



**Government of India  
Earth System Science Organization  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release  
Date: 9<sup>th</sup> June, 2021  
Time of Issue: 1630 hrs IST**

**Subject: Southwest Monsoon advance and intense wet spell over east & adjoining central India and along the west coast during next 6-7 days.**

**Southwest Monsoon 2021:**

- Southwest Monsoon has further advanced into entire central and some parts of north Arabian Sea, entire Konkan including Mumbai and most parts of interior Maharashtra, some parts of south Gujarat region, some more parts of Telangana and Andhra Pradesh, most parts of central Bay of Bengal and some more parts of North Bay of Bengal today, the 9<sup>th</sup> June, 2021.
- The Northern Limit of Monsoon (NLM) passes through lat. 21.5°N/ Long. 65°E, lat. 22.0°N/ Long. 70°E, Bulsar, Malegaon, Nagpur, Bhadrachalam, Tunj, lat. 19°N/ Long. 87.0°E, 22.5°N/89.5°E and 24.0°N/89.5°E and Bagdogra (**Annexure 1**).
- Southwest Monsoon is likely to advance into remaining parts of Arabian Sea and Maharashtra, some more parts of Gujarat and remaining parts of Telangana, Andhra Pradesh, some parts of Madhya Pradesh and East Uttar Pradesh, entire Odisha, West Bengal, Jharkhand, Chhattisgarh and Bihar during next 2-3 days.

**Rainfall recorded (from 0830 hours IST of yesterday to 0830 hours IST of today) (7 cm or more):** Patan (Durg)-14; Nichlaur(Maharajganj),Tuting-13 each; Magarlod(dhamtari), Chanpaia, Hanamkonda-12; Ratnagiri, Chidambaram(Cuddalore), Panvel and Gangtok-11 each ; Mathunagari, Paramaxudi (Ramanathapuram), Kankavli, Shriwardhan, Neora, Long Islands-10 each; Forbesganj, Port Blair, Gyaspur (Vidisha), Tamta (Chindwara), Jintur(Parbhani), Vasai, Hut Bay-9 each; Alipurduar, Goalpara, Knod(Dewas), Sehore(Dewas), Kesli (Sagar), South Binajpur, Sonapur, Colaba, and Multai-8; Harnai, Tadong, North Lakhimpur, Angul, Himdol, Khategaon(Dewas), JuJumura, Murud, Mormugaon and Bhainsdehi(Betul), Pangarh, Konni-7 each.

**Meteorological Conditions and forecast:**

- A cyclonic circulation lies over Eastcentral & adjoining Northeast Bay of Bengal at middle tropospheric levels, under its influence, **a Low Pressure Area** is likely to form over North Bay of Bengal & neighbourhood around 11<sup>th</sup> June, 2021. It is likely to become more marked and move west-northwestwards across north Odisha, Jharkhand and north Chhattisgarh during subsequent 3 days. Under its influence; fairly widespread to widespread rainfall activity with **isolated to scattered heavy to very heavy falls** very likely over most parts of East India & adjoining Central India from 10<sup>th</sup> June onwards. Isolated **extremely heavy falls (≥ 20 cm) also very likely over Odisha on 11<sup>th</sup> & 12<sup>th</sup>; over Chhattisgarh during 11<sup>th</sup>-13<sup>th</sup>; over Vidarbha & Telangana on 12<sup>th</sup> & 13<sup>th</sup>, June 2021.**
- Due to the strengthening of westerly winds along the west coast in association with Low Pressure area; widespread rainfall activity with **heavy to very heavy falls** likely to continue over coastal districts of

Maharashtra during 9<sup>th</sup> to 15<sup>th</sup> June and likely over coastal Karnataka during 12<sup>th</sup> to 15<sup>th</sup> June, 2021. Isolated **heavy rainfall** is very likely over Kerala during 11<sup>th</sup> to 15<sup>th</sup> June, 2021. Isolated **extremely heavy falls** also very likely over Konkan on 9<sup>th</sup> and during 12<sup>th</sup> to 15<sup>th</sup> June, 2021.

- Due to west-northwestwards of Low Pressure area & its remnant, fairly widespread to widespread rainfall activity **with isolated heavy falls** is very likely over northwest India (excluding Rajasthan) during 1<sup>st</sup> to 4<sup>th</sup> June, 2021.
- **Ahead of the monsoon onset, fairly widespread thunderstorm activity accompanied by frequent cloud to ground lightning is likely over Madhya Pradesh, Uttar Pradesh, Vidarbha, Chhattisgarh, Odisha, Bengal, Jharkhand and Bihar during the next 2-3 days.**
- **Multi-Hazard warnings for next 5 days are given at page 4:**

## **Impact based warning & Action suggested for areas likely to be affected**

**Isolated to scattered heavy to very heavy falls** very likely over most parts of East India & adjoining Central India from 10<sup>th</sup> June onwards. Isolated **extremely heavy falls (≥ 20 cm)** also very likely over **Odisha on 11<sup>th</sup> & 12<sup>th</sup>; over Chhattisgarh during 11<sup>th</sup>-13<sup>th</sup>; over Vidarbha & Telangana on 12<sup>th</sup> & 13<sup>th</sup>, June 2021.**

Isolated to scattered **heavy to very heavy falls** likely to continue over coastal districts of Maharashtra during 9<sup>th</sup> to 15<sup>th</sup> June and likely over coastal Karnataka during 12<sup>th</sup> to 15<sup>th</sup> June, 2021. Isolated **heavy rainfall** is very likely over Kerala during 11<sup>th</sup> to 15<sup>th</sup> June, 2021. Isolated **extremely heavy falls** also very likely over Konkan on 9<sup>th</sup> and during 12<sup>th</sup> to 15<sup>th</sup> June, 2021. **Isolated heavy falls** is also very likely over northwest India (excluding Rajasthan) during 12<sup>th</sup> to 14<sup>th</sup> June, 2021.

### **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 Mudslides(for plain areas) and Landslides (for hill and vulnerable areas)
- 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.

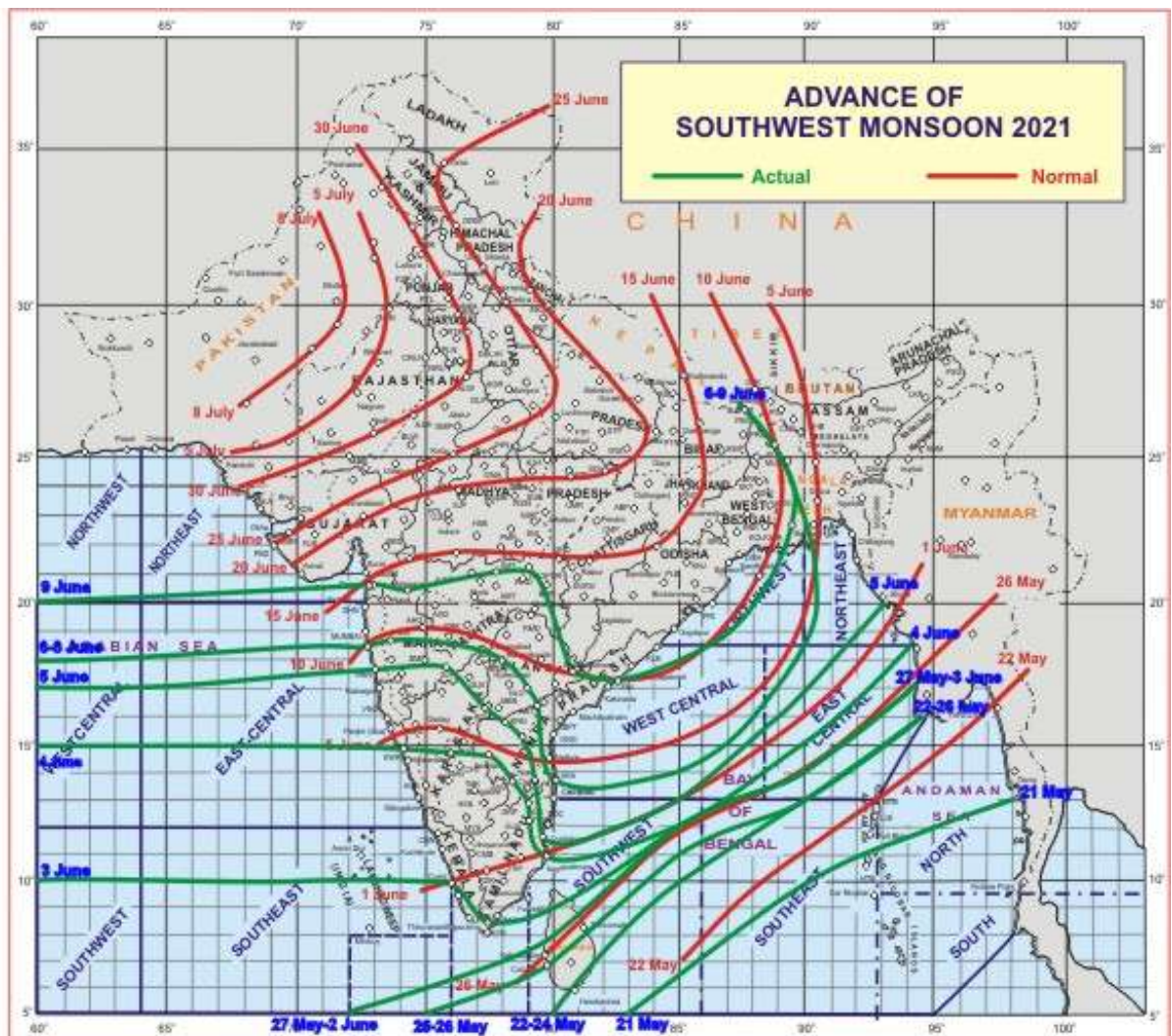
- Avoid staying in vulnerable structure.

Ahead of the monsoon onset, fairly widespread thunderstorm activity accompanied by frequent cloud to ground lightning is likely over Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha, Bengal, Jharkhand and Bihar during the next 2-3 days.

### Impact information:

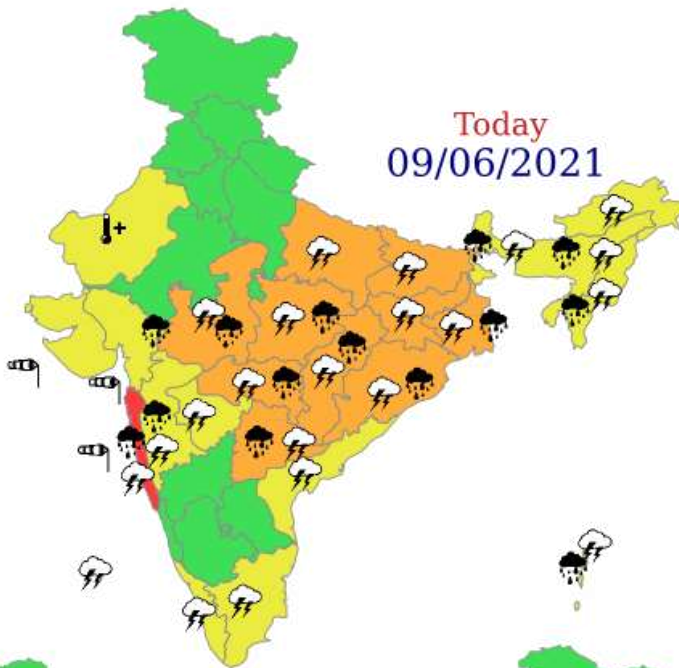
- DO NOT take shelter under isolated trees.
- Immediately get out of and away from ponds, lakes, and outdoor watery area (e.g. paddy transplanted).
- Go indoors or seek safe pukka shelters after hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.
- During travel, stay inside car or bus or train when thunderstorm occurs.
- Do not use electric/ electronic appliances.

### Annexure 1





Today  
09/06/2021



Tomorrow  
10/06/2021



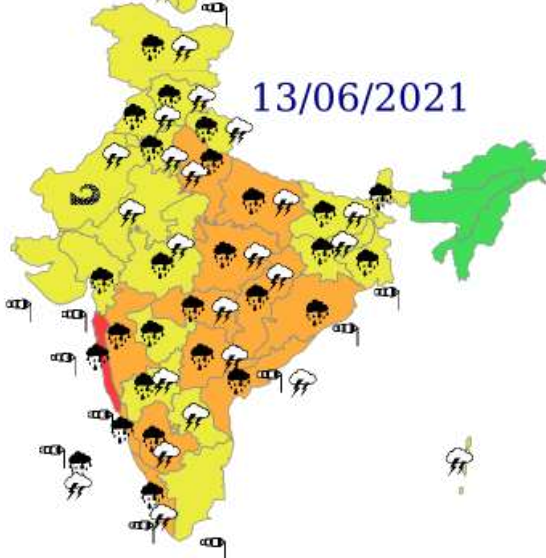
11/06/2021



12/06/2021



13/06/2021



## LEGENDS

### WARNING

|                                |
|--------------------------------|
| <b>WARNING (TAKE ACTION)</b>   |
| <b>ALERT ( BE PREPARED)</b>    |
| <b>WATCH (BE UPDATED)</b>      |
| <b>NO WARNING ( NO ACTION)</b> |

### Probabilistic Forecast

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



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  $\geq 37^{\circ}\text{C}$



**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  $>6.4^{\circ}\text{C}$ .



**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  $\geq -6.5^{\circ}\text{C}$

**(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  $\leq -4.5^{\circ}\text{C}$  or actual Minimum Temperature is  $\leq 15^{\circ}\text{C}$



**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  $\leq -6.5^{\circ}\text{C}$



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



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



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



**Ice deposits on ground**

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



**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



**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



**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)

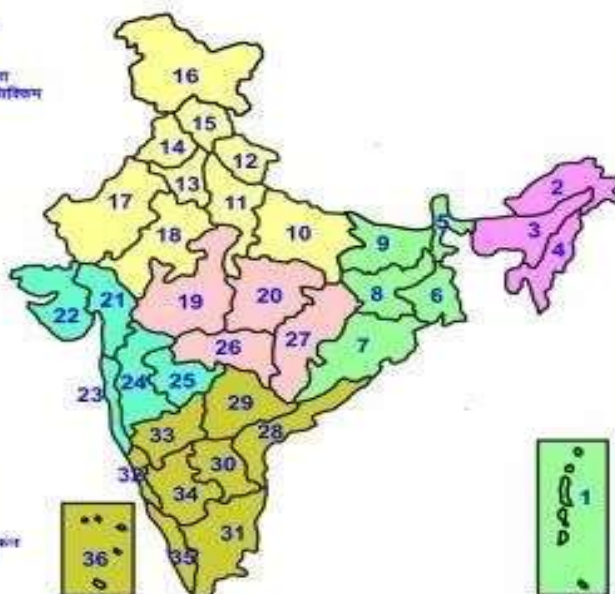
**Extremely Severe Cyclonic Storm:** Wind speed 166-220 kmph (90 -119 knots)

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



## LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागलैंड, मणिपुर, मिजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 गंगेयि पश्चिम बंगाल
- 7 ओडिशा
- 8 झारखण्ड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखण्ड
- 13 हरियाणा, चंडीदाह और दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर (एवंक लद्दाख)
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात
- 22 सौराष्ट्र
- 23 कर्नाटक
- 24 मध्य महाराष्ट्र
- 25 महाराष्ट्र
- 26 तमिलनाडु
- 27 आन्ध्र प्रदेश एवं चण्डे
- 28 केरल
- 29 केरल
- 30 केरल
- 31 केरल
- 32 केरल
- 33 केरल
- 34 केरल
- 35 केरल
- 36 केरल



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. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & 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. Maharashtra
26. Vishakhapatnam
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamil Nadu, 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)         | 26-50      | Scattered (SCT/ A Few Places) |
| 51-75      | Fairly Widespread (FWS/ Many Places) | 1-25       | Isolated (ISOL)               |

### WARNING

|                         |
|-------------------------|
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|              |            |              |              |
|--------------|------------|--------------|--------------|
| Heavy Rain   | Heavy Snow | Thunderstorm | Dust Storm   |
| Strong Winds | Visibility | Cyclone      | Squall/ Hail |
| Frost        | Cold Wave  | Heat Wave    | Sea State    |

Kindly download **MAUSAM APP** for location specific forecast & warning, **MEGHDOOT APP** for Agromet advisory and **DAMINI APP** for Lightning Warning & visit state MC/RMC websites for district wise warning.