



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

NATIONAL BULLETIN NO. 20 (BOB/07/2024)

TIME OF ISSUE: 1100 HOURS IST

DATED: 29.11.2024

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192-232656)

CHIEF SECRETARY, TAMIL NADU (FAX NO. 044-25672304)

CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029)

CHIEF SECRETARY, PUDUCHERRY (FAX NO. 0413-2334145)

CHIEF SECRETARY, ODISHA (FAX NO. 0674-2536660)

Sub: Deep depression over Southwest Bay of Bengal (Cyclone Alert: Orange Message for North Tamil Nadu, Puducherry and adjoining south Andhra Pradesh Coasts)

The Deep Depression over Southwest Bay of Bengal moved north-northwestwards with a speed of 7 Kmph during past 6 hours and lay centred at 0530 hours IST of today, the 29th November 2024 over the same region near latitude 10.4°N and longitude 82.7°E, about 260 km northeast of Trincomalee, 310 km east of Nagappattinam, 360 km east-southeast of Puducherry and 400 km southeast of Chennai.

It is likely to move northwestwards and intensify into a cyclonic storm during next 12 hours. Thereafter, it is likely to continue to move northwestwards and cross north Tamil Nadu-Puducherry coasts between Karaikal and Mahabalipuram close to Puducherry as a cyclonic storm with a wind speed of 70-80 kmph gusting to 90 kmph during afternoon 30th November.

The system is being continuously monitored.

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
29.11.24/0530	10.4/82.7	55-65 gusting to 75	Deep Depression
29.11.24/1130	10.7/82.4	55-65 gusting to 75	Deep Depression
29.11.24/1730	11.0/81.9	60-70 gusting to 80	Cyclonic Storm
29.11.24/2330	11.3/81.2	65-75 gusting to 85	Cyclonic Storm
30.11.24/0530	11.7/80.4	70-80 gusting to 90	Cyclonic Storm
30.11.24/1730	12.2/79.3	55-65 gusting to 75	Deep Depression

Warnings:

(i) Rainfall Warning:

Tamil Nadu & Puducherry: Light to moderate rainfall at many places with heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places is likely over north Tamil Nadu – Puducherry on 29th & 30th November and isolated heavy to very heavy rainfall on 1st December.

Coastal Andhra Pradesh: Light to moderate rainfall at many places with heavy to very heavy rainfall at isolated places is likely over south coastal Andhra Pradesh on 29th to 30th November; extremely heavy rainfall at isolated places on 29th November.

Rayalaseema: Light to moderate rainfall at many places with heavy to very heavy rainfall at isolated places is likely on 29th & 30th November; extremely heavy rainfall at isolated places on 29th November.

South interior Karnataka: Light to moderate rainfall at many places with isolated heavy rainfall at isolated places is likely on 29th, heavy to very heavy rainfall at isolated places on 30th November and 1st December and heavy rainfall at isolated places on 2nd December.

Kerala: Light to moderate rainfall at many places with heavy to very heavy rainfall at isolated places on 30th November & 1st December.

(ii) Wind warning:

- **Southwest Bay of Bengal:** Squally wind speed reaching 55-65 kmph gusting to 75 kmph is prevailing over southwest Bay of Bengal. It is likely to increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph from evening of 29th and 70-80 kmph gusting to 90 kmph by morning of 30th November. Thereafter, it is likely to decrease becoming 55-65 kmph gusting to 75 kmph by evening of 30th November.
- **Adjoining areas of westcentral Bay of Bengal:** Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely to prevail over adjoining areas of westcentral Bay of Bengal till evening of 30th November. It is likely to decrease thereafter.
- **Along & off North Tamil Nadu – Puducherry and adjoining South Andhra Pradesh coasts:** Squally wind speed reaching 50-60 kmph gusting to 70 kmph is prevailing along & off **North Tamil Nadu - Puducherry and adjoining South Andhra Pradesh coasts**. It is likely to increase becoming Gale wind speed reaching 60-70 kmph gusting to 80 kmph from evening of 29th and 70-80 kmph gusting to 90 kmph from 30th November morning to evening of 30th November. It is likely to decrease thereafter.
- **Along & off East Sri Lanka coasts:** Squally wind speed reaching 55-65 kmph gusting to 75 kmph is very likely to prevail **Along & off East Sri Lanka coasts** till 29th November. It would decrease thereafter.
- **Along & off South Tamil Nadu coast and Gulf of Mannar:** Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail till 30th evening and gradually decrease thereafter.

(iii) Sea condition:

- Rough to very Rough Sea conditions is very likely over southwest Bay of Bengal adjoining areas of westcentral Bay of Bengal, Gulf of Mannar and along & off Tamil Nadu-Puducherry, South Andhra Pradesh and East Sri Lanka coasts till afternoon of 30th November. It is likely to become very rough to high thereafter till 30th evening. It will gradually improve thereafter.

(iv) Storm surge Warning:

Storm surge of about 1 metre above the astronomical tide is likely inundate the low lying areas of the coastal districts of north Tamil Nadu, Puducherry and adjoining south Andhra Pradesh during the time of landfall.

(v) Fisherman warning:

- Total suspension of fishing operations.
- Fishermen are advised not venture into southwest Bay of Bengal adjoining areas of westcentral Bay of Bengal, Gulf of Mannar and along & off Tamil Nadu-Puducherry, South Andhra Pradesh and East Sri Lanka coasts till 30th November evening.
- Fishermen out at sea are advised to return to coast.

(vi) Impact Expected [over coastal districts of north Tamil Nadu – Puducherry and adjoining 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 kutchra roads.
- Damage to horticulture and standing crops in some areas due to inundation.
- Partial disruption of power and communication lines.
- Breaking of tree branches, uprooting of small trees including banana, papaya and drumstick.

(vii) Action Suggested

- Total suspension of fishing operations.
- Fishermen are advised not venture into southwest Bay of Bengal adjoining areas of westcentral Bay of Bengal, Gulf of Mannar and along & off Tamil Nadu-Puducherry, South Andhra Pradesh and East Sri Lanka coasts till 30th November evening.
- Fishermen out at sea are advised to return to coast.
- The ships plying over the area need to be regulated.
- People should stay in safe places during 30th morning to evening.
- 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 poultry over coastal areas.
- Avoid staying in vulnerable structure.

(viii) Agromet advisories [over coastal districts of Tamil Nadu – Puducherry and adjoining south Andhra Pradesh]

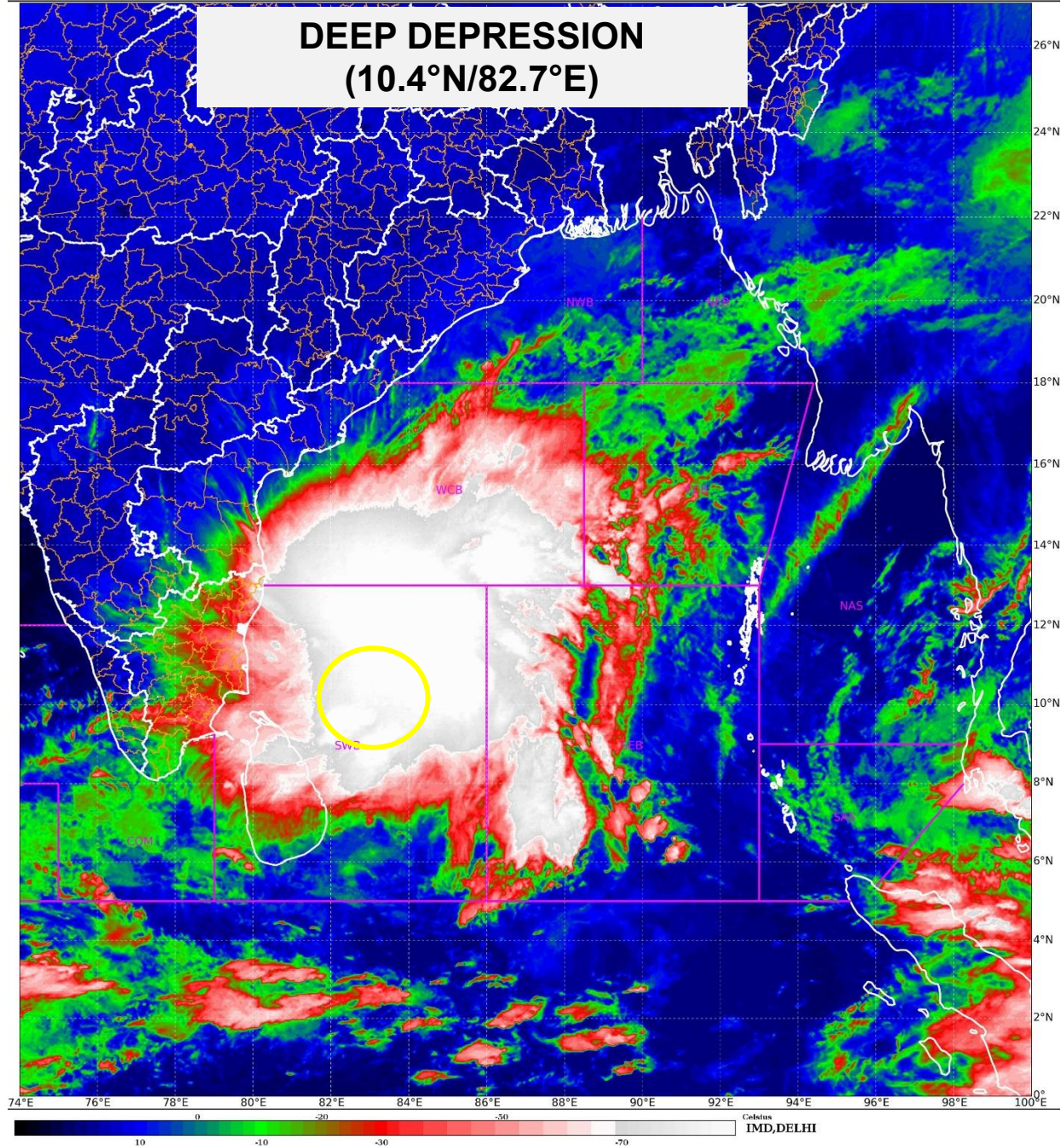
Provide adequate drainage facilities for the removal of excess water from rice, cotton, sugarcane, turmeric and vegetable fields, coconut and banana orchards. Provide mechanical support to banana plants to prevent lodging.

- 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 1330 hours IST of 29th November, 2024.

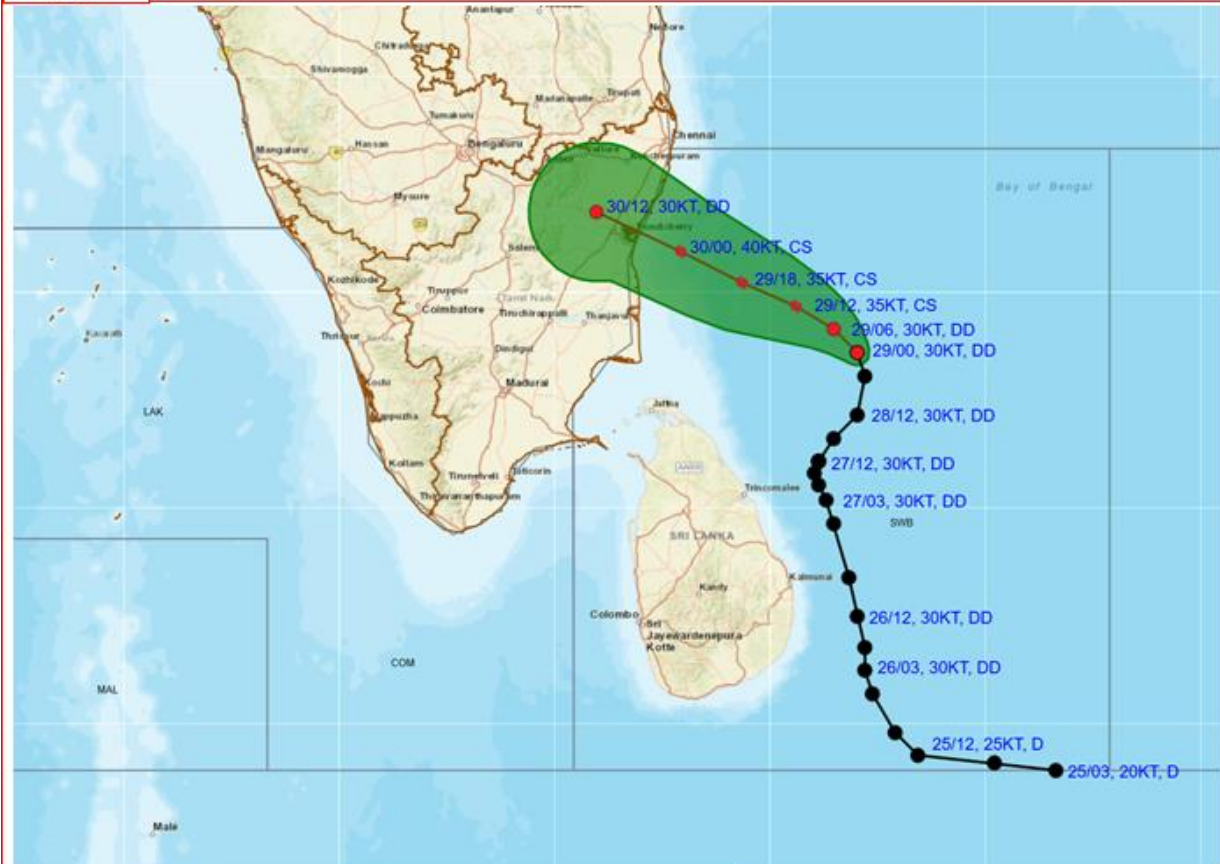
**(Dr. Ananda Kumar Das)
Scientist F, RSMC, New Delhi**

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





OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0000 UTC (0530 HRS. IST) OF 29TH NOVEMBER, 2024



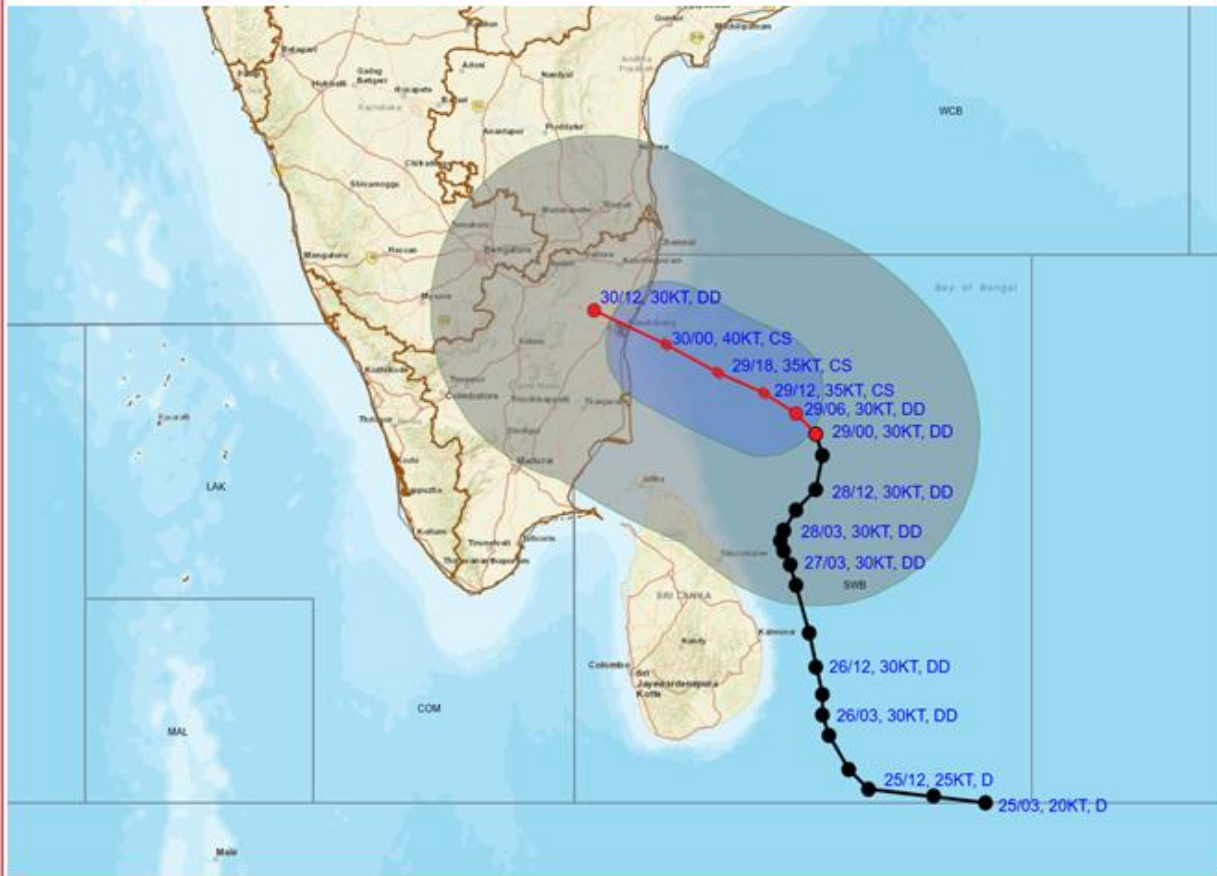
DATE/TIME : IN UTC
 IST : UTC + 0530
 KT : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR
 LPA : LOW PRESSURE AREA
 WML : WELL MARKED LOW PRESSURE AREA
 D : DEPRESSION (17-27 KT)
 DD : DEEP DEPRESSION (28-33 KT)
 CS : CYCLONIC STORM (34-47 KT)
 SCS : SEVERE CYCLONIC STORM (48-63 KT)
 VS CS : VERY SEVERE CYCLONIC STORM (64-89 KT)
 ES CS : 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)	TRINCOMALEE	BATTICALOA	NAGAPPATTINAM	PUDUCHERRY	CHENNAI/MINAMBAKKAM
29.11.24/0000	260, NE	320, NNE	310, E	360, ESE	400, SE
30.11.24/0000	360, NNW	470, NNW	120, NNE	70, ESE	150, S



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0000 UTC (0530 HRS. IST) OF 29TH NOVEMBER, 2024.



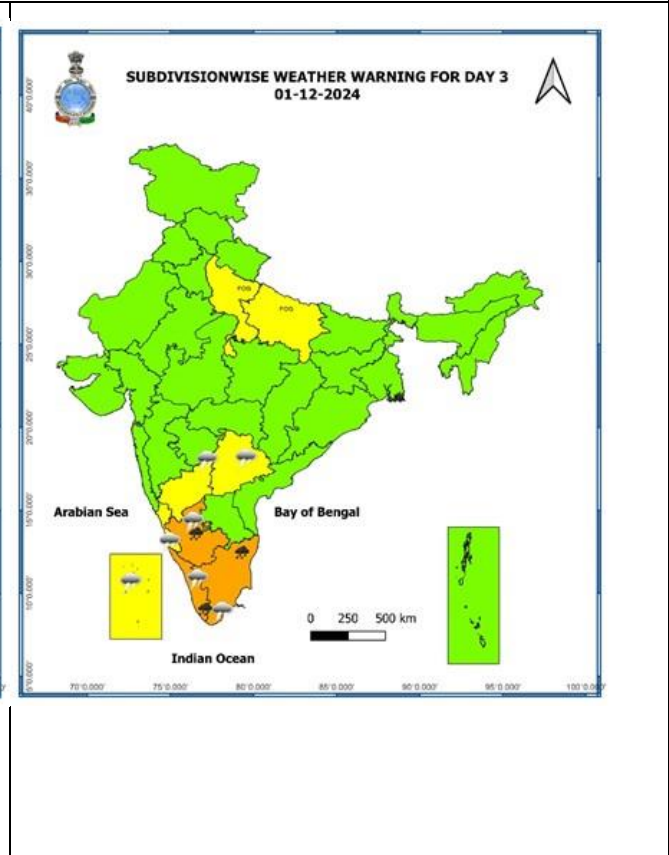
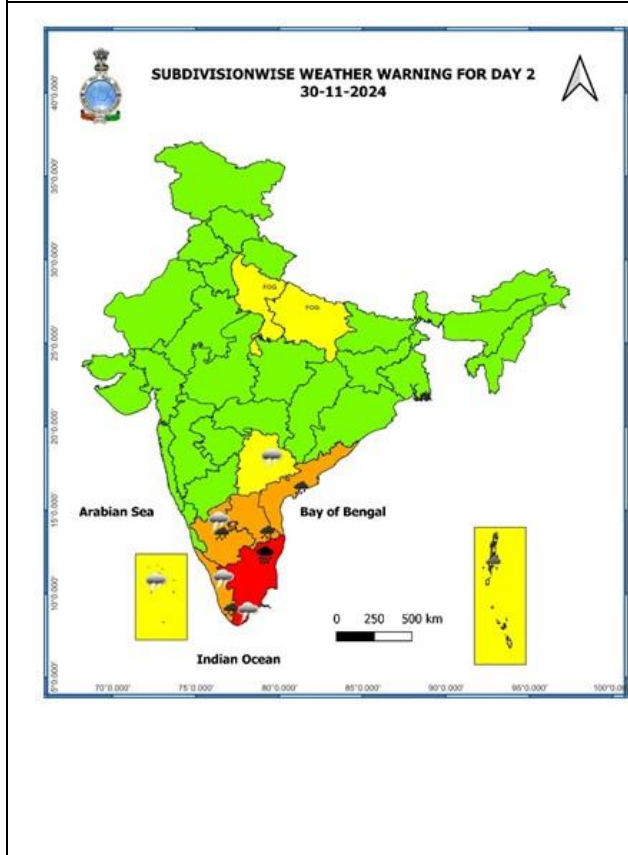
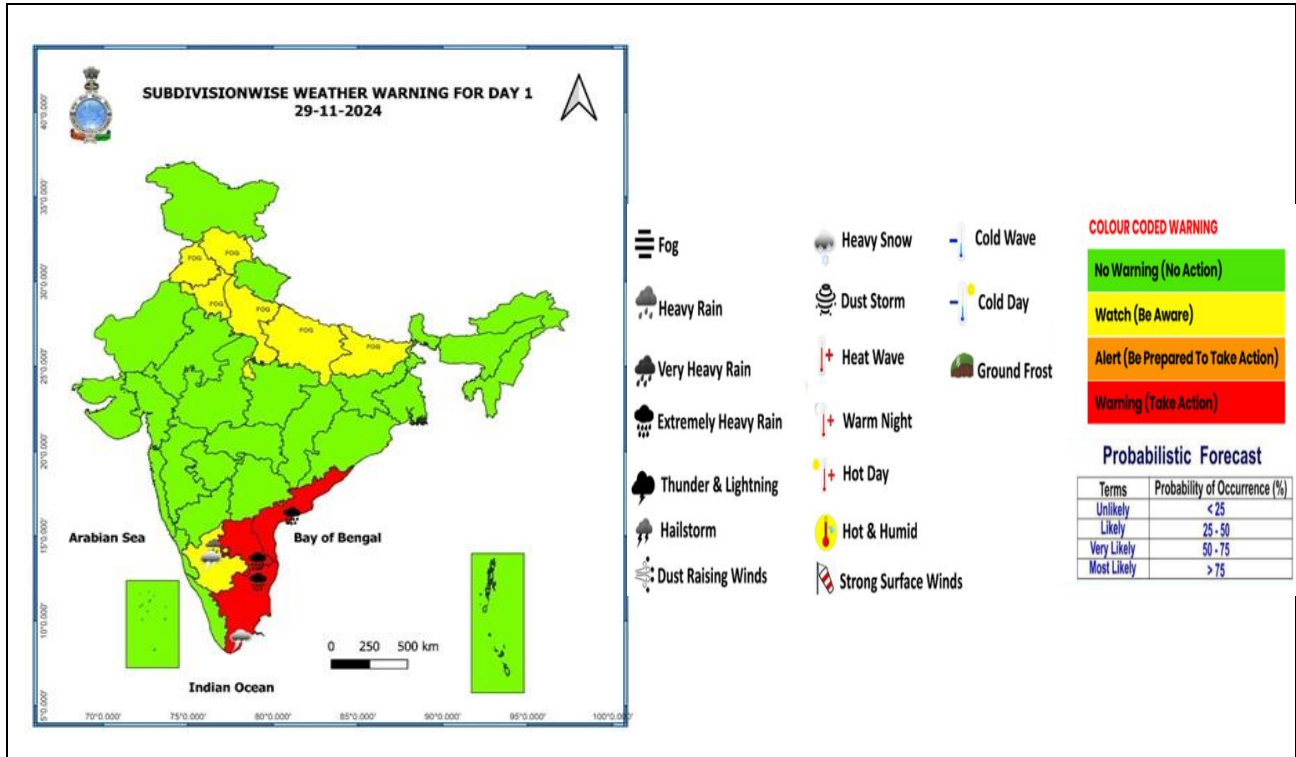
DATE/TIME : IN UTC
 IST : UTC + 0530
 KT : NAUTICAL MILE/HOUR = 1.85 KM/HOUR
 LPA : LOW PRESSURE AREA
 WML : WELL MARKED LOW PRESSURE AREA
 D : DEPRESSION (17-27 KT)
 DD : DEEP DEPRESSION (28-33 KT)
 CS : CYCLONIC STORM (34-47 KT)
 SCS : SEVERE CYCLONIC STORM (48-63 KT)
 VSCS : VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS : EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS : SUPER CYCLONIC STORM (≥120 KT)

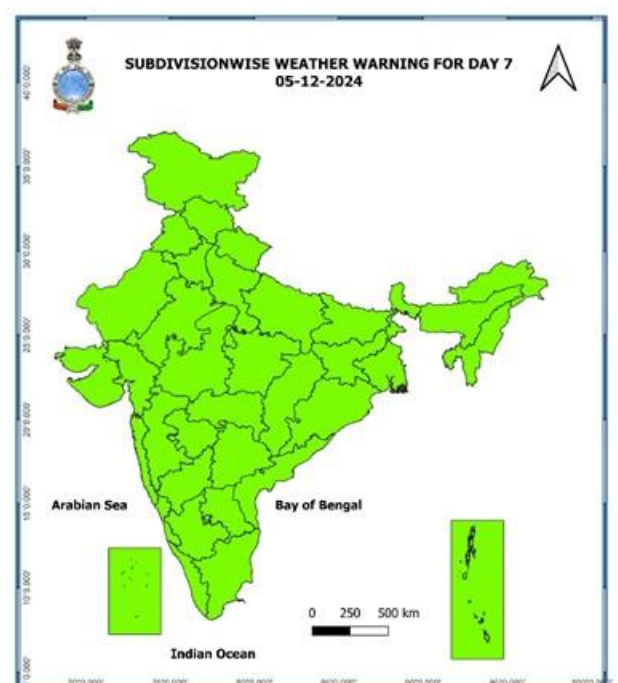
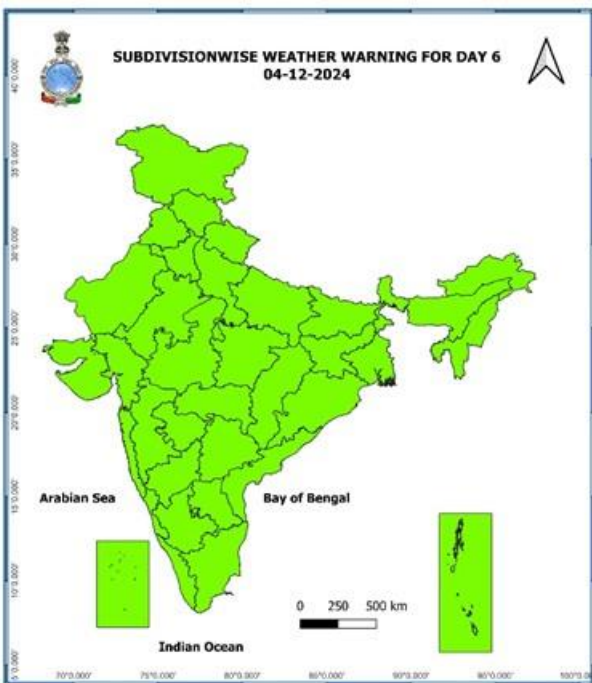
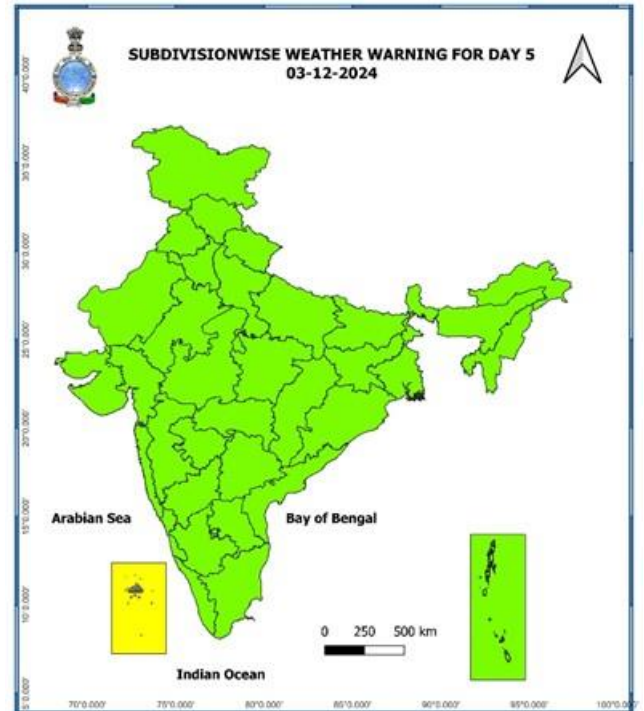
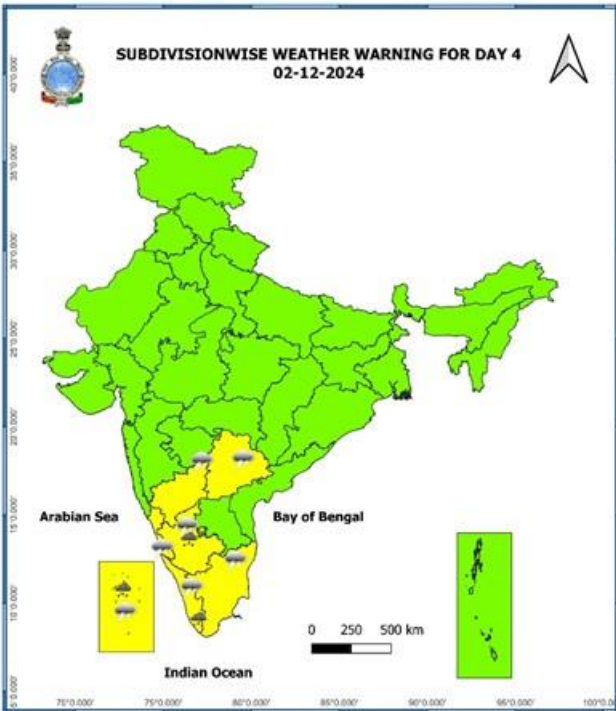
● LESS THAN 34 KT
 ● 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 ○ CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

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

Weather Warning Graphics





- 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.

Flash Flood Guidance

National Flash Flood Guidance Bulletin

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 30-11-2024:

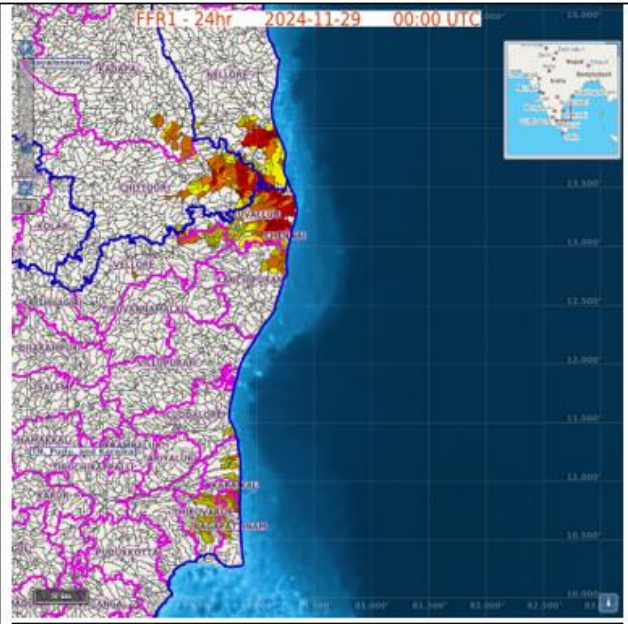
Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met-subdivision in next 24 hours.




Coastal Andhra Pradesh – Thirupati and Nellore district

Rayalaseema – Chittoor and Kadapa district

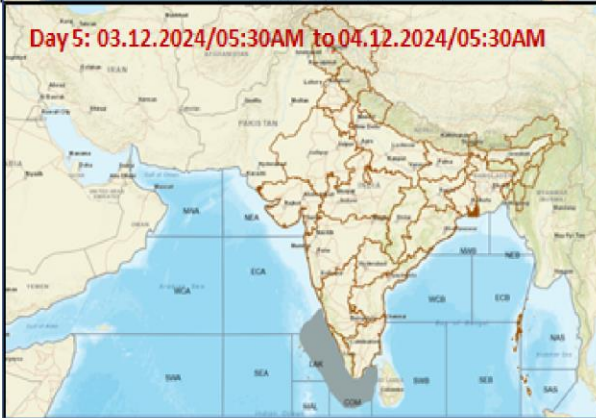
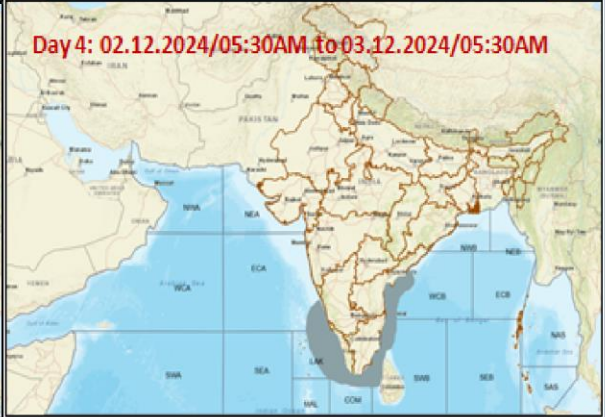
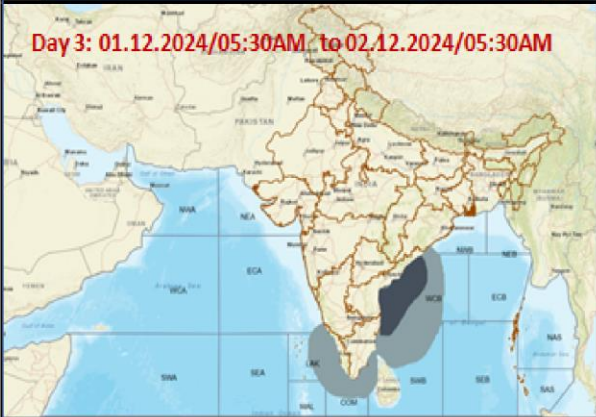
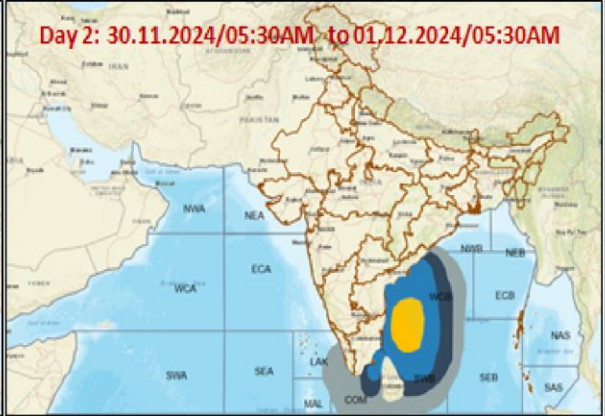
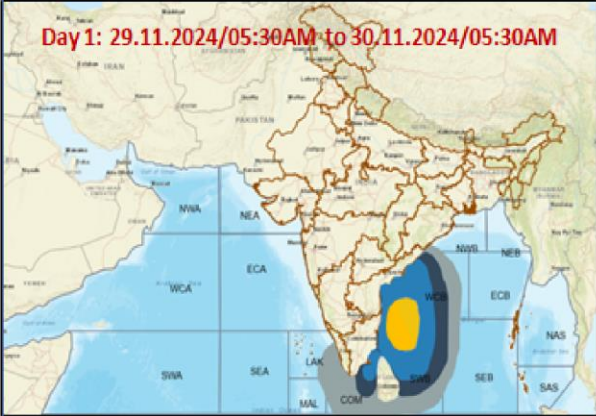
Tamil Nadu, Puducherry & Karaikal - Chennai, Kanchipuram, Vellore and Tiruvallur districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern 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)

Fishermen Warning Graphics



	Squally Weather with wind speed 35-45 kmph gusting to 55 kmph
	Squally wind with speed 45-55 kmph gusting to 65 kmph
	Deep depression with wind speed 55-65 kmph gusting to 75 kmph
	CS with Gale winds with speed 60-80 kmph gusting to 90 kmph

Fishermen are advised not to venture into the marked areas.