



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release

Date: 31st May, 2023

Time of Issue: 1300 hours IST

Subject: i) Rainfall along with thunderstorm activity likely to continue over Northwest India during next 2 days and decrease thereafter.
ii) Heat wave conditions likely over Bihar and West Bengal during next 3-4 days.

Weather observed during past 24 hours ending at 0830 hrs IST of today: ([Annexure I](#))

Advance of southwest monsoon:

- ❖ The Northern Limit of Southwest Monsoon continues to pass through 5°N/80°E, 6.5°N/83°E, 10°N/88°E, 14°N/92°E & 17°N/95°E ([Annexure II](#)).
- ❖ Conditions are favourable for further advance of Southwest Monsoon into some parts of Maldives & Comorin area, some more parts of Southwest Bay of Bengal, remaining parts of Southeast Bay of Bengal, some more parts of Central Bay of Bengal and some parts of Northeast Bay of Bengal during next 2-3 days.

Significant Meteorological features:

- ❖ The Western Disturbance as a cyclonic circulation in middle & upper tropospheric level lies over north Pakistan and an induced cyclonic circulation lies over Punjab at lower tropospheric levels.
- ❖ A fresh Western Disturbance lies over northeast Afghanistan in middle tropospheric level and likely to merge with above Western Disturbance by tomorrow, the 1st June.
- ❖ In addition, there is high moisture feed from Arabian Sea to Northwest India in middle tropospheric levels.
- ❖ A trough runs from coastal Andhra Pradesh to Gulf of Mannar in lower tropospheric levels.

Forecast and warning over the country during next 5 days:

Northwest India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm, lightning & occasional gusty winds/squall (40-50 gusting to 60 kmph) very likely over Northwest India till 01st June and reduce thereafter.
- ❖ **Hailstorm** very likely at isolated places over Himachal Pradesh on 31st May and Uttarakhand during 31st May & 01st June. **Thundersquall/Gusty Wind speed 60-70 kmph** very likely at isolated places over Uttarakhand on 31st May–02nd June.
- ❖ **Heavy rainfall** very likely at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand today, on 31st May.

South India:

- ❖ Light/moderate fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over Kerala, Lakshadweep, South Interior Karnataka and isolated to scattered rainfall over Tamil Nadu and Andhra Pradesh during next 5 days.
- ❖ **Heavy rainfall** very likely at isolated places over Tamil Nadu and South Interior Karnataka on 31st May & 01st June and over Kerala during 31st May-04th June.

No significant weather is likely over rest parts of the country during next 5 days.

Observed Maximum Temperatures and Heat Wave conditions:

- ❖ Yesterday, Maximum Temperatures were in the range of 40-42°C over many parts of Vidarbha, Marathawada, East India and below 40°C over rest parts of the country.
- ❖ Maximum Temperatures were below normal by 4-8°C over many parts of Western Himalayan Region, Rajasthan, Punjab, Haryana, Chandigarh & Delhi; by 2-4°C over Madhya Pradesh, West Uttar Pradesh, Coastal Andhra Pradesh and Telangana. Maximum Temperatures were above normal by 2-4°C over most parts of East India; by 4-6°C over Northeast India and near normal over rest parts of the country.

Maximum Temperature Forecast and Heat Wave Warnings (Graphics in Annexure III):

- ❖ No significant change in maximum temperature very likely over Northwest India during next 2 days and gradual rise by 3-5°C thereafter. Rise by 2-4°C in maximum temperatures very likely over Central & Maharashtra during next 3 days. Rise by about 2°C in maximum temperatures very likely over East India during next 2 days. No significant change in maximum temperature very likely over rest parts of the country during next 5 days.
- ❖ **Heat wave conditions** very likely in isolated pockets over Bihar during 31st May-04th June; Gangetic West Bengal on 01st & 02nd June and Sub-Himalayan West Bengal on 31st May & 01st June.
- ❖ Due to humid air & high temperature, **Hot and Discomfort weather** is very likely over Konkan & Goa and Gujarat on 31st May & 01st June.
- ❖ Maximum temperatures are likely to be above normal by 4-6°C over Northeast India during next 2 days.

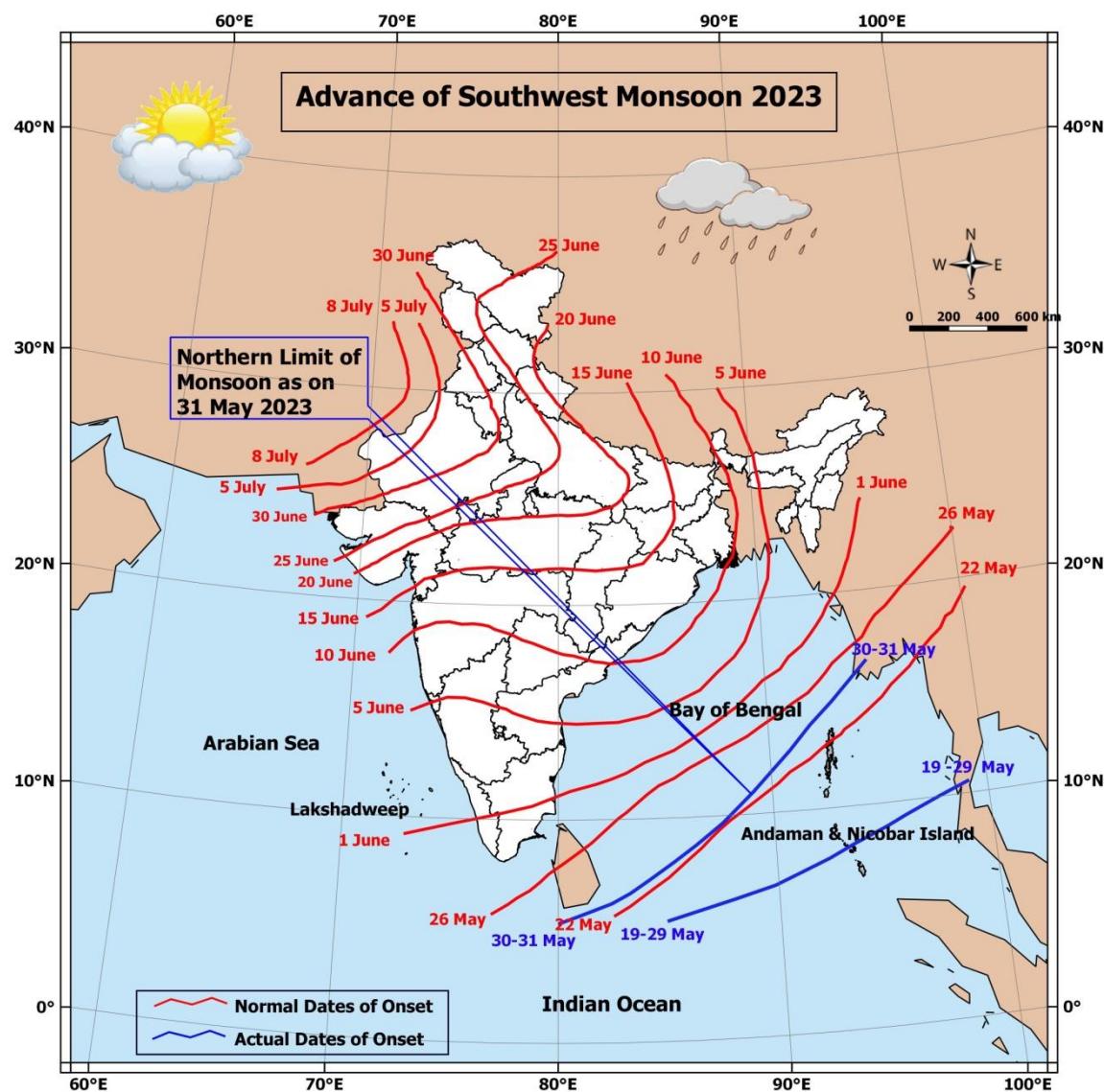
For more details kindly refer:

https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

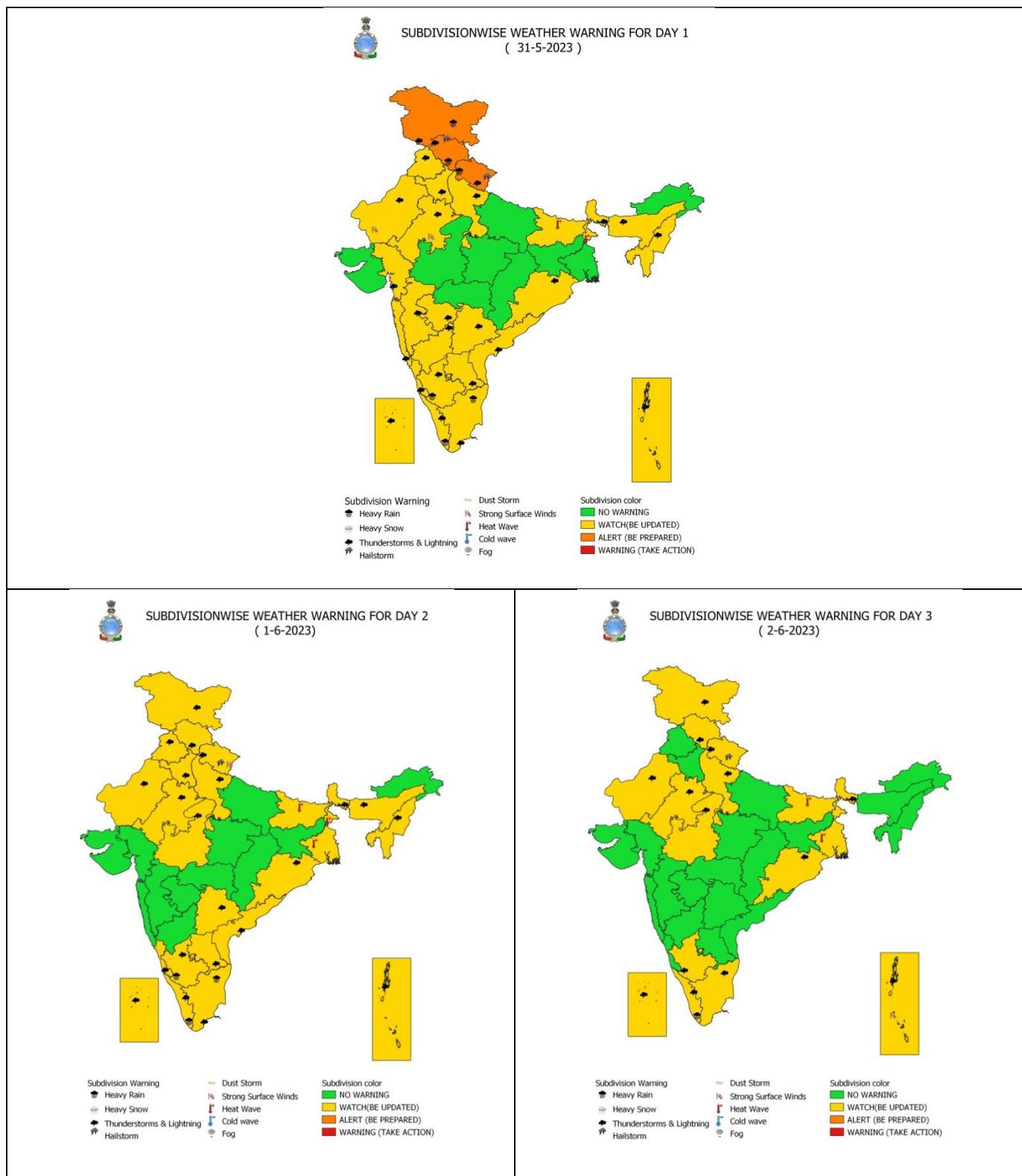
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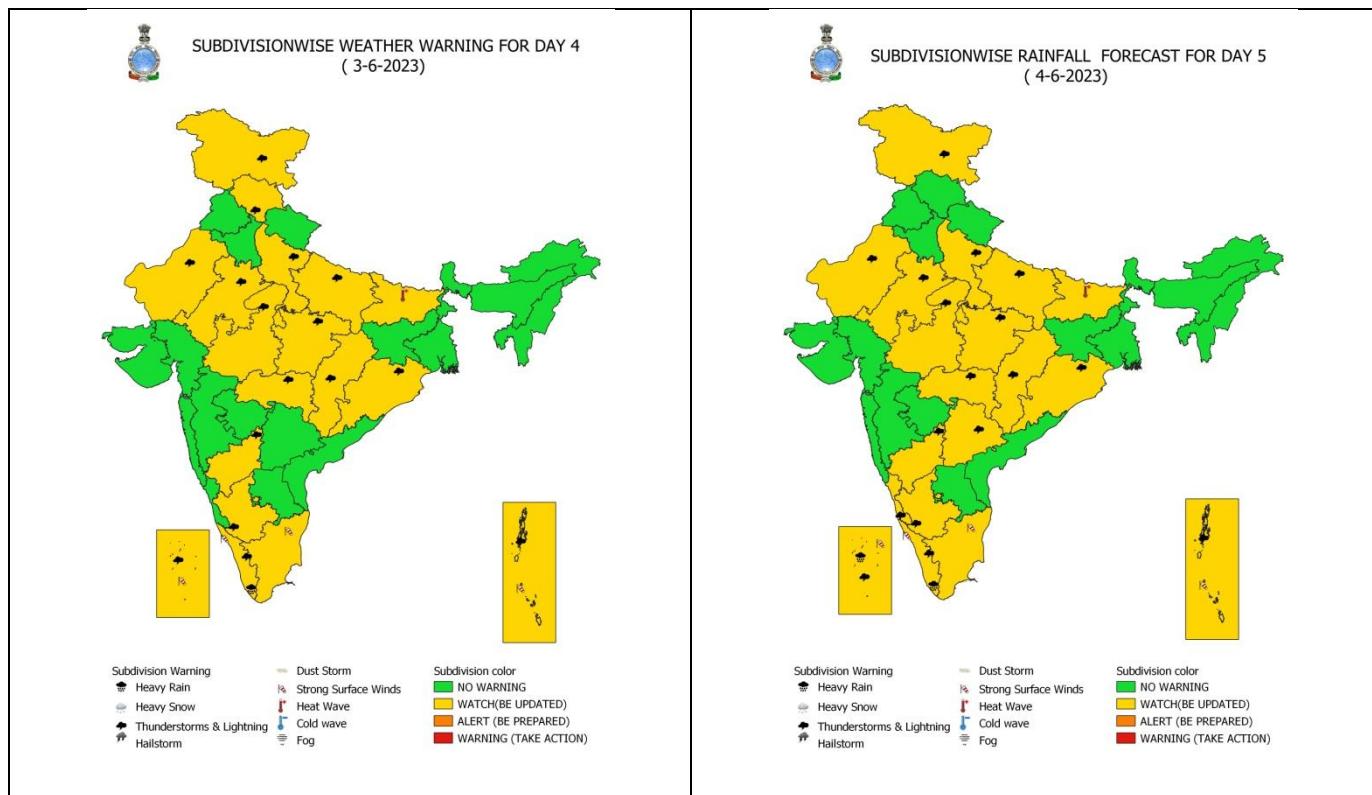
Weather Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- **Rainfall/thundershowers** observed **at most places** over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh; **at many places** over Andaman & Nicobar Islands, Punjab, Haryana, Chandigarh & Delhi, West Rajasthan, Lakshadweep, Coastal Andhra Pradesh; **at a few places** over Uttarakhand, East Rajasthan, West Madhya Pradesh, Kerala, Tamilnadu, Puducherry & Karaikal, Rayalaseema, South Interior Karnataka and **at isolated places** over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat state, Uttar Pradesh, East Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Marathawada, Konkan & Goa, Madhya Maharashtra, Marathawada, Coastal & North Interior Karnataka and Telangana.
- **Heavy Rainfall observed** at isolated places over West Rajasthan, Tamil Nadu, Kerala, Coastal Andhra Pradesh and South Interior Karnataka.
- **Significant rainfall recorded (in cm):** **Tamil Nadu:** Vepur (dist Cuddalore) 9, Kattumayilur (dist Cuddalore) 8, Kil Kotagiri Estate (dist Nilgiris), Pechiparai (dist Kanyakumari) 7 each, **Kerala:** Venkurinji AWS (Pathanamthitta district) 7, **South Interior Karnataka:** Bengaluru City Obsy (dist Bengaluru Urban) 7, **Coastal Andhra Pradesh:** Palakoderu (dist West Godavari) 7, Rapur (dist Spsr Nellore) 6, Gudivada (dist Krishna) 5, Darsi (dist Prakasam) 5, **Rayalaseema:** Amadagur (dist Sri Sathyasai District) 6, Gudur (dist Tirupati) 6, Palamaner (dist Chittoor) 4, Venkatagiri (dist Tirupati) 4, **West Rajasthan:** Sri Ganganagar-7, Hanumangarh-4; **Himachal Pradesh:** Sirmaur-6, Bilaspur-5, **Uttarakhand:** Uttar Kashi-5, **Jammu:** Udhampur(iaf) (dist Udhampur) 4, Batote (dist Ramban) 3, Kathua (dist Kathua) 3, Kathua_kv (dist Kathua) 3, **Haryana:** Hissar (dist Hisar) 4, Faridabad (dist Faridabad) 4, **Punjab:** Kapurthala (dist Kapurthala) 4, Phagwara (dist Kapurthala) 4, **West Madhya Pradesh:** Bhind-aws (dist Bhind) 4, **Andaman & Nicobar Islands:** Nancowry-2, **Konkan & Goa:** Vaibhavwadi (dist Sindhudurg) 4, **Madhya Maharashtra:** Chandgad (dist Kolhapur) 4, Bhor (dist Pune) 3, **Odisha:** Tihidi (dist Bhadrak) 5, Komna (dist Nawapara) 4, Khariar (dist Nawapara) 4,
- **Hailstorm observed** at isolated places over Uttarakhand, West Rajasthan, West Madhya Pradesh and Madhya Maharashtra.
- **Thundersquall** speed reaching 60-70 kmph reported at isolated places over South Interior Karnataka.



Annexure III





Impact expected and action suggested due to thunderstorm/thunder squall with lightning/gusty winds & Hailstorm over

31st May: Jammu, Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand

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 rainfall, thunderstorms/gusty winds and heat wave likely over various parts of the country

- Make necessary arrangements for draining out excess water from crop fields to avoid water stagnation in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Tamil Nadu, Kerala and South Interior Karnataka.
- Use hail nets to protect orchards in Himachal Pradesh, Uttarakhand and Rajasthan.
- Provide mechanical support to horticultural crops and staking to vegetables.
- Apply light and frequent irrigation to standing crops in West Bengal and Bihar.

Legends:

- ❖ **Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **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-Himalaya 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 Marathwada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamilnadu, 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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Subdivision Warning	Dust Storm	Subdivision color
Heavy Rain	Strong Surface Winds	NO WARNING
Heavy Snow	Heat Wave	WATCH(BE UPDATED)
Thunderstorms & Lightning	Cold wave	ALERT (BE PREPARED)
Hailstorm	Fog	WARNING (TAKE ACTION)

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