



**India Meteorological Department
(Ministry of Earth Sciences)**

National Bulletin No. 3 (BOB/06/2023)

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Sub: Depression over Southeast adjoining Southwest Bay of Bengal (Pre-Cyclone Watch for Andhra Pradesh and North Tamil Nadu-Puducherry Coasts: **Yellow Message)**

The depression over Southeast and adjoining Southwest Bay of Bengal moved west-northwestwards with a speed of 13 kmph during past 06 hour and lay centered at 1130 hours IST of today, the 01st December, 2023 over the same region near Latitude 9.5°N and Longitude 86.0°E, about 730 km east-southeast of Puducherry, 740 km east-southeast of Chennai, 860 km southeast of Nellore, 930 km southeast of Bapatla and 910 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 reach near south Andhra Pradesh and adjoining north Tamilnadu coasts by 4th December forenoon. Thereafter, it would move nearly northwards almost parallel to south Andhra Pradesh coast and cross South Andhra Pradesh during forenoon of 5th December between Nellore and Machilipatnam as a **Cyclonic Storm** with a wind speed of 80-90 Kmph gusting to 100 Kmph.

Track & Intensity Forecasts:

Date/Time (IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
01.12.23/1130	9.5/86.0	40-50 kmph gusting to 60 kmph	Depression
01.12.23/2330	10.4/84.7	40-50 kmph gusting to 60 kmph	Depression
02.12.23/1130	11.2/83.3	50-60 kmph gusting to 70 kmph	Deep Depression
02.12.23/2330	11.9/82.3	55-65 kmph gusting to 75 kmph	Cyclonic Storm
03.12.23/1130	12.5/81.5	60-70 kmph gusting to 80 kmph	Cyclonic Storm
03.12.23/2330	13.1/81.0	75-85 kmph gusting to 95 kmph	Cyclonic Storm
04.12.23/1130	13.9/80.5	75-85 kmph gusting to 95 kmph	Cyclonic Storm
04.12.23/2330	14.9/80.3	80-90 kmph gusting to 100 kmph	Cyclonic Storm
05.12.23/1130	15.8/80.5	60-70 kmph gusting to 80 kmph	Cyclonic Storm
05.12.23/2330	16.7/81.2	55-65 kmph gusting to 75 kmph	Cyclonic Storm
06.12.23/1130	18.2/83.0	50-60 kmph gusting to 70 kmph	Deep Depression

Warnings:

(i) Rainfall Warning (graphics enclosed):

- 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.
- **Rayalaseema:** 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 **40-50 kmph gusting to 60 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) Sea Condition:

- **Southeast Bay of Bengal:**

Rough to very Rough Sea condition is likely over Southeast Bay of Bengal during 01st-02nd December and would improve thereafter.

- **Southwest Bay of Bengal and along & off north Tamil Nadu-Puducherry Coasts:**

Rough to Very Rough sea condition is prevailing over the region. It is likely to become **very rough to high** from 3rd December morning for subsequent 24 hours and improve thereafter gradually.

- **Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast:**

Rough to Very Rough to sea condition is likely from 2nd December evening, becoming **very rough to high** from 3rd December morning till 5th December.

- **Along & off North Andhra Pradesh Coast:**

Rough to Very Rough to sea condition is likely from 4th December evening till 5th December.

- **Along & off South Odisha Coast:**

Rough to Very Rough to sea condition is likely from 4th December evening till 5th December.

(iv) Fishermen Warning (graphics attached):

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.

(v) Storm Surge (Graphics enclosed):

Storm surge of about 1-1.5 meter above astronomical tide likely to inundate south Coastal Andhra Pradesh districts at the time of landfall.

(vi) Damage Expected over coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu-Puducherry:

- 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)

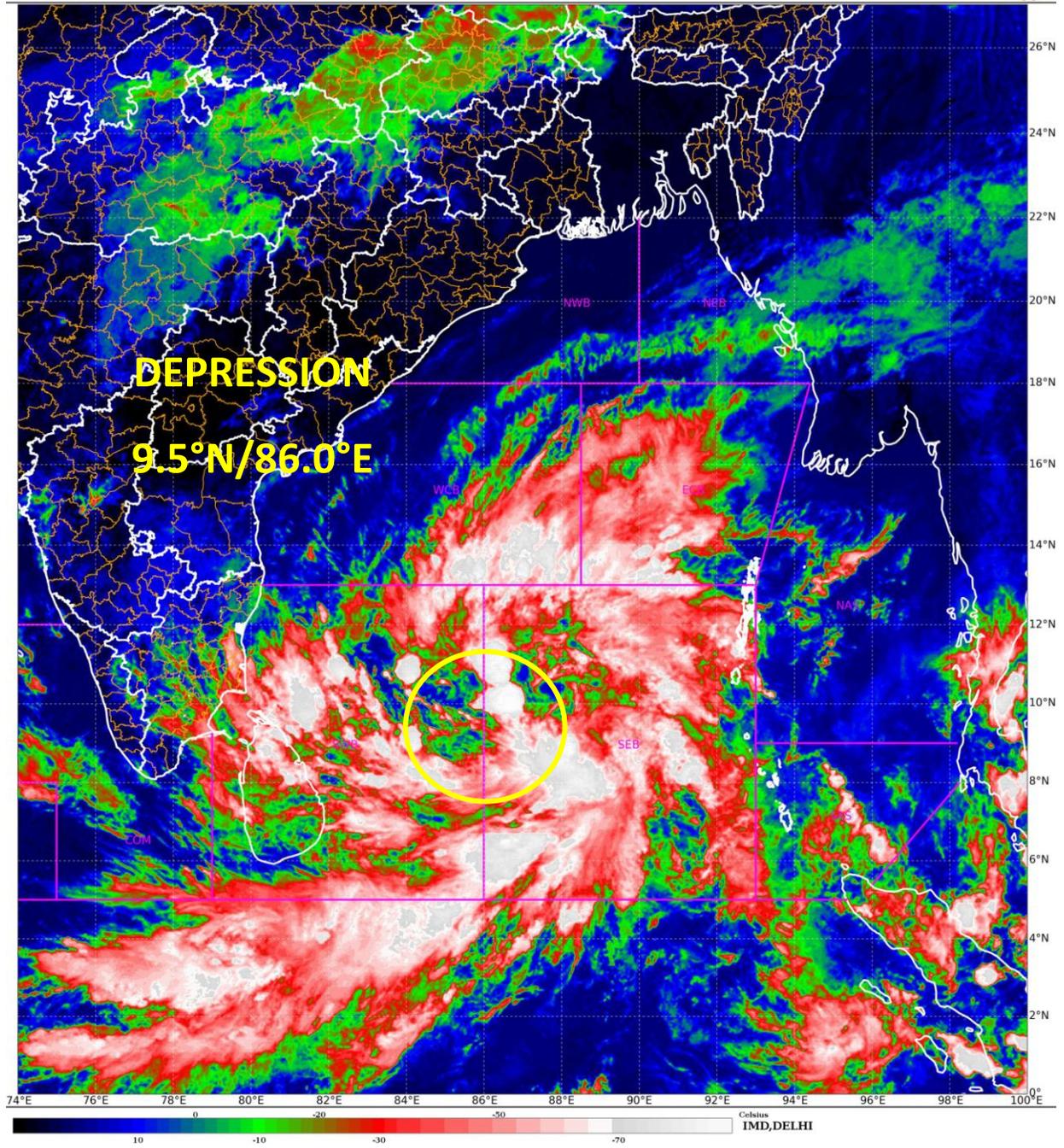
(vi) Action Suggested for coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu-Puducherry:

- 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.

The system is under continuous surveillance and the next message will be issued at 2030 hours IST of today, the 01st December, 2023.

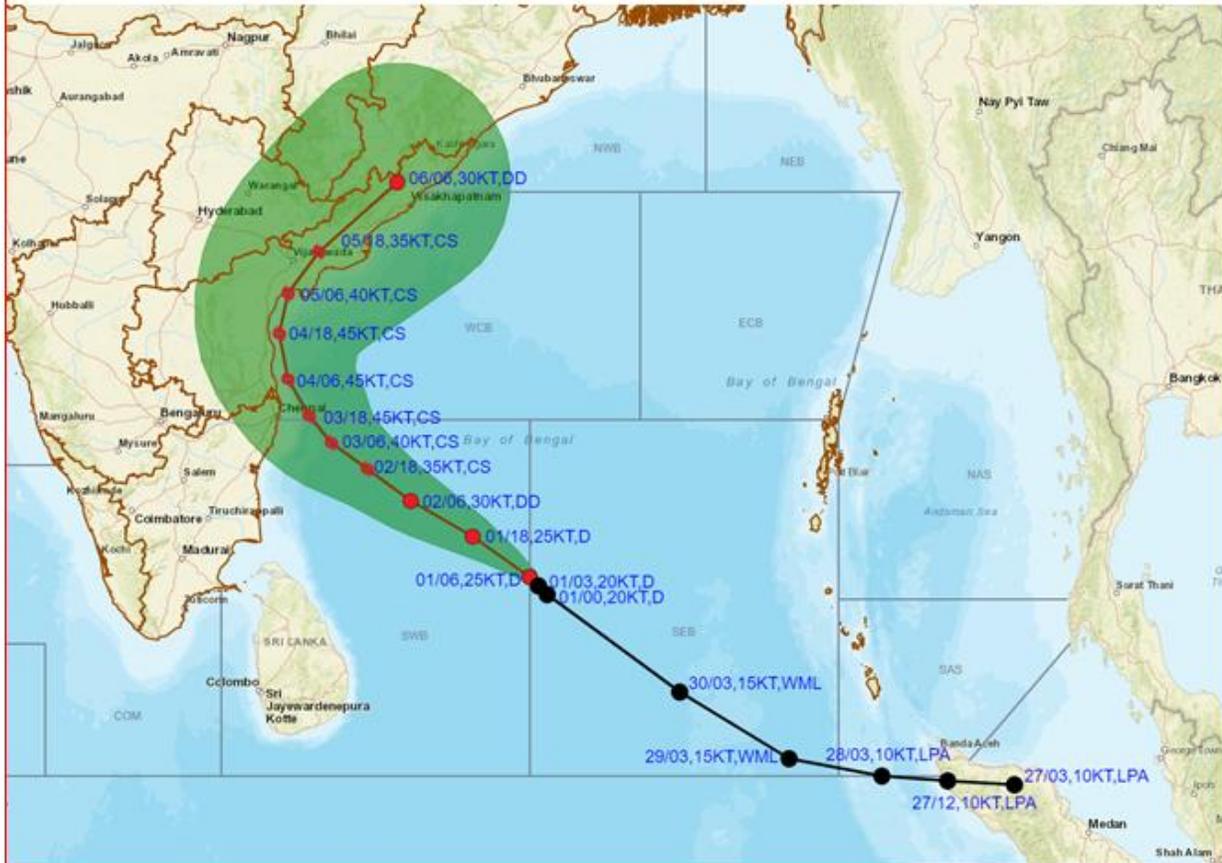
**(Akhil Srivastava)
Scientist D, Cyclone Warning, New Delhi**

Copy to: ACWC Chennai/ ACWC Kolkata/ CWC Bhubaneswar/ CWC Vishakhapatnam/ MC Amravati





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH DEPRESSION OVER SOUTHEAST ADJOINING SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 01ST DECEMBER 2023.

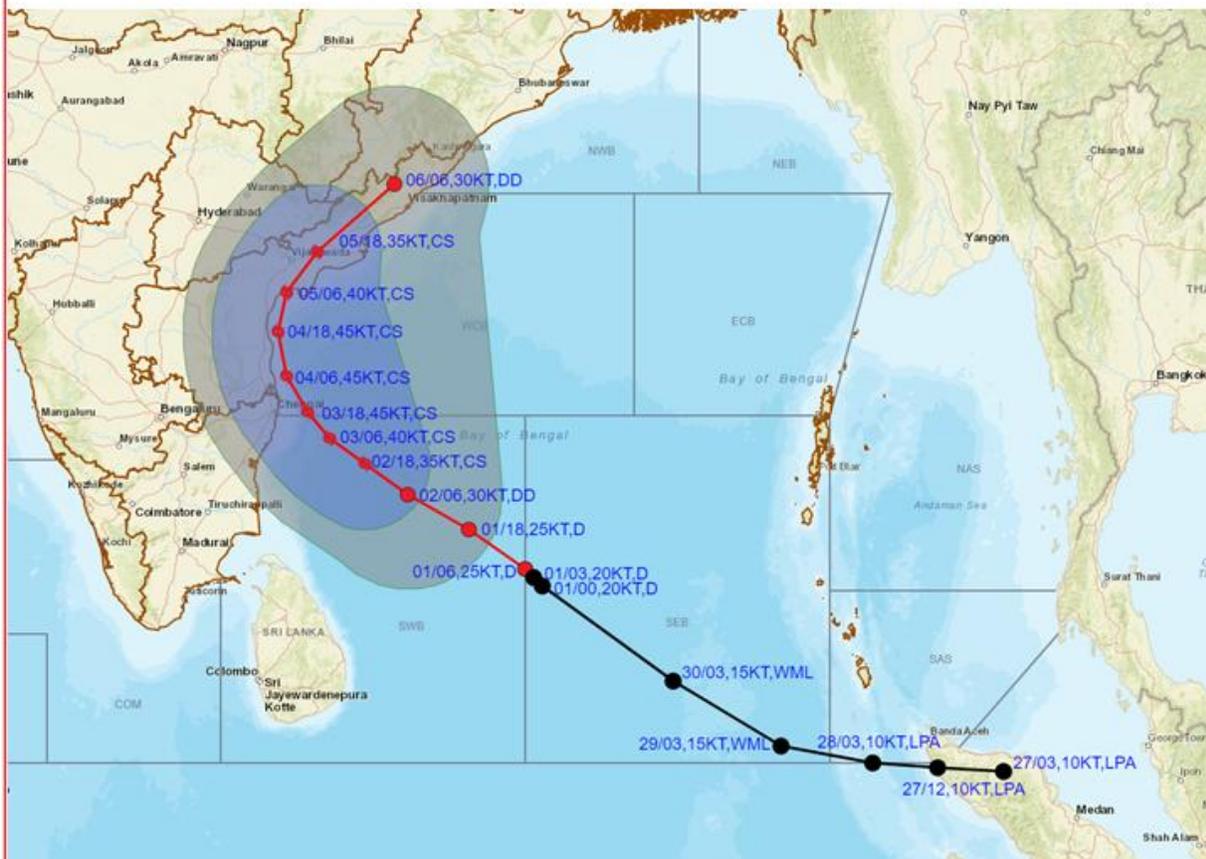


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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 0600 UTC (1130 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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

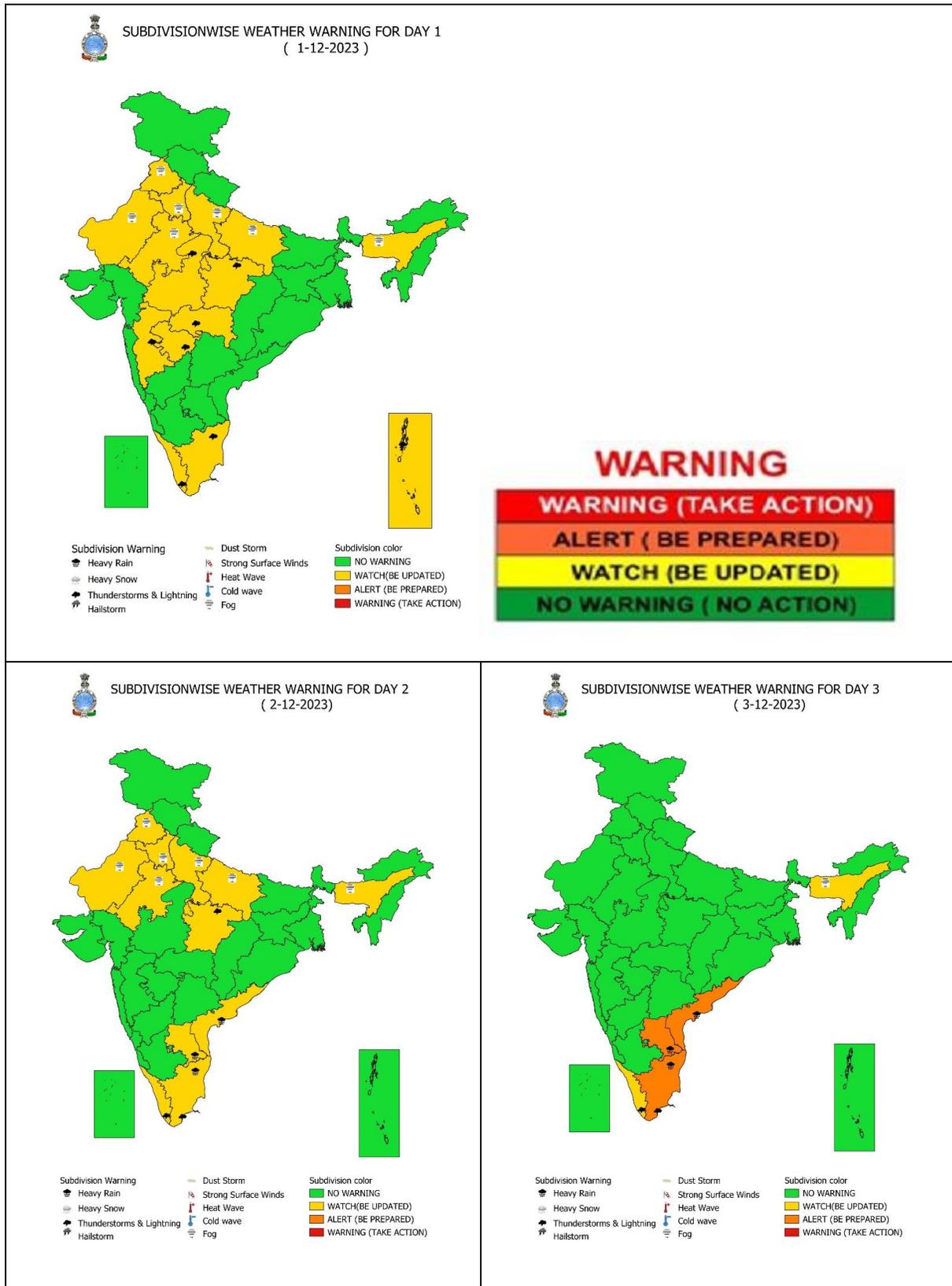
■ 50-63 KT (92-117 KMPH)

■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

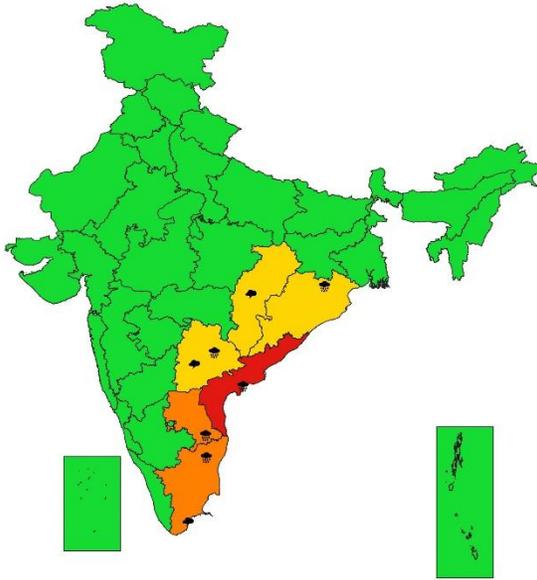
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

Weather Warning Graphics





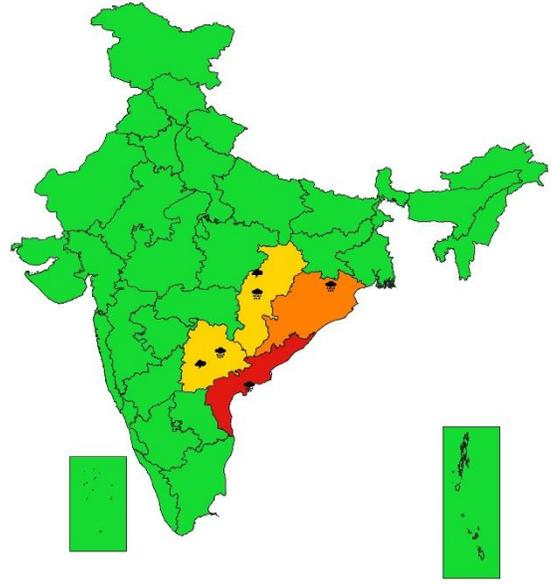
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(4-12-2023)**



- | | | |
|-----------------------------|-------------------------|-------------------------|
| 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)**



- | | | |
|-----------------------------|-------------------------|-------------------------|
| 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) |



Heavy Rain



Strong Winds



Frost



Heavy Snow



Visibility



Cold Wave



Thunderstorm



Cyclone



Heat Wave



Dust Storm



Squall/ Hail



Sea State

Fishermen warning graphics

Day 1: 01.12.2023/11:30AM to 02.12.2023/05:30AM



Day 2: 02.12.2023/05:30AM to 03.12.2023/05:30AM



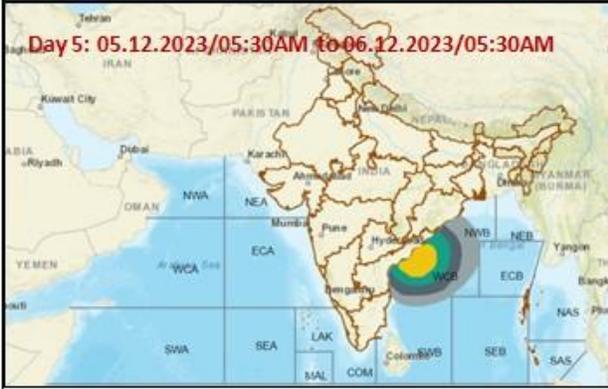
Day 3: 03.12.2023/05:30AM to 04.12.2023/05:30AM



Day 4: 04.12.2023/05:30AM to 05.12.2023/05:30AM



Day 5: 05.12.2023/05:30AM to 06.12.2023/05:30AM



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

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

Squally wind with speed 50-60 kmph gusting to 70 kmph

CS with Gale wind speed 60-90 kmph gusting to 110 kmph

Fishermen are advised not to venture into the marked areas.

Probability of exceedance of maximum sustained winds ≥ 45 kmph

Day 1: 01.12.2023/05:30AM to 02.12.2023/05:30AM



Day 2: 02.12.2023/05:30AM to 03.12.2023/05:30AM



Day 3: 03.12.2023/05:30AM to 04.12.2023/05:30AM



Day 4: 04.12.2023/05:30AM to 05.12.2023/05:30AM



Day 5: 05.12.2023/05:30AM to 06.12.2023/05:30AM



	Probability of exceedance
	Low (1-33%)
	Moderate (34-67%)
	High (68-100%)

Storm Surge Warning Graphics based on Forecast Track

