



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 07th June, 2024

Time of Issue: 1300 hours IST

Subject:

- i. **Heavy to very heavy rainfall likely over Maharashtra and Coastal & North Interior Karnataka during next 5 days.**
- ii. **Rainfall/thunderstorm likely at a few places likely to continue over Northwest India during next 2 days.**
- iii. **Heat wave conditions likely in isolated pockets over parts of east India, Uttar Pradesh and northeast Madhya Pradesh during next 5 days.**

Realised weather during past 24 hours till 0830 hours IST of today: (details in Annexure I)

- ❖ Yesterday, **No Heat wave conditions** prevailed in any parts of the country.
- ❖ Yesterday, Maximum temperatures were mostly in the range of 42-44°C over many parts of Madhya Pradesh; in some parts of Vidarbha; in isolated pockets of Haryana-Chandigarh-Delhi and West Uttar Pradesh and in the range of 40-42°C over some parts of Odisha; in isolated pockets of Chhattisgarh & Gujarat state.
- ❖ Yesterday, **the highest maximum temperature of 45.2°C** was reported at Orai (West Uttar Pradesh) over the country.
- ❖ **Heavy to very heavy rainfall** at isolated places over Madhya Maharashtra, Kerala & Mahe; **heavy rainfall** at isolated places over Rayalaseema, Tamil Nadu, Karnataka, Konkan & Goa, Tripura, Vidarbha and Telangana.
- ❖ **Squally winds** observed at isolated places over Rajasthan, Punjab, Haryana-Chandigarh-Delhi, Himachal Pradesh, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and West Uttar Pradesh.
- ❖ **Duststorm** observed at isolated places over Rajasthan.
- ❖ **Hailstorm** observed at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad and West Madhya Pradesh.
- ❖ **Gusty winds/squally winds** data reported over the country is attached in **Annexure II**.

Advance of Southwest Monsoon:

- ❖ The Northern Limit of Monsoon continues to pass through 17.0°N/60°E, 17.0°N/65°E, 16.5°N/70°E, Ratnagiri, Solapur, Medak, Bhadrachalam, Vizianagaram, 19.5°N/88°E, 21.5°N/89.5°E, 23°N/89.5°E and Islampur. (**Annexure III**)
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some more parts of central Arabian Sea, some more parts of Maharashtra (including Mumbai), Telangana, remaining parts of Coastal Andhra Pradesh, some parts of south Chhattisgarh & South Odisha, remaining parts of Westcentral & more parts of Northwest Bay of Bengal during next 3-4 days.

Weather Systems and Forecast & Warnings: (Annexure IV)

- ❖ A cyclonic circulation lies over northeast Assam & neighbourhood in lower tropospheric levels. Strong southwesterly/southerly winds are prevailing from Bay of Bengal to northeastern States in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** likely over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Sub-Himalayan West Bengal & Sikkim during next 7 days.
 - ✓ Isolated **heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim during 07th-11th; Assam & Meghalaya during 08th-11th; Arunachal Pradesh during 09th-11th; Nagaland on 10th & 11th June, 2024. Isolated **very heavy rainfall** also likely over Assam & Meghalaya on 10th & 11th June.
- ❖ A shear zone runs roughly along 16°N in lower & middle tropospheric levels. A cyclonic circulation lies over south Telangana & neighbourhood and a trough runs from south Maharashtra to southeast Arabian off south Kerala in lower tropospheric levels. Under their influence:
 - ✓ Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** likely over Konkan & Goa, Madhya Maharashtra, Marathwada, Karnataka, and Kerala & Mahe, Lakshadweep; isolated light to moderate rainfall over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Tamil Nadu, Puducherry & Karaikal during next 5 days.
 - ✓ Isolated **heavy rainfall** very likely over Kerala & Mahe during 07th-11th; South Interior Karnataka during 07th-09th; Tamil Nadu, Puducherry & Karaikal on 07th; Telangana on 07th & 10th and Coastal Andhra Pradesh & Rayalaseema on 07th June, 2024. Isolated **very heavy rainfall** likely over Kerala & Mahe on 07th & 08th June, 2024.
 - ✓ Isolated **heavy to very heavy rainfall** very likely over Konkan & Goa, Madhya Maharashtra, Coastal & North Interior Karnataka during 07th-11th June. **Isolated extremely heavy falls also very likely over Konkan & Goa and Madhya Maharashtra on 10th & 11th June.**
- ❖ A cyclonic circulation lies over northwest Madhya Pradesh and another over Bihar in lower tropospheric levels. Under their influence:
 - ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Bihar, Jharkhand, Gangetic West Bengal, Odisha, Madhya Pradesh, Vidarbha, Chhattisgarh during next 4-5 days.
 - ✓ Rainfall activity is likely to increase over Bihar, Jharkhand, Odisha, Gangetic West Bengal from 12th June, 2024.
 - ✓ Isolated **hailstorm and squally winds (50-60 kmph)** very likely over West Madhya Pradesh during 07th-09th and East Madhya Pradesh on 07th June, 2024.
- ❖ A Western Disturbance seen as a trough in middle tropospheric westerlies roughly along Long. 68°E to the north of Lat. 30°N. Prevailing southwesterly winds from Arabian Sea over the plains of Northwest India are likely to continue during next 2 days. Under their influence:
 - ✓ Isolated to scattered light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during 07th-09th June, 2024.
 - ✓ Isolated to scattered very light to light rainfall with **thunderstorm, lightning & gusty winds (40-50 kmph)** very likely over Punjab, Haryana-Chandigarh-Delhi and Rajasthan on 07th & 08th and west Uttar Pradesh on 07th June, 2024.
 - ✓ **Duststorm and thundersquall** very likely over West Rajasthan on 07th & 08th; Punjab, Haryana-Chandigarh-Delhi and East Rajasthan on 07th June, 2024.

- ✓ Isolated **hailstorm** very likely over West Rajasthan on 07th June, 2024.

Maximum temperature observation and forecast for next 5 days:

- ❖ Rise in maximum temperatures by 2-3°C very likely over East India during next 2 days and no significant change thereafter.
- ❖ No significant change in maximum temperatures very likely over Northwest India during next 2 days and rise by 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

Heat Wave, Warm Night and Hot & Humid weather warning for next 5 days:

- ❖ **Heat wave conditions** very likely in isolated pockets of northeast Madhya Pradesh, Jharkhand during 08th-11th; Bihar on 09th & 10th; Odisha, Punjab, Haryana during 09th-11th June, 2024.
- ❖ **Heat wave conditions** very likely in isolated pockets of Uttar Pradesh on 07th and **heat wave to severe heat wave conditions** in some parts over the region during 08th-11th June, 2024.
- ❖ **Hot and humid weather** very likely to prevail over isolated pockets of Bihar, Gangetic West Bengal on 07th & 08th; Odisha, Jharkhand on 07th June, 2024.

For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

Realised Rainfall during past 24 hours till 0830 hours IST of today:

- ❖ Light to moderate rainfall accompanied with thunderstorm & lightning observed **at most places** over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, South Interior Karnataka, Rayalaseema; **at many places** over Sub-Himalayan West Bengal & Sikkim, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Vidarbha, Telangana, Coastal Karnataka, North Interior Karnataka; **at a few places** over Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Madhya Maharashtra, Marathwada and **at isolated places** over Himachal Pradesh, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Rajasthan, Madhya Pradesh, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Bihar, Jharkhand, Gangetic West Bengal and Odisha.

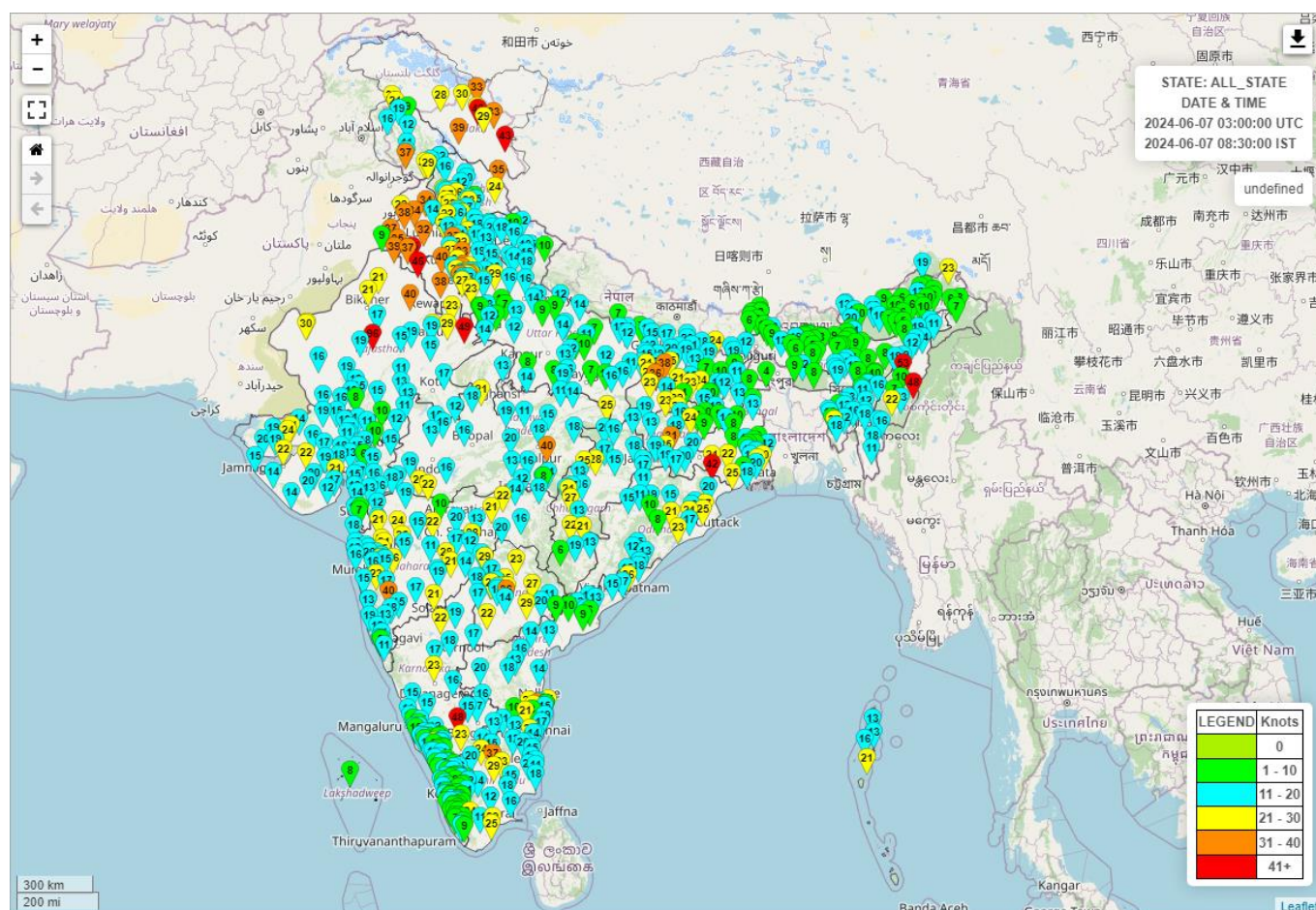
Significant amount of rainfall (in cm):

- ❖ **Madhya Maharashtra:** Pandharpur (dist Sholapur) 13, Daund (dist Pune) 7, Sangamner (dist Ahmednagar) 6
- ❖ **Kerala & Mahe:** Pookot (Wayanad district) 14, Irinjalakuda (Thrissur district) 12, Irikkur (Kannur district) & Peechi AWS (Thrissur district) 9 each, Vellanikkara (Thrissur district) 8, AMS KANNUR (Kannur district) & Padinjarathara Dam AWS (Wayanad district) 7 each;
- ❖ **Tamil Nadu, Puducherry & Karaikal:** Arakonam (dist Ranipet) 11, Kottaram (dist Kanniyakumari), Thiruvallangadu (dist Tiruvallur), Taluk Office Pandalur (dist The Nilgiris) 10 each, Madathukulam (dist Tiruppur), Kurunthancode (dist Kanniyakumari), Walajabad (dist Kancheepuram), Tondi (dist Ramanathapuram) 9 each, Vembakkam (dist Tiruvannamalai), Modakkurichi (dist Erode), Cuddalore (dist Cuddalore), Nagercoil (dist Kanniyakumari) 8 each, Mylaudy (dist Kanniyakumari), Nagercoil ARG (dist Kanniyakumari), Vanamadevi (dist Cuddalore), Vedaranyam (dist Nagapattinam), Vaniyambadi (dist Tirupathur), Aruppukottai KVK AWS (dist Virudhunagar), Kovilankulam (dist Virudhunagar), Tiruvallur (dist Tiruvallur), Namakkal (dist Namakkal), Tiruvadanai (dist Ramanathapuram), Namakkal AWS (dist Namakkal), Peraiyur (dist Madurai), Chinnakalar (dist Coimbatore), Colachel (dist Kanniyakumari), Sendamangalam (dist Namakkal), Ranipet AWS (dist Ranipet) 7 each,
- ❖ **Konkan & Goa:** Chiplun (dist Ratnagiri) 10, Sangameshwar Devrukh (dist Ratnagiri) 7, Pernem (dist North Goa) 7, Vaibhavwadi (dist Sindhudurg) 6, Valpoi (dist North Goa) 6,
- ❖ **South Interior Karnataka:** H D Kote (dist Mysuru) 10, Shivamogga Pto (dist Shivamogga) 9, Agumbe Emo (dist Shivamogga) 9, Chintamani Pto (dist Chikaballapura) 8, Nayakanahatty (dist Chitradurga) 8, Honnali (dist Davangere) 7,
- ❖ **North Interior Karnataka:** Gokak (dist Belagavi) 9, Bailhongal (dist Belagavi) 9, Badami (dist Bagalkote) 9, Yedwad (dist Belagavi) 8, Vijayapura Pto (dist Vijayapura) 7, Yelburga (dist Koppal) 7, Nargund (dist Gadag) 7, Hunsagi (dist Yadgir) 7,
- ❖ **Rayalaseema:** Gummagatta (dist Anantapuramu) 9, Palasamudram (dist Chittoor) 7, Tanakal (dist Sri Sathyasai District) 7, Royachoti (dist Annamayya District) 7, Palamaner (dist Chittoor) 7, Bathalapalle (dist Sri Sathyasai District) 7,
- ❖ **Coastal Karnataka:** Manki (dist Uttara Kannada) 8, Siddapura (dist Udupi) 6, Gokarna (dist Uttara Kannada) 4,
- ❖ **Telangana:** Palakurthi (dist Jangaon) 7, Mahabubabad (dist Mahabubabad) 6,
- ❖ **Tripura:** Udaipur (dist Gomati) 7, Lembuchhera (dist West Tripura) 7, Chhamonu (dist Dhalai) 7,
- ❖ **Vidarbha:** Joiti (dist Chandrapur) 7, Sironcha (dist Gadchiroli) 4, Digras (dist Yeotmal) 2,

Reported maximum wind speed (kmph) during past 24 hours till 0830 hours IST of today:

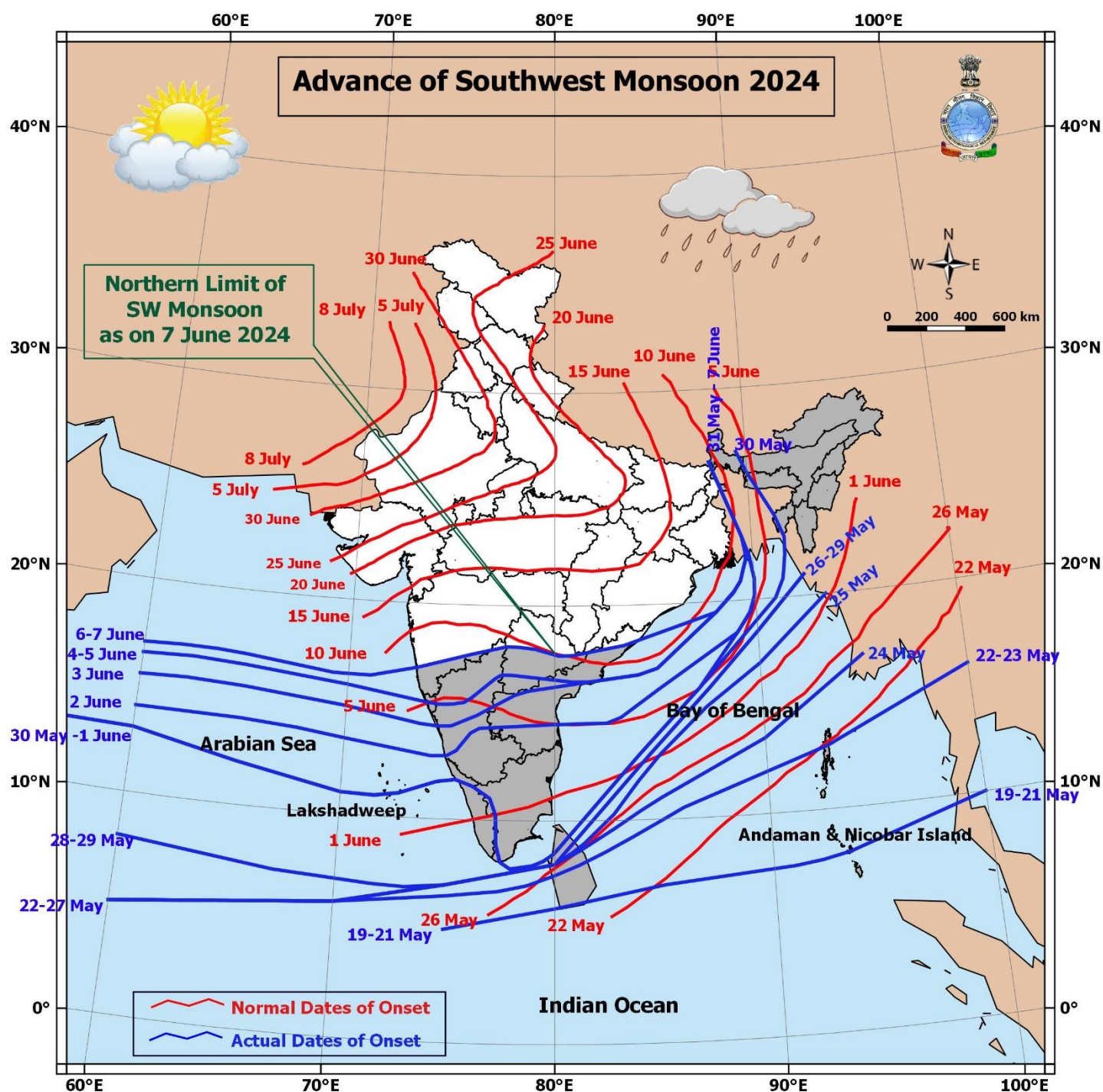
- ❖ **Manipur:** Senapati-98, Kamjong-89
- ❖ **Rajasthan:** Karauli-91, Sikar-74, Jaisalmer-55, Dausa-54, Jaipur-52
- ❖ **South Interior Karnataka:** Mandya-89, Chamaraajanagar-42
- ❖ **Haryana:** Sirsa-83, Jind-74, Mahendragarh-70, Kaithal-68, Sonipat-64, Panipat-61, Mewat-61
- ❖ **Odisha:** Mayurbhanj-77, Kendrapara-50, Jagatsinghpur-46, Puri-42
- ❖ **Madhya Maharashtra:** Satara-74, Pune-48
- ❖ **East Madhya Pradesh:** Mandla-74
- ❖ **Punjab:** Faridkot-70, Fazilka-68, Jalandhar-63, Moga-63, Sahid Bhagat Singh Nagar-55
- ❖ **Bihar:** Patna-70, Arwal-67, Jamui-44, Supaul-44
- ❖ **Jammu & Kashmir:** Jammu-68, Kupwara-55
- ❖ **Tamil Nadu:** Namakkal-68, Tiruvallur-59, Toothukudi-54, Tenkasi-44
- ❖ **Delhi:** Central Delhi-66, South West Delhi-66
- ❖ **Telangana:** Ranga Reddy-66, Nalgonda-53, Nizamabad-53, Mahabubabad-50
- ❖ **Himachal Pradesh:** Lahaul & Spiti-65, Una-48
- ❖ **Jharkhand:** Khunti-57, Bokaro-44, Chatra-42, Hazaribagh-40
- ❖ **Gangetic West Bengal:** South Twenty Four Parganas-55, Purba Mednipur-46
- ❖ **West Madhya Pradesh:** Jalgaon-46

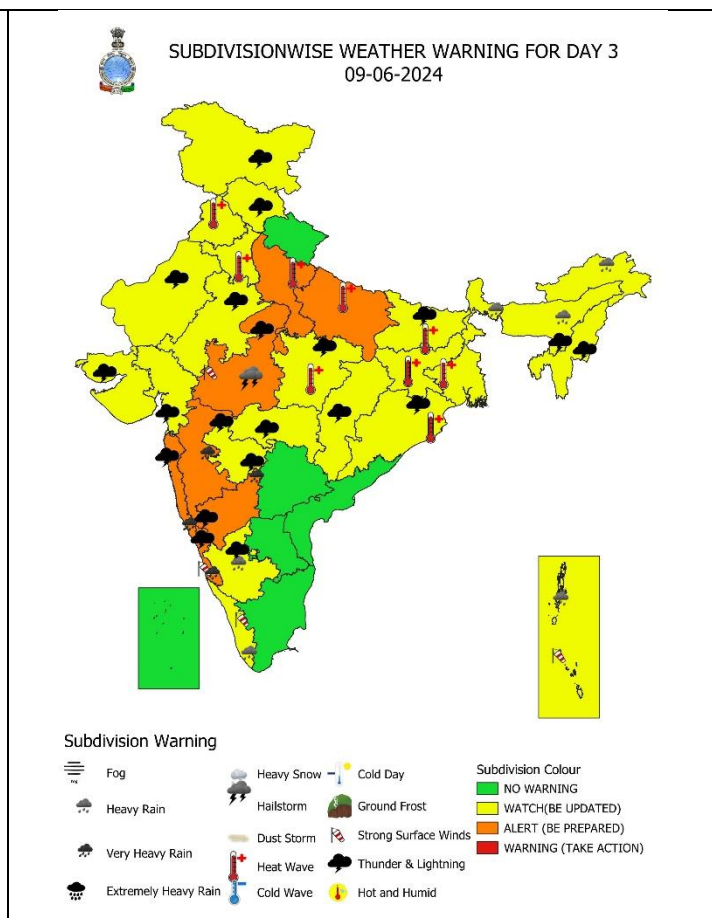
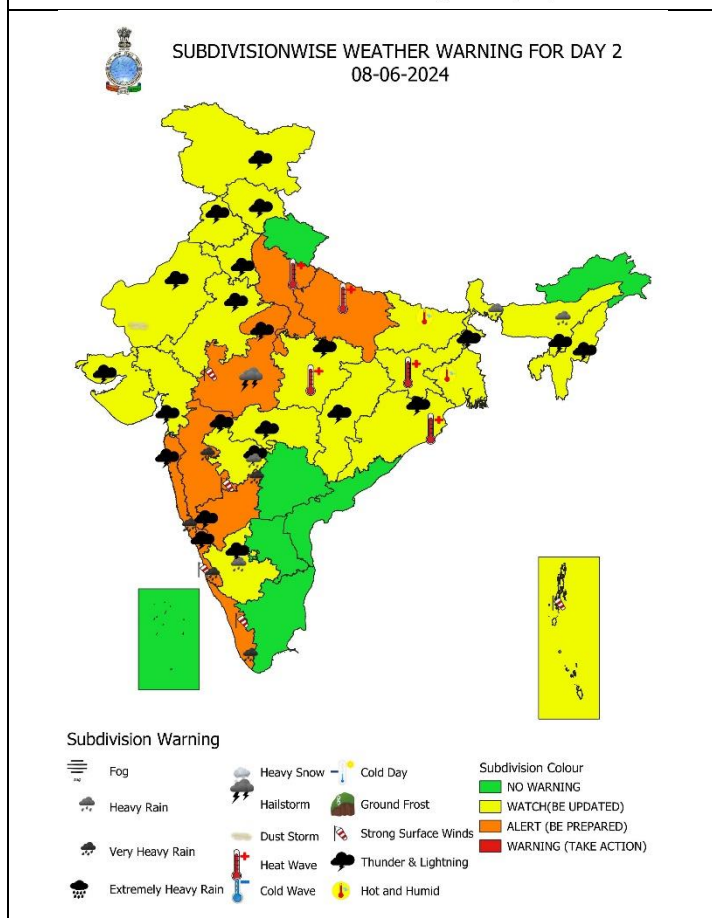
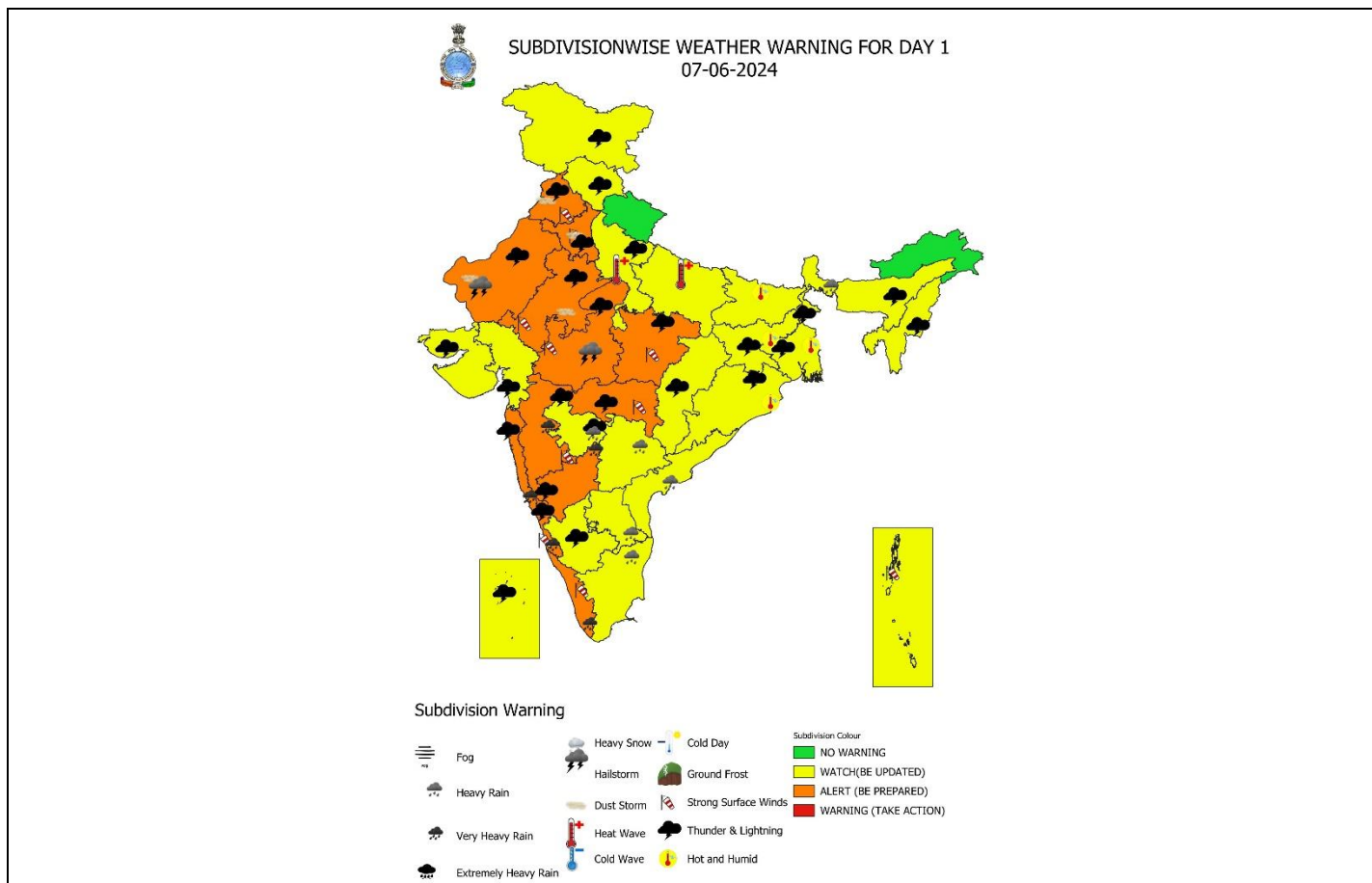
Fig.: Gusty winds reported over the country (in knots, 1 Knot = 1.85 kmph) from 0830 hrs IST of 06.06.2024 to 0830 hrs IST of 07.06.2024

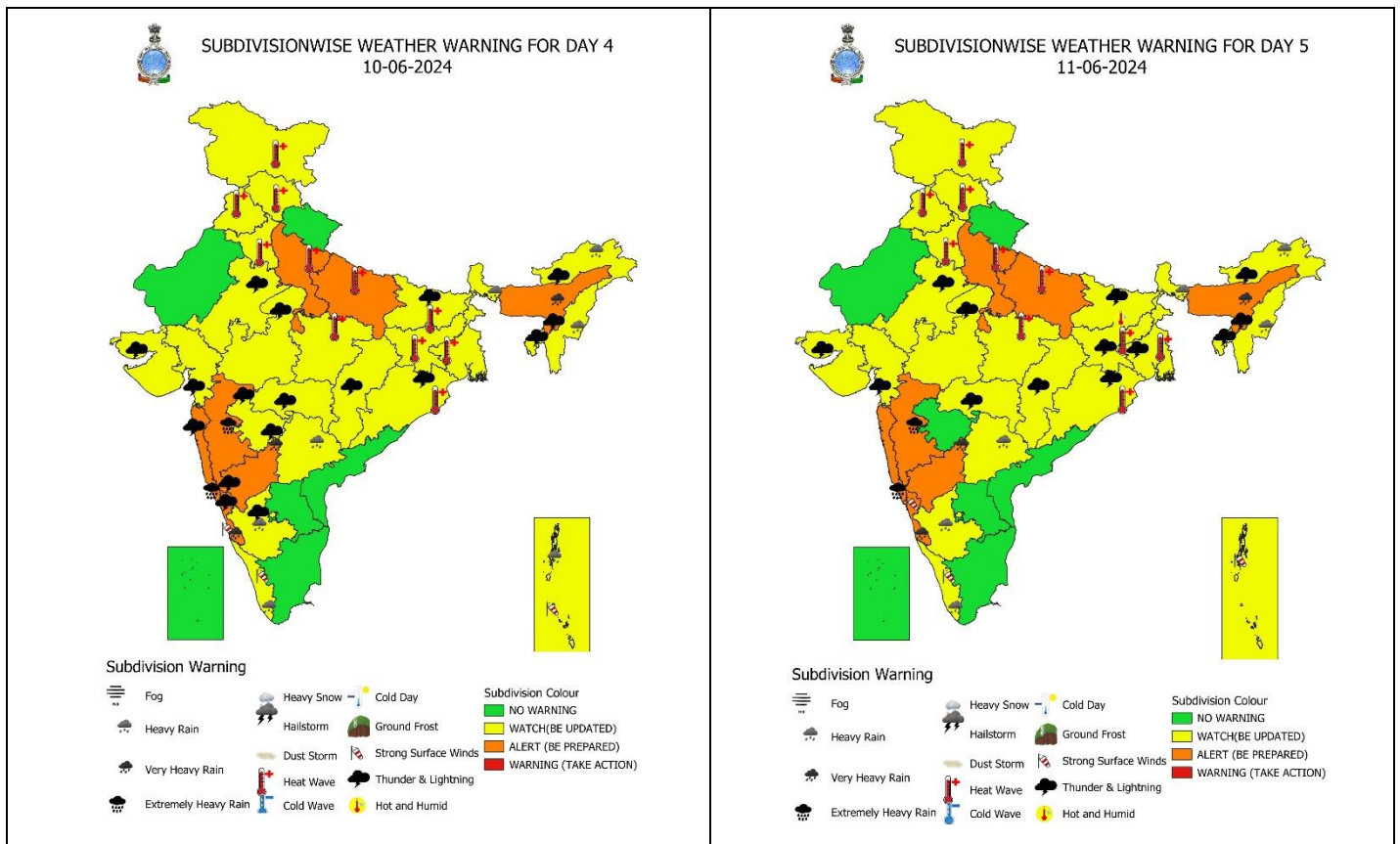


For more details, kindly refer: <http://aws.imd.gov.in:8091/>

Advance of Southwest Monsoon 2024







IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely heavy falls over Konkan & Goa, Madhya Maharashtra, Coastal Karnataka & North Interior Karnataka during 07th-11th June, 2024.

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)

A. 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 & ACTION SUGGESTED due to Heat Wave Conditions:

Orange alert Areas:

- High temperature & increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.
- High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure– keep cool. Avoid dehydration.
- Drink sufficient water- even if not thirsty.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Yellow alert Areas:

- Moderate temperature & heat is tolerable for general public but moderate health concern likely for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure.
- Wear lightweight, light colour, loose, cotton clothes.
- Cover your head, use a cloth, hat or umbrella.

Impact expected and action suggested due to thunderstorms, lightning/squall/gusty winds/Hailstorm over West Madhya Pradesh during 07th-09th; Punjab, Rajasthan, Haryana-Chandigarh-Delhi, East Madhya Pradesh on 07th June, 2024.

Impact expected:

- Strong wind/hail may damage plantation, horticulture and standing crops.
- Hail may injure people and cattle at open places.
- Partial damage to vulnerable structures due to strong winds.
- Minor damage to kutcha houses/walls and huts.
- Loose objects may fly.

Action suggested:

- 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 Heavy Rainfall, Gusty winds, Hail Storms and Heat Wave likely over various parts of the country:

- Drain out excess water from crop fields to avoid water stagnation in Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Telangana, Maharashtra and Sub Himalayan West Bengal.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Uttar Pradesh, Odisha, Jharkhand and East Madhya Pradesh.
- Use hail nets or hail caps in fruit orchards to prevent mechanical damage and provide mechanical support to horticultural crops & staking to vegetables in West Rajasthan and West Madhya Pradesh.
- Provide mechanical support to horticultural crops & staking to vegetables to prevent damage from gusty winds.

Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office.
- ❖ **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.

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



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

LEGENDS

WARNING

| |
|-------------------------|
| WARNING (TAKE ACTION) |
| ALERT (BE PREPARED) |
| WATCH (BE UPDATED) |
| NO WARNING (NO ACTION) |

Probabilistic Forecast

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



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 *



Heat Wave

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°C to 6.4°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°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°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°C to -6.4°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°C to -6.4°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)