



**Government of India  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release  
Date: 13<sup>th</sup> July, 2023**

**Time of Issue: 1345 hours IST**

**Subject: i) Very heavy to extremely heavy rainfall activity likely to continue over north Bihar today, over Uttar Pradesh, West Madhya Pradesh, Northeast India & Sikkim till 14 July and Uttarakhand during next 5 days and decrease thereafter.**

**ii) Very heavy rainfall activity likely over coastal Karnataka and Goa today and decrease thereafter.**

**Weather observed during past 24 hours ending at 0830 hours IST of today (Annexure I):**

**Significant Weather features, Forecast and Warning during next 5 days: (Annexure II)**

- ❖ The western end of the monsoon trough at mean sea level lies south of its normal position and eastern end lies north of its normal position.
- ❖ A fresh Western Disturbance as a cyclonic circulation in middle & upper tropospheric level lies over North Pakistan & neighbourhood.
- ❖ A cyclonic circulation lies over Westcentral & adjoining Southwest Bay of Bengal in middle tropospheric levels.
- ❖ A cyclonic circulation lies over central parts of south Uttar Pradesh & neighbourhood in lower tropospheric levels and a trough extends from this cyclonic circulation to south Gujarat in lower tropospheric levels.
- ❖ The offshore trough at mean sea level lies off south Maharashtra coast to Kerala coast.
- ❖ A cyclonic circulation is likely to form over Northwest Bay of Bengal around 16<sup>th</sup> July, 2023.

**Weather Forecast and Warning:**

**Northwest India:** Fairly widespread to widespread rainfall with **isolated heavy to very heavy rainfall** is very likely to continue over Uttar Pradesh during next 2 days and isolated heavy rainfall thereafter. **Isolated heavy rainfall also very likely** over Himachal Pradesh during next 5 days; north Haryana during next 3 days; East Rajasthan on 14<sup>th</sup> & 17<sup>th</sup> July.

**Isolated very heavy to extremely heavy rainfall very likely over Uttarakhand during next 5 days.**

**East & adjoining Northeast India:** Fairly widespread to widespread rainfall with isolated **heavy to very heavy rainfall** very likely over Assam, Arunachal Pradesh and Bihar during next 2 days and reduction thereafter. Isolated **heavy rainfall** very likely over Odisha during next 5 days; Nagaland and Manipur during next 4 days and Gangetic West Bengal on 15<sup>th</sup> July.

**Isolated very heavy to extremely heavy rainfall very likely over Sub-Himalayan West Bengal & Sikkim and Meghalaya during 13<sup>th</sup> -14<sup>th</sup> July and reduction thereafter.**

**Central India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** is very likely over Madhya Pradesh during next 2 days; subdued during 15<sup>th</sup> to 16<sup>th</sup> and increase thereafter from 17<sup>th</sup> July.

**Isolated heavy to very heavy rainfall** likely over West Madhya Pradesh today and reduction thereafter.

**West India:** Light/moderate widespread rainfall with **isolated heavy rainfall** very likely to continue over Konkan & Goa, Ghat areas of Madhya Maharashtra during next 5 days; over Gujarat state during next 2 days. **Isolated very heavy rainfall** also very likely over Goa today.

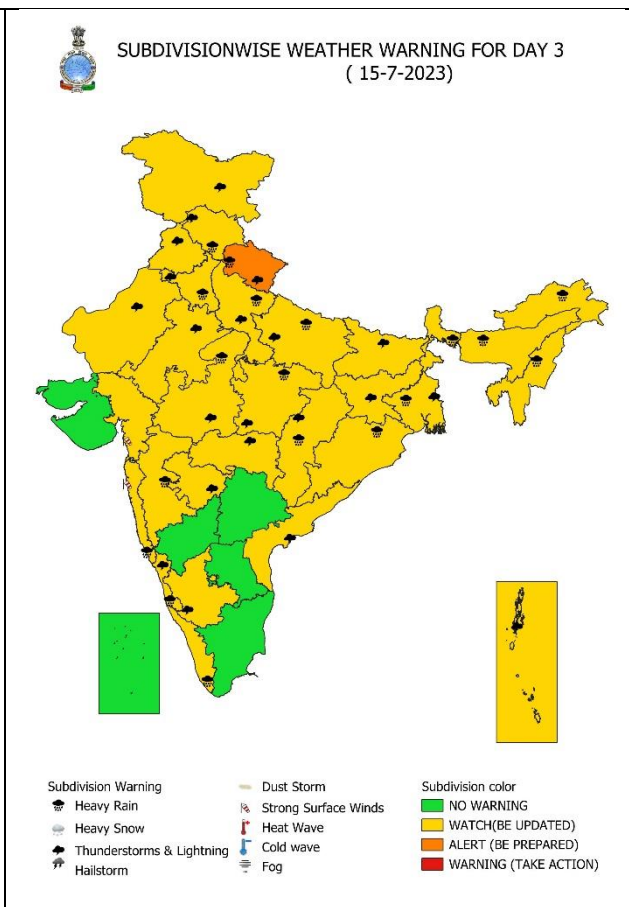
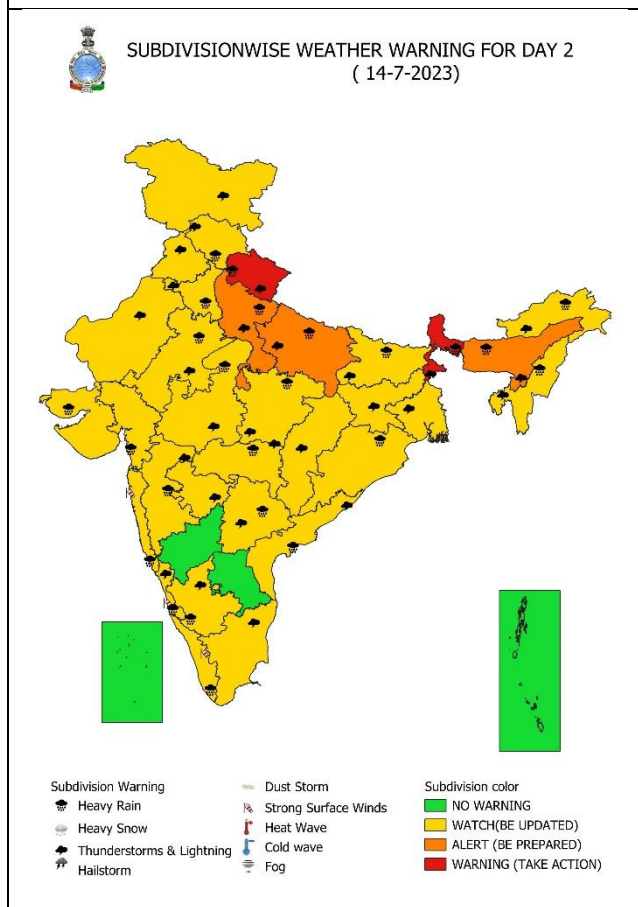
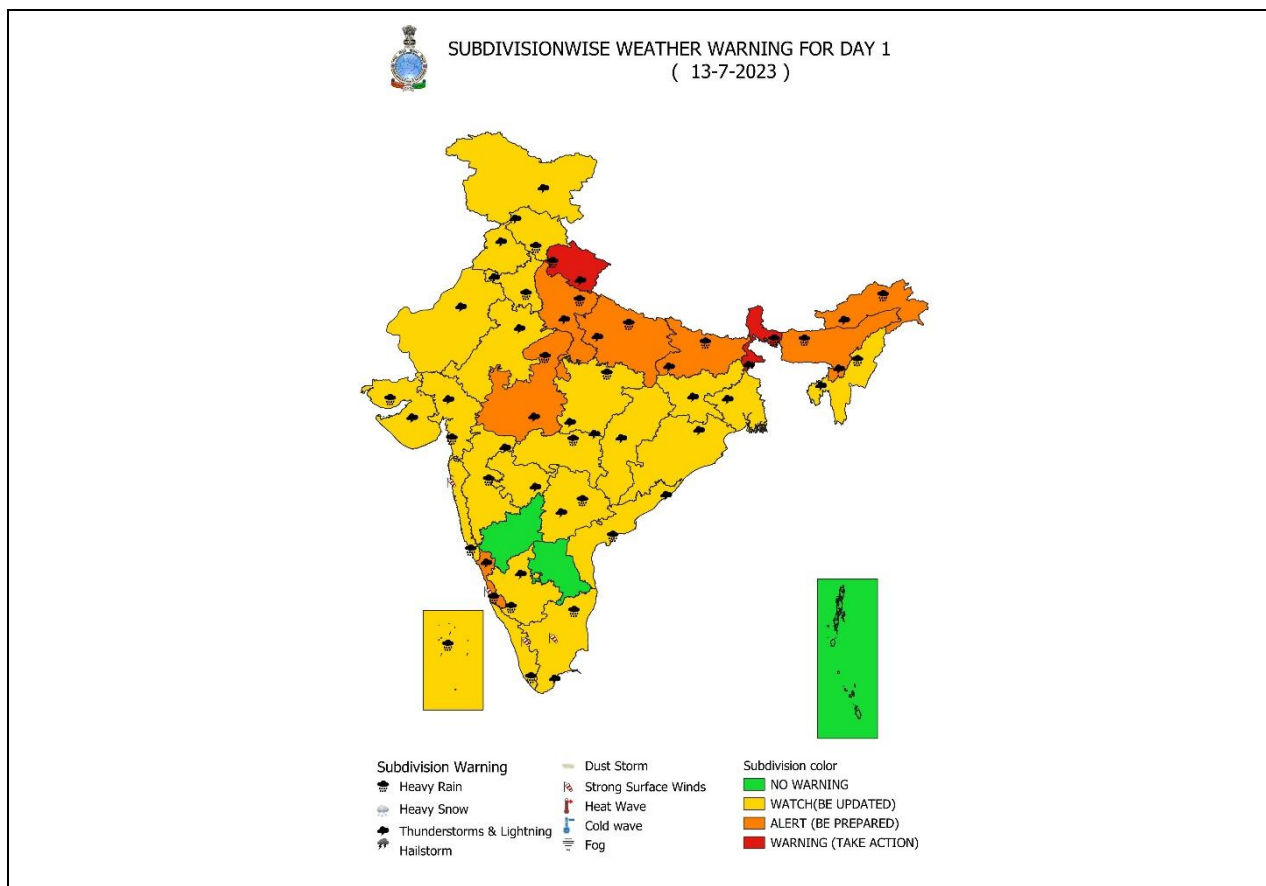
**South India:** Light/moderate fairly widespread to widespread rainfall with **isolated heavy rainfall** very likely to over Coastal Karnataka, South Interior Karnataka and Kerala during next 3 days; Tamil Nadu, Coastal Andhra Pradesh, Telangana during next 2 days.

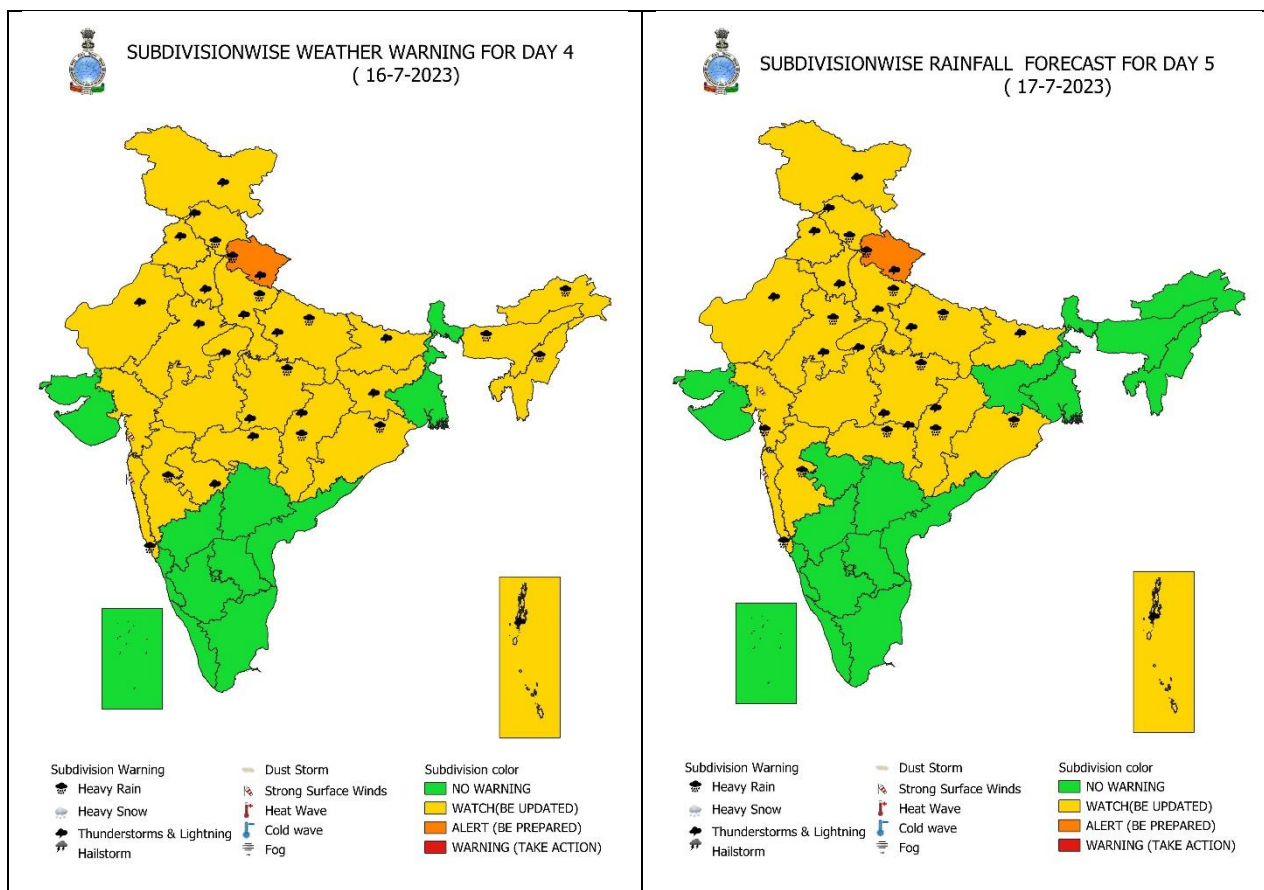
**Isolated very heavy rainfall** also very likely over coastal Karnataka today and reduction thereafter.

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

**Rainfall Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today, the 13<sup>th</sup> July 2023):**

- **Heavy Rainfall observed: Extremely heavy rainfall** at isolated places over Uttarakhand, Meghalaya, Sub-Himalaya West Bengal & Sikkim, West Uttar Pradesh, West Madhya Pradesh, north coastal Tamil Nadu; **Heavy to Very heavy rainfall** at isolated places over Uttarakhand, East Uttar Pradesh, north Haryana, Gujarat State, Odisha, Bihar, Coastal Karnataka and **Heavy rainfall** at isolated places over Himachal Pradesh, East Rajasthan, Vidarbha, Arunachal Pradesh, South Interior Karnataka, Telangana and Coastal Andhra Pradesh.
- **Significant rainfall recorded (in cm):**
  - **Meghalaya:** Mawsynram (dist East Khasi Hills) 54, Cherrapunji(rkm) (dist East Khasi Hills) 24, Mawkyrwat (dist South West Khasi Hills) 21, Cherrapunji (dist East Khasi Hills) 20, Mawkyrwat\_arg (dist South West Khasi Hills) 13
  - **Sub-Himalaya West Bengal & Sikkim:** Jalpaiguri-29, north Sikkim-25, Darzeeling-15,
  - **Uttarakhand: Haridwar:** Laksar-22, Roorkee(CWC)-19, Roshnabaad-17, Bhagwanpur-10; Tehri: Narendernagar-11, Koteshwar(CWC)-7, Pauri: Srinagar(CWC), Kotdwar-7 each; Rudraprayag-10,
  - **Tamil Nadu:** BASL Manampoondi (dist Villupuram) 27, RSCL-2 Soorapattu (dist Villupuram) 21, BASL Mugaiyur (dist Villupuram) 20, RSCL-2 Kedar (dist Villupuram) 15, Vellore (dist Vellore) 9, RSCL-2 Mundiampakkam (dist Villupuram) 8, BASL Manalurpet (dist Kallakurichi) 7,
  - **West Uttar Pradesh:** Sambhal (dist Sambhal) 21, Bijnor (dist Bijnor) 15, Saharanpur (dist Saharanpur) 13, Jansath (dist Muzaffarnagar) 13, Meerut Teh (dist Meerut) 11,
  - **East Uttar Pradesh:** Safipur (dist Unnao) 12, Hasanganj (dist Unnao) 9, Mehdawal (dist Sant Kabir Nagar) 7, Malihabad (dist Lucknow) 7,
  - **West Madhya Pradesh:** Bhimpur (dist Betul) 21, Nasrullahganj (dist Sehore) 13, Kalapipal (dist Shajapur) 13, Khirkiya-arg (dist Harda) 12, Shajapur (dist Shajapur) 10,
  - **Bihar:** Kishanganj: Galgalia-12, Thakurganj-8, Supaul: Birpur-12, West Champaran: Ramnagar-11
  - **Haryana:** Tajewala (dist Yamuna Nagar) 12, Sadhaura (dist Yamuna Nagar) 10, Bilaspur (dist Yamuna Nagar) 7, Naraingarh (dist Ambala) 7, Jagadhari (dist Yamuna Nagar) 7,
  - **East Rajasthan:** Deeg Sr (dist Bharatpur) 9, Pahari Sr (dist Bharatpur) 7,
  - **Saurashtra & Kutch:** Amreli (dist Amreli) 15, Amreli\_kvK Aws (dist Amreli) 13,
  - **Odisha :** Kaptipada (dist Mayurbhanj) 12, Hatadihi (dist Keonjhar) 6,
  - **Gujarat Region:** Chikhli (dist Navsari) 12, Gandevi (dist Navsari) 8, Khergam (dist Navsari) 7, Navsari (dist Navsari) 7, Umerpada (dist Surat) 7,
  - **Coastal Karnataka:** Gersoppa (dist Uttara Kannada) 13, Manki (dist Uttara Kannada) 12, Kadra (dist Uttara Kannada) 10, Kota (dist Udupi) 10,
  - **Coastal Andhra Pradesh:** Seethanagaram (dist Parvathipuram Manyam) 11, Masulipatnam Cdr (dist Krishna) 10, Avanigada (dist Krishna) 8, Repalle (dist Bapatla) 8, Peddapuram (dist Kakinada) 7,
  - **Telangana:** Julurpad (dist B. Kothagudem) 11, Sathupalle (dist Khammam) 11, Aswaraopeta (dist B. Kothagudem) 10,
  - **South Interior Karnataka:** Linganamakki Hms (dist Shivamogga) 8, Thalaguppa (dist Shivamogga) 7, Sringeri Hms (dist Chikkamagaluru) 7,
  - **Vidarbha:** Khamgaon (dist Buldhana) 9, Barshitakli (dist Akola) 8, Warud (dist Amraoti) 7,
  - **Arunachal Pradesh:** Pasighat\_ Aero (dist East Siang) 9, Tezu (dist Lohit) 9, Namsai KvK Aws (dist Lohit) 8,
  - **Himachal Pradesh:** Sirmaur-7
  - **Konkan & Goa:** Wada (dist Palghar) 9, Devgad (dist Sindhudurg) 6,
  - **Madhya Maharashtra:** Yaval (dist Jalgaon) 8, Taloda (dist Nandurbar) 7,





**Agromet advisories for rainfall likely over various parts of the country:**

- ❖ Drain out excess water from crop fields to avoid water stagnation in Himachal Pradesh, Uttarakhand, Haryana, Uttar Pradesh, Sub Himalayan West Bengal & Sikkim, Bihar, Madhya Pradesh, Gujarat state, Konkan & Goa, Tamil Nadu, Kerala, Coastal and South Interior Karnataka, Coastal Andhra Pradesh, Telangana and Arunachal Pradesh, Assam, Mehalaya, Nagaland and Manipur.
- ❖ Postpone transplanting of rice in Meghalaya and Uttarakhand.
- ❖ Postpone sowing of maize, soybean and vegetables in Uttarakhand.
- ❖ Provide staking to vegetables.



**Impact & Action Suggested due to very heavy/extremely heavy rainfall** and likely Flash Flood (for Flash Flood details, refer below)

**13<sup>th</sup> July:** Uttarakhand, Uttar Pradesh, West Madhya Pradesh, Sub-Himalaya West Bengal & Sikkim, Bihar, Arunachal Pradesh and Assam & Meghalaya

**14<sup>th</sup> July:** Uttarakhand, Uttar Pradesh, Sub-Himalaya West Bengal & Sikkim and Assam & Meghalaya

#### A. 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
- ❖ 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).

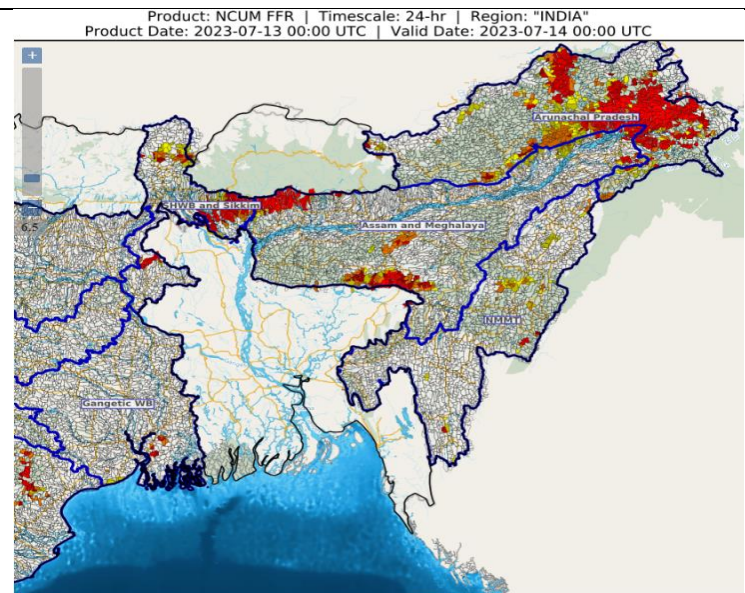
#### B. Action Suggested

- ❖ 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.

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 14-07-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of southern parts of SHWB & Sikkim adjoining Assam & Meghalaya and north eastern parts of Arunachal Pradesh Met Sub-divisions during next 24 hours.

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



**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, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

SPATIAL DISTRIBUTION <span style="color: green;">(% of Stations reporting)</span>			
% 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)

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