



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

**Press Release
Date: 01st December, 2023
Time of Issue: 1330 hours IST**

Subject:

- I. The Depression over Southeast & adjoining Southwest Bay of Bengal likely to intensify gradually into a Cyclonic Storm over Southwest Bay of Bengal around 03rd December and cross South Andhra Pradesh & adjoining North Tamil Nadu coasts between Chennai and Machilipatnam around evening of 4th December as a Cyclonic Storm.**
- II. Wet spell with thunderstorm activity likely to continue over Madhya Pradesh & Maharashtra today, the 01st December.**

Realized weather during past 24 hours till 0830 hours IST of today: (Refer Annexure I)

Weather Systems and Forecast & Warnings during next 5 days: (graphics in Annexure II)

- ❖ Yesterday's **Western Disturbance** now seen as a cyclonic circulation over south Haryana & neighbourhood in lower tropospheric levels with a trough aloft in middle tropospheric levels along Lat. 30°N/Long. 72°E.
- ❖ A **cyclonic circulation** over Southwest Madhya Pradesh and another over Northeast Arabian Sea & adjoining North Maharashtra-Gujarat coasts in lower tropospheric levels.
- ❖ A **trough** runs from cyclonic circulation over Northeast Arabian Sea & adjoining North Maharashtra-Gujarat coasts to Southeast Madhya Pradesh in lower tropospheric levels.
- ❖ **Under the influence of the above systems:**
 - Light rainfall and snowfall at isolated places very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand on 01st December. Light rainfall also very likely at isolated places over East Uttar Pradesh and East Rajasthan during 01st to 04th December.
 - Light to moderate rainfall at a few places accompanied with thunderstorm & lightning very likely over Madhya Pradesh and Vidarbha on 01st December. Isolated **heavy rainfall** with thunderstorm & lightning also likely over Chhattisgarh on 05th December.
 - Light isolated rainfall with thunderstorm activity very likely over Madhya Maharashtra and Marathwada on 30th November & 01st December.
- ❖ **Dense fog** very likely in isolated pockets over Punjab, Haryana, Uttar Pradesh & North Rajasthan during morning hours of 2nd & 3rd and over Assam & Meghalaya from 2nd to 4th December, 2023.

Depression over Southeast & adjoining Southwest Bay of Bengal (graphics in Annexure III)

- ❖ Yesterday's Well Marked Low Pressure Area over Southeast Bay of Bengal concentrated into a **Depression** at 0530 hrs IST of today over Southeast & adjoining Southwest Bay of Bengal. It moved northwestwards with a speed of 10 kmph during past 03 hours and lay centered at 0830 hours IST of today, the 01st December, 2023 over the same region near Latitude 9.3°N and Longitude 86.2°E, about 760 km east-southeast of Puducherry, 780 km east-southeast of Chennai, 960 km southeast of Bapatla and 940 km southeast of Machilipatnam.

- ❖ It is likely to move west-northwestwards, intensify into a **Deep Depression** by 2nd and further into a **Cyclonic Storm** over Southwest Bay of Bengal around 3rd December. Thereafter, it would move northwestwards and cross South Andhra Pradesh and adjoining North Tamil Nadu coasts between Chennai and Machilipatnam around evening of 4th December as a Cyclonic Storm.

Warnings in association with the above Depression:

(i) Rainfall Warning (graphics enclosed at Annexure II):

- Light to moderate rainfall at most places with **isolated heavy rainfall** is likely over Andaman & Nicobar Islands on 1st December.
- **North Coastal Tamil Nadu & Puducherry:** Light to moderate rainfall at most places with **isolated heavy rainfall** is very likely on 2nd December. The rainfall intensity would increase from 3rd December with rainfall at most places and heavy to very heavy rainfall at few places and isolated extremely heavy rainfall. Rainfall at most places with heavy to very heavy rainfall at isolated places likely on 4th December and decrease thereafter.
- **Coastal Andhra Pradesh:** Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places on 3rd and 4th December. Isolated heavy to very heavy rainfall is likely over south coastal Andhra Pradesh and heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places likely over North coastal Andhra Pradesh on 5th December.
- **Royalaseema:** Light to moderate rainfall at most places with **isolated heavy to very heavy rainfall** on 3rd & 4th December.
- **Odisha:** Light to moderate rainfall at most places with **isolated heavy rainfall** is likely over south Coastal and adjoining south Interior Odisha on 4th and **isolated heavy to very heavy rainfall** over the same region on 5th December.

(ii) Wind warning:

- **Southeast Bay of Bengal:** Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over Southeast Bay of Bengal during 1st & 2nd December and likely to decrease thereafter.
- **Southwest Bay of Bengal along & off north Tamil Nadu-Puducherry Coasts:** Squally wind speed reaching 35-45 kmph gusting to 55 kmph is prevailing over Southwest Bay of Bengal. It is likely to gradually increase becoming 50-60 kmph gusting to 70 kmph from 2nd December morning. It would increase further becoming Gale Wind speed reaching 60-70 kmph gusting to 80 kmph from 3rd December morning and 70-80 kmph gusting to 90 kmph from 3rd evening for subsequent 24 hours.
- **Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast:** Squally wind speed reaching 35-45 kmph gusting to 55 kmph is likely to prevail over westcentral Bay of Bengal from 2nd December evening. It is likely to gradually increase becoming 55-65 kmph gusting to 75 kmph from 3rd December morning. It is likely to increase further becoming Gale Wind speed reaching 70-80 kmph gusting to 90 kmph from 3rd evening and 80-90 kmph gusting to 100 kmph from 4th evening for subsequent 12 hours. It would gradually decrease thereafter.
- **Along & off north Andhra Pradesh Coast:** Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely from 4th December evening, likely to gradually increase becoming 55-65 kmph gusting to 75 kmph from 5th December evening for subsequent 12 hours. It would gradually decrease thereafter.
- **Along & off South Odisha Coast:** Squally wind speed reaching 35-45 kmph gusting to 55 kmph likely from 4th December evening, likely to gradually increase becoming 40-50 kmph gusting to 60 kmph from 5th December evening for subsequent 12 hours. It would gradually decrease thereafter.

(iii) Fishermen Warning (graphics in Annexure IV): Fishermen are advised not to venture into:

- Southeast Bay of Bengal during 1st to 2nd December.
- Southwest Bay of Bengal and along & off North Tamil Nadu-Puducherry Coasts during 1st to 4th December.
- Westcentral Bay of Bengal and along & off Andhra Pradesh Coast from 2nd December morning to 5th December.
- Along & off South Odisha coast from 4th December evening till 5th December

The Fishermen out at sea are advised to return to coast by 1st December.

For more details kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php and <https://mausam.imd.gov.in/responsive/cycloneinformation.php>

Impact expected in association with the likely formation the Cyclonic storm: over coastal districts of South Andhra Pradesh during 03rd to 05th December and adjoining coastal districts of North Tamil Nadu-Puducherry on 03rd and 04th December 2023:

Damage expected

- Damage to thatched huts.
- Possibilities of damage to vulnerable structure.
- Breaking of tree branches and uprooting of small & medium sized trees.
- Minor damage to power and communication lines due to breaking of branches and uprooting of trees.
- Major damage to Kutcha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Sea water inundation in low lying areas after erosion of Kutcha embankments
- Inundation of low lying areas in coastal districts due to heavy rainfall and flash flood
- Localized Flooding of roads and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds
- Localized Landslides/Mudslides
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

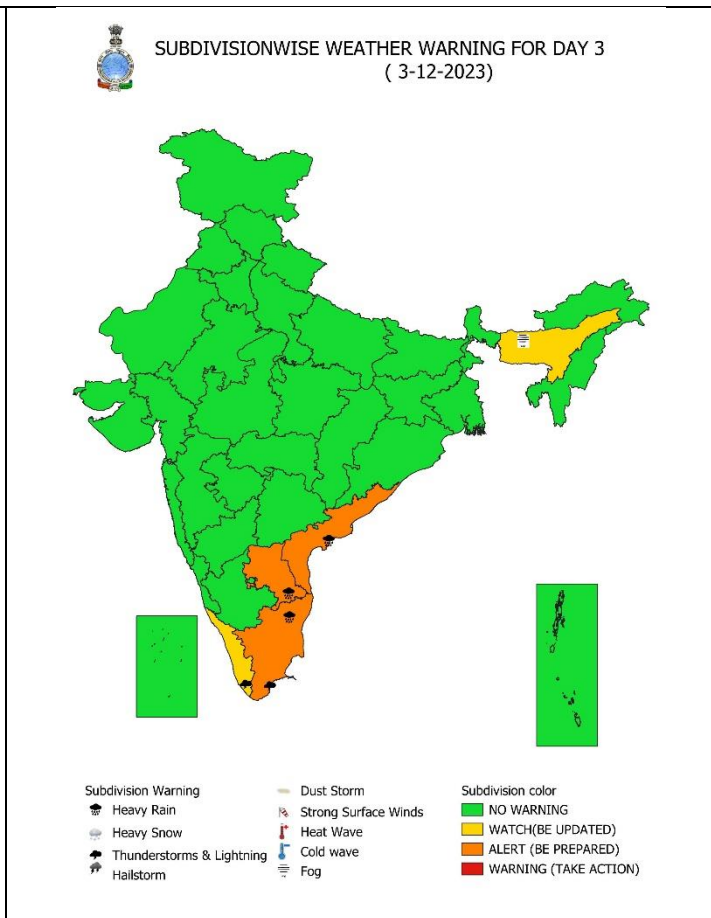
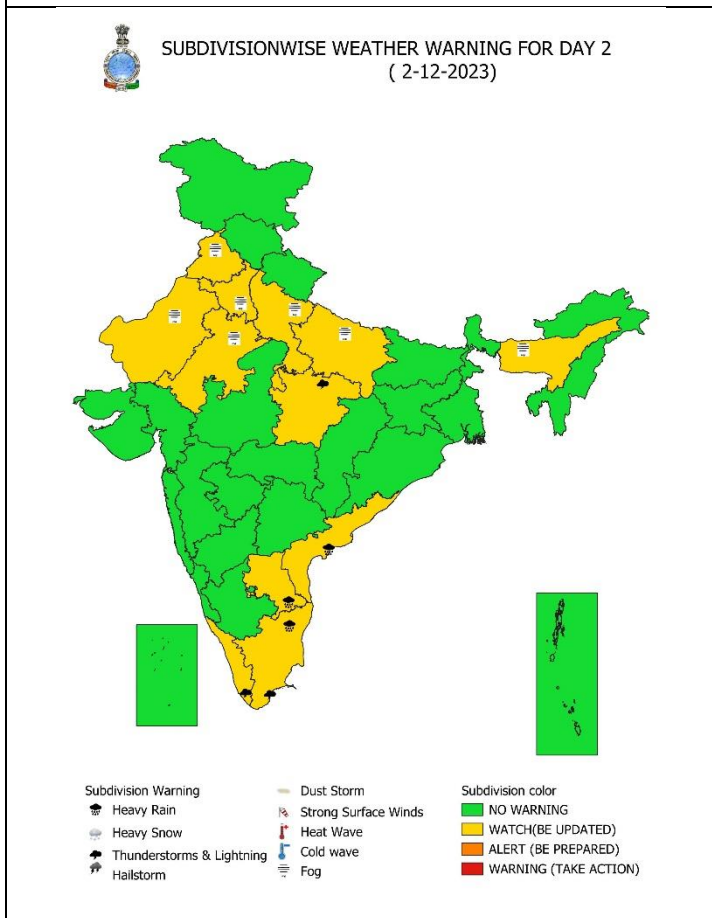
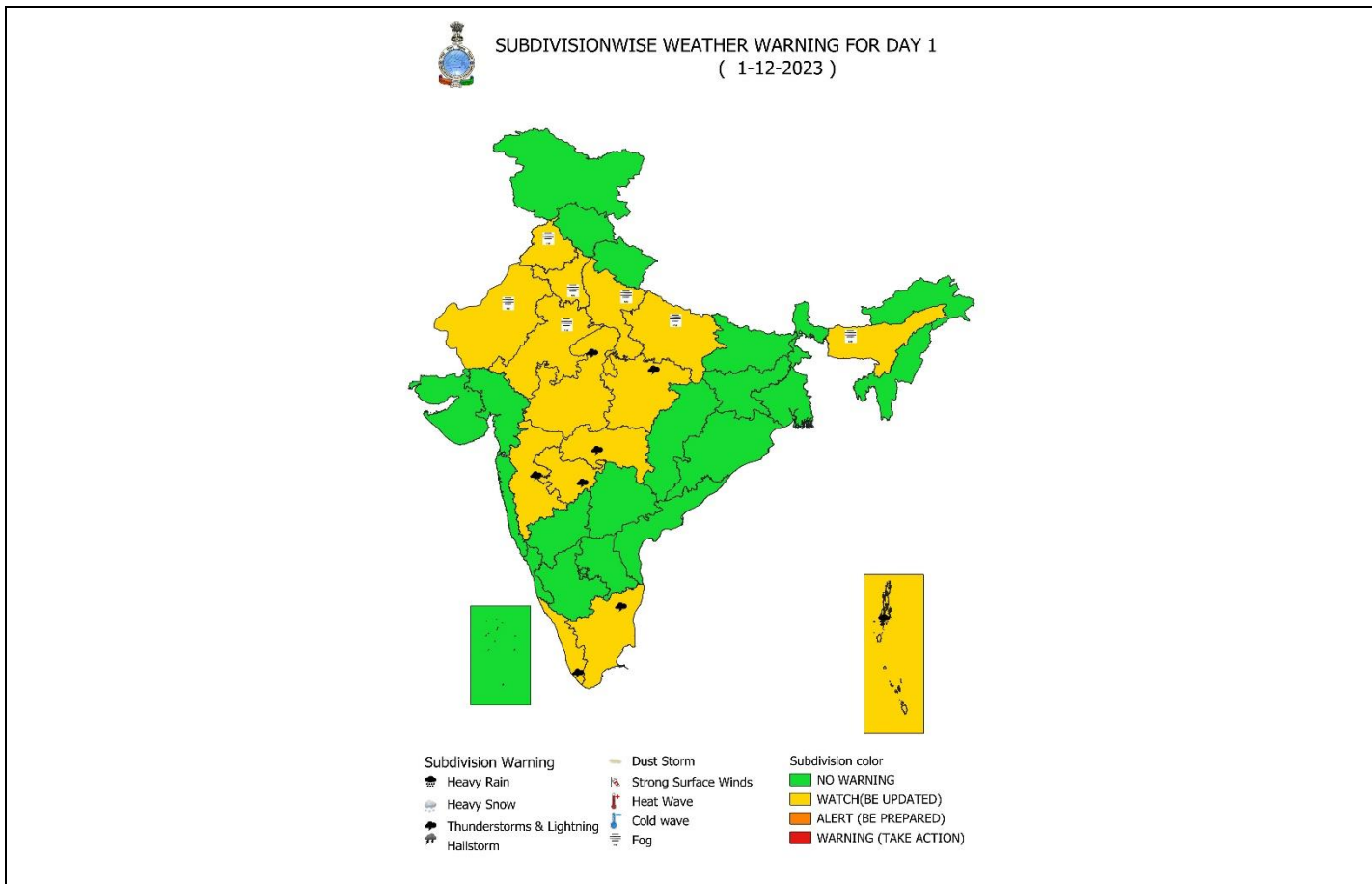
Action Suggested:

- Total suspension of fishing operations.
- Fishermen out at sea are advised to return to coast by 1st December
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to be in safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

Annexure I

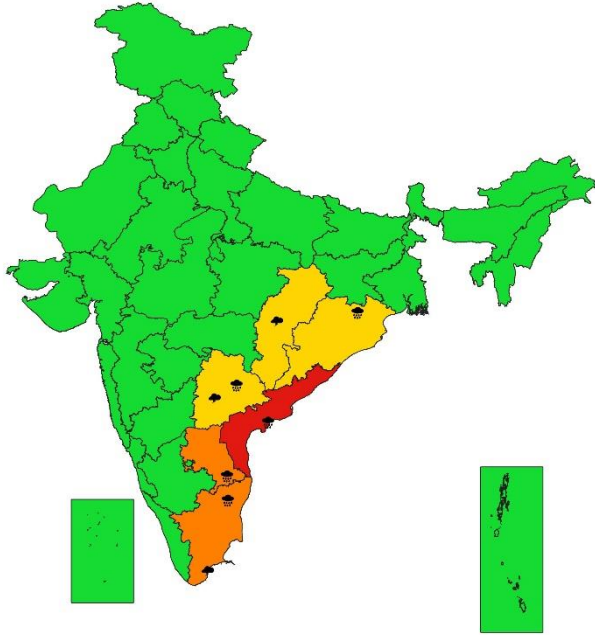
Realized weather during past 24 hours till 0830 hours IST of today:

- ❖ **Heavy to very heavy rainfall** reported at isolated places over Madhya Maharashtra and Haryana.
- ❖ **Significant Rainfall Amount:**
 - COASTAL A.P. & YANAM: Nellore (dist Nellore) 5
 - RAYALASEEMA: Sullurpeta (dist Tirupati) 5
 - KERALA & MAHE: Alapuzha (dist Alapuzha) 5
 - TAMIL NADU: Thirukuvalai (dist Nagapattinam) 5
 - MADHYA MAHARASHTRA: Yaval (dist Jalgaon) 8, Chas (dist Ahmednagar) 5, Tasgaon (dist Sangli) 5
 - MARATHWADA: Sambhajinagar (dist Chh. Sambhajinagar) 5
 - HARYANA: Shivan Rev (dist Kaithal) 8
 - PUNJAB: Ropar (dist Rupnagar) 5





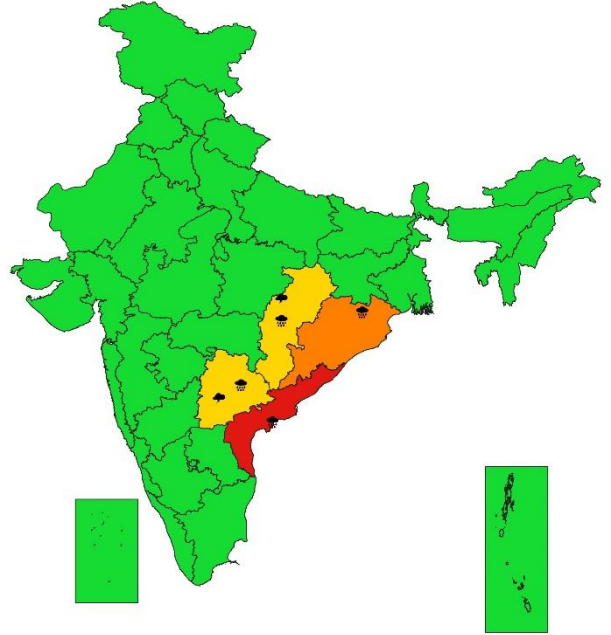
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(4-12-2023)**



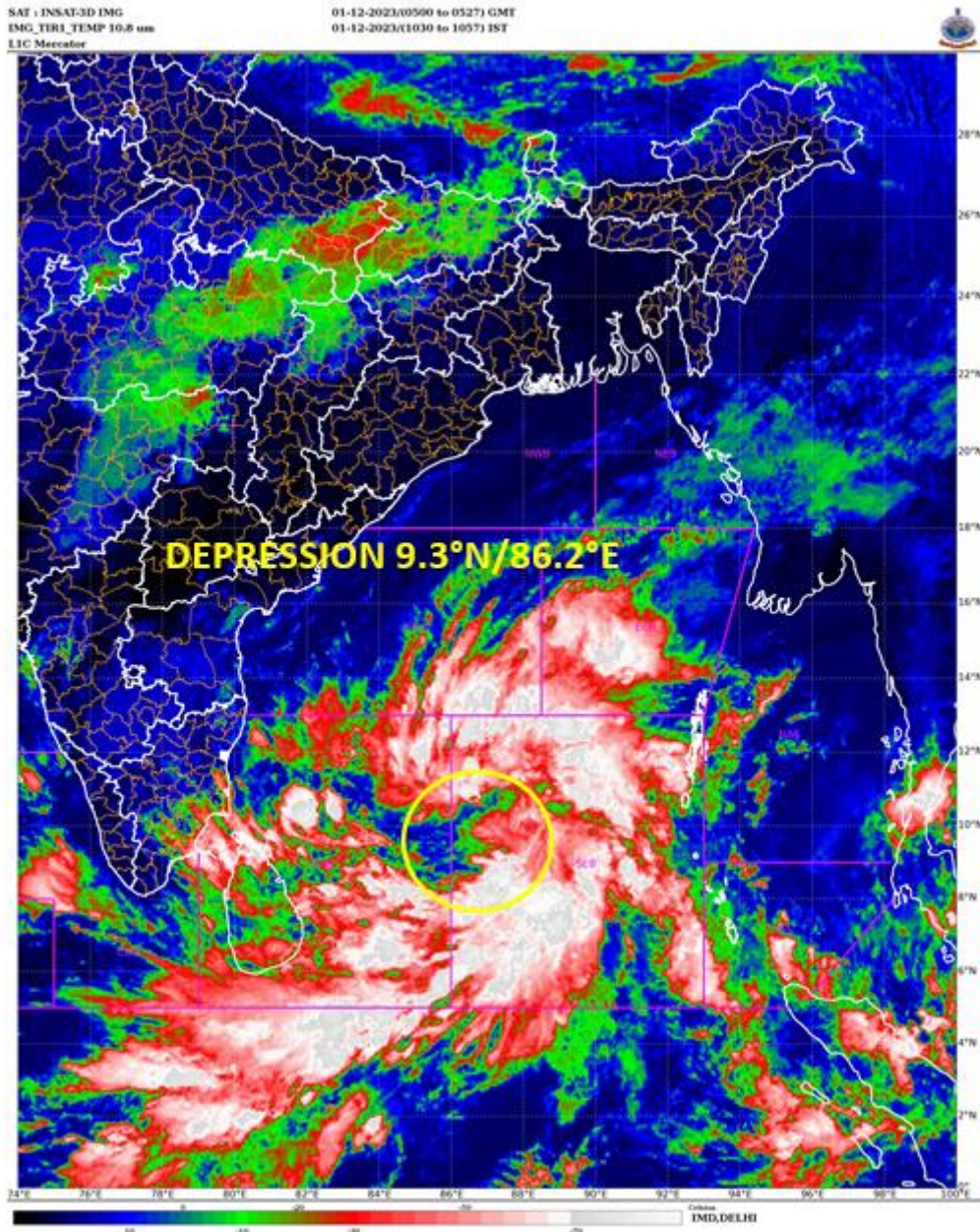
- | | | |
|----------------------------|----------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| Heavy Rain | Strong Surface Winds | NO WARNING |
| Heavy Snow | Heat Wave | WATCH (BE UPDATED) |
| Thunderstorms & Lightning | Cold wave | ALERT (BE PREPARED)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



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(5-12-2023)**

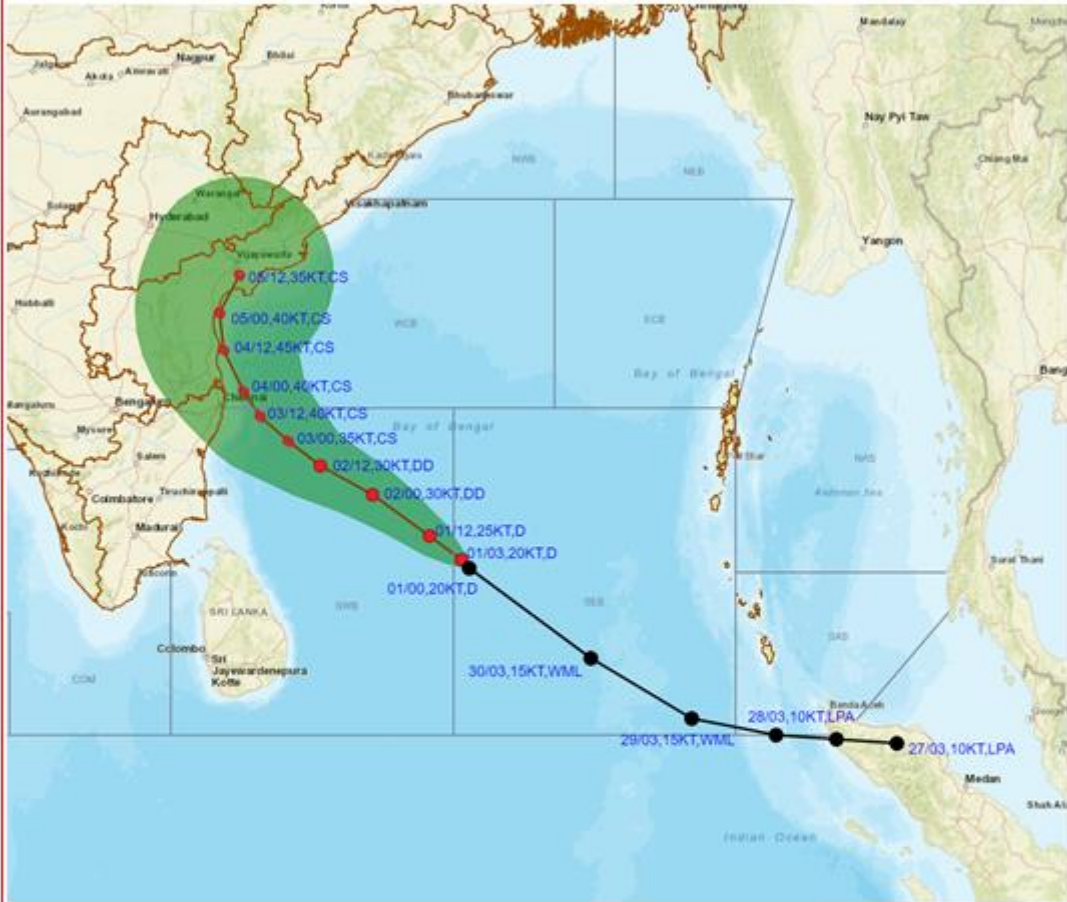


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|----------------------------|----------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| Heavy Rain | Strong Surface Winds | NO WARNING |
| Heavy Snow | Heat Wave | WATCH (BE UPDATED) |
| Thunderstorms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





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH DEPRESSION OVER SOUTHEAST ADJOINING SOUTHWEST BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 01ST DECEMBER 2023.



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

- LESS THAN 34 KT
- ⊙ 34-47 KT
- ⊙ ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH DEPRESSION OVER SOUTHEAST ADJOINING SOUTHWEST BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 01ST DECEMBER 2023.

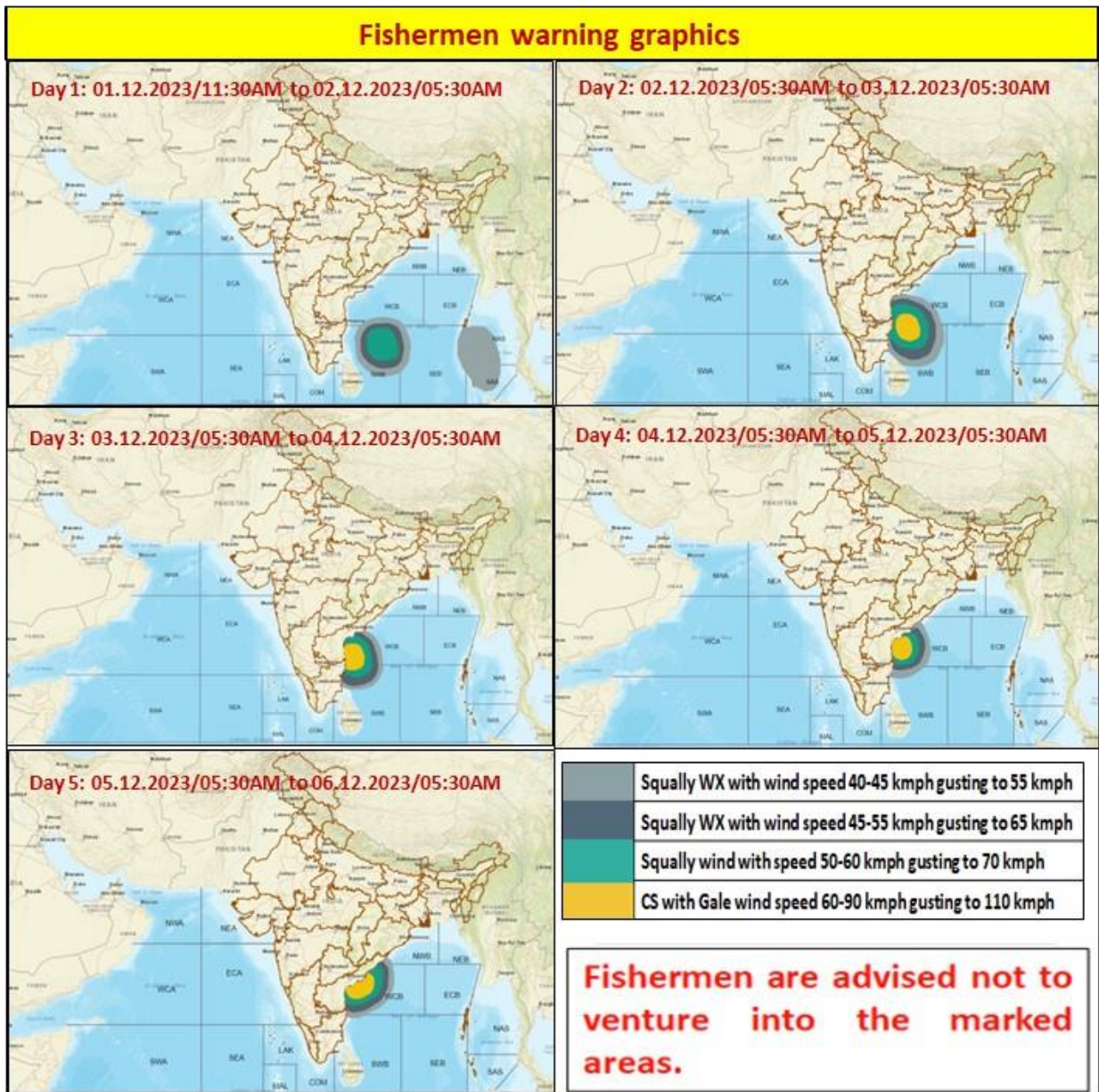


DATE/TIME IN UTC
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 L: LOW PRESSURE AREA
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 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT
 ○ 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations



Legends:

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

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

Flash Flood Risk	
	High Risk (Take Action)
	Moderate Risk (Be Prepared)
	Low Risk (Be Updated)