



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

**Press Release**  
**Date: 20<sup>th</sup> September, 2022**  
**Time of Issue: 1300 hrs IST**

**Subject: (i) Southwest Monsoon has withdrawn from parts of southwest Rajasthan & adjoining Kutch today, the 20<sup>th</sup> September, 2022.**  
**(ii) Heavy rainfall spell over Odisha, Chhattisgarh, Vidarbha and East Madhya Pradesh during next 2-3 days in association with the Low Pressure Area over Northwest Bay of Bengal & adjoining north Odisha-West Bengal coasts.**

**Weather observed during past 24 hours ending at 0830 hrs IST of today: (Refer Annex. I)**

**Withdrawal of Southwest Monsoon**

- Southwest Monsoon has withdrawn from parts of southwest Rajasthan & adjoining Kutch today, the 20<sup>th</sup> September, 2022 against its normal date of withdrawal from southwest Rajasthan of 17<sup>th</sup> September. The withdrawal of Southwest Monsoon is based on the following meteorological conditions:
  - (i) Anti-cyclonic circulation at 850 hPa level,
  - (ii) No rainfall during last 5 days and
  - (iii) Water vapour imagery indicates dry weather conditions over the region.
- The line of withdrawal of Southwest Monsoon passes through Khajuwala, Bikaner, Jodhpur and Naliya (**Figure1**).

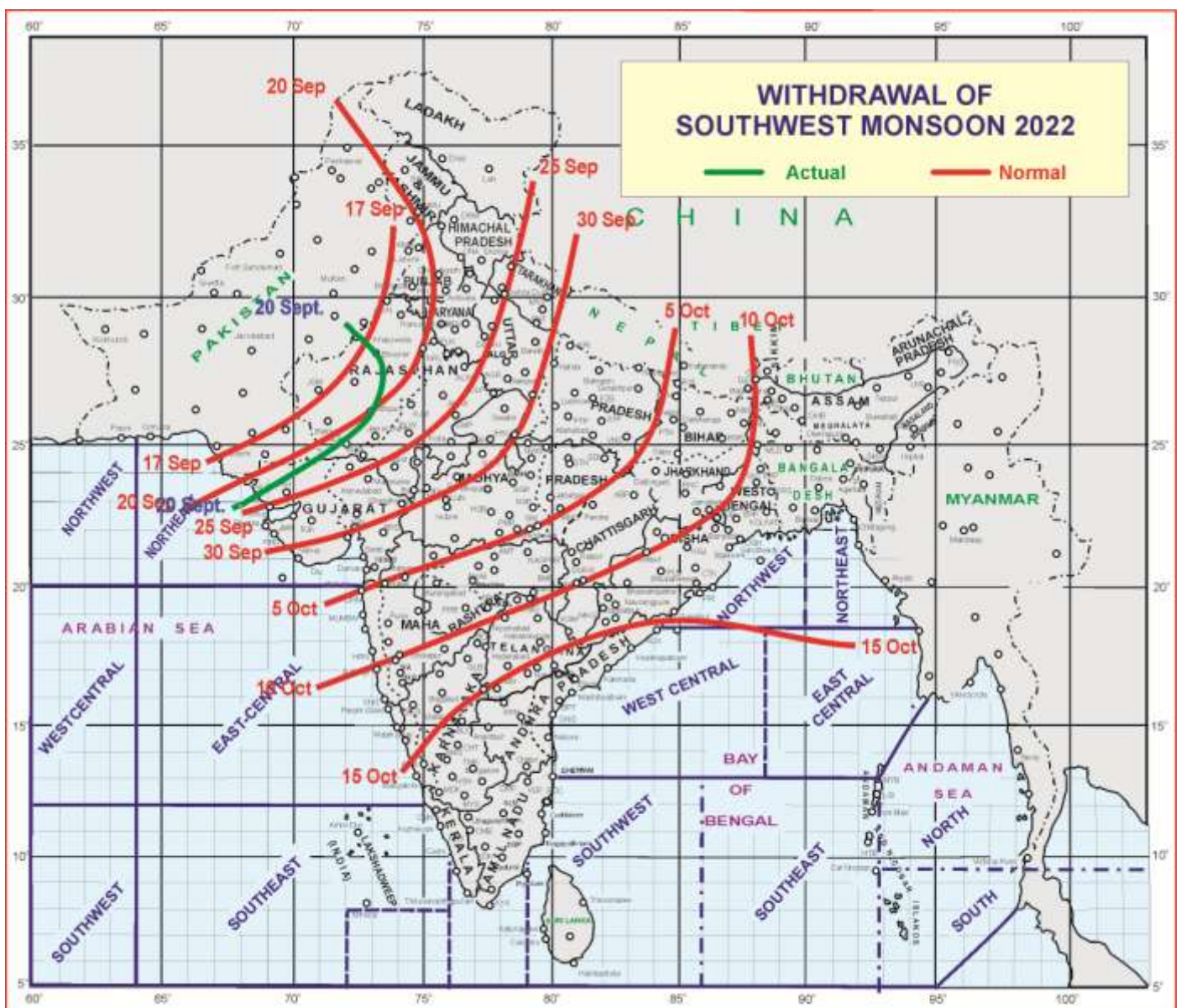
**Weather systems, rainfall/thunderstorm Forecast & Warnings: (Warning Graphics in Annexure II)**

- The **Low Pressure Area** lies over Northwest Bay of Bengal & adjoining north Odisha-West Bengal coasts. The associated cyclonic circulation extends upto 5.8 km above mean sea level tilting southwestwards with height. It is very likely to move west-northwestwards across north Odisha & north Chhattisgarh during next 2 days.
- A trough runs from the Low Pressure Area over Northwest Bay of Bengal adjoining north Odisha-West Bengal coasts to southwest Uttar Pradesh across Gangetic West Bengal, Jharkhand, Bihar & East Uttar Pradesh extending upto 1.5 km above mean sea level.
- The **Western Disturbance** as a trough in mid-tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 65°E to the north of Lat. 28°N persists.
- **Under their influence:**
  - Fairly widespread/widespread light/moderate rainfall with **isolated heavy falls & thunderstorm/lightning** very likely over Odisha & Telangana on 20<sup>th</sup> & 21<sup>st</sup>; north Coastal Andhra Pradesh, Gangetic West Bengal, Jharkhand and Bihar on 20<sup>th</sup>; Chhattisgarh and Marathwada during 20<sup>th</sup>-22<sup>nd</sup>; Vidarbha and East Madhya Pradesh during 20<sup>th</sup>-23<sup>rd</sup>; West Madhya Pradesh on 22<sup>nd</sup> & 23<sup>rd</sup> and Madhya Maharashtra on 21<sup>st</sup> & 22<sup>nd</sup> September, 2022. **Isolated very heavy rainfall also likely over Odisha on 20<sup>th</sup> September, 2022.**

- SCT/FWS light/moderate rainfall with **isolated heavy falls & thunderstorm/lightning** very likely over Uttarakhand and West Uttar Pradesh on 21<sup>st</sup> & 22<sup>nd</sup> and over East Uttar Pradesh on 20<sup>th</sup> & 21<sup>st</sup> September, 2022.
- FWS/WS light/moderate rainfall with **isolated heavy falls & thunderstorm/lightning** very likely over Arunachal Pradesh during 20<sup>th</sup>-24<sup>th</sup>; Assam & Meghalaya during 20<sup>th</sup>-23<sup>rd</sup> and over Nagaland, Manipur, Mizoram & Tripura on 20<sup>th</sup>-22<sup>nd</sup> September, 2022.
- **Fishermen Warning: Squally weather** (wind speed 40-45 kmph gusting to 55 kmph) is very likely over northwest and adjoining west-central and adjoining northeast Bay of Bengal, along and off north Andhra Pradesh, Odisha and West Bengal coasts, north parts of southwest Bay of Bengal and adjoining southeast Bay of Bengal on 20<sup>th</sup> September, 2022. (Refer Annexure III)

For more details kindly refer:

[https://mausam.imd.gov.in/imd\\_latest/contents/all\\_india\\_forecast\\_bulletin.php](https://mausam.imd.gov.in/imd_latest/contents/all_india_forecast_bulletin.php)

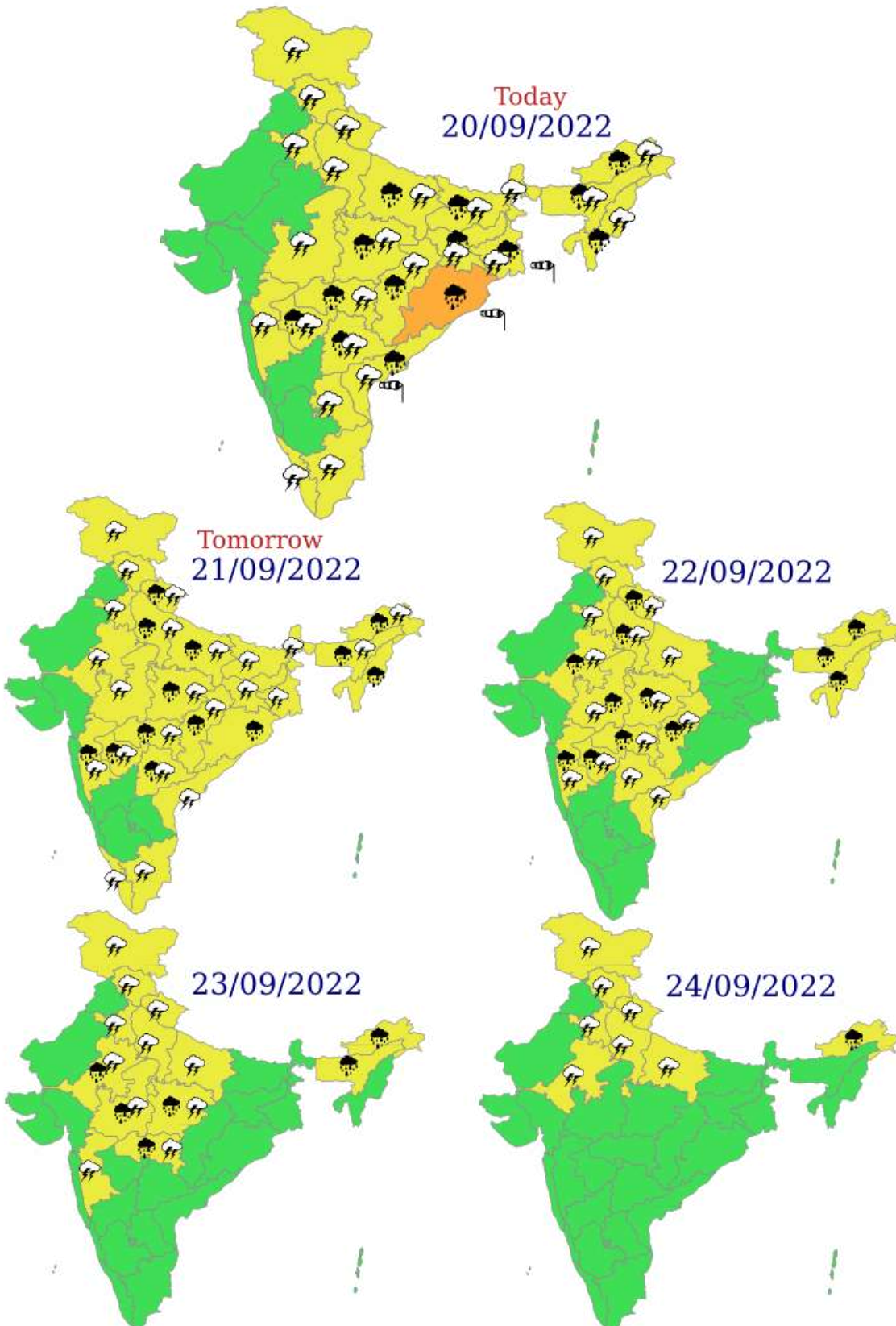


**Figure 1: Withdrawal of Southwest Monsoon 2022**

**Extremely heavy rainfall** occurred at isolated places over Odisha; **Very heavy rainfall** at isolated places over Gujarat Region and Telangana and **heavy rainfall** at isolated places over Chhattisgarh, Jharkhand and ghat areas of Madhya Maharashtra.

**Rainfall (in cm):**

- ❖ **Odisha:** Baliguda (Kandhamal) 30, Dharakote (Ganjam) 12, Sheragada (Ganjam) 12, Purushottampur (Ganjam) 10, Lamataput (Koraput) 9, K Nuagaon (Kandhamal) 9, Phiringia (Kandhamal) 9, Kotagarh (Kandhamal) 9, Papadahandi (Nawarangpur) 9, Berhampur (Ganjam) 8, Ganjam (Ganjam) 8, Sankheimundi (Ganjam) 7, Gopalpur (Ganjam) 7;
- ❖ **Telangana:** Kamareddy (dist Kamareddy) 15, Gudurwrgl (dist Mahabubabad) 8, Venkatapuram (dist Mulugu) 7, Dubbak (dist Siddipet) 7, Chandurthi (dist Rajanna Sircilla) 7, Mahabubabad (dist Mahabubabad) 7, Varni (dist Nizamabad) 7;
- ❖ **Gujarat Region:** Gandevi (dist Navsari) 13, Navasari\_aws (dist Navsari) 11, Jalalpor (dist Navsari) 11, Palsana (dist Surat) 9, Navsari (dist Navsari) 8, Waghai (dist Dangs) 7;
- ❖ **Madhya Maharashtra:** Yaval (dist Jalgaon) 9, Shrirampur (dist Ahmednagar) 7, Bhadgaon (dist Jalgaon) 7;
- ❖ **Chhattisgarh:** Konta (dist Sukma) 7, Odagi (dist Surajpur) 7, Gariabund (dist Gariaband) 7;
- ❖ **Jharkhand:** Balumath (dist Latehar) 7.





## Fishermen warning graphics



Squally WX with wind speed 40-45 kmph gusting to 55 kmph
Squally wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into these marked areas.

## **IMPACT EXPECTED & ACTION SUGGESTED DUE TO-**

Isolated **very heavy rainfall** over Odisha on 20<sup>th</sup> September, 2022.

### **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.

**Legends:**

**Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4 mm.

**Region wise classification of meteorological Sub-Divisions:**

- 1) **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.
- 2) **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
- 3) **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
- 4) **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 5) **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
- 6) **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

<b>SPATIAL DISTRIBUTION</b> (% 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)



Heavy Rain



Strong Winds



Thunderstorm with Lightning

**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