



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

**NATIONAL BULLETIN NO. 39 (BOB/07/2024)**

**TIME OF ISSUE: 2130 HOURS IST**

**DATED: 01.12.2024**

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**Sub: Deep Depression (Remnant of Cyclonic Storm "FENGAL") weakened into a Depression over north coastal Tamil Nadu & Puducherry**

Deep Depression (Remnant of Cyclonic Storm "FENGAL") over north coastal Tamil Nadu & Puducherry moved slowly west-northwestwards during past 06 hours, weakened into a depression and lay centered at 1730 hours IST of today, the 1<sup>st</sup> December 2024 over the same region near latitude 12.1°N and longitude 79.6°E, about 20 km northeast of Villupuram, 30 km west-northwest of Puducherry, about 40 km north-northwest of Cuddalore and 120 km south-southwest of Chennai.

It is likely to continue to move west-northwestwards and weaken gradually into a Well Marked Low pressure area over north interior Tamil Nadu during the next 12 hours.

The system is being continuously monitored by the Doppler Weather Radar at Karaikal.

Forecast track and intensity are given in the following table:

<b>Date/ Time (IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
01.12.24/1730	12.1/79.6	45-55 gusting to 65	Depression
01.12.24/2330	12.1/79.4	40-50 gusting to 60	Depression
02.12.24/0530	12.2/79.2	35-45 gusting to 50	Well Marked Low Pressure Area

## **Warnings:**

### **(i) Rainfall Warning:**

**Tamil Nadu & Puducherry:** Light to moderate rainfall at few places with **heavy to very rainfall** at isolated places is very likely over North Tamil Nadu & Puducherry on 1<sup>st</sup> & 2<sup>nd</sup> December and **heavy rainfall** at isolated places over the interior districts of Tamil Nadu adjoining to Kerala on 03<sup>rd</sup> December.

**Royalaseema:** Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 01<sup>st</sup> and 2<sup>nd</sup> December.

**South Interior Karnataka:** Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 01<sup>st</sup> & 3<sup>rd</sup> December and heavy to very heavy rainfall at isolated places is very likely on 2<sup>nd</sup> December.

**Coastal Karnataka:** Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 2<sup>nd</sup> and 3<sup>rd</sup> December.

**Kerala:** Light to moderate rainfall at a few places with isolated heavy to very heavy rainfall is likely on 1<sup>st</sup> December. Rainfall activity will increase with light to moderate rainfall at most places with **heavy to very heavy rainfall** at a few places & **extremely heavy** at isolated places on 2<sup>nd</sup> and heavy rainfall at isolated places on 3<sup>rd</sup> December.

### **(ii) Wind warning:**

- **Southwest Bay of Bengal and along & off North Tamil Nadu – Puducherry coasts:** Squally wind speed reaching 45-55 kmph gusting to 65 kmph is prevailing. It is likely to decrease becoming squally wind speed reaching 40-50 kmph gusting to 60 kmph from morning of 2<sup>nd</sup> December and decrease gradually thereafter.
- **Adjoining areas of 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 adjoining areas of westcentral Bay of Bengal till morning of 2<sup>nd</sup> December. It is likely to decrease thereafter.
- **Along & off South Tamil Nadu coast and Gulf of Mannar:** Squally wind speed reaching 35-45 kmph gusting to 55 kmph is likely to prevail till 1<sup>st</sup> December and gradually decrease thereafter.

### **(iii) Sea condition:**

Rough Sea conditions is likely to prevail over southwest Bay of Bengal adjoining areas of westcentral Bay of Bengal, and along & off North Tamil Nadu-Puducherry coasts, Gulf of Mannar, along & off South Andhra Pradesh and north Sri Lanka coasts till morning of 2<sup>nd</sup> December. It will gradually improve thereafter.

### **(iv) Fisherman warning (Graphics Attached):**

- Total suspension of fishing operations till 1<sup>st</sup> December over southwest and adjoining westcentral Bay of Bengal.
- 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 North Sri Lanka coasts till 1<sup>st</sup> December.

### **(v) Flash Flood Guidance (Graphics Attached):**

**Persistent Flash Flood Threat (PFFT) till 2330 IST of 01-12-2024 :**

**Moderate flash flood** threat likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 6 hours. Royalaseema - Chittoor district. Tamil Nadu - Puducherry & Karaikal - Dharampuri, Krishnagiri, Tiruvannamalai, Vellore and Villupuram districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern (AoC) as shown in map (Annexure) due to expected rainfall occurrence in next 6 hours

**(vi) Impact Expected:**

- Major damage to Kutcha and minor damage to Pucca roads.
- Some damage to paddy crops, banana, papaya, drum sticks (moringa) trees and orchards.
- 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.
- Damage to horticulture and standing crops including vegetable crops in some areas due to inundation.

**(vii) Action Suggested:**

- Total suspension of fishing operations till 1<sup>st</sup> December.
- Fishermen are advised not to 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 North Sri Lanka coasts till 1<sup>st</sup> December.
- The ships plying over the area need to regulated.
- 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.

**(viii) Agromet advisories:**

Provide adequate drainage facilities for the removal of excess water from rice, cotton, sugarcane, turmeric, tobacco 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.
- Harvest the matured crops and keep it in safe place.
- Provide mechanical support to horticultural crops and staking to vegetable crops.

**Significant amount of rainfall (from 0830 hours IST to 1730 hours IST of today) (in cm):**

**Tamil Nadu, Puducherry & Karaikal:** Tiruvannamalai 15, Yercaud 7, Tiruppattur, Dharmapuri, Cuddalore 3 each, Vellore, Parangipettai, Salem 2 each;

**Kerala & Mahe:** Ranni\_Chethackal (Pathanamthitta), Seethathode (Pathanamthitta), Laha (Pathanamthitta) 7 each, Kunnamthanam (Pathanamthitta) 5; Kottayam, Konni ( Pathanamthitta), Thycattussery ( Alappuzha) 3 each, Kumarakom\_Afmu ( Kottayam) 2;

**Coastal Andhra Pradesh & Yanam:** Chittor 4;

**Rayalaseema:** Arogyavaram 2.

**Next bulletin will be issued at 0230 hours IST of tomorrow, the 2<sup>nd</sup> December, 2024.**

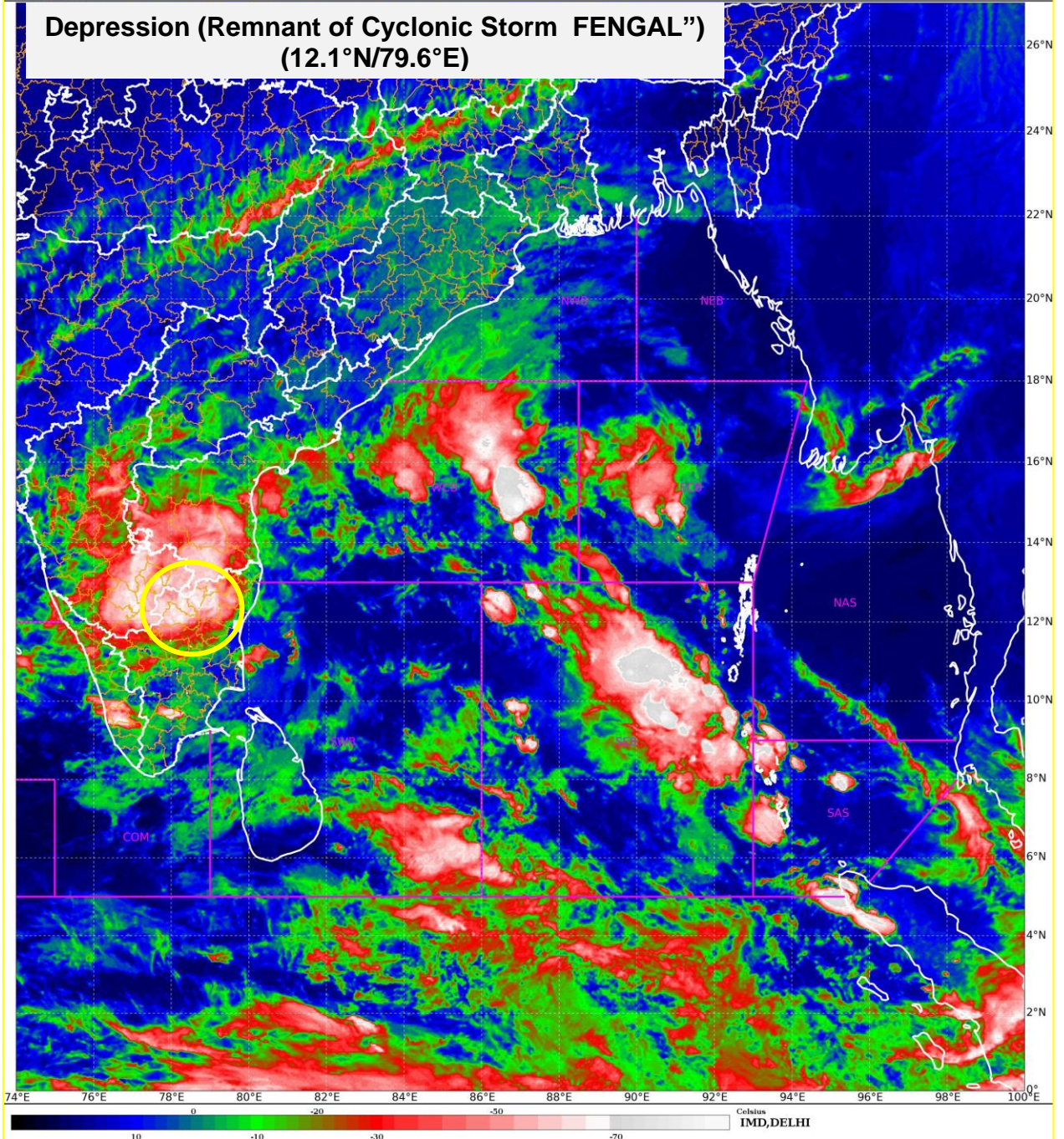
**(Dr Suprit Kumar)**

**Scientist E, RSMC, New Delhi**

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

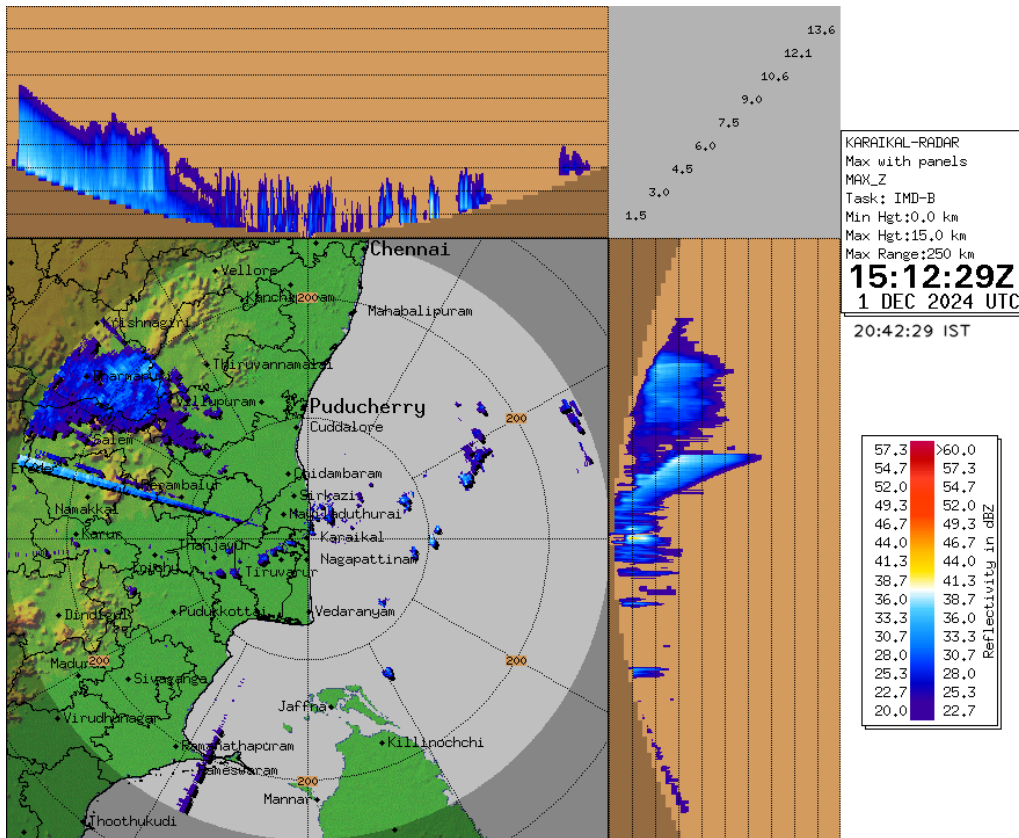


**Depression (Remnant of Cyclonic Storm FENGAL")**  
**(12.1°N/79.6°E)**



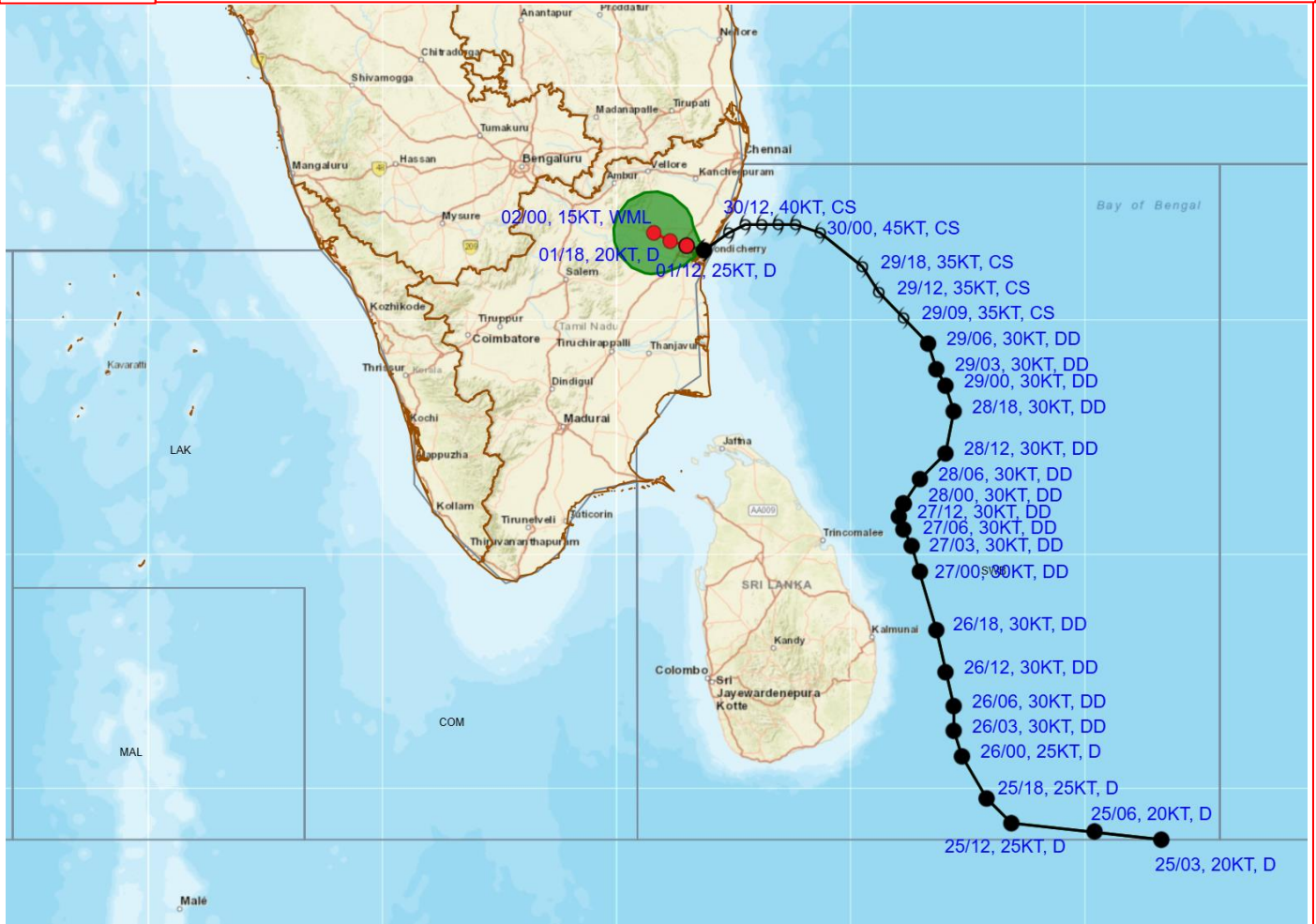


# MAXIMUM REFLECTIVITY IMAGERY FROM DOPPLER WEATER RADAR, KARIKAL





**OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEPRESSION (REMNANT OF CYCLONIC STORM "FENGAL") OVER NORTH COASTAL TAMIL NADU AND PUDUCHERRY BASED ON 1200 UTC (1730 HRS. IST) OF 01<sup>st</sup> DECEMBER, 2024.**

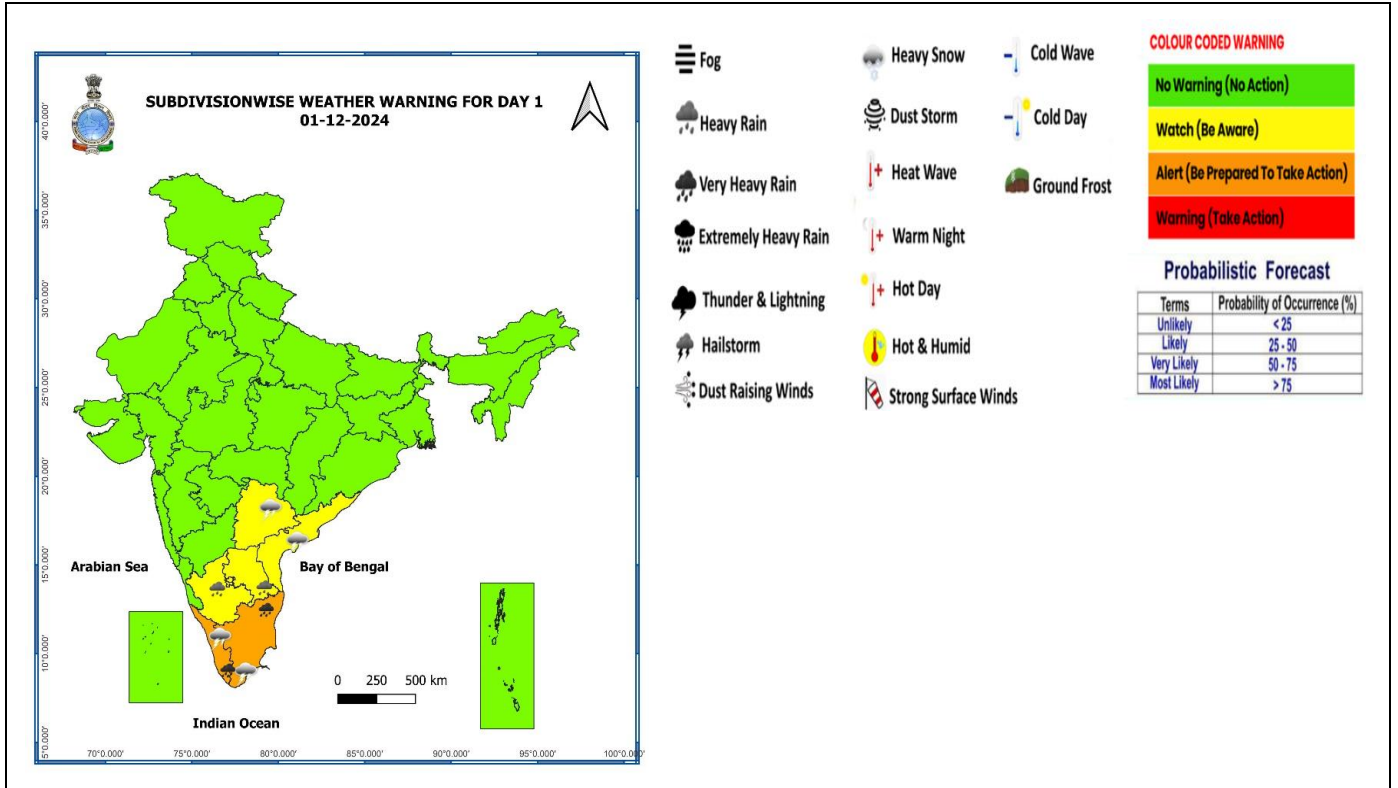


DATE/TIME : IN UTC  
 IST : UTC + 0530  
 KT : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR  
 LPA : LOW PRESSURE AREA  
 WML : WELL MARKED LOW PRESSURE AREA  
 D : DEPRESSION (17-27 KT)  
 DD : DEEP DEPRESSION (28-33 KT)  
 CS : CYCLONIC STORM (34-47 KT)  
 SCS : SEVERE CYCLONIC STORM (48-63 KT)  
 VSCS : VERY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

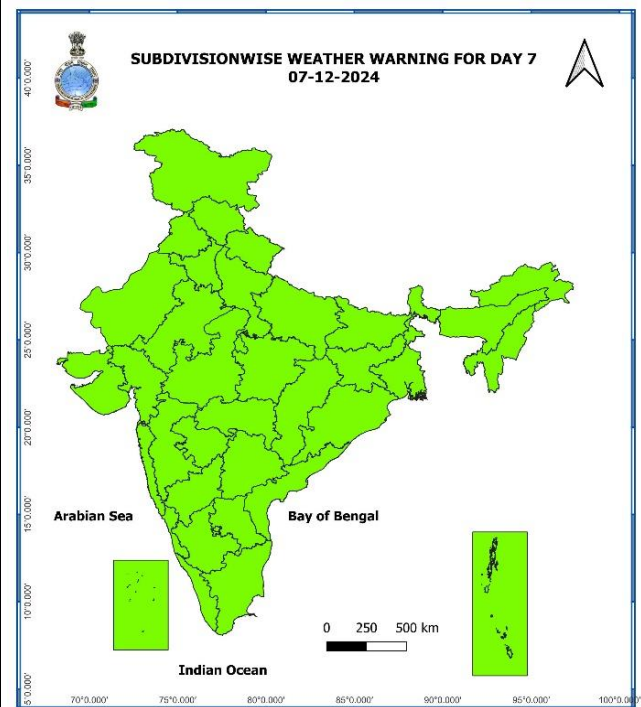
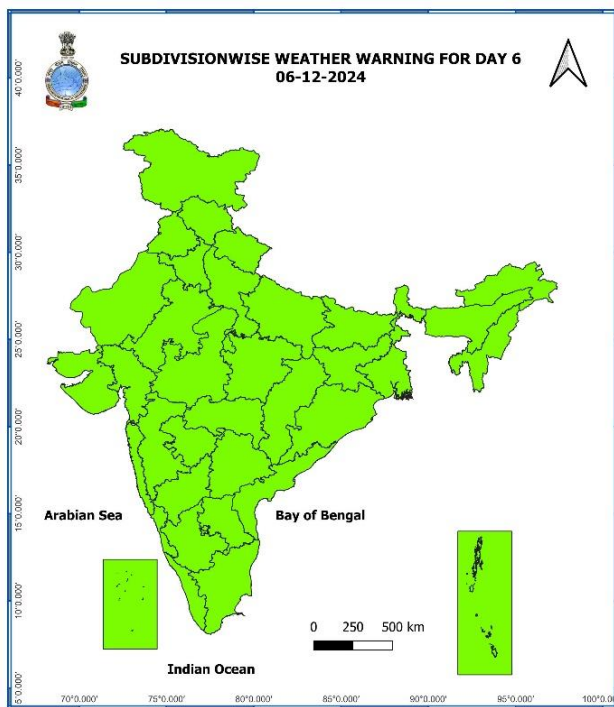
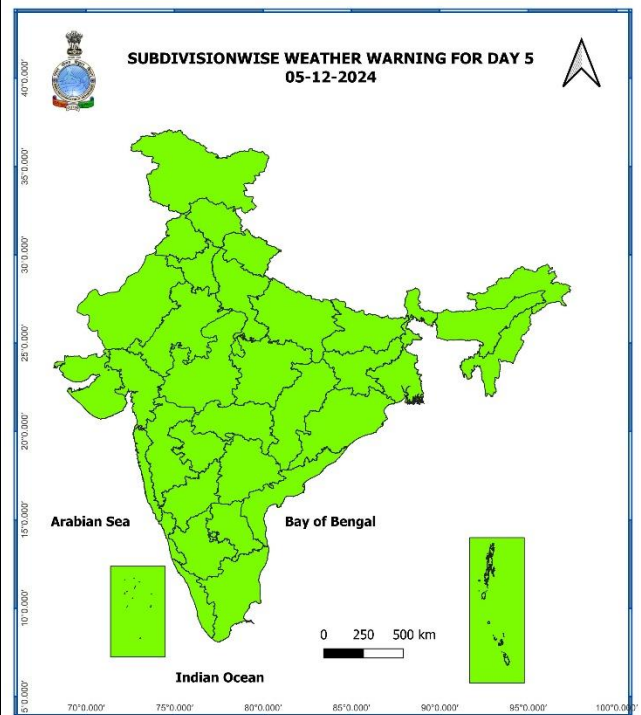
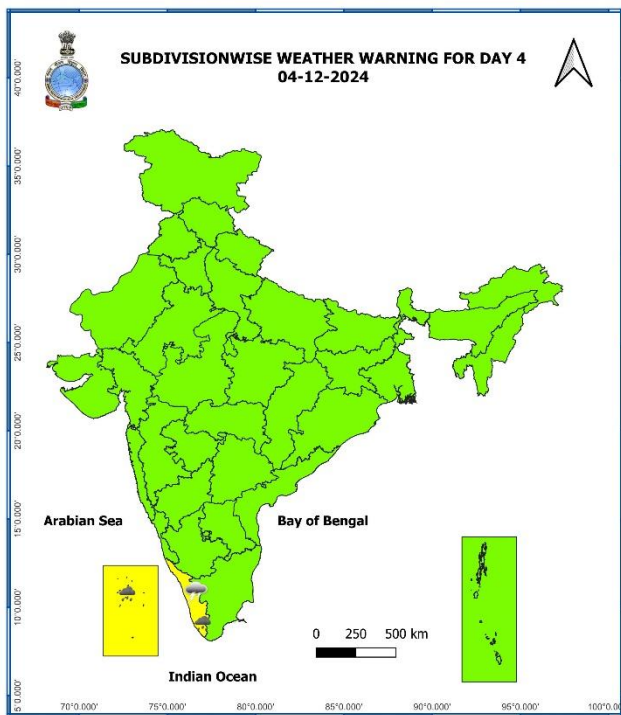
LESS THAN 34 KT  
 34-47 KT  
 $\geq 48$  KT  
 OBSERVED TRACK  
 FORECAST TRACK  
 CONE OF UNCERTAINTY

Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS			
	MAHABALIPURAM	MO PUDUCHERRY	CHENNAI/MINAMBAKKAM	CUDDALORE
01.12.24/1200	90, SW	30, WNW	120, SSW	40, NNW
01.12.24/1800	100, WSW	50, WNW	130, SW	50, NW
02.12.24/0000	120, WSW	70, WNW	140, SW	80, NW

## 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.



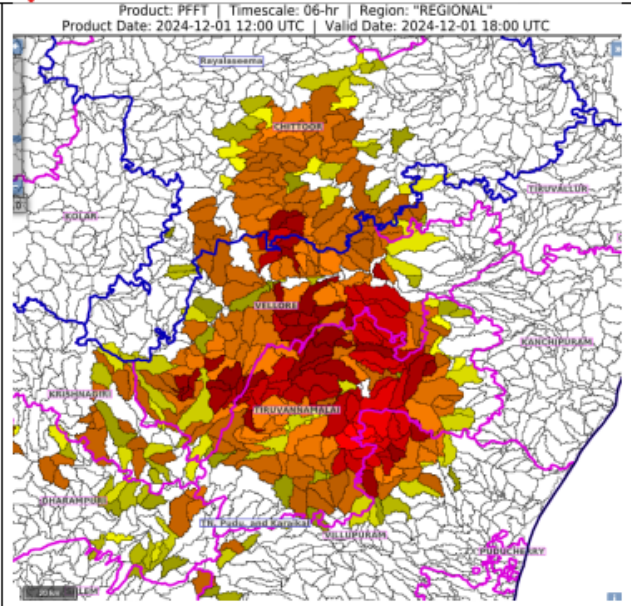
## Flash Flood Guidance

### **Persistent Flash Flood Threat (PFFT) till 2330 IST of 01-12-2024 :**

**Moderate flash flood threat** likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 6 hours.

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**Tamil Nadu - Puducherry & Karaikal** - Dharampuri, Krishnagiri, Tiruvannamalai, Vellore and Villupuram districts.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over Area of Concern (AoC) as shown in map due to expected rainfall occurrence in next 6 hours.



### **Flash Flood Risk**

**High Risk (Take Action)**

**Moderate Risk (Be Prepared)**

**Low Risk (Be Updated)**

## Fishermen Warning Graphics

