



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

NATIONAL BULLETIN NO. 12 (BOB/07/2024)

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Sub: Deep depression over Southwest Bay of Bengal

The Deep Depression over Southwest Bay of Bengal moved north-northwestwards with a speed of 10 kmph during past 6 hours and lay centred at 1130 hours IST of today, the 27th November 2024 over the same region near latitude 8.7°N and longitude 82.2°E, about 110 km east of Trincomalee, 350 km southeast of Nagappattinam, 450 km southeast of Puducherry and 530 km south-southeast of Chennai.

It is very likely to continue to move north-northwestwards and intensify further into a cyclonic storm during next 06 hours. Thereafter, it will continue to move north-northwestwards towards Tamil Nadu coast skirting Sri Lanka coast during subsequent 2 days.

The system is being tracked by DWR Karaikal. A continuous watch is being maintained for the movement and intensification of system.

Forecast track and intensity are given in the following table:

Date/ Time (IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
27.11.24/1130	8.7/82.2	55-65 gusting to 75	Deep Depression
27.11.24/1730	9.0/82.1	60-70 gusting to 80	Cyclonic Storm
27.11.24/2330	9.4/82.0	60-70 gusting to 80	Cyclonic Storm
28.11.24/0530	9.8/81.9	65-75 gusting to 85	Cyclonic Storm
28.11.24/1130	10.2/81.8	65-75 gusting to 85	Cyclonic Storm
28.11.24/2330	10.8/81.6	65-75 gusting to 85	Cyclonic Storm
29.11.24/1130	11.3/81.3	60-70 gusting to 80	Cyclonic Storm
29.11.24/2330	11.7/80.9	60-70 gusting to 80	Cyclonic Storm
30.11.24/1130	12.1/80.4	50-60 gusting to 70	Deep Depression

Warnings:

(i) Rainfall Warning:

Tamil Nadu & Puducherry: Heavy to very heavy rainfall at a few places with **extremely heavy rainfall** at isolated places over Tamil Nadu & Puducherry on 27th and heavy to very heavy rainfall at isolated places is likely during 28th to 30th November.

Coastal Andhra Pradesh: Light to moderate rainfall at many places with heavy rainfall at isolated places is likely on 27th November and heavy to very heavy rainfall during 28th to 30th November.

Rayalaseema: Light to moderate rainfall at many places with heavy rainfall at isolated places is likely during 28th to 30th November.

Kerala: Light to moderate rainfall at many places with heavy rainfall at isolated places is likely on 30th November.

(ii) Wind warning:

- Squally wind speed reaching 55-65 kmph gusting to 75 kmph is likely to prevail over southwest Bay of Bengal and along & off Sri Lanka coast till 27th morning. It is likely to increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph over southwest Bay of Bengal and along & off Sri Lanka coasts from evening of 27th November. Thereafter, Gale wind speed reaching 65-75 kmph gusting to 85 kmph is likely to prevail over southwest Bay of Bengal till morning and decrease marginally becoming 60-70 kmph gusting to 80 kmph till night of 29th November, thereafter squally winds speed reaching 55-65 kmph gusting to 75 kmph by morning of 30th November.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail over adjoining areas of westcentral Bay of Bengal till 27th morning. It would increase gradually becoming 55-65 kmph gusting to 75 kmph over the same region till 29th November evening.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail along & off Tamil Nadu- Puducherry and south Andhra Pradesh coasts till 27th morning. Thereafter, it is likely to increase becoming 55-65 kmph gusting to 75 kmph from 27th evening till 30th November morning.

(iii) Sea condition:

- Rough to very Rough Sea condition is very likely to prevail over southwest Bay of Bengal and along & off Sri Lanka coast till 27th morning. It is likely to become high from 27th evening till 29th November and improve thereafter becoming very rough to rough on 30th November.
- Rough to very rough Sea condition is very likely to prevail along and off Tamil Nadu- Puducherry and south Andhra Pradesh coasts till 30th November.
- Rough to very Rough Sea condition is likely to prevail over adjoining westcentral Bay of Bengal from 27th evening till 30th November.

(iv) Fisherman warning:

- Fishermen are advised not venture into
 - southwest Bay of Bengal and along & off Sri Lanka & Tamilnadu coasts till 30th November, 2024.
 - Adjoining areas of Westcentral Bay of Bengal and along & off south Andhra Pradesh coast during 27th to 30th November 2024.
- Fishermen out at sea are advised to return to coasts immediately.

(v) Impact Expected [over Tamil Nadu – Puducherry and south Andhra Pradesh]

- 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.
- Damage to horticulture and standing crops in some areas due to inundation.

(vi) Action Suggested

- Fishermen are advised not venture into
 - southwest Bay of Bengal and along & off Sri Lanka & Tamilnadu coasts till 30th November, 2024.
 - Adjoining areas of Westcentral Bay of Bengal and along & off south Andhra Pradesh coast during 27th to 30th November 2024.
- Fishermen out at sea are advised to return to coasts immediately
- 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.
- Special care may be taken for fishing ponds and poultries over coastal areas.
- Avoid staying in vulnerable structure.

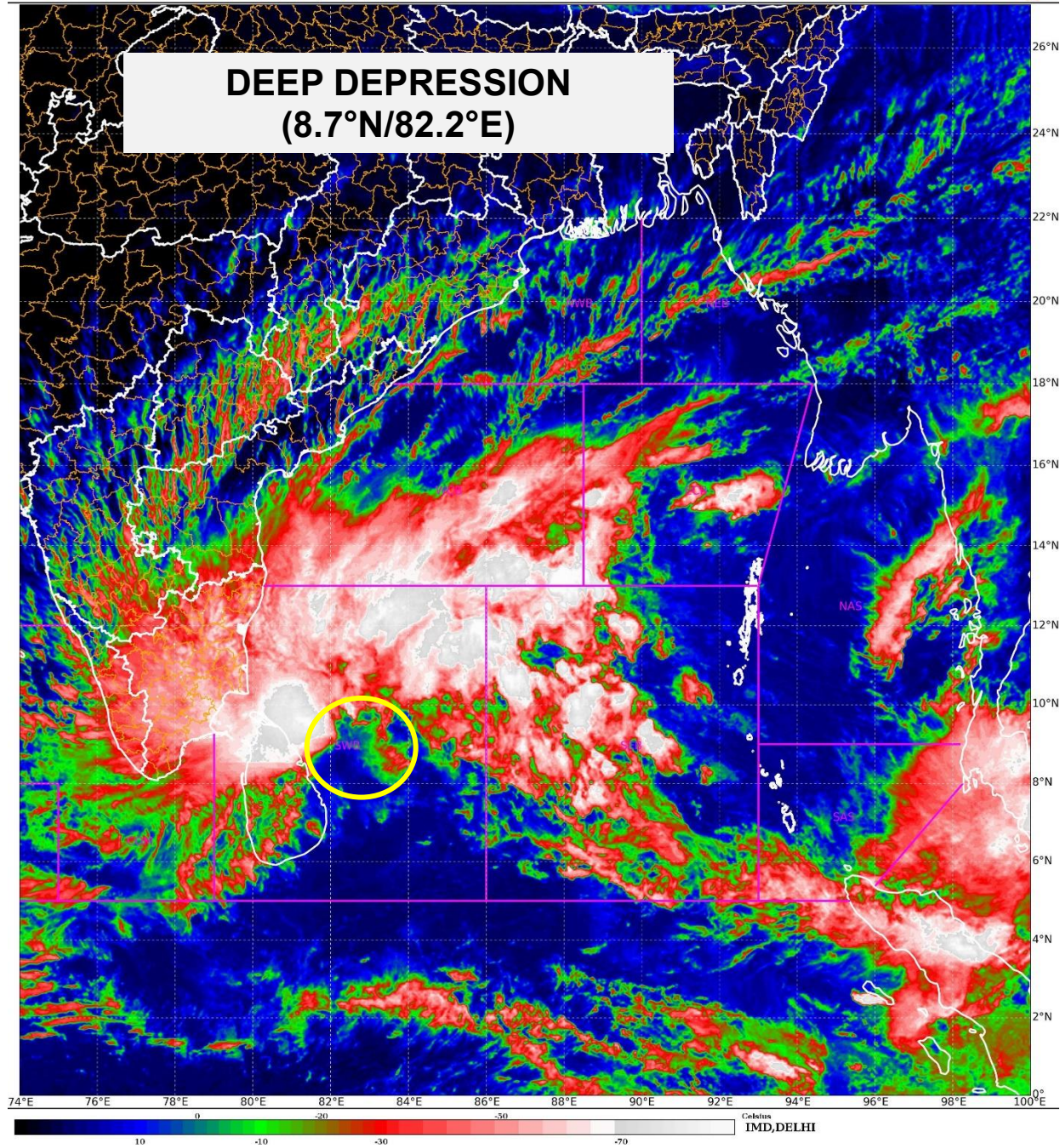
(vii) Agromet advisories [over Tamil Nadu – Puducherry and Andhra Pradesh]

- Provide adequate drainage facilities for the removal of excess water from rice, cotton, sugarcane, turmeric and vegetable fields, coconut and banana orchards. Provide mechanical support to banana plants to prevent lodging.
- Make arrangements to drain out excess water from the standing crop fields and fruit orchards in Kerala and Coastal Andhra Pradesh.
- Harvest the matured crops and keep it in safe place.
- Provide mechanical support to horticultural crops and staking to vegetables.

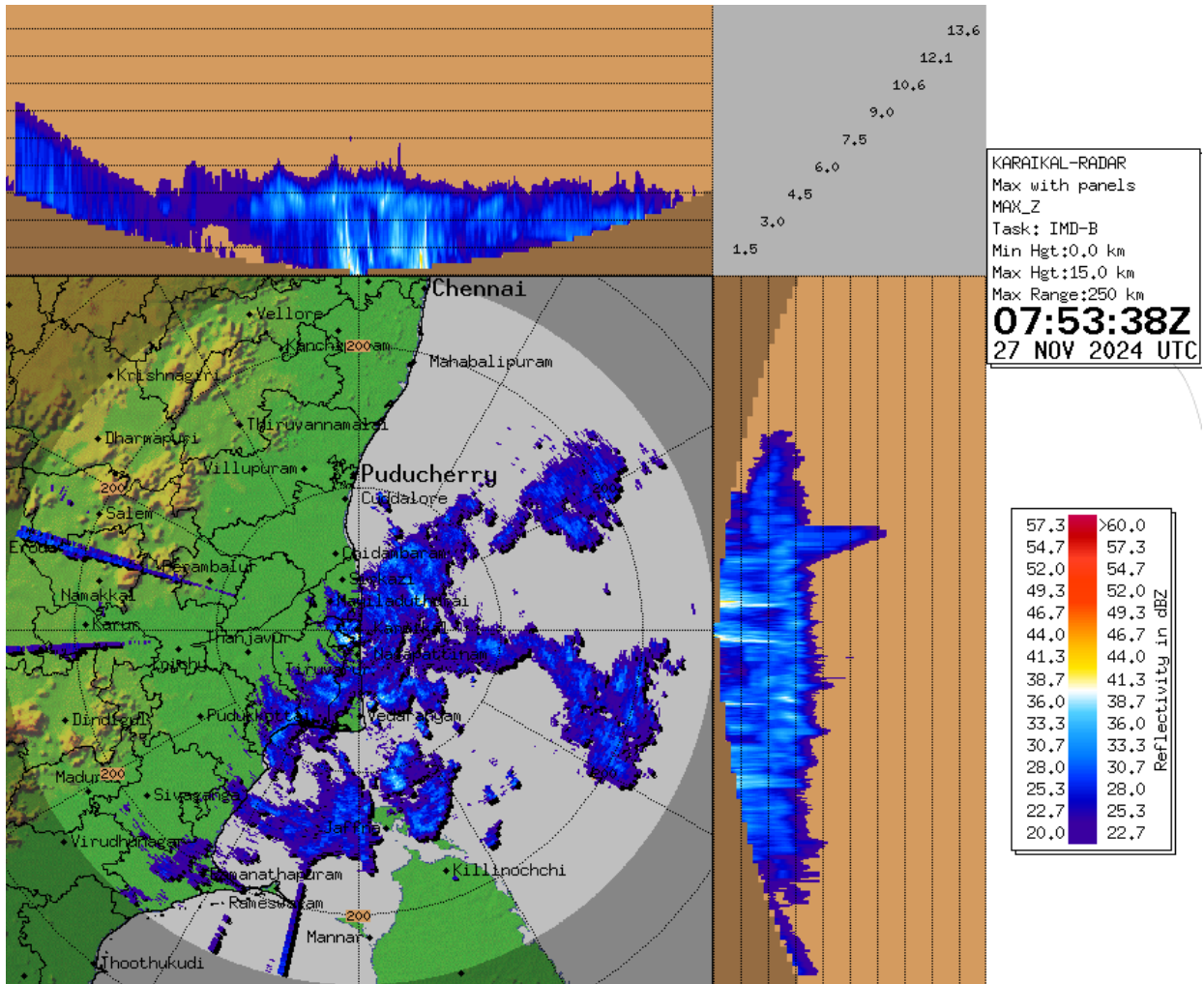
Next bulletin will be issued at 2030 hours IST of today, the 27th November, 2024.

**(Monica Sharma)
Scientist D, RSMC, New Delhi**

Copy to: ACWC Kolkata/ACWC Chennai/CWC Bhubaneswar/MC, Amaravati/MC, Thiruvananthapuram/CWC, Vishakhapatnam

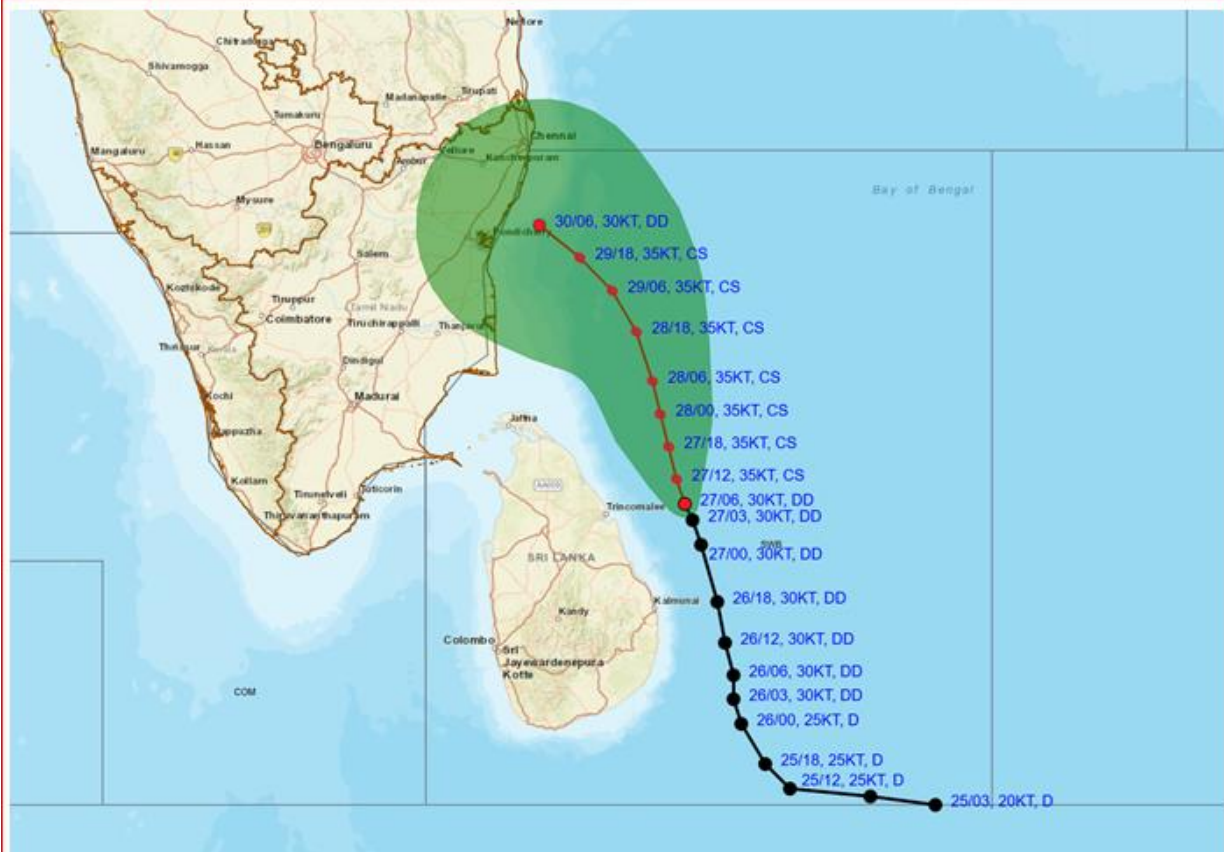


Doppler Weather Radar Observation (Max Z) at Karaikal





OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC (1130 HRS. IST) OF 27TH NOVEMBER, 2024



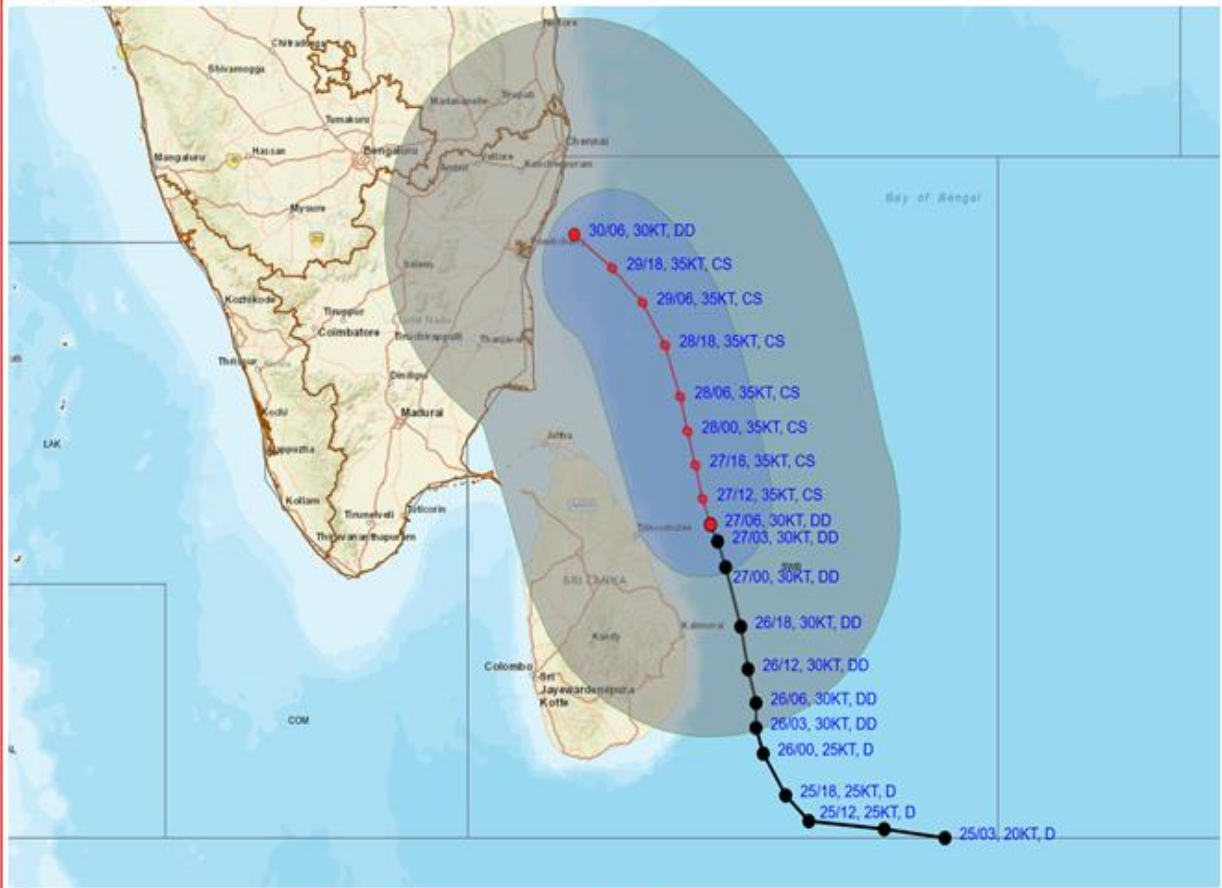
DATE/TIME : IN UTC
IST : UTC + 0530
KT : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR
LPA : LOW PRESSURE AREA
WML : WELL MARKED LOW PRESSURE AREA
D : DEPRESSION (17-27KT)
DD : DEEP DEPRESSION (28-33 KT)
CS : CYCLONIC STORM (34-47 KT)
SCS : SEVERE CYCLONIC STORM (48-63 KT)
VSCS : VERY SEVERE CYCLONIC STORM (64-89 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 Date and Time (UTC)	DISTANCE (KM) AND DIRECTION FROM STATIONS				
	BATTICALOA	TRINCOMALEE	NAGAPPATTINAM	PUDUCHERRY	CHENNAI/MINAMBAKKAM
27.11.24/0600	120, NNE	110, E	350, SE	450, SE	530, SSE
28.11.24/0600	280, N	190, NNE	220, ESE	290, SE	360, SSE
29.11.24/0600	400, N	300, N	170, ENE	180, ESE	220, SSE
30.11.24/0600	510, NNW	400, NNW	160, NNE	70, ENE	100, SSE



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC (1130 HRS. IST) OF 27TH NOVEMBER, 2024.



DATE/TIME : IN UTC
 IST : UTC + 0530
 KT : NAUTICAL MILE/ HOUR = 1.85 KM/HOUR
 LPA : 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 (48-63 KT)
 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

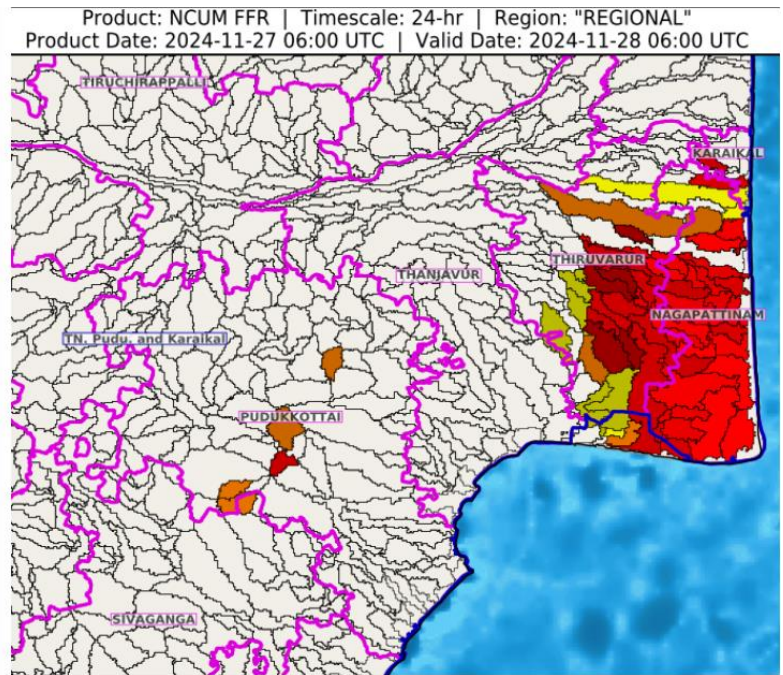
Flash Flood Guidance

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 28-11-2024:

Moderate to High flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Tamil Nadu - Pudu & Karaikal - Karaikal, Nagapattinam, Pudukkottai and Thiruvarur districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



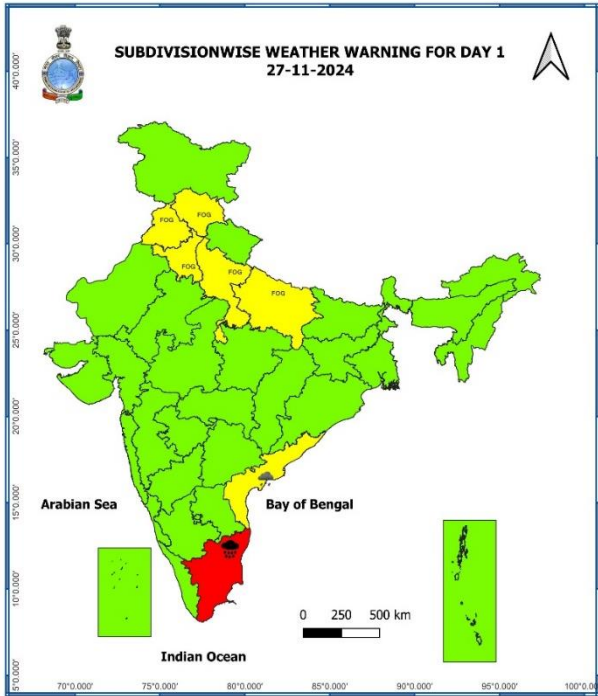
Flash Flood Risk

 **High Risk (Take Action)**

 **Moderate Risk (Be Prepared)**

 **Low Risk (Be Updated)**

Weather Warning Graphics



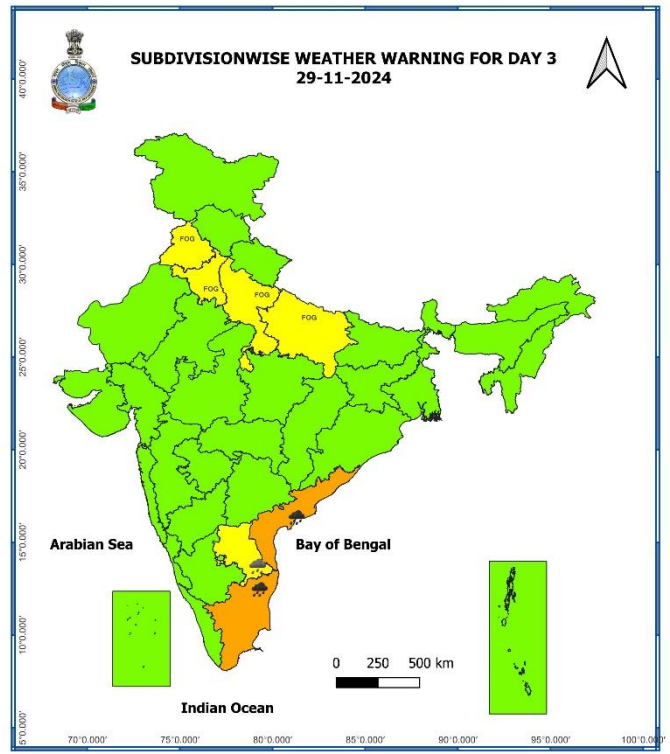
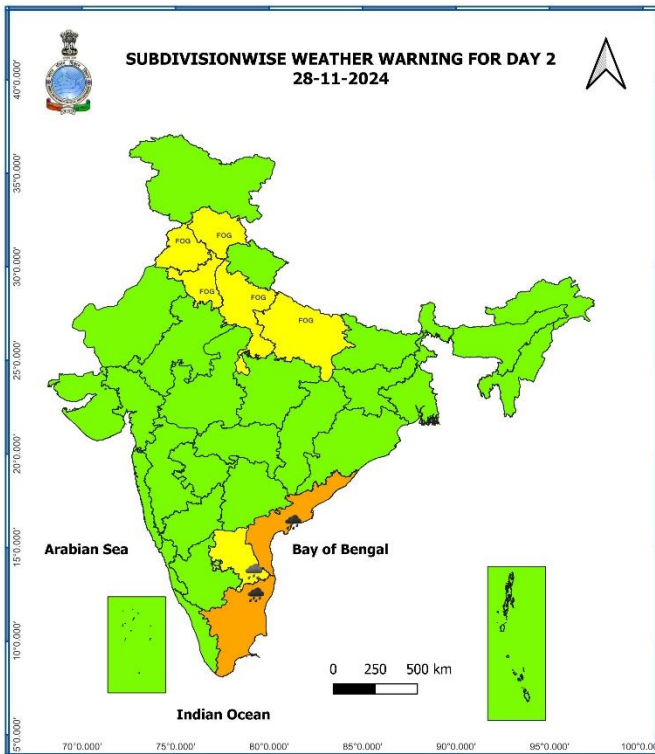
- Fog
- Heavy Rain
- Very Heavy Rain
- Extremely Heavy Rain
- Thunder & Lightning
- Hailstorm
- Dust Raising Winds
- Heavy Snow
- Dust Storm
- Heat Wave
- Warm Night
- Hot Day
- Hot & Humid
- Cold Wave
- Cold Day
- Ground Frost
- Strong Surface Winds

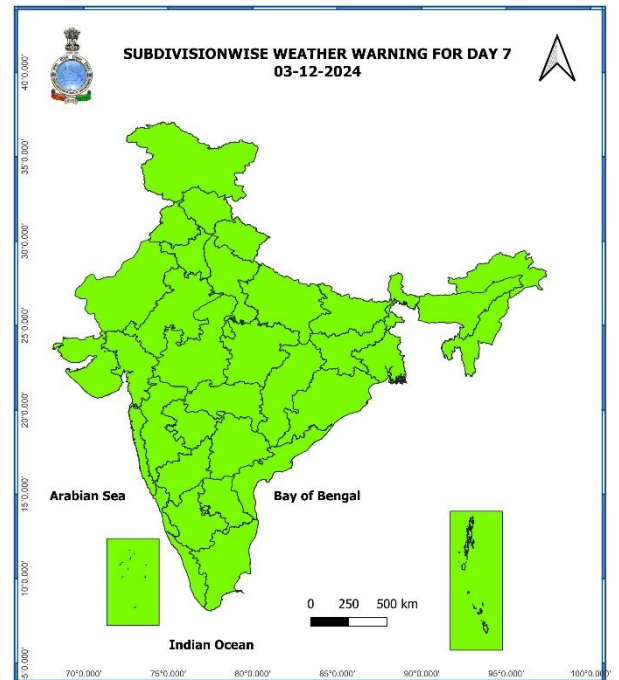
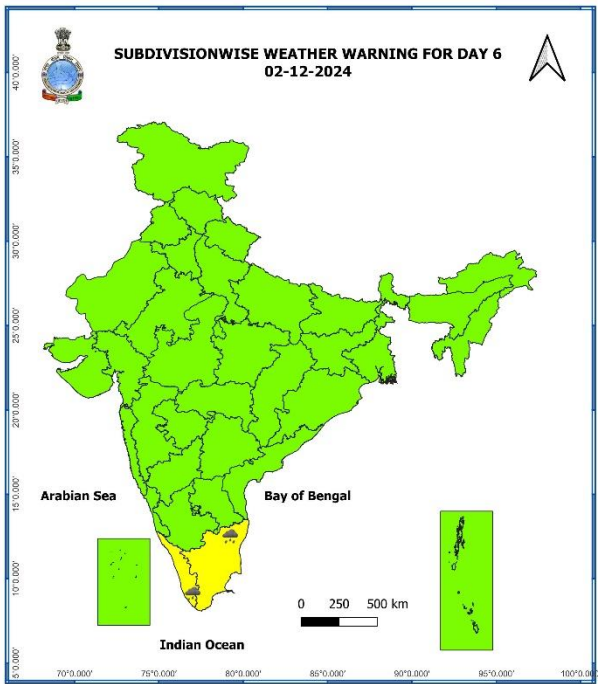
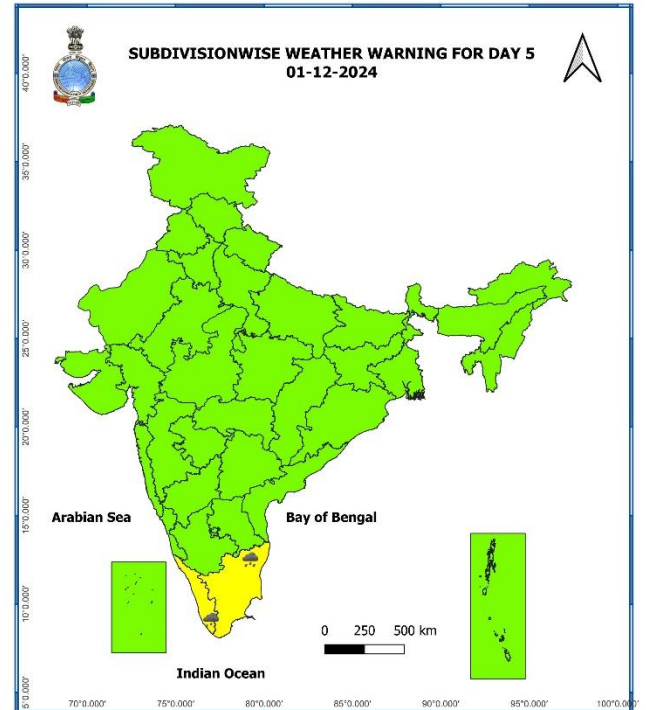
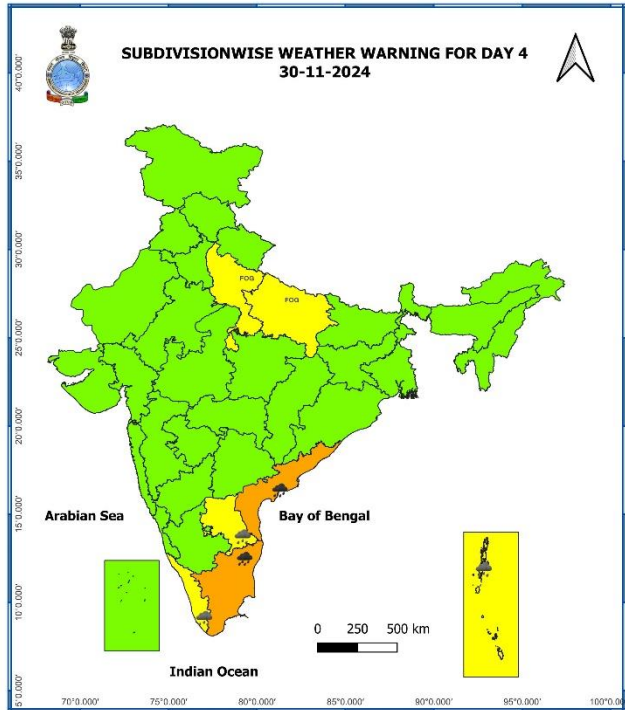
COLOUR CODED WARNING

	No Warning (No Action)
	Watch (Be Aware)
	Alert (Be Prepared To Take Action)
	Warning (Take Action)

Probabilistic Forecast

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





- Action may be taken based on **ORANGE AND RED** COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Fishermen Warning Graphics

