharashtra & Telangana; some parts of Madhya Pradesh; some more parts of Vidarbha, Chhattisgarh, and Odisha.
- ❖ The Northern Limit of Monsoon passes through 20.0°N/60°E, 20.5°N/65°E, Veraval, Bhavnagar, Vadodara, Khargone, Amravati, Durg, Bargarh, Chandbali, Sandhead Island, 23.5°N/89.5°E, Balurghat and 30°N/85°E.
- ❖ Conditions are favourable for further advance of Southwest monsoon over remaining parts of North Arabian Sea; some more parts of Gujarat & Madhya Pradesh; remaining parts of Vidarbha, Chhattisgarh & Odisha; some parts of Gangetic West Bengal, Jharkhand; remaining parts of Northwest Bay of Bengal, Sub-Himalayan West Bengal; some parts of Bihar and East Uttar Pradesh during next 2-3 days.

**Realised weather during past 24 hours till 0830 hours IST of today, the 16<sup>th</sup> June, 2025 (Annexure II):**

- ❖ Heat wave conditions prevailed at isolated places over East Uttar Pradesh.
- ❖ Heavy to very heavy rainfall with Extremely heavy rainfall has been recorded at isolated places over Tamil Nadu, Kerala & Mahe, Madhya Maharashtra and Coastal Karnataka.
- ❖ Heavy to very heavy rainfall has been recorded at isolated places over South Interior Karnataka, West Uttar Pradesh, Sub-Himalayan West Bengal, Goa, Gujarat Region, Odisha; Heavy rainfall at isolated places over Uttarakhand, West Madhya Pradesh, Saurashtra, North interior Karnataka, Arunachal Pradesh and Assam & Meghalaya.
- ❖ Thunderstorm accompanied with Squally/Gusty winds with speed 60-105 kmph at isolated places over Jharkhand, Madhya Maharashtra, Haryana, Bihar, Konkan, Jammu-Kashmir, Chhattisgarh; with speed 30-59 kmph at isolated places over Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Himachal Pradesh, Punjab, Madhya Pradesh, Odisha, Andaman & Nicobar Islands, Saurashtra & Kutch, Marathwada, Vidarbha, Gangetic West Bengal.

For more details of realised weather, kindly refer **Annexure II**,

Detailed observations of Maximum Temperature during past 24 hours till 0830 hours IST of today are appended in **Annexure III**.

**i. Weather Systems, Forecast and Warnings (refer to Annexure IV & V):**

- ❖ An upper air cyclonic circulation lies over Northwest Bay of Bengal & neighbourhood in lower & middle tilting Southwestwards with height.

- ❖ An upper air cyclonic circulation lies over south Gujarat & neighbourhood in middle tropospheric levels. Under its influence, a Low Pressure area is likely to form over the same region during next 24 hours; it is likely to move north-northwestwards and become more marked during subsequent 24 hours.
- ❖ An upper air cyclonic circulation lies over south Punjab and another over northeast Punjab & neighbourhood in lower tropospheric levels.
- ❖ A Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Long. 70°E to the north of Lat. 26°N.
- ❖ An upper air cyclonic circulation lies over northeast Assam & neighbourhood in lower tropospheric levels.
- ❖ Under the influence of these systems, the following weather is likely:

#### **South Peninsular India:**

- ✓ Light/moderate rainfall at many/some places accompanied with isolated **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph** over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, Karnataka during 16<sup>th</sup>-18<sup>th</sup>; Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana during 16<sup>th</sup>-20<sup>th</sup> June.
- ✓ Isolated **heavy rainfall** likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Karnataka during 16<sup>th</sup>-18<sup>th</sup> with **very heavy rainfall** likely at isolated places over Tamil Nadu, Puducherry & Karaikal on 16<sup>th</sup>. Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal, North Interior Karnataka on 16<sup>th</sup>; Coastal Karnataka on 17<sup>th</sup> June.
- ✓ **Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over Coastal Karnataka, South Interior Karnataka on 16<sup>th</sup> June.**
- ✓ **Strong surface winds** (speed reaching 40-60 kmph) very likely over Kerala & Mahe, Lakshadweep, Karnataka on 16<sup>th</sup> & 17<sup>th</sup>, Rayalaseema, Telangana and Coastal Andhra Pradesh & Yanam during 16<sup>th</sup>-20<sup>th</sup> June.

#### **West India:**

- ✓ Light/moderate rainfall at most/many places accompanied with **thunderstorm, lightning & gusty winds speed reaching 30-40 kmph** likely over Gujarat State, Konkan & Goa, Madhya Maharashtra, Marathawada during 16<sup>th</sup>-20<sup>th</sup> June.
- ✓ Isolated **heavy to very heavy rainfall** likely over Konkan & Goa, Madhya Maharashtra, Gujarat Region during 16<sup>th</sup>-22<sup>nd</sup>; Saurashtra & Kutch during 16<sup>th</sup>-19<sup>th</sup> with **Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat Region on 16<sup>th</sup> and Saurashtra & Kutch on 16<sup>th</sup> & 17<sup>th</sup> June.**

#### **East & Central India:**

- ✓ Light/moderate rainfall at most/many places accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph** likely over Andaman & Nicobar Islands on 16<sup>th</sup> & 17<sup>th</sup>; Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha during 16<sup>th</sup>-20<sup>th</sup> with **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over Madhya Pradesh, Jharkhand, Bihar on 16<sup>th</sup> & 17<sup>th</sup>; Chhattisgarh on 16<sup>th</sup> June.
- ✓ Isolated **heavy rainfall** also likely over West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Chhattisgarh during 16<sup>th</sup>-20<sup>th</sup>; Vidarbha on 16<sup>th</sup> & 17<sup>th</sup>, Madhya Pradesh on 19<sup>th</sup> & 20<sup>th</sup> June with **very heavy rainfall** over East Madhya Pradesh on 19<sup>th</sup> & 20<sup>th</sup>; Chhattisgarh, Gangetic West Bengal on 17<sup>th</sup> & 18<sup>th</sup>; Bihar, Sub-Himalayan West Bengal & Sikkim, Jharkhand on 18<sup>th</sup> & 19<sup>th</sup>; Odisha during 16<sup>th</sup>-18<sup>th</sup> June.

#### **Northwest India:**

- ✓ Light/moderate rainfall at some/isolated places accompanied with **thunderstorm, lightning & gusty winds speed reaching 40-50 kmph** likely over Northwest India during 16<sup>th</sup>-22<sup>nd</sup> June with **Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** over Rajasthan on 16<sup>th</sup> & 17<sup>th</sup> June.
- ✓ Isolated **heavy rainfall** likely over Uttarakhand, East Uttar Pradesh during 16<sup>th</sup>-22<sup>nd</sup>; Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh on 21<sup>st</sup> & 22<sup>nd</sup>; Punjab, Haryana, East Rajasthan on 16<sup>th</sup>, 21<sup>st</sup> & 22<sup>nd</sup>; West Uttar Pradesh 16<sup>th</sup> and during 19<sup>th</sup>-22<sup>nd</sup>, West Rajasthan on 16<sup>th</sup> with **very heavy rainfall** on East Uttar Pradesh during 19<sup>th</sup>-21<sup>st</sup> June.
- ✓ **Dust storm (wind speed reaching 50-60 kmph gusting to 70 kmph)** very likely at isolated places over West Rajasthan on 16<sup>th</sup> June.

#### **Northeast India:**

- ✓ Light/moderate rainfall at many/most places accompanied with **thunderstorm, lightning and isolated heavy to very heavy rainfall** likely to continue over Northeast India during next 7 days.

**Maximum Temperature Forecast:**

- ❖ Maximum Temperatures likely to fall by 2-4°C over Central India during next 4-5 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures likely over rest parts of the country.

**Fishermen Warnings:**

- ❖ Fishermen are advised to avoid venturing into the following from 16<sup>th</sup> to 20th June 2025:

**Arabian Sea:**

- ❖ Fishermen are advised not to venture over Comorin area during 16<sup>th</sup> to 19<sup>th</sup> June 2025; Along and off Gujarat coast during 16<sup>th</sup>-21<sup>st</sup> June, Konkan, Goa coasts, eastcentral Arabian Sea, most parts of northeast Arabian Sea during 16<sup>th</sup> - 20<sup>th</sup> June, Karnataka, Kerala coasts, over most parts of southwest & westcentral Arabian Sea during 16<sup>th</sup> to 19<sup>th</sup> June; over Lakshadweep, Maldives, south east Arabian areas during 16<sup>th</sup>-18<sup>th</sup> 2025.
- ❖ Fishermen are advised not to venture along and off the Somalia coast, Oman and adjoining Yemen coast & adjoining sea during 16<sup>th</sup>-21<sup>st</sup> June);

**Bay of Bengal:**

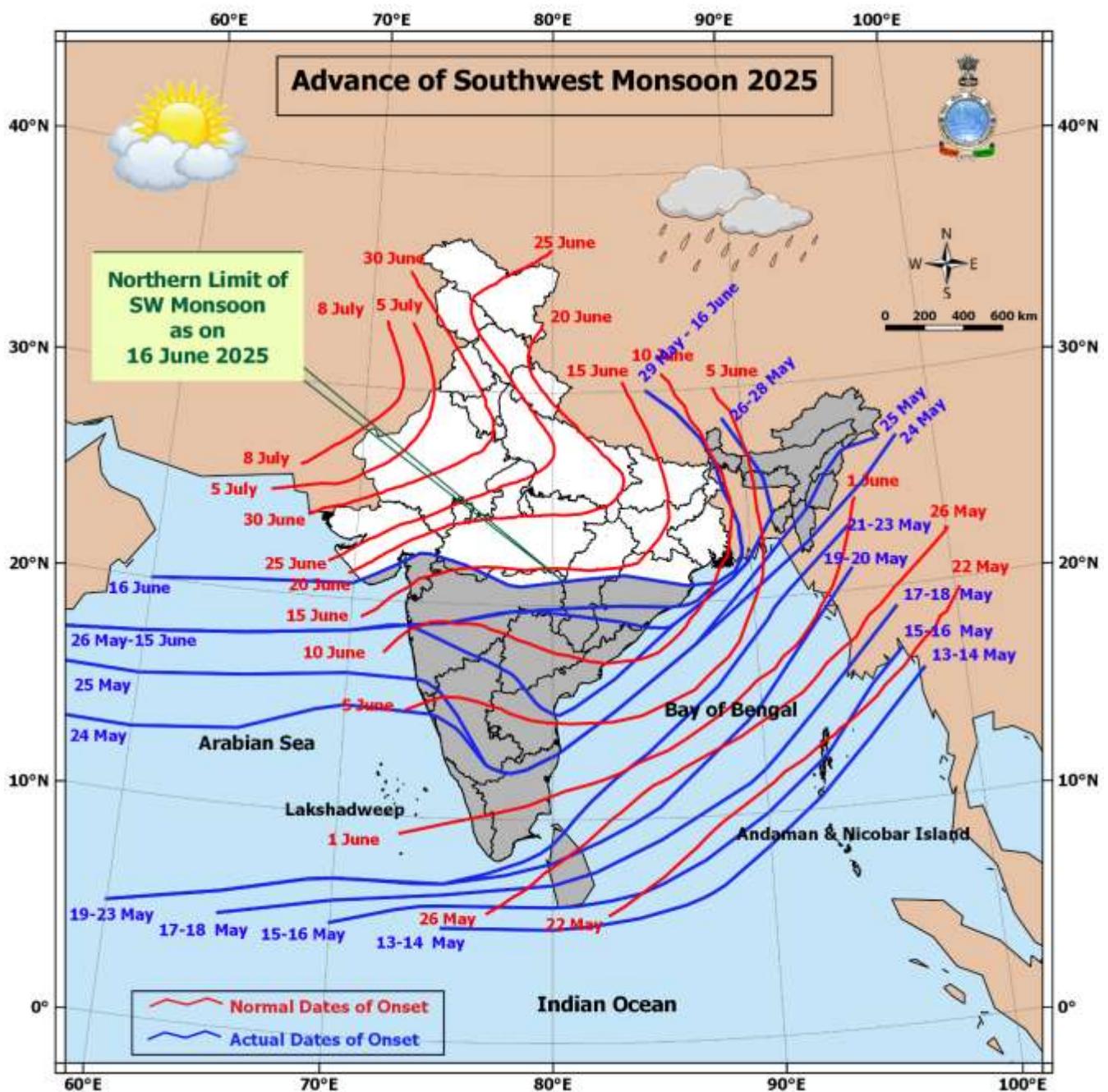
- ❖ Fishermen are advised not to venture over many parts of southwest and adjoining southeast Bay of Bengal during 16<sup>th</sup>-18<sup>th</sup>; over central Bay of Bengal during 16<sup>th</sup> -21<sup>st</sup>; over northwest and adjoining northeast Bay of Bengal during 16<sup>th</sup> - 20<sup>th</sup>; Along and off Sri Lanka coast, Tamil Nadu coast during 16<sup>th</sup> - 19<sup>th</sup>; Andhra Pradesh coast during 16<sup>th</sup>- 20<sup>th</sup>; Odisha, West Bengal coasts during 17<sup>th</sup>-20<sup>th</sup>
- ❖ Fishermen are advised not to venture over the Gulf of Mannar during 16<sup>th</sup> to 19<sup>th</sup> June.
- ❖ Fishermen are advised not to venture over the Andaman Sea during 16<sup>th</sup> to 20<sup>th</sup> June.
- ❖ Total suspension of fishing operations is advised over these areas during the specified dates.

**ii. Weather conditions and forecast over Delhi/NCR during 16<sup>th</sup> June to 19<sup>th</sup> June, 2025 (Annexure VI)****For more details, kindly refer National Weather Bulletin:**

[https://mausam.imd.gov.in/responsive/all\\_india\\_forcast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php)

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

## ANNEXURE I



**Significant weather reported during past 24 hours till 0830 hours IST of today:**

**Rainfall recorded (in cm) reported during past 24 hours till 0830 hours IST of today, the 16<sup>th</sup> June:**

- ❖ **Tamil Nadu, Puducherry & Karaikal:** Avalanche (dist Nilgiris) 29; Chinnakalar (dist Coimbatore) 18; Upper Bhavani (dist Nilgiris) 17; Taluk Office Pandalur (dist Nilgiris) 13; Sholayar (dist Coimbatore), Cincona (dist Coimbatore), Worth Estate Cher (dist Nilgiris) 12 Each; Valparai PTO (dist Coimbatore), Upasi Tea Research AWS (dist Coimbatore) 11 Each; Siruvani Adivaram (dist Coimbatore) 8; Valparai Taluk Office (dist Coimbatore), Valparai Pap (dist Coimbatore) 7 Each;
- ❖ **Coastal Karnataka:** Manki (dist Uttara Kannada) 27; Siddapura (dist Udupi) 25; Mangaluru AP (dist Dakshina Kannada) 22; Castle Rock (dist Uttara Kannada) 19; Panambur (dist Dakshina Kannada) 18; Kundapur (dist Udupi), Gersoppa (dist Uttara Kannada) 17 Each; Uppinangadi (dist Dakshina Kannada) 16; Bantwal (dist Dakshina Kannada), Kadra (dist Uttara Kannada) 15 Each; Karkala (dist Udupi), Mangaluru (dist Dakshina Kannada) 14 Each; Honavar (dist Uttara Kannada), Kumta (dist Uttara Kannada), Belthangadi (dist Dakshina Kannada), Kota (dist Udupi) 13 Each; Mani (dist Dakshina Kannada), Dharmasthala (dist Dakshina Kannada), Puttur HMS (dist Dakshina Kannada) 12 Each; Mulki (dist Dakshina Kannada) 11; Udupi (dist Udupi), Karwar (dist Uttara Kannada), Ankola (dist Uttara Kannada) 10 Each; Yellapur (dist Uttara Kannada), Sulya (dist Dakshina Kannada), Siddapur (dist Uttara Kannada) 8 Each; Joida (dist Uttara Kannada) 7;
- ❖ **Kerala & Mahe:** Thennala AWS (dist Malappuram) 21; Vadakara (dist Kozhikode) 18; Bayar AWS (dist Kasargod) 16; Taliparamba (dist Cannur), Hosdurg (dist Kasargod), Muliyar AWS (dist Kasargod) 15 Each; Tellichery (dist Cannur), Vyttiri (dist Wynad), Kudulu (dist Kasargod), Kannur (dist Cannur), Kannur Icar AWS (dist Cannur), Cheruvanchery AWS (dist Cannur), Ams Kannur (dist Cannur) 14 Each; Pinarayi AWS (dist Cannur) 13; Peermade To (dist Idukki), Kannur Airport AWS (dist Cannur), Ayyankunnu AWS (dist Cannur), Chemberi AWS (dist Cannur), Peringome AWS (dist Cannur) 12 Each; Quilandi (dist Kozhikode), Kumarakam (dist Kottayam), Angadipuram (dist Malappuram), Munnar Kseb (dist Idukki), Pattembi (dist Palakkad), Peechi AWS (dist Thrissur) 10 Each; Ponnani (dist Malappuram), Mannarkkad (dist Palakkad), Karipur Ap. (dist Malappuram), Idukki (dist Idukki), Panathur AWS (dist Kasargod), Lower Sholayar AWS (dist Thrissur) 9 Each; Kayamkulam (dist Alapuzha), Chalakudi (dist Thrissur), Ambalavayal (dist Wynad), Vadakkancherry (dist Thrissur), Palakkad (dist Palakkad), Vellanikkara (dist Thrissur), Perumpavur (dist Ernakulam), Mahe (dist Mahe), Kalpetta AWS (dist Wynad), Kozhikode (dist Kozhikode), Alwaye PWD (dist Ernakulam) 8 Each; Mavelikara (dist Alapuzha), Ottapalam (dist Palakkad), Kochi IAF (dist Ernakulam), Manjeri (dist Malappuram), Kochi C.i.a.l. (dist Ernakulam), Thritla (dist Palakkad), Kunnamkulam (dist Thrissur), Kanjirapuzha ARG (dist Palakkad), Aluva AWS (dist Ernakulam), Vilangad AWS (dist Kozhikode), Athirappalli AWS (dist Thrissur) 7 Each;
- ❖ **Madhya Maharashtra:** Gaganbawada (dist Kolhapur) 21; Radhanagari (dist Kolhapur) 17; Mahabaleshwar (dist Satara) 16; Lonavala ARG (dist Pune) 15; Ajra (dist Kolhapur) 9; Shahuwadi (dist Kolhapur) 7;
- ❖ **South Interior Karnataka:** Kottigehara (dist Chikkamagaluru), Agumbe Emo (dist Shivamogga) 20 Each; Bhagamandala (dist Kodagu) 12; Kammardi (dist Chikkamagaluru) 10; Sringeri HMS (dist Chikkamagaluru) 9; Kalasa (dist Chikkamagaluru) 8; Hunchadakatte (dist Shivamogga) 7;
- ❖ **Konkan & Goa:** Pawarwadi - ARG (dist Ratnagiri) 18; Awalegaon - ARG (dist Sindhudurg) 16; Tala (dist Raigad), Dodamarg (dist Sindhudurg) 14 Each; Guhagarh (dist Ratnagiri), Mulde ARG (dist Sindhudurg), Chiplun (dist Ratnagiri), Sawantwadi (dist Sindhudurg) 13 Each; Mulde - AWS (dist Sindhudurg), Rameshwar ARG (dist Sindhudurg), Vaibhavwadi (dist Sindhudurg), Lanja (dist Ratnagiri) 12 Each; Ponda (dist North Goa), Kudal (dist Sindhudurg), Pernem (dist North Goa), Khalapur (dist Raigad), Mapusa (dist North Goa), Poladpur (dist Raigad), Vasai (dist Palghar) 11 Each; Mangaon (dist Raigad), Sudhagad Pali (dist Raigad), Colaba (dist Mumbai City), Canacona (dist South Goa), Uran (dist Raigad), Dapoli ARG (dist Ratnagiri), Wakwali ARG (dist Ratnagiri), Sangameshwar Devrukh (dist Ratnagiri), Savarde-arg (dist Ratnagiri) 10 Each; Santacruz (dist Mumbai Suburban), Tbia IMD Part Time (dist Thane), Murud (dist Raigad), Mahad (dist Raigad), Rajapur (dist Ratnagiri) 9 Each; Malvan (dist Sindhudurg), Sanguem (dist South Goa), Mandangad (dist Ratnagiri), Kankavli (dist Sindhudurg),

Quepem (dist South Goa) 8 Each; Alibag - IMD Part Time (dist Raigad), Karjat ARG (dist Raigad), Devgad (dist Sindhudurg), Mhasla (dist Raigad) 7 Each;

- ❖ **Odisha:** Banki (dist Cuttack) 16; Ranpur (dist Nayagarh) 12; Ullunda (dist Sonepur), Atabira (dist Bargarh) 11 Each; Narsinghpur (dist Cuttack), Birmaharajpur (dist Sonepur) 8 Each; Kankadahad (dist Dhenkanal), Bhuban (dist Dhenkanal), Telkoi (dist Keonjhargarh), Harabhanga (dist Boudhgarh), Hemgiri (dist Sundargarh) 7 Each;
- ❖ **Gujarat Region:** Dabhoi (dist Vadodara) 15; Sankheda (dist Chhota Udepur) 13; Umerpada (dist Surat), Umergam (dist Valsad), Khanvel (dist Dadara & Nagar Haveli) 9 Each; Dangs (ahwa) (dist Dangs) 8; Palanpur (dist Banaskantha), Madhbun (dist Dadara & Nagar Haveli) 7 Each;
- ❖ **West Uttar Pradesh:** Bareilly CWC (dist Bareilly), Bareilly PBO (dist Bareilly) 15 Each; Nakur (dist Saharanpur) 12; Bijnor (dist Bijnor) 9; Aonla (dist Bareilly) 8;
- ❖ **Sub Himalayan West Bengal & Sikkim:** Bhatkawa Tea Estate (dist Jalpaiguri) 12; Leesh River Tea Garden (dist Jalpaiguri) 8; Kurti T.e. (dist Jalpaiguri), Fagu Tea Estate (dist Jalpaiguri) 7 Each;
- ❖ **Assam & Meghalaya:** Hazo ARG (dist Kamrup (rural)) 11; Tangla ARG (dist Udalguri) 10; Amraghat (dist Cachar) 8; Bihubar (dist Sibsagar), Cherrapunji(rkm) (dist East Khasi Hills), Laharighat ARG (dist Morigaon), Khliehriat (dist East Jaintia Hills) 7 Each;
- ❖ **Arunachal Pradesh:** Naharlagun (dist Papumpara) 10;
- ❖ **East Rajasthan:** Amet (dist Rajsamand) 10; Kumbhalgarh SR (dist Rajsamand) 8; Ramgarh SR (dist Alwar) 7;
- ❖ **Saurashtra & Kutch:** Shihor (dist Bhavnagar) 10;
- ❖ **East Uttar Pradesh:** Mankapur (dist Gonda) 8; Shardanagar (dist Kheri) 7;
- ❖ **West Madhya Pradesh:** Lateri (dist Vidisha) 7;
- ❖ **North Interior Karnataka:** Khanapur (dist Belagavi), Kittur (dist Belagavi) 7 Each.

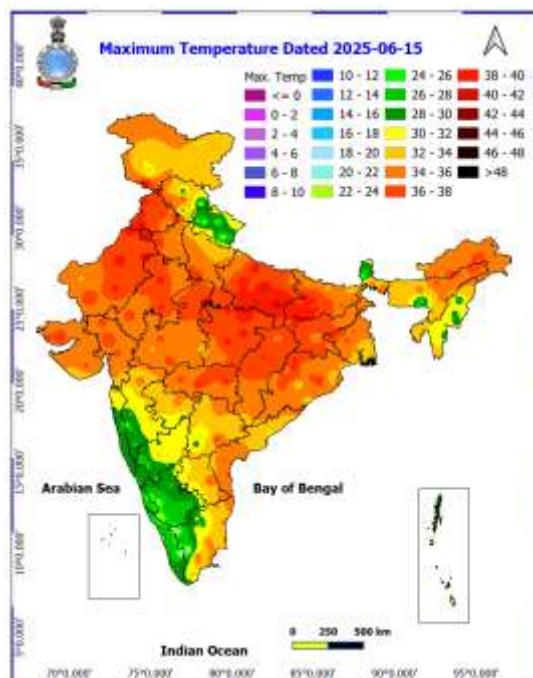
#### **Realised Gusty Winds (kmph) During Past 24hours ending at 0830 hrs IST of today the 16<sup>th</sup> June:**

- ❖ **Jharkhand:** Simdega (107); Chatra (56); Jagannathpur (44); Palamu (39); Saraikela (35); Bokaro (33); Giridih, Barhi, Jamtara Kiriburu, Pakur (31);
- ❖ **Madhya Maharashtra:** Kurvande(Pune)-91 Kmhp, Mahabaleshwar(Satara)- 54 Kmhp, Narayangaon(Pune)-46 Kmhp, Karjat(Raigad)- 44 Kmhp;
- ❖ **Chhattisgarh:** koriya 74 janjgir 50 kmph
- ❖ **Haryana:** Kaithal:68; Kurukshetra:65; Karnal:63; Jind:50; Bhiwani, Chandigarh:48; Ambala:46; Sonipat:44; Panipat:43; Hisar:39;
- ❖ **Bihar:** Bikramganj (65); Bhagalpur, East Champaran, Iit Patna (37); Arrabari, Sukhet, Pusa (35); Arwal, Aurangabad, Buxar, Dumaraon, Sipaya, Saraiya, Agwanpur (33); Bhojpur, Madhepura, Manjhi (31); Katihar, Patna, Ziradei (30);
- ❖ **Konkan:** Devgad(Sindhudurg)- 65 Kmhp, Alibag(Raigad)- 59 Kmhp, Dapoli(Ratnagiri)- 50 Kmhp;
- ❖ **Jammu-Kashmir:** Ramban=65,Jmu=59,Kathua=44,Poonch=44,Reasi=35;
- ❖ **Himachal Pradesh:** Seobagh-59,Kukumseri-43,Bajaura & Neri (Each)-41,Kotkhai-39,Bilaspur-37;
- ❖ **Punjab:** Mohali:59; Patiala:54; Hoshiarpur, Ropar, Sangrur:50; Pathankot, Fatehgarh:46; Faridkot:44; Moga:41;
- ❖ **East Madhya Pradesh:** Jabalpur 51kmph
- ❖ **West Madhya Pradesh:** Ashoknagar 50;
- ❖ **Odisha:** Angul (44); Sonepur (43); Gunupur (37); Benakuda, Jagatsinghpur (35); Rourkela, Sundergarh (33); Ranital, Kendrapara, Bhubaneswar (31); Cuttack (30);
- ❖ **Andaman & Nicobar Islands:** Sri Vijayapuram (43); Shaheed Dweep (39); Ferrargunj (31); Nimbutala (30)
- ❖ **Saurashtra & Kutch:** Mahuva 37;
- ❖ **Marathwada:** Marathwada: Jalna- 37 Kmhp, Dharashiv- 37 Kmhp;
- ❖ **Vidarbha:** Yavatmal 37 , Wardha 35
- ❖ **Gangetic West Bengal:** Berhampore (31).

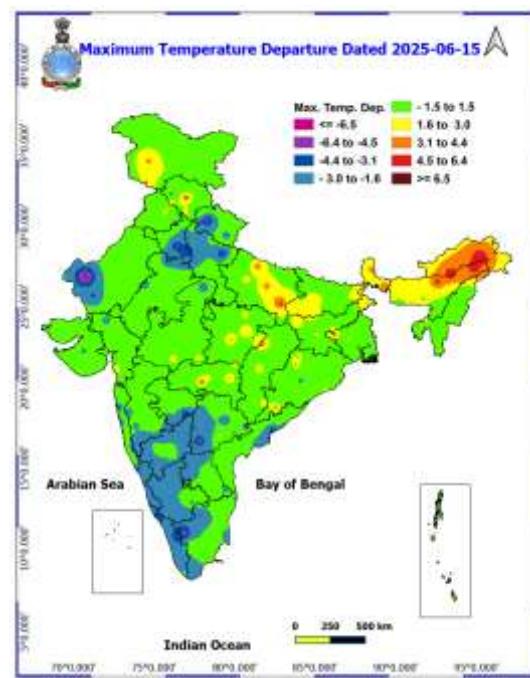
### Temperature observations during past 24 hours till 0830 hours IST of today:

- ❖ Yesterday, Maximum temperatures were in the range of 38-42 °C over few places over West Rajasthan, East Madhya Pradesh, East Uttar Pradesh, Chhattisgarh, Vidarbha, Punjab; at isolated places over East Rajasthan, Bihar, Jharkhand, Gangetic West Bengal, Odisha; in the range of 33-37°C over a few places over Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Marathwada; at isolated places over West Uttar Pradesh, Tamil Nadu, Puducherry & Karaikal, Haryana-Chandigarh-Delhi and below 33 °C elsewhere in the remaining part of the country. Yesterday, the highest maximum temperature of 43.2°C was reported at VARANASI (UTTAR PRADESH).
- ❖ Maximum Temperatures were markedly above normal (> 5.1°C) at most places over Arunachal Pradesh; at isolated places over Assam & Meghalaya, East Uttar Pradesh and Himachal Pradesh. appreciably above normal (3.1°C to 5.0°C) at isolated places over Sub Himalayan West Bengal & Sikkim, Odisha, Bihar, Jammu-KashmirLadakh-Gilgit- Baltistan-Muzaffarabad, East Madhya Pradesh, Vidarbha and Chhattisgarh. above normal (1.6°C to 3.0°C) at few places over Jharkhand and Gujarat Region; at isolated places over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Punjab, West Madhya Pradesh, Saurashtra & Kutch, Telangana and Tamil Nadu, Puducherry & Karaikal. near normal (-1.5°C to 1.5°C) at many places over Andaman & Nicobar Islands, West Uttar Pradesh, West Rajasthan, East Rajasthan, Konkan & Goa, Madhya Maharashtra, Marathwada and Coastal Andhra Pradesh & Yanam; at few places over Haryana- Chandigarh-Delhi and Lakshadweep; at isolated places over Uttarakhand, Rayalaseema, South Interior Karnataka and Kerala & Mahe.

**Fig.1: Maximum Temperatures**



**Fig.2: Departure of Maximum Temperatures**



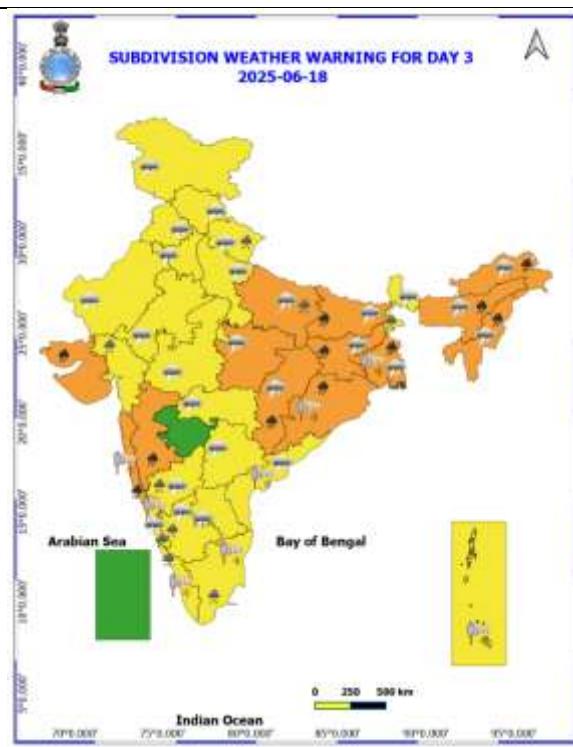
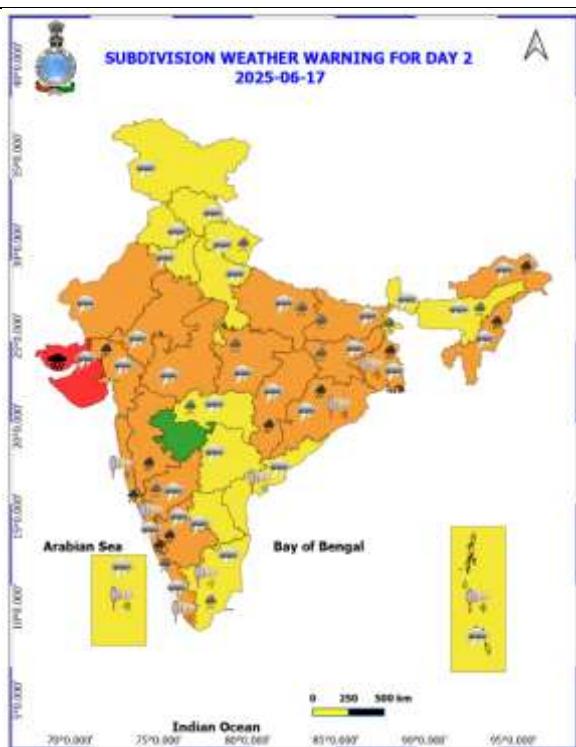
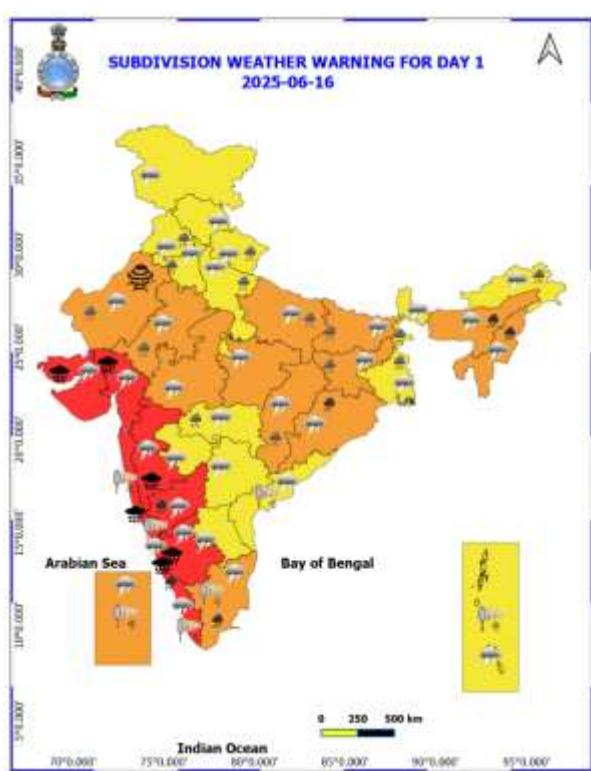
ANNEXURE IV

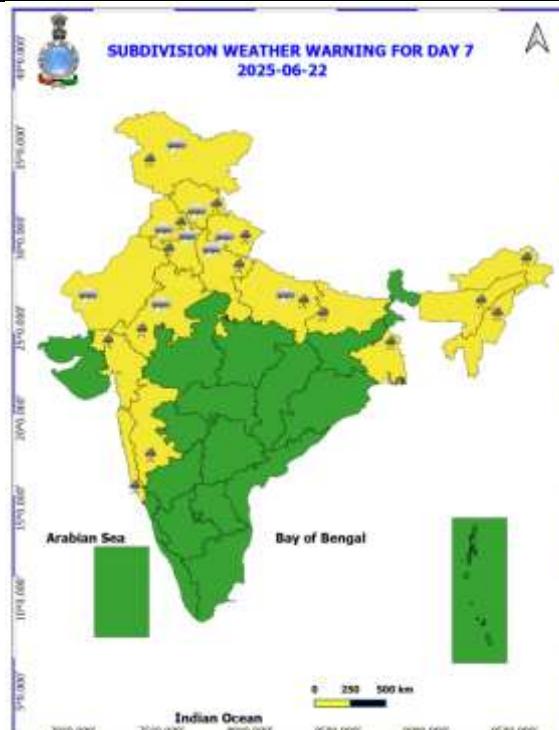
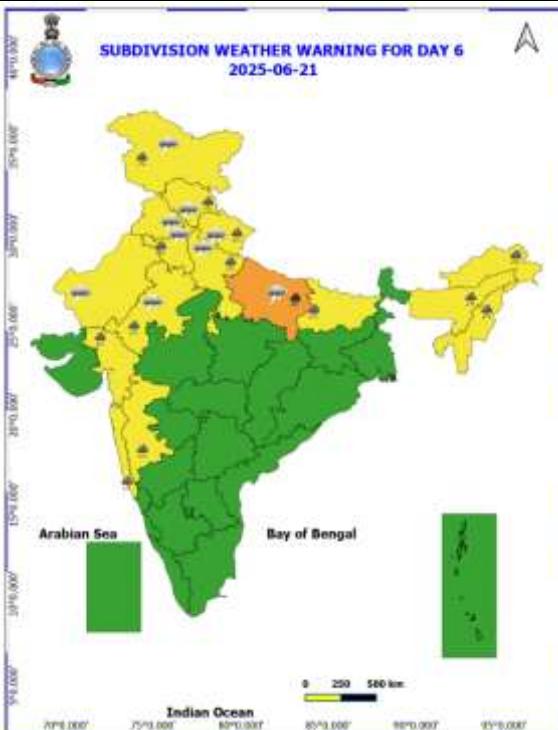
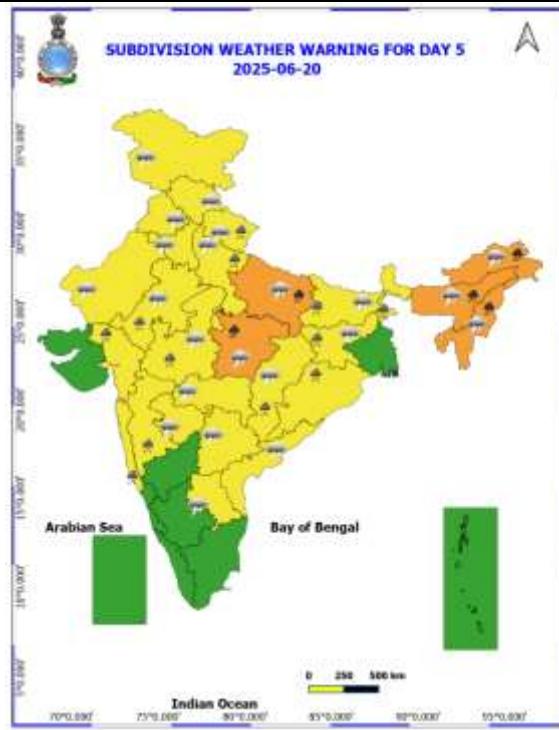
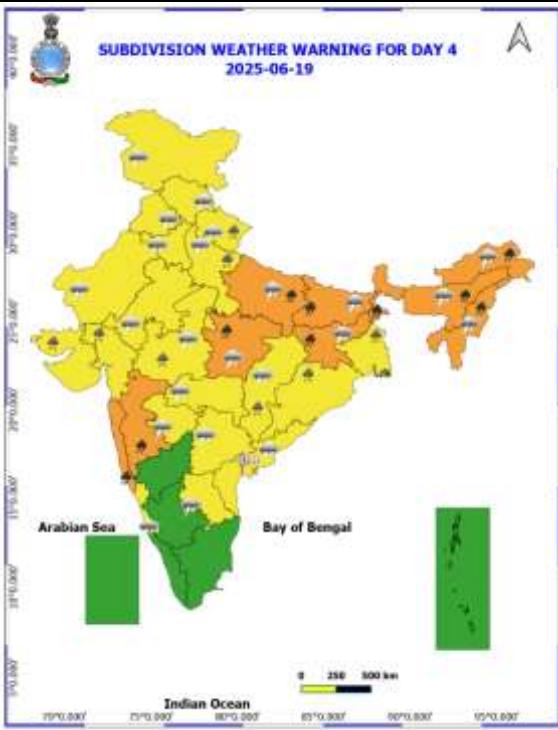
**Table-1**  
**7 Days Rainfall Forecast**

S.No.	Subdivision	16- Jun	17- Jun	18- Jun	19- Jun	20- Jun	21- Jun	22- Jun
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	FWS	FWS	FWS	WS	WS	WS	FWS
2	ARUNACHAL PRADESH	FWS	WS	WS	WS	WS	FWS	FWS
3	ASSAM & MEHGHALAYA	WS	WS	WS	WS	WS	FWS	FWS
4	NAGALAND, MANIPUR, MIZORAM AND TRIPURA	WS						
5	SUB HIMALAYAN WEST BENGAL & SIKKIM	WS	FWS	FWS	WS	WS	WS	WS
6	GANGETIC WEST BENGAL	FWS	WS	WS	WS	FWS	FWS	FWS
7	ODISHA	WS	WS	WS	FWS	SCT	SCT	SCT
8	JHARKHAND	FWS	WS	WS	WS	WS	FWS	FWS
9	BIHAR	ISOL	SCT	SCT	FWS	FWS	FWS	SCT
10	EAST UTTAR PRADESH	SCT	SCT	FWS	WS	WS	FWS	FWS
11	WEST UTTAR PRADESH	FWS	SCT	SCT	FWS	WS	FWS	FWS
12	UTTARAKHAND	WS						
13	HARYANA, CHANDIGARH & DELHI	SCT	SCT	SCT	SCT	FWS	WS	WS
14	PUNJAB	SCT	SCT	ISOL	ISOL	SCT	SCT	FWS
15	HIMACHAL PRADESH	FWS	FWS	SCT	SCT	SCT	FWS	FWS
16	JAMMU AND KASHMIR AND LADAKH	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
17	WEST RAJASTHAN	FWS	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
18	EAST RAJASTHAN	SCT	ISOL	ISOL	ISOL	ISOL	SCT	SCT
19	WEST MADHYA PRADESH	SCT	SCT	SCT	FWS	FWS	WS	WS
20	EAST MADHYA PRADESH	FWS	FWS	WS	WS	WS	WS	WS
21	GUJRAT REGION	WS	WS	FWS	FWS	FWS	FWS	FWS
22	SAURASHTRA & KUTCH	WS	WS	WS	FWS	SCT	SCT	SCT
23	KONKAN & GOA	WS						
24	MADHYA MAHARASHTRA	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
25	MARATHWADA	ISOL						
26	VIDARBHA	SCT	SCT	SCT	FWS	FWS	FWS	SCT
27	CHHATTISGARH	ISOL	FWS	FWS	FWS	FWS	SCT	SCT
28	COASTAL ANDHRA PRADESH	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
30	RAYALASEEMA	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
31	TAMILNADU & PUDUCHERRY	SCT	SCT	ISOL	ISOL	ISOL	ISOL	ISOL
32	COSTAL KARNATAKA	WS						
33	NORTH INTERIOR KARNATAKA	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
34	SOUTH INTERIOR KARNATAKA	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
35	KERALA AND MAHE	WS	WS	WS	FWS	FWS	FWS	FWS
36	LAKSHADWEEP	WS	WS	WS	FWS	FWS	FWS	FWS

- As the lead period increases forecast accuracy decreases.

ANNEXURE V





- Action may be taken based on ORANGE AND REDCOLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Detailed districtwise MultiHazard weather warning for next five days available at  
<https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

## Weather forecast over Delhi/NCR during 16<sup>th</sup> to 19<sup>th</sup> June 2025

### Past Weather:

There has been a rise in the minimum temperature up to 4 - 9°C and fall in the maximum temperature up to 6 - 7°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi were around 34 to 35°C and 25 to 29° respectively. The minimum temperature was near normal and the maximum temperature was below normal up to 3 - 4°C. Partly cloudy sky conditions with predominant surface wind from the east/southeast direction with wind speeds up to 20 kmph gusty to 35 kmph prevailed during the past 24 hours. Partly cloudy sky conditions with wind speed less than 12 kmph from the southeast direction prevailed over the region in the forenoon today.

### Weather Forecast:

**16.06.2025:** Generally cloudy sky. Light to moderate rain/thunderstorm/lighting with gusty winds 30 - 40 kmph temporary reaching 50 kmph during thunderstorm towards evening/night. The maximum temperatures over Delhi are likely to be in the range of 33 to 35°C. The maximum temperature will be below normal up to 3 - 5°C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 20 kmph in the afternoon. The wind speed will gradually decrease becoming 15-18 kmph from the northeast direction during evening and night.

**17.06.2025:** Partly cloudy sky. Light to moderate rain/thunderstorm/lighting with gusty winds 40 - 50 kmph temporary reaching 60 kmph during thunderstorm towards evening/night. The maximum and minimum temperatures over Delhi are likely to be in the range of 35 to 37°C and 26 to 28°C respectively. The minimum temperature will be near normal and the maximum temperature will be below normal up to 1 - 3°C. The predominant surface wind will likely be from the northeast direction with a wind speed of less than 15 kmph during the morning hours. The wind speed will gradually increase becoming 15-20 kmph from the west direction in the afternoon. It will decrease becoming less than 18 kmph from the northwest direction during evening and night.

**18.06.2025:** Partly cloudy sky. Light to moderate rain/thunderstorm/lighting accompanied with gusty winds 40 - 50 kmph temporary reaching 60 kmph during thunderstorm. The maximum and minimum temperatures over Delhi are likely to be in the range of 36 to 38°C and 26 to 28°C respectively. The minimum temperature will be near normal and the maximum temperature will be below normal up to 1 - 2°C. The predominant surface wind will likely be from the west direction with a wind speed of less than 15 kmph during the morning hours. The wind speed will gradually increase becoming less than 25 kmph from the southeast direction in the afternoon. It will decrease to less than 20 kmph from the west direction during the evening and night.

**19.06.2025:** Partly cloudy sky. Light rain/thunderstorm/lighting accompanied with gusty winds 30 - 40 kmph temporary reaching 50 kmph during thunderstorm. The maximum and minimum temperatures over Delhi are likely to be in the range of 36 to 38°C and 25 to 27°C respectively. The minimum temperature will be below normal up to 1 - 2°C and the maximum temperature will be below normal up to 1 - 2°C. The predominant surface wind will likely be from the northwest direction with a wind speed of less than 20 kmph during the morning hours. The wind speed will gradually decrease becoming less than 18 kmph from the west direction in the afternoon. It will increase to less than 25 kmph from the northwest direction during the evening and night.

### Impact expected and Action Suggested due to thunderstorm with lightning/gusty winds:

- Be cautious and take precautionary measures, though there is the likelihood of thunderstorm/lighting and gusty winds (speed 40 – 50 kmph) temporarily reaching to 60 kmph during thunderstorm with dust rising surface winds.
- Breaking of tree branches, uprooting of large avenue trees, Large dead limbs blown from trees, Damage to standing crops, Minor to major damage to power and communication lines due to breaking of branches, Partial damage to vulnerable structures due to strong winds, Loose objects may fly.
- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly, stay indoors, close windows & doors and avoid travel if possible, take safe shelters; do not take shelter under trees, do not lie on concrete floors and do not lean against concrete walls, unplug electrical/ electronic appliances, immediately get out of water bodies, keep away from all the objects that conduct electricity.

### **Impact & Action Suggested due to extremely heavy falls/ very heavy rainfall:**

- ✓ Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over Konkan & Goa, Madhya Maharashtra, Gujarat Region, Coastal Karnataka, South Interior Karnataka on 16<sup>th</sup> and Saurashtra & Kutch on 16<sup>th</sup> & 17<sup>th</sup> June.
- ✓ Isolated **very heavy rainfall** over East Madhya Pradesh on 19<sup>th</sup> & 20<sup>th</sup>; Chhattisgarh, Gangetic West Bengal on 17<sup>th</sup> & 18<sup>th</sup>; Bihar, Sub-Himalayan West Bengal & Sikkim, Jharkhand on 18<sup>th</sup> & 19<sup>th</sup>; Odisha during 16<sup>th</sup>-18<sup>th</sup>; Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during 16<sup>th</sup>-20<sup>th</sup>; East Uttar Pradesh during 19<sup>th</sup>-21<sup>st</sup> June.  
✓

### **Impact Expected**

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutch roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides/landslides/mudslides/landsinks/mudsinks.
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

### **Action Suggested**

- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

### **Impact expected and action suggested due to isolated thunderstorm with lightning/gusty & Squally winds over**

**Thundersquall (wind speed reaching 50-60 kmph gusting to 70 kmph)** at isolated places over Madhya Pradesh, Jharkhand, Bihar, Rajasthan on 16<sup>th</sup> & 17<sup>th</sup>; Chhattisgarh, Kerala & Mahe, Lakshadweep, Tamil Nadu on 16<sup>th</sup> June.

#### **Impact expected:**

- Breaking of tree branches, uprooting of large avenue trees. Large dead limbs blown from trees. Damage to Standing crops.
- Minor to Major damage to banana and papaya trees.
- Minor to major damage to power and communication lines due to breaking of branches.
- Strong wind/hail may damage plantation, horticulture and standing crops.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

#### **Action suggested:**

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- Stay indoors, close windows & doors and avoid travel if possible.
- Take safe shelters; do not take shelter under trees.
- Do not lie on concrete floors and do not lean against concrete walls.
- Unplug electrical/ electronic appliances.
- Immediately get out of water bodies.
- Keep away from all the objects that conduct electricity.

### Agromet advisories for likely impact of Heavy / Heavy to Very Heavy / Extremely Heavy Rainfall

- In **Kerala**, ensure proper drainage facilities in rice nurseries, transplanted rice fields, coconut and banana plantations to prevent water logging. Undertake propping in banana to protect the plants from heavy rains.
- In **Tamil Nadu**, postpone nursery sowing / transplanting of rice and sowing of sorghum and cumbu. Ensure proper drainage facilities in rice nurseries, cotton, sugarcane, groundnut and transplanted rice fields, coconut and banana plantations to prevent water logging. Provide staking or support to tender plants of cotton, young plants of sugarcane and fruit-bearing plants of banana to avoid lodging.
- In **Coastal Karnataka**, postpone nursery sowing of rice. Ensure proper drainage facilities in rice nurseries, banana, coconut and arecanut plantations to prevent water logging. In **South Interior Karnataka**, postpone nursery sowing of rice and sowing of pigeon pea, maize and onion. Cover young seedlings of rice with plastic sheets or agro-shade nets to protect them from heavy rains. Provide adequate drainage to remove excess water from rice nurseries, coffee, cardamom, coconut and arecanut plantations to prevent water logging. Provide support to sugarcane and banana to prevent lodging. In **North Interior Karnataka**, postpone sowing of green gram, cotton, maize, groundnut, rice, pigeon pea, soybean and onion. Drain out excess water from the crops which are at seedling stage to prevent water logging.
- In **Konkan & Goa**, postpone nursery sowing of rice. In **Konkan & Goa** and **ghat areas of Madhya Maharashtra**, make arrangement to drain out excess water from rice nurseries to prevent water logging.
- In **South Gujarat**, postpone sowing of soybean and rice nursery. Ensure proper drainage facilities in already sown rice nurseries, soybean and also in banana plantations to prevent water logging. Provide support to sugarcane and banana to prevent lodging.
- In **North Odisha**, ensure proper drainage to drain out excess water from rice nurseries, maize and vegetables to prevent water logging. Postpone sowing of millets, maize, pulses and vegetables during heavy rain. Cover rice and vegetable nursery with plastic sheets to prevent washing away seeds.
- In **Sub-Himalayan West Bengal**, maintain proper drainage channels in rice nurseries and fields of jute and ginger to avoid water stagnation. Avoid sowing of rice in low lands to avoid losses due to heavy rainfall.
- In **Bhabar and Tarai Zone of Uttarakhand**, ensure proper drainage in already sown crops of pigeon pea, millets and soybean.
- In **Assam**, keep the harvested produce of sesame, foxtail millet, *Boro* rice, banana and citrus at safer places. Ensure proper drainage in *Sali* rice nursery, maize and sugarcane fields, arecanut and coconut plantations to prevent water logging.
- In **Meghalaya**, ensure proper drainage in the fields of maize, ginger, French bean, cowpea, vegetables and around rice nurseries to prevent water logging. Provide strong bamboo stakes or trellis support to cow pea, cucumber and bottle gourd to prevent vines from trailing on wet ground. Provide support to banana plant to prevent lodging.
- In **Mizoram**, ensure proper drainage facilities in maize and low land pre-*kharif* rice to avoid water stagnation. Undertake propping in five-month-old sugarcane crop to avoid lodging.
- In **Arunachal Pradesh**, carry out harvesting of soybean and vegetables such as chilli and okra and keep the produce at a safer place. Ensure proper drainage in rice nurseries, kiwi and apple orchards to avoid water logging.

### Livestock / Fishery

- Keep the animals inside the shed during heavy rainfall and provide them balanced feed.
- Store feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain out excess water, thereby preventing fish from escaping in case of overflow.

### Agromet advisories for likely impact of Thunderstorm / Gusty Winds / Squally Winds

- Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.

### Flash Flood Guidance:

#### 24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 17-06-2025:

Moderate to High flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Saurashtra & Kutch - Rajkot, Jamnagar, Porbandar, Gir, somnath, Junagarh, Amreli, Devbhoomi Dwarka, Morbi, Surendernagar, Botad and Bhavnagar

Konkan & Goa - North Goa, South Goa, Mumbai City, Palghar, Raigarh, Ratnagiri, Sindhudurg, Suburban Mumbai and Thane districts.

Coastal Karnataka - Dakshin Kannada, Udupi and Uttar Kannada districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern (AoC) as shown in map due to expected rainfall occurrence in next 24 hours.

#### 24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 17-06-2025:

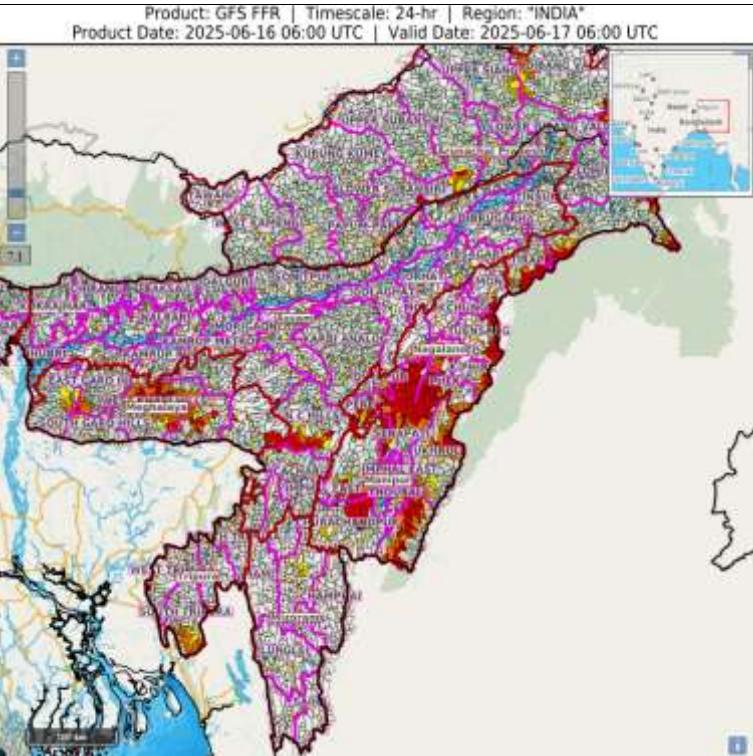
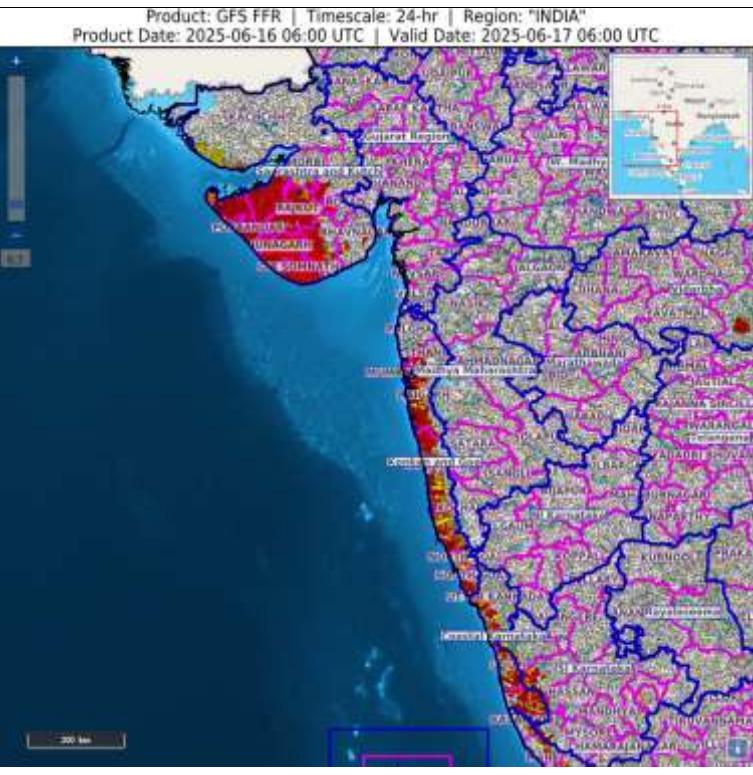
Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Assam & Meghalaya - Cachar, Karimganj, N.C Hills, East Garo Hills, East Khasi Hills, South West Garo Hills, West Garo Hills, West Khasi Hills and Jaintia Hills districts.

Nagaland Mizoram Manipur Tripura (NMMT)

Manipur - Churachandpur, Imphal East, Senapati, Champai, Chandel, Thoubal, Peren, Ukhru, Mizoram - Aizawl, Nagaland - Dimapur, Kiphire, Kohima, Longleng, Mokokchung, Mon, Peren, Phek, Tuensang, Wokha, Zunheboto district.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern (AoC) as shown in map due to expected rainfall occurrence in next 24 hours.



## Legends & abbreviations:

- ❖ **Heavy Rain:** 64.5-115.5mm; **Very Heavy Rain:** 115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
  - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
  - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
  - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
  - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
  - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
  - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

## LEGENDS

1. अंडमान और निकोबार द्वीपसमूह

2. अरुणाचल प्रदेश

3. असम और मेघालय

4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा

5. उप-हिमालयी पश्चिम बंगाल और सिक्किम

6. गंगीय पश्चिम बंगाल

7. ओडिशा

8. झारखण्ड

9. बिहार

10. पूर्वी उत्तर प्रदेश

11. पश्चिम उत्तर प्रदेश

12. उत्तराखण्ड

13. हरियाणा, चंडीगढ़ और दिल्ली

14. पंजाब

15. हिमाचल प्रदेश

16. जम्मू और कश्मीर और लद्दाख

17. पश्चिम राजस्थान

18. पूर्वी राजस्थान

19. पश्चिम मध्य प्रदेश

20. पूर्वी मध्य प्रदेश

21. गुजरात

22. सौराष्ट्र

23. कोकण और गोवा

24. मध्य महाराष्ट्र

25. मराठवाड़ा

26. विदर्भ

27. छत्तीसगढ़

28. तटीय आंध्र प्रदेश और यनम

29. तेलंगाना

30. रायलसीमा

31. तमिलनाडु, पुदुचेरी और कराईकल

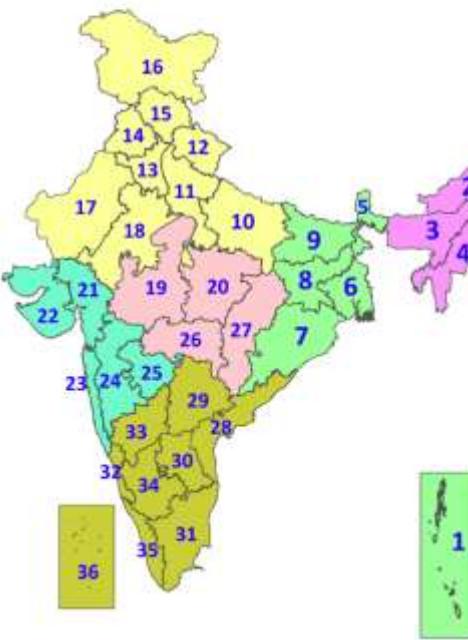
32. तटीय कर्नाटक

33. आतंरिक उत्तरी कर्नाटक

34. आतंरिक दक्षिणी कर्नाटक

35. केरल और माहे

36. लक्षद्वीप



1. Andaman & Nicobar Islands

2. Arunachal Pradesh

3. Assam & Meghalaya

4. Nagaland, Manipur, Mizoram & Tripura

5. Sub-Himalayan West Bengal & Sikkim

6. Gangetic West Bengal

7. Odisha

8. Jharkhand

9. Bihar

10. East Uttar Pradesh

11. West Uttar Pradesh

12. Uttarakhand

13. Haryana, Chandigarh & Delhi

14. Punjab

15. Himachal Pradesh

16. Jammu & Kashmir and Ladakh

17. West Rajasthan

18. East Rajasthan

19. West Madhya Pradesh

20. East Madhya Pradesh

21. Gujarat

22. Saurashtra

23. Konkan & Goa

24. Madhya Maharashtra

25. Marathwada

26. Vidarbha

27. Chhattisgarh

28. Coastal Andhra Pradesh & Yanam

29. Telangana

30. Rayalaseema

31. Tamilnadu, Puducherry & Karaikal

32. Coastal Karnataka

33. North Interior Karnataka

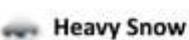
34. South Interior Karnataka

35. Kerala & Mahe

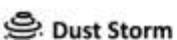
36. Lakshadweep

## SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)		
51-75	Fairly Widespread (FWS/Many Places)		
26-50	Scattered (SCT/A Few Places)		
1-25	Isolated (ISOL)		



### COLOUR CODED WARNING



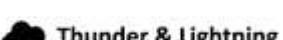
No Warning (No Action)



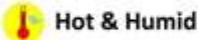
Watch (Be Aware)



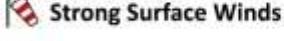
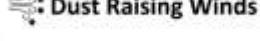
Alert (Be Prepared To Take Action)



Warning (Take Action)



### Probabilistic Forecast



Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599

(Service to the Nation since 1875)



## DEFINITION/CRITERIA

### Rain/ Snow \*

**Heavy:** 64.5 to 115.5 mm/cm \*  
**Very Heavy:** 115.6 to 204.4 mm/cm \*  
**Extremely Heavy:** > 204.4 mm/cm \*

When maximum temperature of a station reaches  $\geq 40^{\circ}\text{C}$  for plains and  $\geq 30^{\circ}\text{C}$  for hilly regions  
 (a) Based on Departure from normal

**Heat Wave:** Maximum Temperature Departure from normal  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

**Severe Heat Wave:** Maximum Temperature Departure from normal  $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

**Heat Wave:** When actual maximum temperature  $\geq 45^{\circ}\text{C}$ .

**Severe Heat Wave:** When actual maximum temperature  $\geq 47^{\circ}\text{C}$

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is  $>4.5^{\circ}\text{C}$  from normal. Heat Wave may be described provided maximum temperature  $\geq 37^{\circ}\text{C}$

### Warm Night

When maximum temperature remains  $40^{\circ}\text{C}$

**Warm Night:** When minimum temperature departure  $4.5^{\circ}\text{C}$  to  $6.4^{\circ}\text{C}$ .

**Severe Warm Night:** When minimum temperature departure  $>6.4^{\circ}\text{C}$ .

### Cold Wave

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions.

(a). Based on departure

**Cold Wave:** Minimum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

**Severe Cold Wave:** Minimum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

**Cold Wave:** When Minimum Temperature is  $\leq 4.0^{\circ}\text{C}$

**Severe Cold Wave:** When Minimum Temperature is  $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is  $\leq -4.5^{\circ}\text{C}$  & actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$

### Cold Day

When minimum temperature of a station  $\leq 10^{\circ}\text{C}$  for plains and  $\leq 0^{\circ}\text{C}$  for hilly regions

Based on departure

**Cold Day:** Maximum Temperature Departure from normal  $-4.5^{\circ}\text{C}$  to  $-6.4^{\circ}\text{C}$ .

**Severe Cold Day:** Maximum Temperature Departure from normal  $\leq -6.5^{\circ}\text{C}$

### Fog

Phenomenon of small droplets suspended in air and the horizontal visibility  $< 1\text{ km}$

**Moderate Fog:** When the visibility between 500-200 metres

**Dense Fog:** when the visibility between 50- 200 metres

**Very Dense Fog:** when the visibility  $< 50$  metres

### Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

### Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

### Frost

Ice deposits on ground

Air temperature  $\leq 4^{\circ}\text{C}$  ( over Plains)

### Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

**Moderate:** Wind speed 52-61 kmph

**Severe:** Wind speed 62-87 kmph

**Very Severe:** Wind speed  $>87$  kmph

### Sea State

Effect of various waves in the sea over specific area

**Rough to very rough:** Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

**High to very high:** Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

**Phenomenal:** Wind speed  $>117$  kmph ( $>63$  knots) & Wave height  $>14$  metre

### Cyclone

**Cyclonic Storm:** Wind speed 62-87 kmph (34-47 knots)

**Severe Cyclonic Storm:** Wind speed 88-117 kmph (48-63 knots)

**Very Severe Cyclonic Storm:** Wind speed 118-165 kmph (64 - 89 knots)

**Extremely Severe Cyclonic Storm:** Wind speed 166-220 kmph (90 - 119 knots)

**Super Cyclone Strom:** Wind speed  $>220$  kmph ( $>119$  knots)

\* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599

(Service to the Nation since 1875)

**Hot and Humid:** When maximum temperatures remain  $3^{\circ}\text{C}$  above normal along with the above normal relative humidity.