

Government of India Ministry of Earth Sciences



India Meteorological Department

PRESS RELEASE-8

Time of issue: 1630 hours IST

Dated: 01st December, 2024

Sub: Cyclonic Storm "FENGAL" [pronounced as FEINJAL] weakened into a deep depression over north coastal Tamil Nadu & Puducherry

Yesterday's **cyclonic storm "FENGAL" [pronounced as FEINJAL]** over Southwest Bay of Bengal moved initially westwards till evening, then west-southwestwards and crossed North Tamil Nadu & Puducherry coasts near latitude 12.05°N and longitude 79.9°E, close to Puducherry, between 2230 hrs IST and 2330 hrs IST of yesterday, the 30th November 2024 as a cyclonic storm with a wind speed of 70-80 kmph gusting to 90 kmph. Thereafter, it remained practically stationary during past 12 hours, weakened into a deep depression and lay centered at 1130 hours IST of today, the 1st December 2024 over the same region near latitude 12.0°N and longitude 79.8°E, close to Puducherry, about 30 km north of Cuddalore, 40 km east of Villupuram and 120 km south-southwest of Chennai.

It is likely to move westwards very slowly and weaken gradually into a depression over north Tamil Nadu during the next 12 hours.

The system is being continuously monitored by the Doppler Weather Radar at Karaikal and Chennai. Forecast track and intensity are given in the following table:

| Date/ Time (IST) | Position (Lat. ⁰N/ long. ⁰E | Maximum sustained surfac wind speed (Kmph) | Category of cyclonic disturbance |
|---------------------|--------------------------------|---|-------------------------------------|
| 01.12.24/1130 | 12.0/79.8 | 55-65 gusting to 75 | Deep Depression |
| 01.12.24/1730 | 12.0/79.6 | 50-60 gusting to 70 | Deep Depression |
| 01.12.24/2330 | 12.0/79.4 | 40-50 gusting to 60 | Depression |

Warnings:

(i) Rainfall Warning:

Tamil Nadu & Puducherry: Light to moderate rainfall at most places with heavy to very rainfall at a few places and extremely heavy rainfall (\geq 21 cm) at isolated places is very likely over North Tamil Nadu & Puducherry on 1st December. However, rainfall will decrease gradually along the north coastal Tamil Nadu and increase over North interior Tamil Nadu during the same period. Light to moderate rainfall at many places with heavy to very heavy rainfall at isolated places is very likely over interior Tamil Nadu on 2nd December & heavy rainfall at isolated places over the interior districts of Tamil Nadu adjoining to Kerala on 03rd December.

South Coastal Andhra Pradesh: Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 01st December.

Rayalaseema: Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 01st and 2nd December.

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

Coastal Karnataka: Light to moderate rainfall at many places with **heavy rainfall** at isolated places is very likely on 2^{nd} and 3^{rd} December.

Kerala: Light to moderate rainfall at a few places with isolated heavy to very heavy rainfall is likely on 1st 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 2nd and heavy rainfall at isolated places on 3rd December.

(ii) Wind warning:

• Southwest Bay of Bengal and along & off North Tamil Nadu – Puducherry coasts: Squally wind speed reaching 55-65 kmph gusting to 75 kmph is prevailing. It is likely to decrease becoming squally wind speed reaching 40-50 kmph gusting to 60 kmph by midnight of 1st December and decrease gradually thereafter.

• Adjoining areas of westcentral Bay of Bengal and along & off South Andhra Pradesh coast: Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over adjoining areas of westcentral Bay of Bengal till evening of 1st 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 evening of 1st December and gradually decrease thereafter.

(iii) Sea condition:

Very Rough to 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, and adjoining areas of westcentral Bay of Bengal, Gulf of Mannar, along & off South Andhra Pradesh and north Sri Lanka coasts till midnight of today, the 1st December. It will gradually improve thereafter.

(iv) Fisherman warning (Graphics Attached):

• Total suspension of fishing operations till evening of 1st 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 1st December.

(iv) Flash Flood Guidance (Graphics Attached):

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 02-12-2024:

Moderate to High flash flood risk likely over a few watersheds as mentioned below during next 24 hours:

Tamil Nadu and Puducherry– Karaikal, Puducherry, Villupuram, Ariyalur, Cuddalore, Chennai, Dharmapuri, Krishnagiri, Namakkal, Perambalur, Salem, Thanjavur, Tiruchirappalli, Tiruvannamalai, Vellore districts.

South Coastal Andhra Pradesh-Thirupati and Nellore districts.

Rayalaseema- Chittoor and Kadapa 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 during next 24 hours.

(vii) Impact Expected [over coastal districts of North Tamil Nadu (Tiruvallur, Chennai, Chengalpattu, Puducherry, Cuddalore, Mayiladuthurai, Nagappattinam, Dharampuri, Krishnagiri and Villupuram) and Andhra Pradesh (Tirupati, Nellore, Kadapa)]

- Damage to thatched huts.
- Minor damage to power and communication lines due to breaking of branches.
- Major damage to Kutcha and minor damage to Pucca roads.
- Some damage to paddy crops, banana, papaya, drum sticks (moringa) trees and orchards.
- Sea water inundation in low lying areas after erosion of Kutcha embankments.

• 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.
- Breaking of tree branches, uprooting of small tress including banana, papaya and drumstick.

(viii) Action Suggested:

• Total suspension of fishing operations till evening of 1st 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 1st December.

• The ships plying over the area need to regulated.

• People should stay in safe places till evening of 1st December evening in the districts near the centre of cyclone.

- 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.

(ix) 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.

Next Press Release will be issued at 1430 hours IST of tomorrow, the 2nd December 2024.

Annexure-1

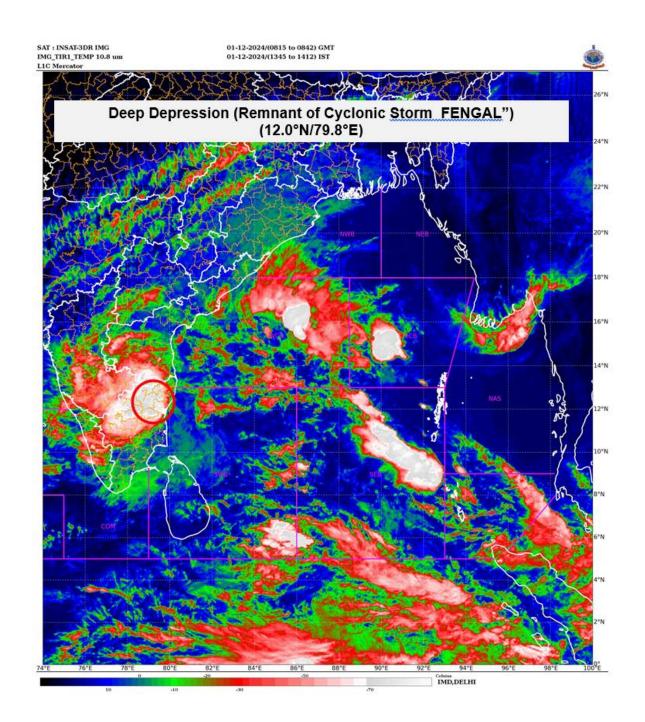
24 hours accumulated realised rainfall (in CM) ending at 0830 hours IST of today, the 1st December

Tamil Nadu: Mylam AWS (dist Villupuram) 51, Puducherry AWS (dist Puducherry) 49, Puducherry (dist Puducherry) 48, Patthukannu (dist Puducherry) 45, Thirukkanur (dist Puducherry) 43, Puducherry Town (dist Puducherry) 40, Tindivanam (dist Villupuram) 37, RSCL-2 Nemoor (dist Villupuram) 35, Bahour (dist Puducherry), RSCL Vallam (dist Villupuram) 32 each, RSCL-3 Semmedu (dist Villupuram) 31, RSCL-2 Valavanur (dist Villupuram), RSCL-2 Koliyanur (dist Villupuram) 28 each, Vilupuram (dist Villupuram) 27, Gingee (dist Villupuram), RSCL-2 Kedar (dist Villupuram) 25 each, RSCL-3 Valathy (dist Villupuram), Vanur (dist Villupuram), RSCL-2 Soorapattu (distVillupuram), Marakkanam (dist Villupuram) 24 each, Cuddalore (dist Cuddalore), RSCL-3 Avalurpettai (dist Villupuram) 23 each, Tiruvannamalai AWS (dist Tiruvannamalai), Chetpet (dist Tiruvannamalai) 22 each, Jamunamarathur (dist Tiruvannamalai), Cuddalore Collector Office (dist Cuddalore), RSCL-3Anandhapuram (dist Villupuram), Uthiramerur (dist Kancheepuram) 21 each, Maduranthagam (dist Chengalpattu), Keelpennathur (dist Tiruvannamalai), Gummidipoondi(dist Tiruvallur), Chengalpattu (dist Chengalpattu) 20 each, Avadi (dist Tiruvallur), Thirukalukundram (dist Chengalpattu), Vanamadevi (dist Cuddalore)19 each, Tiruttani (dist Tiruvallur), Arani (dist Tiruvannamalai), BASL Mugaiyur (dist Villupuram), Arcot(dist Ranipet) 18 each, SRC Kudithangi (dist Cuddalore), Cheyyar ARG (dist Tiruvannamalai) 17 each, Thirukoilur ARG (dist Kallakurichi), Vandavasi (dist Tiruvannamalai), Thamaraipakkam (dist Tiruvallur), Kalasapakkam (dist Tiruvannamalai), RSCL-2 Kanjanur (dist Villupuram), Tambaram (dist Chengalpattu) 16 each, Thandarampettai (dist Tiruvannamalai), Kallakurichi (dist Kallakurichi), Kancheepuram (distKancheepuram), Wallajah (dist Ranipet), Cheyyur (dist Chengalpattu), MGR Nagar (distChennai), Ayanavaram Taluk Office (dist Chennai), RSCL-2 Mundiyampakkam (distVillupuram), Kalavai PWD (dist Ranipet) 15 each, Yercaud (dist Salem), Cheyyar (dist Tiruvannamalai), Arakonam (dist Ranipet), Sholingur(dist Ranipet), Vembakkam (dist Tiruvannamalai), Panruti (dist Cuddalore), Pallipattu (distTiruvallur), Kallakurichi ARG (dist Kallakurichi), Mahabalipuram (dist Chengalpattu), JayaEngg College AWS (dist Tiruvallur) 14 each,Koratur (dist Tiruvallur), Palar Anicut (dist Ranipet), Uthukottai (dist Tiruvallur), Chembarabakkam REV (dist Tiruvallur), Kaveripakkam (dist Ranipet), R.K.Pet ARG (distTiruvallur), DSCL Madampoondi (dist Kallakurichi), Sriperumbudur (dist Kancheepuram), Panapakkam (dist Ranipet), Walajabad (dist Kancheepuram), Red Hills (dist Tiruvallur), Poondi (dist Tiruvallur), BASL Manampoondi (dist Villupuram), R.K.Pet (dist Tiruvallur), Minnal (dist Ranipet), Tiruvallur (dist Tiruvallur) 13 each, Zone 12 Meenambakkam (dist Chennai), Ambathur Rev (dist Chennai), Valasaravakkam(dist Chennai), Cholavaram (dist Tiruvallur), DSCL Thirupalapandal (dist Kallakurichi), DSCLKalayanallur (dist Kallakurichi), LMOIS Kolapakkam ARG (dist Chengalpattu), Zone 07Ayapakkam (dist Chennai), Ranipet AWS (dist Ranipet), Tirukoilur (dist Kallakurichi), Zone11 Maduravoyal (dist Chennai), Tiruttani AWS (dist Tiruvallur), Ambattur MW (dist Chennai)12 each, Chennai (AP) (dist Chennai), Tiruttani PTO (dist Tiruvallur), Alandur (dist Chennai), BASLManalurpet (dist Kallakurichi), KCS Mill-1 Ariyalur (dist Kallakurichi), BASL Vengur (distKallakurichi), Meenambakkam AWS (dist Chennai), Zone 11 Valasaravakkam (distChennai), Anna Nagar (dist Chennai), Ammoor (Walajah Railway) (dist Ranipet), Nctpl MargECR AWS (dist Chengalpattu), Vellore (dist Vellore), Thiru-Vi-Ka Nagar (dist Chennai), Ponneri (dist Tiruvallur), Chennai Collector Office (dist Chennai), Kattumayilur (distCuddalore), Sankarapuram (dist Kallakurichi), Perambur (dist Chennai), Chennai(N) AWS(dist Chennai), Kundrathur (dist Kancheepuram), Zone 10 Vadapalani (dist Chennai), ACSMedical College ARG (dist Kancheepuram), Ulundurpet (dist Kallakurichi), Sholinganallur(dist Chennai), Kodambakkam (dist Chennai), DSCL Virugavoor (dist Kallakurichi), Chennai(N) (dist Chennai) 11 each, Alangayam (dist Tirupathur), DGP Office (dist Chennai), Poonamallee (dist Tiruvallur), Ponnai Dam (dist Vellore), CD Hospital Tondiarpet (dist Chennai), Thiruvalangadu (distTiruvallur), Zone 12 D156 Mugalivakkam (dist Chennai), Ariyalur Camp Area (distKallakurichi), DSCL Sulangurichi (dist Kallakurichi), Zone 18 Aminjikarai (dist Chennai),DSCL Thiyagadurgam (dist Kallakurichi), DSCL Keelpadi (dist Kallakurichi), Zone 05 Basinbridge (dist Chennai), Ammundi (dist Vellore), Zone 14 Madipakkam (dist Chennai) 10each,

Kerala: Ulanad (Pathanamthitta district) 9, Enadimangalam (Pathanamthitta district) 7

Rayalaseema: Sullurpeta (dist Tirupati) 17, Tada (dist Tirupati) 15, Nagari (dist Chittoor) 13, Kodur (dist Ysr District) 12, Satyavedu (dist Tirupati) 11, Venkatagiri (dist Tirupati) 11, Palasamudram (dist Chittoor) 10, Thottambedu (dist Tirupati) 9, Srikalahasti (dist Tirupati) 9, Tirupati Aero (dist Tirupati) 9,

Coastal Andhra Pradesh: Rapur (dist Spsr Nellore) 9, Nellore (dist Spsr Nellore) 8,



OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINITY OF DEEP DEPRESSION (REMNANT OF CYCLONIC STORM "FENGAL") OVER NORTH COASTAL TAMIL NADU AND PUDUCHERRY BASED ON 0600 UTC (1130 HRS. IST) OF 01st DECEMBER, 2024. 30/00, 45KT, CS 01/12, 30KT, DE /03, 35KT, CS , 30KT, DD 01/18, 5KT, C 29/18, 35KT, CS 29/12, 35KT, CS 29/09, 35KT, CS 29/06, 30KT, DD 29/03, 30KT, DD 29/00, 30KT, DD 28/18, 30KT, DD 28/12, 30KT, DD 8/06, 30KT, DD 18, 30KT, DD 12, 30KT, DD /06, 30KT, DD 27/03, 30KT, DD 27/00, 30KeTyBDD 26/18, 30KT, DD 26/12, 30KT, DD 26/06, 30KT, DD COM 26/03, 30KT, DD 26/00, 25KT, D 25/18, 25KT, D 25/12, 25KT, D 25/03, 20KT, D DATE/TIME : INUTC LESS THAN 34 KT IST UTC + 0530NAUTICAL MILE S/HOUR = 1.85 KM/HOUR KТ 34-47 KT LPA LOW PRESSURE AREA WML WELL MARKED LOW PRESSURE AREA ≥ 48 KT DEPRESSION (17-27 KT) D DD DEEP DEPRESSION (28-33 KT) **OBSERVED TRACK** CYCLONIC STORM (34-47 KT) CS SCS SEVERECY CLONIC STORM (48-63 KT) FORECAST TRACK VSCS VERY SEVERECYCLONIC STORM (64-89 KT)

| Forecast | DISTANCE (KM) AND DIRECTION FROM STATIONS | | | | |
|---------------------|---|---------------|-------------------------|--|--|
| Date and Time (UTC) | MAHABALIPURAM | MO PUDUCHERRY | CHENNAI/MINAMB AKKAM | | |
| 01.12.24/0600 | 80, SSW | 0, NNW | 120, SSW | | |
| 01.12.24/1200 | 90, SW | 20, W | 130, SSW | | |
| 01.12.24/1800 | 110, SW | 50, W | 140, SW | | |

CONE OF UNCERTAINTY

EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SUPER CYCLONIC STORM (≥120 KT)

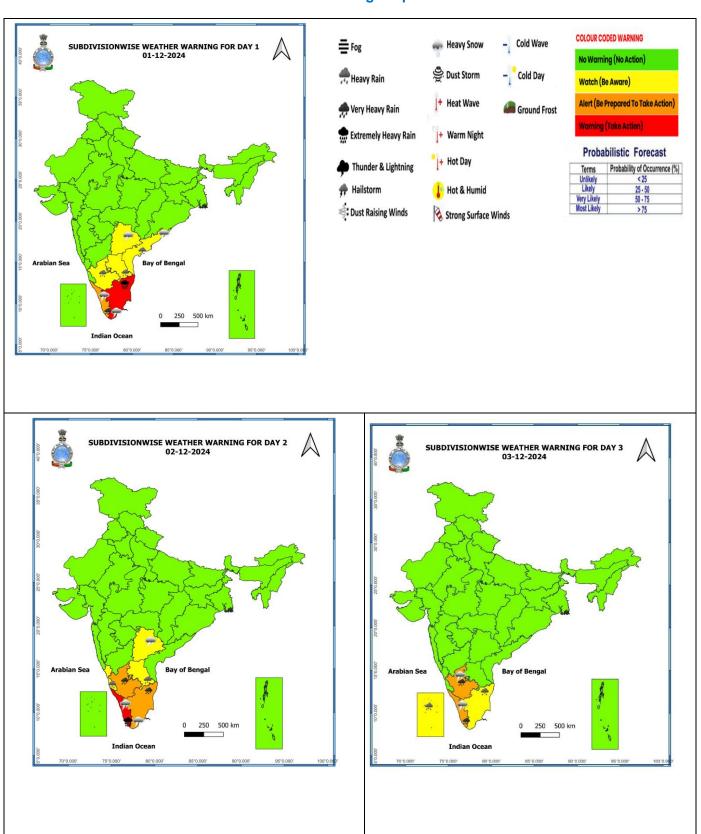
ESCS

SuCS

2

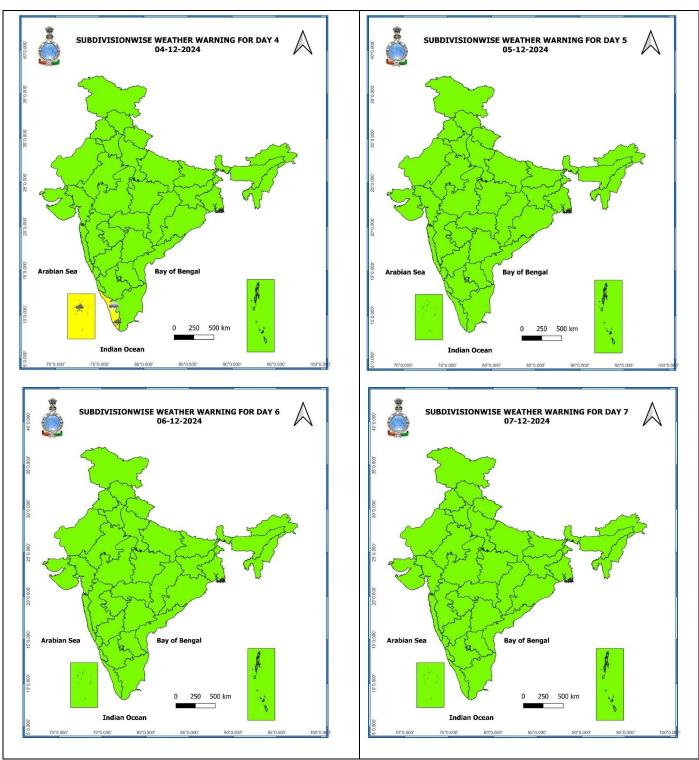
OBSERVED AND FORECAST TRACK ALONGWITH WIND DISTRIBUTION FORECAST OF DEEP DEPRESSION (REMNANT OF CYCLONIC STORM "FENGAL") OVER NORTH COASTAL TAMIL NADU AND PUDUCHERRY BASED ON 0600 UTC (1130 HRS. IST) OF 01st DECEMBER, 2024. 01/12. 30KT, DE 01/18, 25KT, D OKT, DD 9/18, 35KT, CS 9/12 35KT CS 29/09. 35KT. CS 29/06, 30KT, DD 29/03, 30KT, DD 29/00, 30KT, DD 28/18, 30KT, DD 28/12, 30KT, DD 3/06, 30KT, DD 30KT, DD 30KT, DD 30KT, DD 7/03 30KT DD 27/00 30KT_DD 26/18, 30KT, DD 26/12, 30KT, DD 26/06. 30KT. DD 26/03, 30KT, DD 26/00, 25KT, D 25/18, 25KT, D 25/12, 25KT, D 25/03, 20KT, D DATE/TIME : IN UTC LESS THAN 34 KT 34-47 KT IST UTC + 0530 2 KΤ NAUTICAL MILE S/HOUR = 1.85 KM/HOUR ≥ 48 KT LOW PRESSURE AREA LPA **OBSERVED TRACK** WML WELL MARKED LOW PRESSURE AREA . FORECAST TRACK DEPRESSION (17-27 KT) D . CONE OF UNCERTAINTY DD DEEP DEPRESSION (28-33 KT) AREA OF MAXIMUM SUSTAINED WIND SPEED: CYCLONIC STORM (34-47 KT) CS 28-33 KT (52-61 KMPH) SCS SEVERECY CLONIC STORM (48-63 KT) 34-49 KT (62-91 KMPH) VSCS VERY SEVERECYCLONIC STORM (64-89 KT) 50-63 KT (92-117 KMPH) ESCS EXTREMELY SEVERE CYCLONIC STORM (90-119 KT) SuCS SUPER CYCLONIC STORM (2120 KT) ⊐ ≥64 KT (≥118 KMPH) 5 IMPACT OVER THE SEA MSM (knot/kmph) Impost A off

| MSW (Knot/Kmpn) | 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 |



Contact: Cyclone Warning Division, Office of the Director General of Meteorology, India Meteorological Department, Ministry of Earth Sciences, E-mail:cyclonewarningdivision@gmail.com, Website: <u>rsmcnewdelhi.imd.gov.in</u>, Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%, Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

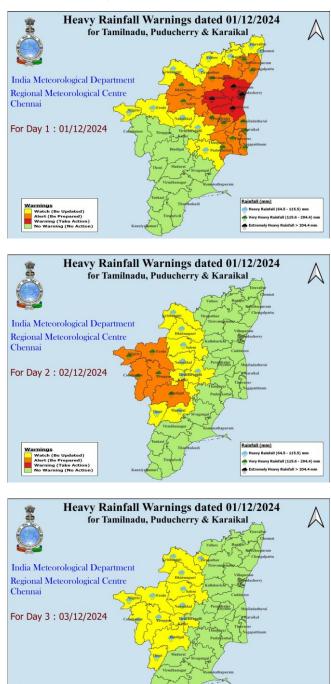
Weather Warning Graphics



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.

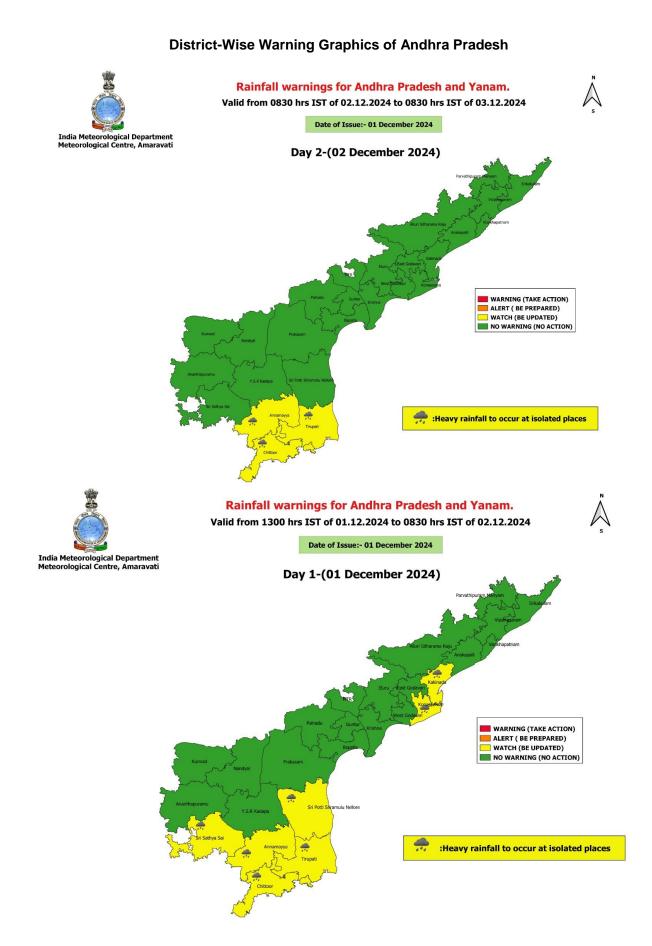
• As the lead period increases forecast accuracy decreases.



District-Wise Warning Graphics of Tamil Nadu & Puducherry

Contact: Cyclone Warning Division, Office of the Director General of Meteorology, India Meteorological Department, Ministry of Earth Sciences, E-mail:cyclonewarningdivision@gmail.com, Website: <u>rsmcnewdelhi.imd.gov.in</u>, Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%, Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

infall (mm) Heavy Rainfall (64.5 - 115.5) mm Very Heavy Rainfall (115.6 - 204.4) mr Extremely Heavy Rainfall > 204.4 mm



Flash Flood Guidance

