

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 22nd June, 2025 Time of Issue: 1415 hours IST

Subject: (i) Heavy to very heavy rainfall likely over Northwest India, Madhya Pradesh, Gujarat and Konkan & Goa during 22nd-26th June, 2025 with isolated extremely heavy rainfall over Gujarat Region on 22nd June and over Madhya Pradesh on 23rd & 24th June respectively.

(ii) Heavy to very heavy rainfall likely to continue over Northeast India during next 3 days and isolated heavy rainfall thereafter for subsequent 4 days.

Southwest Monsoon (Annexure I):

- Southwest monsoon has further advanced over most parts of Himachal Pradesh, entire Ladakh & Kashmir, most parts of Jammu and some parts of Punjab.
- ❖ The Northern Limit of Monsoon passes through 25.0°N/60.0°E, 25.0°N/65.0°E, 25.5°N/70.0°E, Jaipur, Agra, Rampur, Dehradun, Shimla, Pathankot, Jammu, and 33.5°N/73.0°E and 34.0°N/71.0°E
- Conditions are favourable for further advance of Southwest monsoon over remaining parts of North Arabian Sea, some more parts of Rajasthan, Punjab, some parts of Haryana, Chandigarh and Delhi, remaining parts of West Uttar Pradesh, Himachal Pradesh and Jammu during next 2 days.

Realised weather during past 24 hours till 0830 hours IST of today, the 22nd June, 2025 (Annexure II):

- Heavy to very heavy rainfall at some places with extremely heavy falls recorded at isolated places over East Madhya Pradesh, Gujarat Region.
- Heavy to very heavy rainfall recorded at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar, West Uttar Pradesh, East Rajasthan; Heavy rainfall at isolated places over Assam & Meghalaya, Andaman & Nicobar Islands, Gangetic West Bengal, Uttarakhand, East Uttar Pradesh, West Rajasthan, West Madhya Pradesh, Konkan & Goa, Coastal Karnataka, Coastal Andhra Pradesh & Yanam.
- Thunderstorm accompanied with Squally/Gusty winds with speed 60-120 kmph at isolated places over Marathawada; 40-60 kmph at isolated places over Madhya Maharashtra, Konkan, Andaman & Nicobar Islands, 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):

- ❖ A **low-pressure** area over southeast Uttar Pradesh & neighbourhood lay over central parts of south Uttar Pradesh at 0830 hrs IST of today, the 22nd June 2025. The associated upper air cyclonic circulation in middle tropospheric levels tilting southwards with height. It is likely to move slowly northwestwards and weaken gradually during next 12 hours.
- A east-west trough runs from south Pakistan to central parts of Bangladesh across central parts of Rajasthan, northwest Madhya Pradesh, cyclonic circulation associated with low pressure area over central parts of south Uttar Pradesh & neighbourhood, Jharkhand, north Gangetic West Bengal in lower tropospheric levels tilting southwards with height.
- An **trough** from north Punjab to north Bihar across south Haryana, cyclonic circulation associated with low pressure area over central parts of south Uttar Pradesh in lower tropospheric levels.
- ❖ An **upper air cyclonic circulation** lies over northeast Assam in lower tropospheric levels.
- ❖ An upper air cyclonic circulation likely to form over Gangetic West Bengal & neighbourhood around 25th June.

Under the influence of these systems, the following weather is likely:

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

East & Central India:

- ✓ Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over West Madhya Pradesh on 23^{rd} & 24^{th} June.
- ✓ Isolated **heavy to very heavy rainfall** also likely to continue over Madhya Pradesh during 22nd -26thJune.
- ✓ Isolated **heavy rainfall** over Andaman & Nicobar Islands on 22nd, Gangetic West Bengal during 22nd-24th, Bihar, Jharkhand during 22nd-25th, Vidarbha on 25th & 26th, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Odisha on 22nd and during 24th-27th, with **very heavy rainfall** over Sub-Himalayan West Bengal & Sikkim on 22nd & 23rd, Bihar on 23rd, Gangetic West Bengal on 25th, Odisha on 25th & 26th June.
- ✓ Light/moderate rainfall at most/many places accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 40-50 kmph** likely over Andaman & Nicobar Islands; Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Jharkhand, Odisha during 22nd-27th June.

West India:

- ✓ Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over Gujarat State on 22nd June.
- ✓ Isolated **heavy to very heavy rainfall** likely over Konkan & Goa, Madhya Maharashtra, Gujarat state during 22nd-28th June.
- ✓ Light/moderate rainfall at most/many places likely over Gujarat State, Konkan & Goa, Madhya Maharashtra, Marathawada during 22nd-28th June.

Northwest India:

- ✓ Extremely heavy rainfall (>20 cm/24 hours) likely at isolated places over East Rajasthan on 23rd June.
- ✓ Isolated **heavy rainfall** likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Uttar Pradesh, Haryana during 22nd-26th, Himachal Pradesh, Uttarakhand, East Rajasthan during 22nd-28th; West Rajasthan on 27th & 28th with **very heavy rainfall** over Himachal Pradesh, Uttarakhand during 22nd-26th, East Rajasthan during 22nd -24th and on 27th & 28th, Haryana on 22nd & 25th, West Uttar Pradesh on 24th & 25th, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 25th June.
- ✓ Light/moderate rainfall at most/many places accompanied with accompanied with **thunderstorm**, **lightning & gusty winds speed reaching 30-40 kmph** likely over Northwest India during 22nd-26th June.

Northeast India:

- ✓ Isolated **very heavy rainfall** likely over Assam & Meghalaya on 22nd & 23rd, Arunachal Pradesh on 23rd & 24th and Nagaland, Manipur on 23rd June.
- ✓ 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

South Peninsular India:

- ✓ Isolated **heavy rainfall** likely over Kerala & Mah, Coastal Karnataka during 22nd-28th; Interior Karnataka during 25th-28th June.
- ✓ **Strong surface winds** (speed reaching 40-60 kmph) very likely over Karnataka, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana during 22nd-26th June.
- ✓ Light/moderate rainfall at many/some places over Kerala & Mahe, Lakshadweep, Coastal Karnataka; isolated to scattered rainfall accompanied with isolated **thunderstorm, lightning** over Coastal Andhra Pradesh & Yanam, Telangana, Interior Karnataka during 22st-26th June.

Maximum Temperature Forecast:

❖ No significant change in maximum temperatures likely over the country.

Hot & Humid Conditions warnings:

❖ Hot & Humid conditions very likely in isolated pockets of Tamil Nadu, Coastal Andhra Pradesh & Yanam, Rayalaseema during 22nd-24th June.

Fishermen Warnings:

Fishermen are advised to avoid venturing into the following from 22nd to 26th June 2025:

❖ Arabian Sea:

Fishermen are advised not to venture over Along and off Gujarat coast for day 1 to day 3 (22nd to 25th June); off Gujarat coast for day 4, day 5 (25th & 26th June); Konkan coast for day 1 & day 2 (22nd to 23rd June), off Konkan coast for day 3 to day 5 (24th to 27th June); Fishermen are advised not to venture along and off the Somalia coast and adjoining sea areas, Oman and adjoining Yemen coast & adjoining sea areas for day 1 to day 5 (22nd to 27th June). Over central & adjoining north, south Arabian Sea for day 1 to day 5 (22nd – 27th June); many parts of northeast Arabian Sea for day 1 & day 2 (22nd & 23rd June).

❖ Bay of Bengal:

- Fishermen are advised not to venture along and off north Andhra Pradesh coast for day 1 and day 2 (22nd & 23rd June), off Andhra Pradesh coast for day 3 & day 4 (24th & 25th June); along and off Odisha and West Bengal coasts for day 3 & day 4 (24th & 25th June). Over many parts of central Bay of Bengal for day 1 to day 2 (22nd & 23rd June); over many parts of westcentral Bay of Bengal for day 3 to day 5 (24th to 27th June); over many parts of southwest Bay of Bengal for day 1 to day 5 (22nd to 27th June); over some northern parts of southeast Bay of Bengal for day 1 to day 2 (22nd to 23rd June).
- Fishermen are advised not to venture over the Andaman Sea from day 1 to day 4 (22nd 26th June).
- Total suspension of fishing operations is suggested over above mentioned areas and dates.

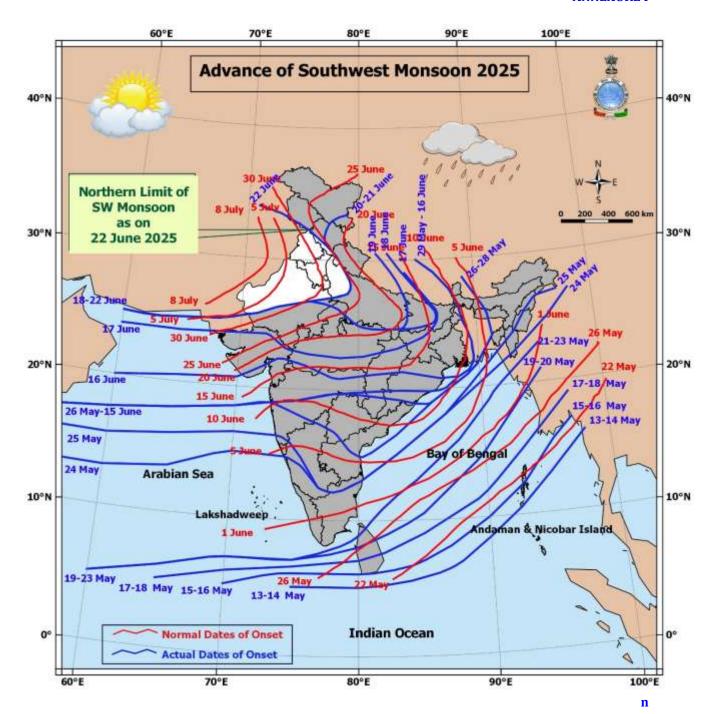
ii. Weather conditions and forecast over Delhi/NCR during 22nd June to 25th June, 2025 (Annexure VI)

For more details, kindly refer National Weather Bulletin:

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 22^{nd} lune:

- Gujarat Region: Vadali (dist Sabarkantha) 31; Khedbrahma (dist Sabarkantha) 29; Dharoi Colony (dist Mehsana), Danta (dist Banaskantha) 23 Each; Khanvel (dist Dadara & Nagar Haveli) 14; Idar (dist Sabarkantha) 13; Satlasana (dist Mehsana), Meghraj (dist Aravalli) 12 Each; Modasa (dist Aravalli) 11; Umerpada (dist Surat), Vijaynagar (dist Sabarkantha) 9 Each; Vapi (dist Valsad), Kaprada (dist Valsad), Talod (dist Sabarkantha) 7 Each;
- ❖ East Madhya Pradesh: Tikamgarh-aws (dist Tikamgarh) 21; Hatta (dist Damoh) 12; Orchha (dist Niwari) 11; Satna (raghurajnagar) (dist Satna), Badagaon Dhasan (dist Tikamgarh), Mohangarh (dist Tikamgarh) 8 Each; Damoh-aws (dist Damoh), Palera (dist Tikamgarh), Bahri (dist Sidhi) 7 Each;
- **East Rajasthan**: Mounntabu Tehsil SR (dist Sirohi) 19; Mounnt Abu (dist Sirohi) 18; Bhilwara Tehsil SR (dist Bhilwara), Bhilwara (dist Bhilwara) 17 Each; Mandalgarh (dist Bhilwara) 13; Kotri (dist Bhilwara) 11; Gangrar (dist Chittorgarh) 10; Hurda SR (dist Bhilwara), Amet (dist Rajsamand) 8 Each;
- ❖ Sub Himalayan West Bengal & Sikkim: Toorsa Tea Garden (dist Alipurduar) 16; Hasimara (dist Alipurduar) 8; Buxaduar (dist Alipurduar), Dentam (dist Gyalshing), Maynaguri College (dist Jalpaiguri), Fagu Tea Estate (dist Jalpaiguri) 7 Each;
- West Uttar Pradesh: Talbehat (dist Lalitpur) 13;
- Bihar: Sheohar (dist Sheohar) 13; Araria (dist Araria) 8; Dumri (dist Sheohar), Silao (dist Nalanda) 7 Each;
- ❖ Coastal Karnataka: Kadra (dist Uttara Kannada) 11;
- * Konkan & Goa: Talasari (dist Palghar) 11;
- ❖ West Madhya Pradesh: Karera (dist Shivpuri) 11; Ranapur (dist Jhabua) 9; Jhabua-aws (dist Jhabua), Pichhore (dist Shivpuri) 8 Each; Meghnagar (dist Jhabua) 7;
- **East Uttar Pradesh**: Attarra (dist Banda) 10; Manikpur (dist Chitrakoot) 8;
- ❖ Assam & Meghalaya: Tezpur (dist Shonitpur) 9; Bhaghmara (dist South Garo Hills), Bhumuraguri (dist Shonitpur) 7 Each;
- ❖ Coastal Andhra Pradesh & Yanam: Bhimadole (dist Eluru) 8;
- Andaman & Nicobar Islands: Maya Bandar (dist North & Middle Andaman), Car Nicobar (dist Nicobar) 8 Each; Iaf Carnicobar (dist Nicobar) 7;
- Uttarakhand: Roorkee (dist Hardwar) 7.

Realised Gusty Winds (kmph) During Past 24hours ending at 0830 hrs IST of today the 22nd June:

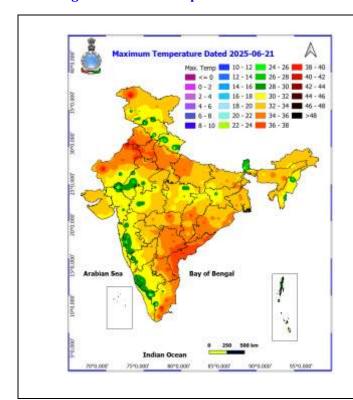
- ❖ Marathwada: Jalna (81 Kmph), Chh Sambhaji Nagar(61), Beed (Ambejogai)-48;
- Madhya Maharashtra: Mahabaleshwar- 59, Nashik (Kalwan)-52, Vilholi (Nashik)-52, Jalgaon -52;
- ❖ Konkan: Ratnagiri 44 Kmph;
- Andaman & Nicobar Islands: Sri Vijayapuram (37); Swaraj Dweep (30);
- Gangetic West Bengal: Nimpith (31);

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

- * Yesterday, Maximum temperatures were in the range of 38-42°C at many places over Coastal Andhra Pradesh & Yanam; at isolated places over West Rajasthan, Tamil Nadu, Puducherry & Karaikal; in the range of 33-37°C at many places over West Uttar Pradesh, Haryana-Chandigarh-Delhi; at a few places over East Uttar Pradesh, Gangetic West Bengal, Telangana, Rayalaseema; at isolated places over Jammu Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Punjab, Sub-Himalayan West Bengal & Sikkim, Chhattisgarh, Odisha and below 33 °C elsewhere in the remaining part of the country. Yesterday. The highest maximum temperature of 42.3°C was reported at Sri Ganganagar (West Rajasthan).
- * Maximum Temperatures were markedly above normal (> 5.1°C) at few places over Jammu-KashmirLadakh-Gilgit-Baltistan-Muzaffarabad; at isolated places over Odisha. appreciably above normal (3.1°C to 5.0°C) at isolated places over Assam & Meghalaya, Sub Himalayan West Bengal & Sikkim, Himachal Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe. above normal (1.6°C to 3.0°C) at many places over Telangana; at few places over Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Vidarbha and Coastal Karnataka; at isolated places over Konkan & Goa and Rayalaseema. near normal (-1.5°C to 1.5°C) at many places over Uttarakhand and South Interior Karnataka; at most places over Gangetic West Bengal, Madhya Maharashtra, Marathwada, North Interior Karnataka and Lakshadweep; at few places over Jharkhand, Bihar, East Uttar Pradesh, West Uttar Pradesh, Haryana-Chandigarh-Delhi, Punjab, West Rajasthan and Saurashtra & Kutch; at isolated places over Andaman & Nicobar Islands and East Rajasthan.

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures



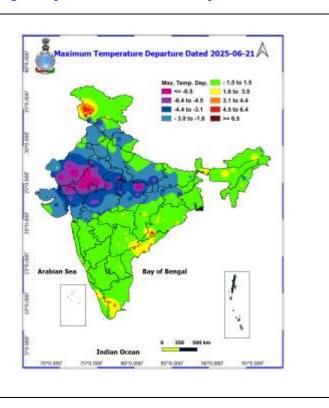
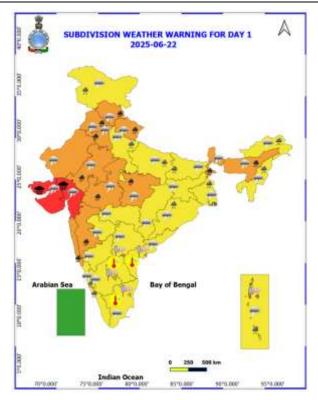
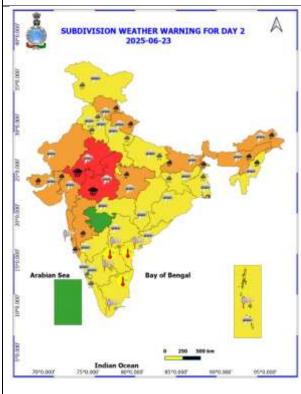
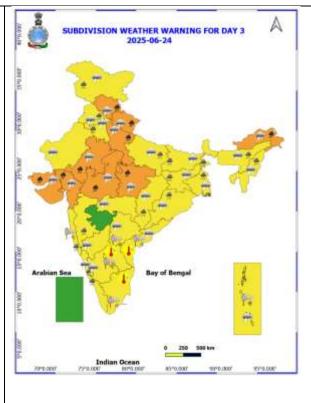


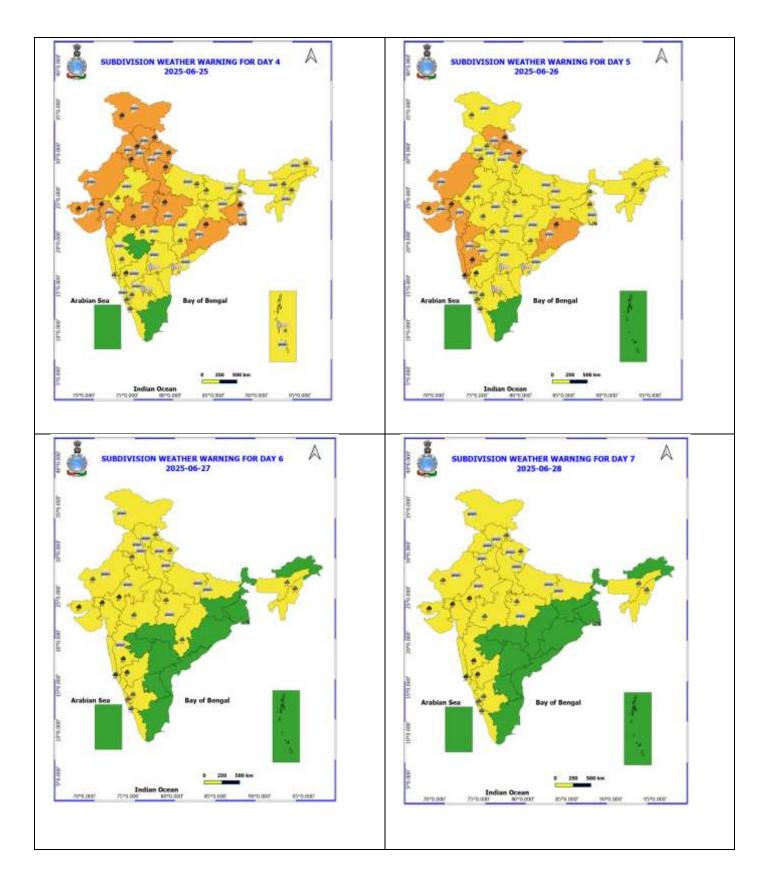
Table-1 7 Days Rainfall Forecast											
		Day 2	Day 3	Day 4							
	ANDAMAN & NICOBAR ISLANDS	- WB	WB	3/5	WS	FWS					
2	ARUNACHAL PRADESH	Wa	WB	1945	FWS	FWS					
	ASSAM & MEHGHALAYA	WB	WS	FWS	FWS	FWS					
	NAGALAND, MANIPUR, MIZORAM AND TRIPURA	FWS	Wa	FWS	SCT	SCT	FWS				
5	SUB HIMALAYAN WEST BENGAL & SIKKIM	WS	WS	WE	FWS	FWS	FWS				
6	GANGETIC WEST BENGAL	FWS	WS	WS	WS	WS	WS	FW			
7	ODISHA	SCT	SCT	FWS	FWS	. vys	WS	FW			
8	JHARKHAND	FWS	FWS	7/5	WS	145	WS	FW			
	BIHAR	10/5	WS	FWS	FWS	SCT	SCT				
10	EAST UTTAR PRADESH	ISOL	SCT	FWS	WB	FWS	SCT				
11	WEST UTTAR PRADESH	SCT	FWS	Wä	WS	FWS	FWS	SC			
12	UTTARAKHAND	MIS	WS	WE	WS	WS	FWS	FW			
13	HARYANA, CHANDIGARH & DELHI	FWS	FWS	FWS	WS	WS	FWS	FW			
14	PUNJAB	FWS	FWS	SCT	Ws	Wis	FWS	FW			
15	HIMACHAL PRADESH	WS	Ws	FWS	WS	Wil	V/8	FW:			
16	JAMMU AND KASHMIR AND LADAKH	WiS	SCT	SCT	WS	WE	WS	SC			
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	ISOL	ISOL	SCT				
18	EAST RAJASTHAN	FWS	FWS	FWS	SCT	FWS	FWS	FW:			
19	WEST MADHYA PRADESH	100	FWS	FWS	ws	YYS	WS	77			
20	EAST MADHYA PRADESH	WE	WB	WE	WS	WE	WS	19			
21	GUJRAT REGION	WS	WS	198	WS	WE	WS	1/9			
22	SAURASHTRA & KUTCH	WA	WS	FWS	FWS	IVE	448	FW			
23	KONKAN & GOA	WS	172	N.	WE	VVS	WE	- 1/			
24	MADHYA MAHARASHTRA	FWS	SCT	SCT	SCT	FWS	FWS	SC			
25	MARATHWADA	SCT	ISOL	ISOL	ISOL	SCT	SCT	ISO			
26	VIDARBHA	SCT	ISOL	FWS	FWS	WB	FWS	_			
27	CHHATTISGARH	SCT	ISOL		WS	ME	WS	FW			
28	COASTAL ANDHRA PRADESH	ISOL	ISOL	A STATE OF THE PARTY OF T	SCT	SCT	ISOL				
29	TELANGANA	ISOL	ISOL		ISOL	ISOL		A CONTRACTOR OF THE PARTY OF TH			
	RAYALASEEMA	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL				
31	TAMILNADU & PUDUCHERRY	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL	ISO			
32	COSTAL KARNATAKA	1000	10%	U.A.	Jys.	UJ6	U.S.				
33		ISOL	ISOL	ISOL	ISOL	SCT	SCT	SC			
34	SOUTH INTERIOR KARNATAKA	SCT	SCT	SCT	SCT	SCT	SCT	SC			
_	KERALA AND MAHE	WHE	W.	NE NE	WE	1015	991				
_	LAKSHADWEEP	N/A	VA PIO	946	We	We	VAS				

• As the lead period increases forecast accuracy decreases.









- 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.

Weather forecast over Delhi/NCR during 22th to 25th June 2025 Past Weather:

There has been a rise in the minimum temperature up to 1°C and rise in the maximum temperature up to 3- 4°C over Delhi/NCR during the past 24 hours. The maximum and minimum temperatures over Delhi were around 36 to 37°C and 26 to 28° respectively. The minimum temperature was near normal and the maximum temperature was below normal up to 2- 4°C . Partly cloudy sky conditions with predominant surface wind from the southeast direction with wind speeds up to 18 kmph gusty to 32 kmph prevailed during the past 24 hours. Generally cloudy sky conditions with wind speed less than 08 kmph from the southeast direction prevailed over the region in the forenoon today.

Weather Forecast:

22.06.2025: Generally cloudy sky. Light to Moderate rain/thunderstorm/lighting accompanied with gusty winds 30 - 40 kmph temporary reaching 50 kmph during thunderstorm. The maximum temperatures over Delhi are likely to be in the range of 34 to 36° C. The maximum temperature will be below normal up to $2 - 4^{\circ}$ C. The predominant surface wind will likely be from the southeast direction with a wind speed of less than 15 kmph in the afternoon. The wind speed will gradually decrease becoming 10-12 kmph from the southeast direction during evening and night.

23.06.2025: Generally cloudy sky. Light to Moderate 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 33 to 35°C and 26 to 28°C respectively. The minimum temperature will be near normal and 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 10 kmph during the morning hours. The wind speed will gradually increase becoming 10-15 kmph from the southeast direction in the afternoon. It will increase becoming less than 20 kmph from the southeast direction during evening and night.

24.06.2025: Generally cloudy sky. Light to Moderate rain accompanied with thunderstorm/lighting. The maximum and minimum temperatures over Delhi are likely to be in the range of 34 to 36° C and 25 to 27° C respectively. The minimum temperature will be below normal up to 1 - 3° C and the maximum temperature will be below normal up to 2 - 4° C. The predominant surface wind will likely be from the west direction with a wind speed of less than 20 kmph during the morning hours. The wind speed will gradually decrease becoming less than 15 kmph from the west direction in the afternoon. It will decrease to less than 10 kmph from the west direction during the evening and night.

25.06.2025: Generally cloudy sky. Light to Moderate rain accompanied with thunderstorm/lighting. The maximum and minimum temperatures over Delhi are likely to be in the range of 34 to 36° C and 26 to 28° C respectively. The minimum temperature will be below normal up to 1 - 2° C and the maximum temperature will be below normal up to 2 - 4° 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 decrease becoming less than 12 kmph from the south direction in the afternoon. It will increase to less than 15 kmph from the south 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 Gujarat State on 22nd June, East Rajasthan on 23rd, West Madhya Pradesh on 23rd & 24th June.
- ✓ **Very heavy rainfall** also likely to continue over Sub-Himalayan West Bengal & Sikkim on 22nd & 23rd, Madhya Pradesh, Himachal Pradesh, Uttarakhand during 22nd-26th, . Konkan & Goa, Madhya Maharashtra, Gujarat state during 22nd-28th Bihar on 23rd, Gangetic West Bengal, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 25th, Odisha on 25th & 26th, East Rajasthan during 22nd-24th and on 27th & 28th, Haryana on 22nd& 25th, West Uttar Pradesh on 24th & 25th 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 kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides/landslips/mudslips/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.

Agromet advisories for likely impact of Heavy / Heavy to Very Heavy / Extremely Heavy Rainfall (Based on the IBF and advisories issued by different AMFUs)

- ➤ In **Gujarat**, postpone nursery sowing of rice. Ensure proper drainage facilities in already sown rice nurseries, sugarcane fields, banana and mango plantations to prevent waterlogging. Provide support to sugarcane and banana to prevent lodging. In **Saurashtra & Kutch**, postpone sowing of *kharif* groundnut, cotton, sesame, pearl millet, green gram, black gram, cowpea, pigeon pea, maize, sorghum and vegetables. Drain out excess rain water from vegetable nurseries and horticultural plantations.
- ➤ In West Madhya Pradesh, Postpone harvesting of maize. Postpone sowing of pearl millet, soybean, pigeon pea and paddy nurseries. Make necessary arrangements to drain out excess water from vegetables and orchards to avoid waterlogging. In Kymore Plateau and Satpura Hill Zone of East Madhya Pradesh, harvest matured green gram and black gram crop and store in a safe place. In Gird Zone of West Madhya Pradesh, harvest matured maize crop and keep it in safe place. Postpone sowing of soybean and transplanting of chilli, tomato, brinjal etc. and ensure proper drainage in already sown / transplanted fields.
- In **East Rajasthan**, harvest the matured vegetables such as okra and cucurbits and store them in safe place. Make arrangement for draining out excess water from the fields of groundnut and green gram.
- ➤ In **Uttarakhand**, make proper drainage channels in rice nurseries, pigeon pea, groundnut, maize, soybean, barnyard millet and finger millet to avoid waterlogging. In **Bhabar and Tarai Zone** of **Uttarakhand**, harvest matured spring maize crop and vegetables (pumpkin, tomato, okra, chilli, French bean etc.) and store in safe place during clear weather.
- ➤ In **Sub-Montane** and **Low Hills Sub-Tropical Zone** of **Himachal Pradesh**, provide drainage in maize and vegetable fields. Strengthen the support for creepers and tall vegetable crops (tomato, capsicum etc.). In **Mid Hills Sub-Humid Zone** of **Himachal Pradesh**, harvest matured fruits of plum to minimize losses due to heavy rains. Make proper drainage channels in the fields of maize, cucumber and tomato to avoid waterlogging. Provide support to cucumber vines and tomato plants to prevent lodging.

- ➤ In **East Uttar Pradesh**, make necessary arrangement to protect paddy nurseries from the adverse impacts of heavy rainfall. In **West Uttar Pradesh**, make arrangement to drain out excess water from the fields of pigeon pea and vegetables. Provide support to bottle gourd vegetables.
- ➤ In **Sub-Himalayan West Bengal**, maintain proper drainage channels in rice nurseries and fields of jute and ginger to avoid water stagnation.
- In **Konkan & Goa** make arrangement to drain out excess water from rice nurseries, fields of finger millet, groundnut and orchards to prevent waterlogging.
- In *ghat* areas of Madhya Maharashtra, drain out excess water from rice nurseries and banana plantations to prevent waterlogging.
- ➤ 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 waterlogging. In **Barak Valley Zone** of **Assam**, postpone nursery sowing of *Sali* rice.
- > In **Meghalaya**, postpone nursery sowing of rice especially in valleys. Ensure proper drainage in the fields of maize, ginger, French bean, cowpea, vegetables and around rice nurseries to prevent waterlogging. 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 **Arunachal Pradesh**, keep the harvested produce of soybean and vegetables such as chilli and okra at a safer place. Ensure proper drainage in rice nurseries, kiwi and apple orchards to avoid waterlogging.
- ➤ In **Nagaland**, avoid transplanting of TRC/WRC rice. Postpone sowing of soybean. Provide proper staking to vine type plants.

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 (Based on the IBF and advisories issued by different AMFUs)

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.

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.



राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय



National Weather Forecasting Centre India Meteorological Department Ministry of Earth Sciences

LEGENDS



SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	rtions Category		% Stations	Category			
76-100	Widespread (WS/Most Places)		26-50	Scattered (SCT/A Few Places)			
51-75	Fairly Widesp	read (FWS/Many Places)	1-25	isolated (ISOL)			
Fog Heavy Rain		Heavy Snow	Cold Wave	COLOUR CO	DED WARNING		
			#	No Warni	No Warning (No Action) Watch (Be Aware)		
		⊜ Dust Storm	Cold Day	Watch (B			
Very Heav	y Rain	+ Heat Wave	Ground Fro	Alert (Be	Alert (Be Prepared To Take Action)		
Extremely	Heavy Rain	+ Warm Night		Worning (Take Action)			
Thunder & Lightning 1+ Hot Day				Probabilistic Forecast			
Inunder	& Lightning	4		Terms	Probability of Occurrence (%		
Hailstorm	1	Hot & Humid		Unlikely Likely Very Likely	< 25 25 - 50 50 - 75		
: Dust Raisi	ng Winds	Strong Surface Win	ds	Most Likely	> 75		





DEFINITION/CRITERIA Heavy: 64.5 to 115.5 mm/cm * Very Heavy: 115.6 to 204.4 mm/cm Rain/ Snow * Extremely Heavy: > 204.4 mm/cm When maximum temperature of a station reaches ≥40° C for plains and ≥30° C for hilly regions (a) Based on Departure from normal Heat Wave: Maximum Temperature Departure from normal 4.5° C to 6.4° C Severe Heat Wave: Maximum Temperature Departure from normal ≥6.5° C **Heat Wave** (b). Based on Actual maximum temperature Heat Wave: When actual maximum temperature ≥45°C Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C nimum temperature departure 4.5 °C to 6.4 °C Warm Night: Whe Warm Night Severe Warm Night: When minimum temperature departure >6.4 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions. (a). Based on departure Cold Wave: Minimum Temperature Departure from normal -4.5 °C to -6.4 °C Severe Cold Wave: Minimum Temperature Departure from normal ≤ -6.5 °C **Cold Wave** (b) Based on actual Minimum Temperature (for Plains only) Cold Wave : When Minimum Temperature is ≤ 4.0 °C Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C (c) For Coastal Stations When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure Cold Day Cold Day: Maximum Temperature Departure from normal -4.5 °C to -5.4 °C. Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres Dense Fog: when the visibility between 50-200 metres Fog Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm An ensemble of particles of dust or sand energetically lifted to great heights by a strong and **Dust/Sand** turbulent wind. Ice deposits on ground Frost Air temperature s4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Squall Severe: Wind speed 62-87 kmph Very Severe: Wind speed >87 kmph 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 Sea State 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) Cyclone 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°C above normal along with the above normal relative humidity.