



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

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

The depression over Southwest Bay of Bengal moved west-northwestwards with a speed of 09 kmph during past 06 hours and lay centered at 2330 hours IST of 01st December, 2023 over the same region near Latitude 10.3°N and Longitude 85.3°E, about 630 km east-southeast of Puducherry, 630 km east-southeast of Chennai, 740 km southeast of Nellore, 810 km southeast of Bapatla and 800 km south-southeast of Machilipatnam.

It is likely to move west-northwestwards, intensify into a Deep Depression during next 12 hours and further into a Cyclonic Storm over Southwest Bay of Bengal by 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 and close to south Andhra Pradesh coast and cross South Andhra Pradesh coast between Nellore and Machilipatnam during forenoon of 5th December as a **Cyclonic Storm** with a maximum sustained wind speed of 80-90 kmph gusting to 100 kmph.

Track and Intensity Forecasts:

Date/Time (IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
01.12.23/2330	10.3/85.3	45-55 kmph gusting to 65 kmph	Depression
02.12.23/1130	10.9/84.3	50-60 kmph gusting to 70 kmph	Deep Depression
02.12.23/2330	11.6/83.1	60-70 kmph gusting to 80 kmph	Cyclonic Storm
03.12.23/1130	12.3/82.0	60-70 kmph gusting to 80 kmph	Cyclonic Storm
03.12.23/2330	13.1/81.1	70-80 kmph gusting to 90 kmph	Cyclonic Storm
04.12.23/1130	14.0/80.4	75-85 kmph gusting to 95 kmph	Cyclonic Storm
04.12.23/2330	14.9/80.4	80-90 kmph gusting to 100 kmph	Cyclonic Storm
05.12.23/1130	15.9/80.6	80-90 kmph gusting to 100 kmph	Cyclonic Storm
05.12.23/2330	16.9/81.4	60-70 kmph gusting to 80 kmph	Cyclonic Storm
06.12.23/1130	18.0/82.9	45-55 kmph gusting to 65 kmph	Depression

Warnings:

(i) Rainfall Warning (graphics enclosed):

- **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 **45-55 kmph gusting to 65 kmph** is prevailing over Southeast Bay of Bengal during next 24 hours and likely to decrease thereafter.
- **Southwest Bay of Bengal along & off north Tamil Nadu-Puducherry Coasts:**
Squally wind speed reaching **45-55 kmph gusting to 65 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 early morning. It would increase further becoming **Gale Wind** speed reaching **60-70 kmph gusting to 80 kmph** from 2nd December night 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 on 2nd 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 on 2nd December.
- Southwest Bay of Bengal and along & off North Tamil Nadu-Puducherry Coasts during 2nd 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 during next 12 hours.

(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)

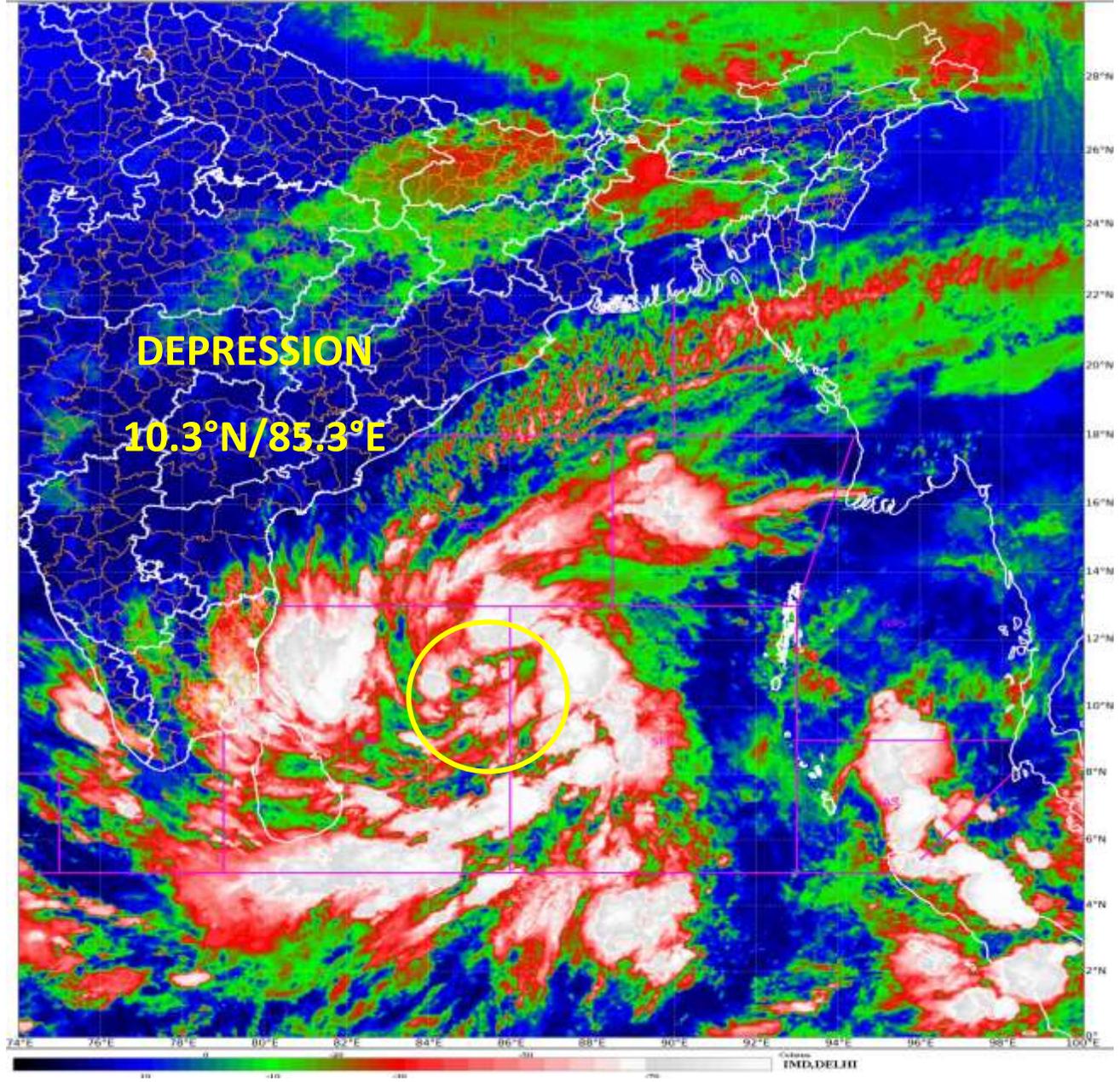
(vi) Action Suggested for coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu-Puducherry:

- 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 0830 hours IST of today, the 02nd December, 2023.

**(S. P. Singh)
Scientist C, 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 SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC (2330 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

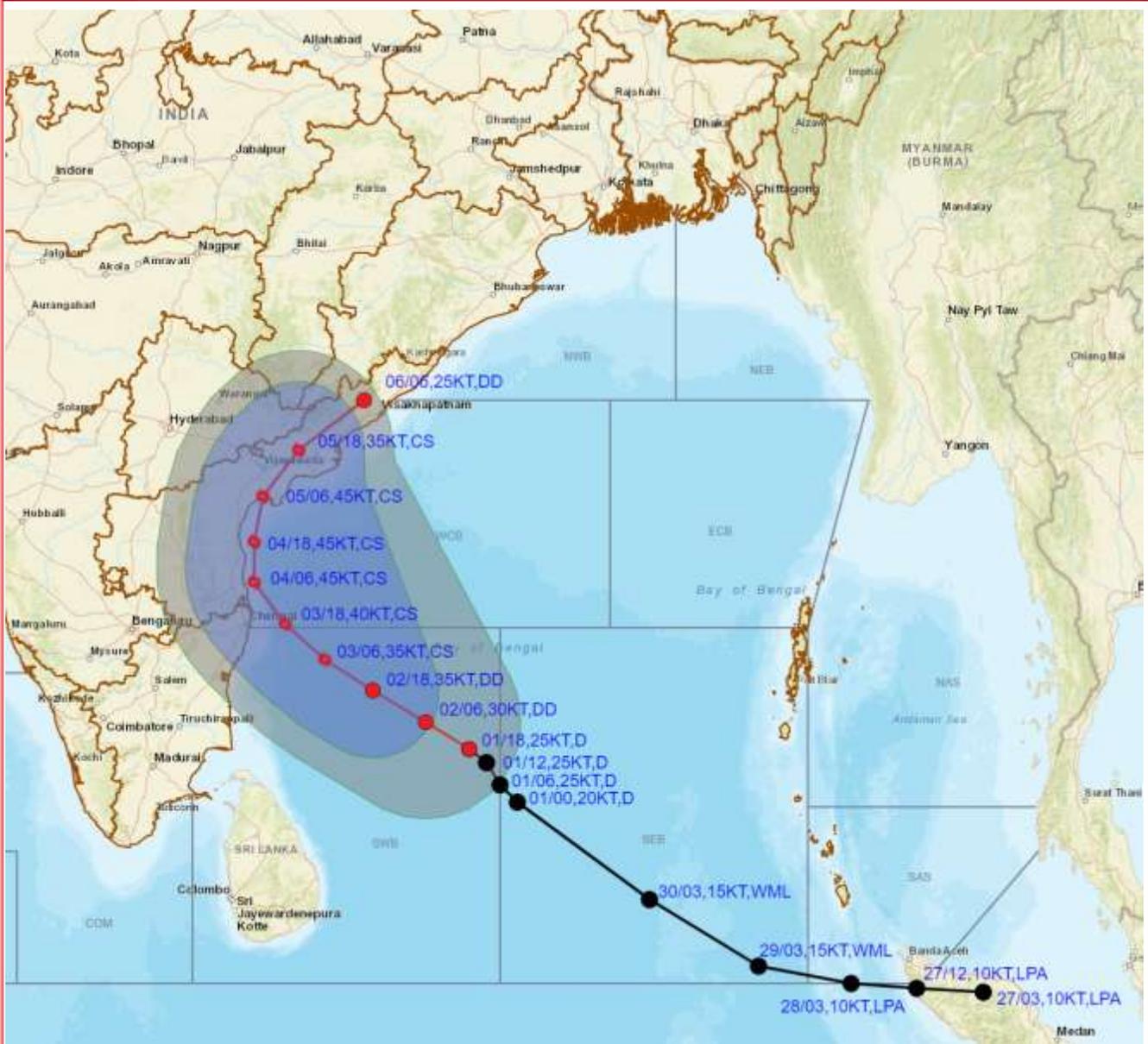
FORECAST TRACK

CONE OF UNCERTAINTY

Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS				
Date and Time (UTC)	MO PONDICHERRY	CHENNAI/MINAMBAKKAM	NELLORE	BAPATLA	MACHILIPATNAM/ FRANCHPET
01.12.23/1800	620, ESE	630, ESE	730, SE	810, SE	790, SE
02.12.23/1800	360, E	350, ESE	460, SE	550, SSE	550, SSE
03.12.23/1800	190, NE	110, E	190, SE	310, SSE	340, S
04.12.23/1800	340, N	220, N	70, NE	120, S	160, SSW
05.12.23/1800	580, NNE	460, NNE	320, NNE	150, NE	90, NNE



OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1800 UTC (2330 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)

ECS: 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)

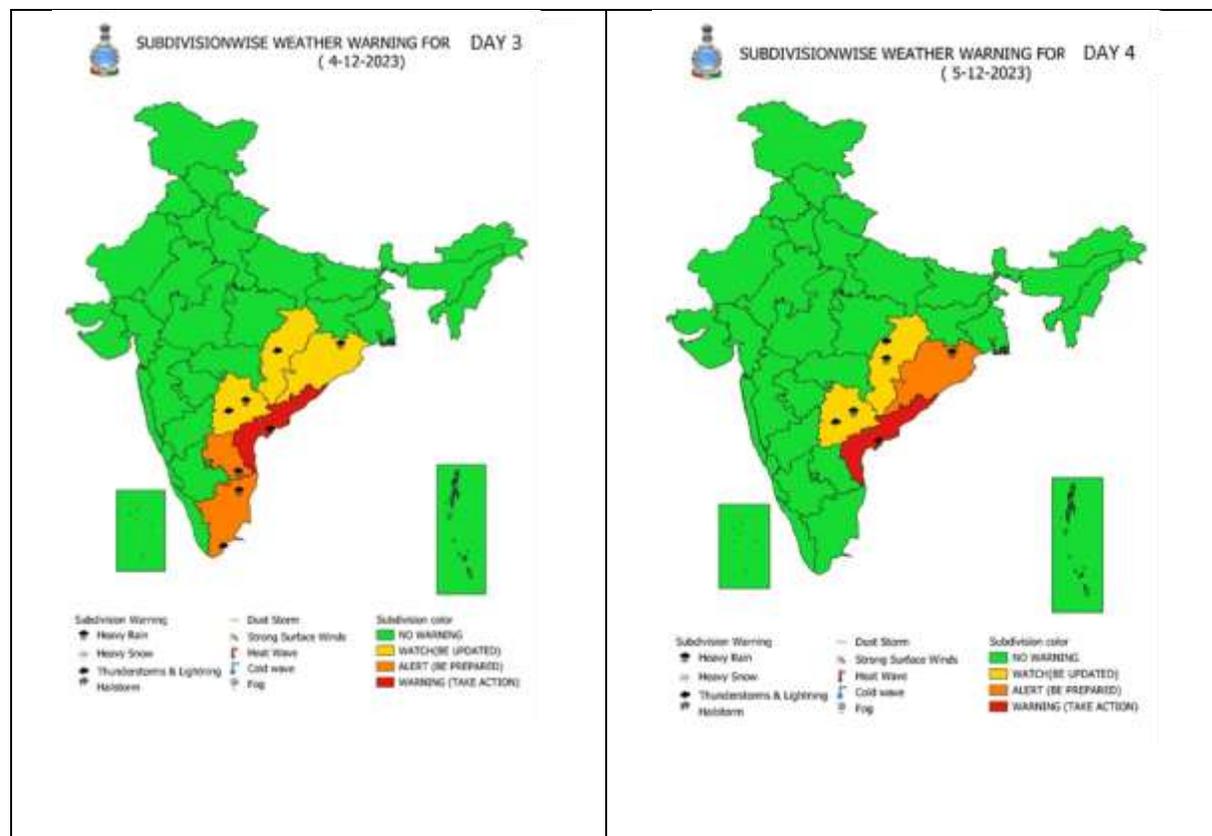
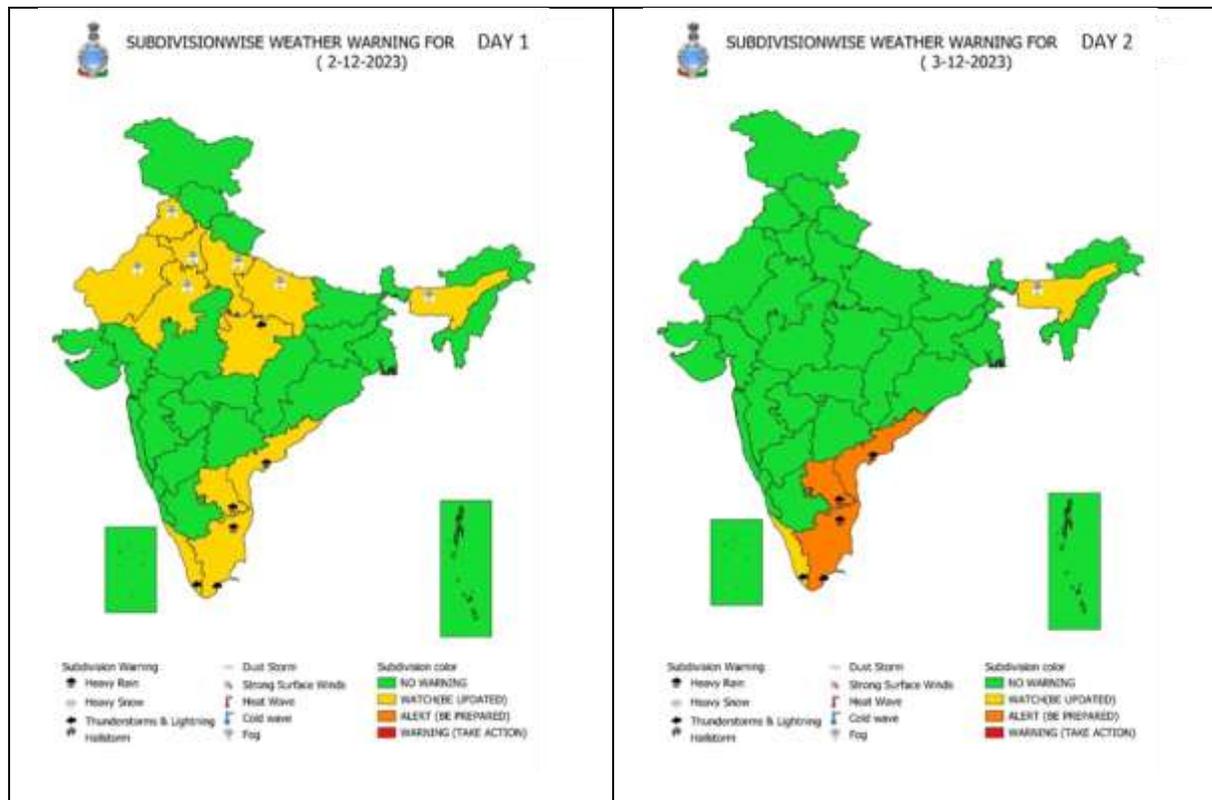
— 50-63 KT (92-117 KMPH)

— ≥ 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



WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

Fishermen warning graphics

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



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



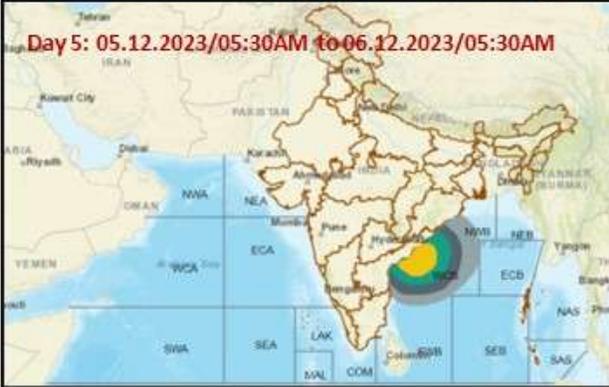
Day 3: 03.12.2023/05:30AM to 04.12.2023/05:30AM



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.

Storm Surge Warning Graphics based on Forecast Track

