



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

NATIONAL BULLETIN NO. 15 (BOB/05/2024)

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DATED: 16.10.2024

FROM: INDIA METEOROLOGICAL DEPARTMENT

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Sub: Depression over southwest and adjoining westcentral Bay of Bengal

The depression over southwest and adjoining westcentral Bay of Bengal moved west-northwestwards with a speed of 15 kmph during past 6 hours and lay centered at 1130 hours IST of today, the 16th October 2024 over the same region near latitude 12.5° N and longitude 82.7° E, about 280 km east-southeast of Chennai (Tamil Nadu), 320 km east-northeast of Puducherry and 370 km southeast of Nellore (Andhra Pradesh).

It is likely to move west-northwestwards and cross north Tamil Nadu - South Andhra Pradesh coasts between Puducherry and Nellore, close to Chennai during early morning of 17th October.

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
16.10.24/1130	12.5/82.7	40-50 gusting to 60	Depression
16.10.24/2330	13.0/81.3	40-50 gusting to 60	Depression
17.10.24/1130	13.5/79.7	25-35 gusting to 45	Well Marked Low Pressure Area

Warnings:

(i) Rainfall Warning:

Tamil Nadu & Puducherry: Light to moderate rainfall at most places with heavy to extremely heavy rainfall at isolated places is very likely over north Tamil Nadu & Puducherry on 16th October and isolated heavy rainfall over north interior Tamil Nadu on 17th October.

South Coastal Andhra Pradesh & Rayalaseema: Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy rainfall at isolated places is likely on 16th October and heavy rainfall at isolated places is likely on 17th October.

South Interior Karnataka: Light to moderate rainfall at most places with heavy to very heavy rainfall at isolated places is likely over south Interior Karnataka during 16th to 17th October.

Kerala: Light to moderate rainfall at most places with isolated heavy rainfall at isolated places is likely over Kerala during 16th to 17th October.

(ii) Wind Warning:

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over southwest and adjoining westcentral Bay of Bengal and along & off Tamil Nadu, Puducherry and south Andhra Pradesh coasts till mid-night of 16th October and decrease gradually thereafter becoming 35-45 kmph gusting to 55 kmph from early morning of tomorrow, the 17th October.

(iii) Sea Condition:

Rough to very Rough Sea condition is likely to prevail over southwest & adjoining westcentral Bay of Bengal and along & off Tamil Nadu, Puducherry and south Andhra Pradesh coasts till noon of 17th October and improve gradually thereafter.

(iv) Fishermen Warning:

Fishermen are advised not to venture into

- Southwest and adjoining westcentral Bay of Bengal till 17th October.
- Fishermen out at sea are advised to return to coasts.

(v) Flash Flood Guidance:

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 17-10-2024:

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

Coastal Andhra Pradesh & Yanam - Guntur, Prakasam and Nellore districts.

Rayalaseema - Chittoor and Kadapa districts.

Tamil Nadu - Cuddalore, Dharampuri, Krishnagiri, Perambalur, Salem, Tiruchirappalli, Tiruvallur and Vellore 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.

❖ Significant Rainfall (in cm) recorded during past 24 hours till 0830 hours IST of today, the 16th October is given in Annexure-I

❖ **Impact Expected [Tamil Nadu (including Chennai) and Andhra Pradesh due to heavy rainfall]**

- 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 and roadways due to water logging in roads and poor visibility due to heavy rain leading to increased travel time and incidents
- Likely disruption of marine and inland water transportation like small boats and trawlers.
- Minor damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
- Damage to horticulture and standing crops in some areas due to inundation and wind.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Webpage of Central Water Commission)

❖ **Action Suggested [Tamil Nadu and Andhra Pradesh due to heavy rainfall]**

- Fishermen are advised not to venture into
-Southwest and adjoining westcentral Bay of Bengal till 17th October.

- Fishermen out at sea are advised to return to coasts.
- Judicious regulation of surface transports including railways and roadways and onshore/offshore activities.
 - 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.
 - Avoid staying in vulnerable structure.

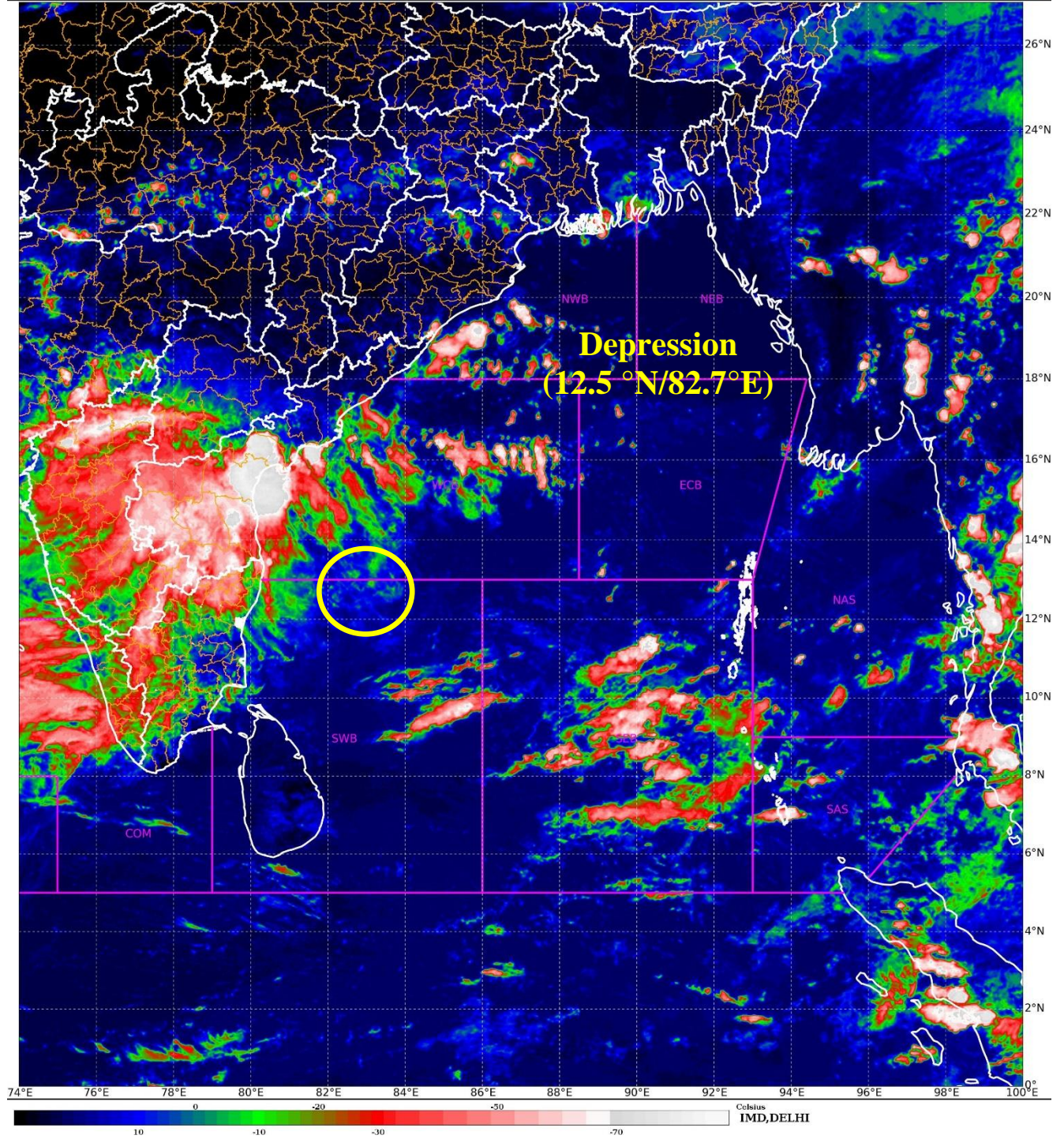
Agromet advisories for Heavy Rainfall

- Provide mechanical support to horticultural crops & staking to vegetables.
- Keep the harvested produce at safer place.

Next bulletin will be issued at 2030 hours IST of today, the 16th October, 2024.

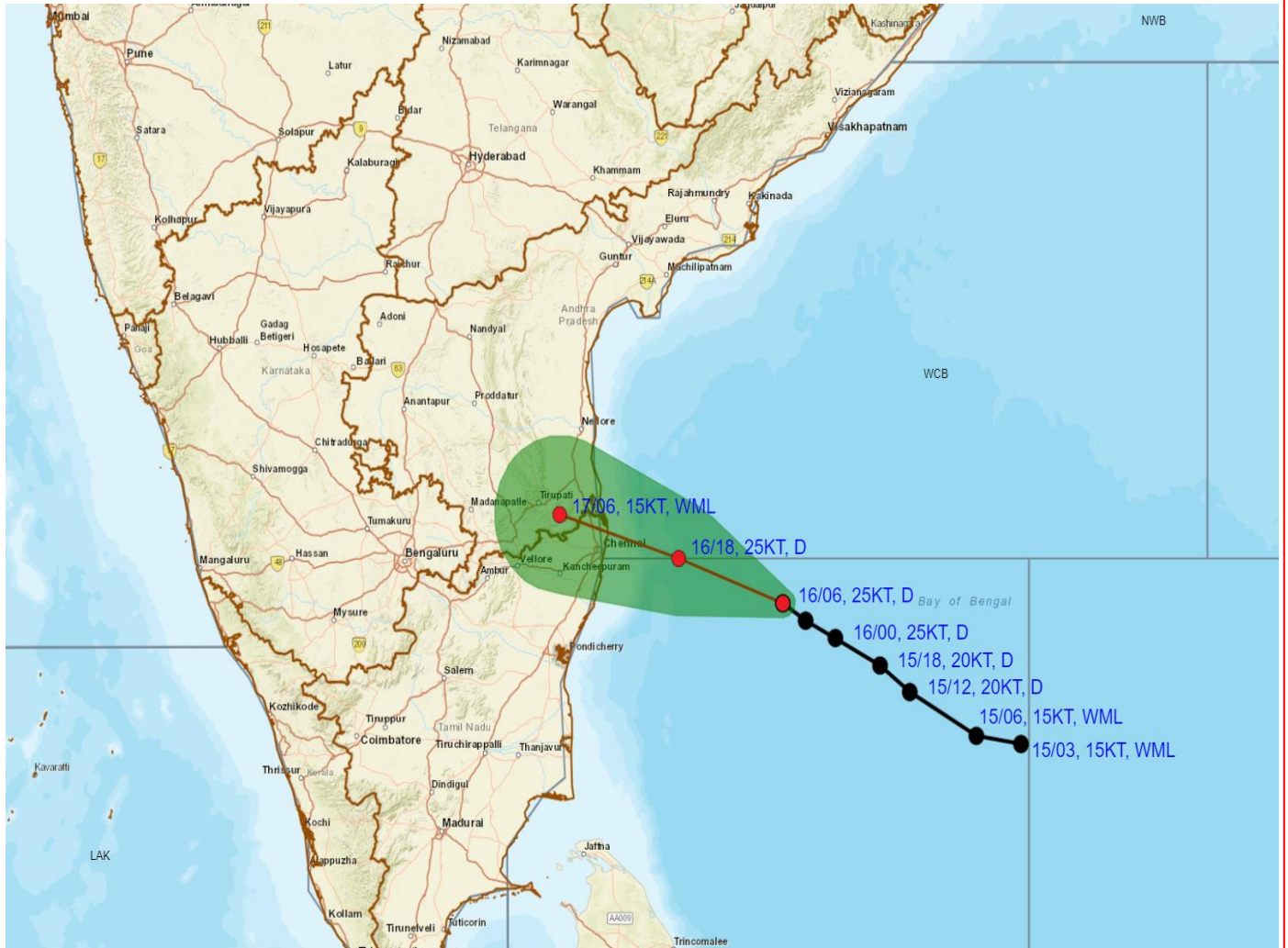
(Dr. Ananda Kumar Das)
Scientist-F, RSMC & IMD, New Delhi

Copy to: ACWC Kolkata/ACWC Mumbai/ACWC Chennai/CWC Ahmedabad/CWC Bhubaneswar/CWC Vishakhapatnam CWC, Thiruvananthapuram/ MC, Goa





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY (COU) OF DEPRESSION OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 Hrs. IST) OF 16th OCTOBER, 2024

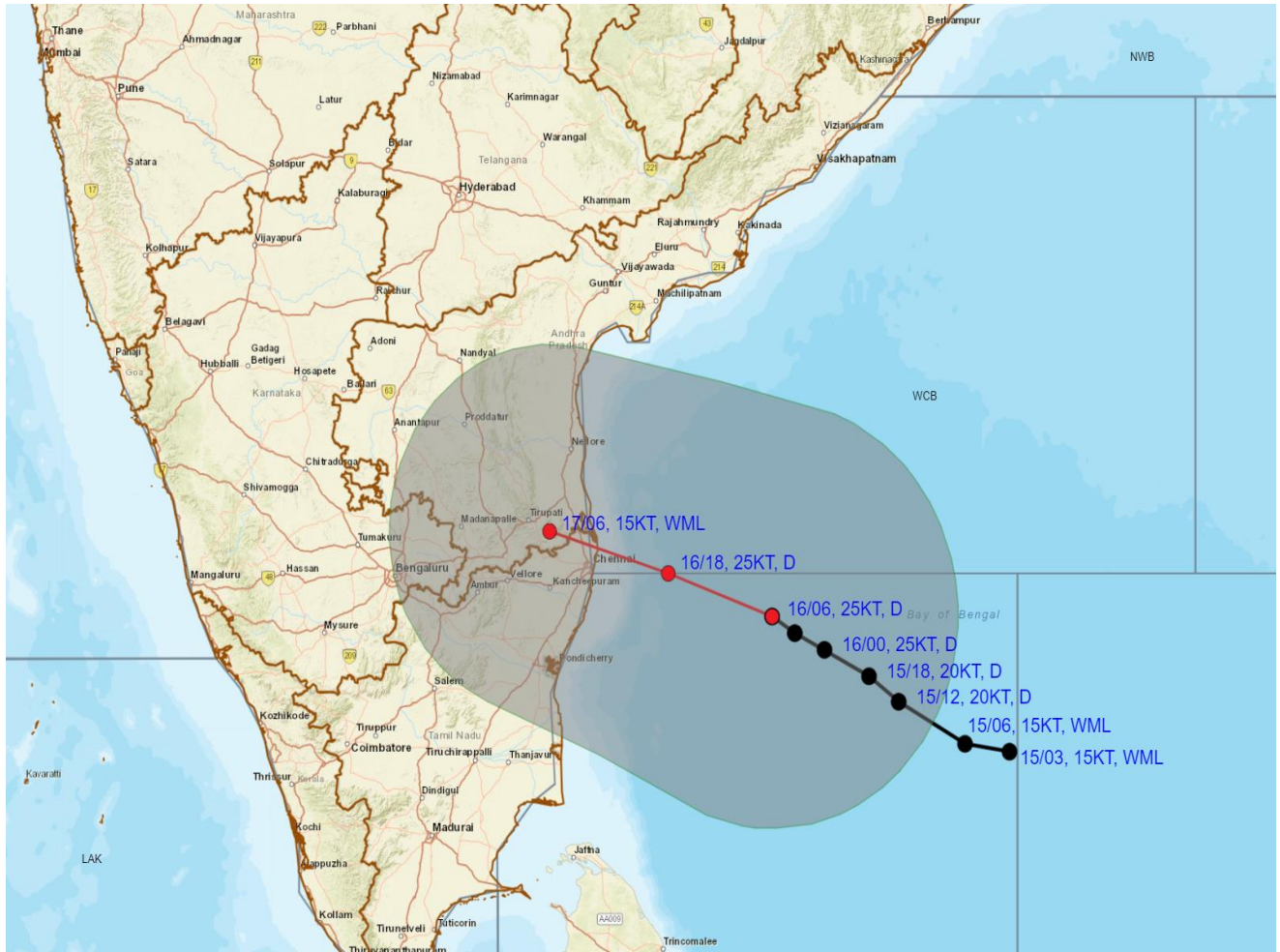


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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

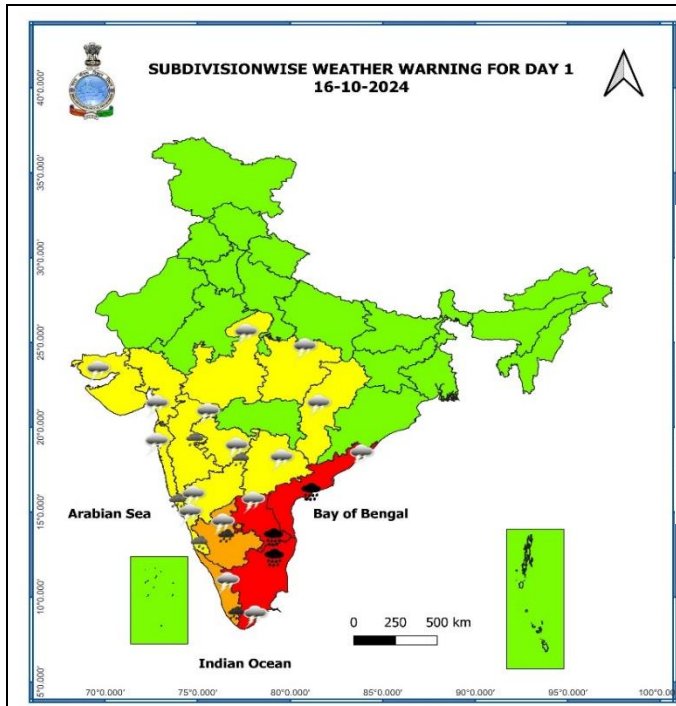


OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC (1130 Hrs. IST) OF 16th OCTOBER, 2024



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)

● LESS THAN 34 KT
 ⚡ 34-47 KT
 ⚡ ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 — AREA OF MAXIMUM SUSTAINED WIND SPEED:
 — 20-30 KT (35-55 KMPH)



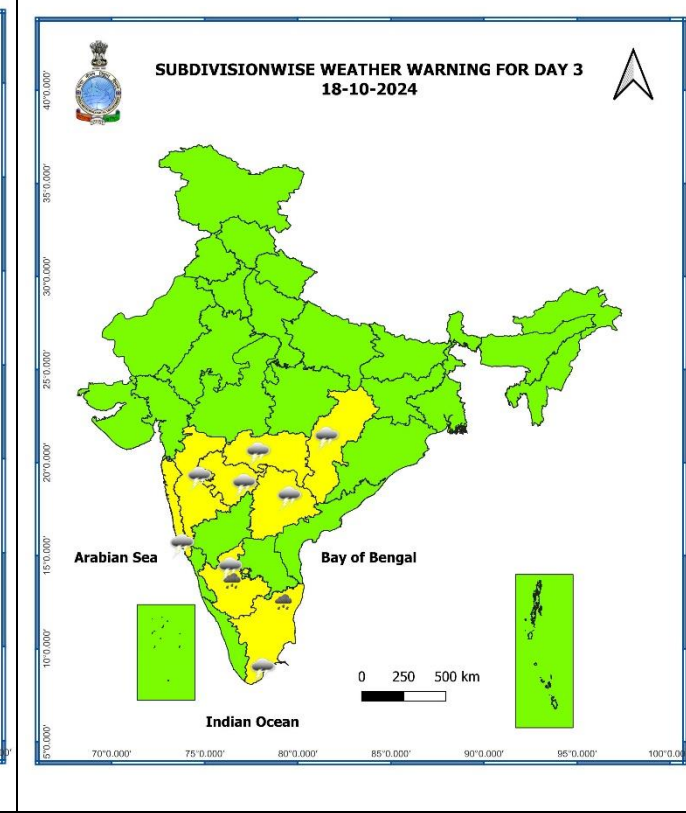
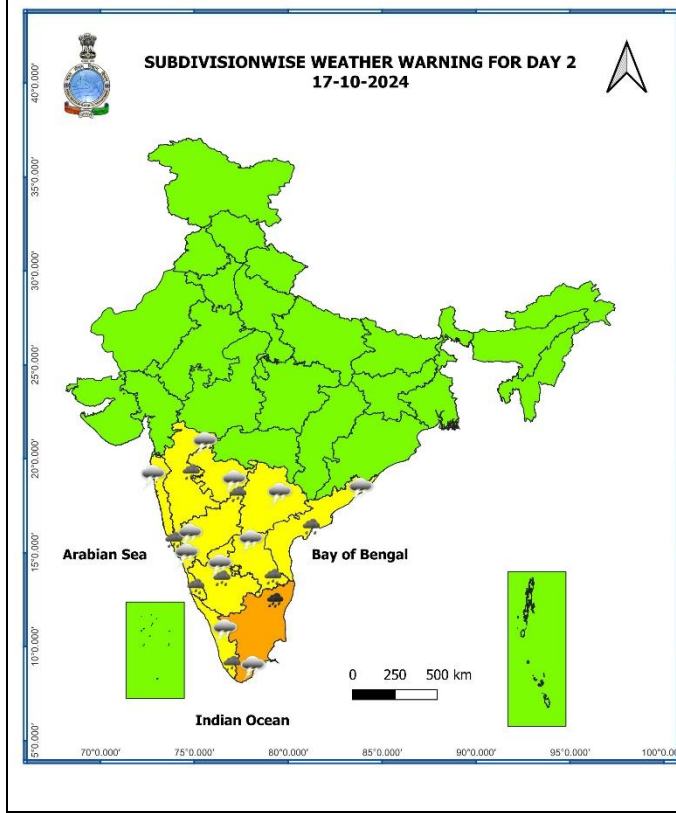
- Fog
- Heavy Rain
- Very Heavy Rain
- Extremely Heavy Rain
- Thunder & Lightning
- Hailstorm
- Dust Raising Winds
- Heavy Snow
- Dust Storm
- Heat Wave
- Warm Night
- Hot Day
- Hot & Humid
- Strong Surface Winds
- Cold Wave
- Cold Day
- Ground Frost

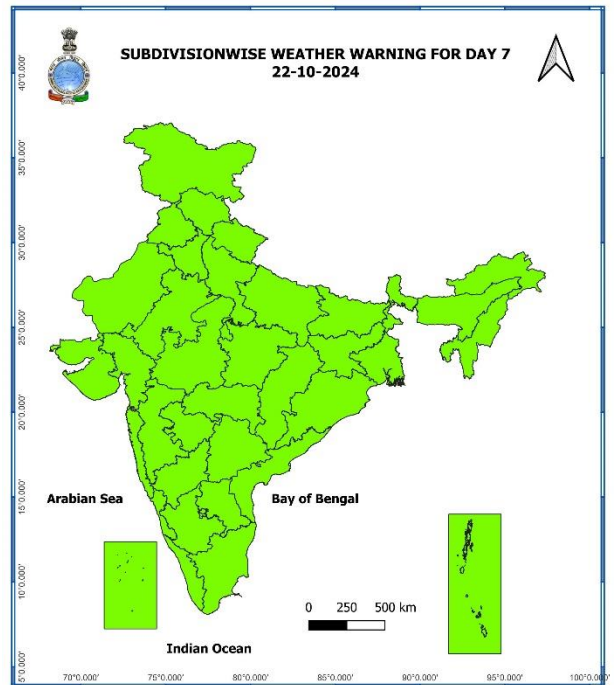
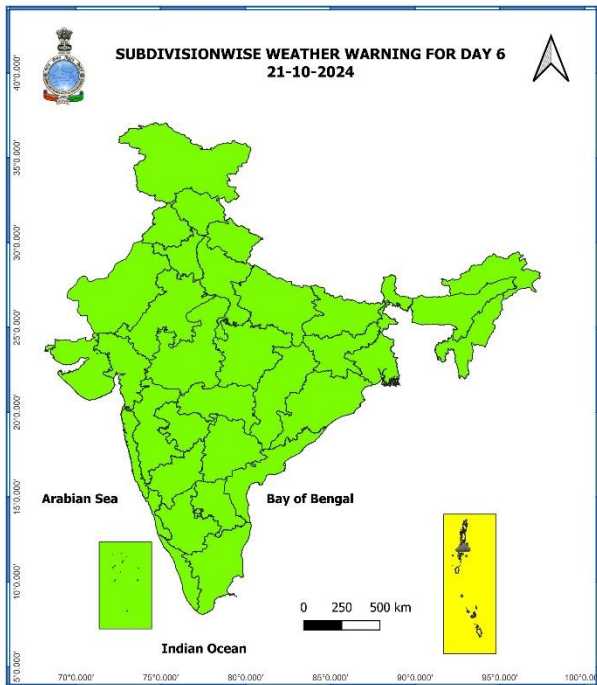
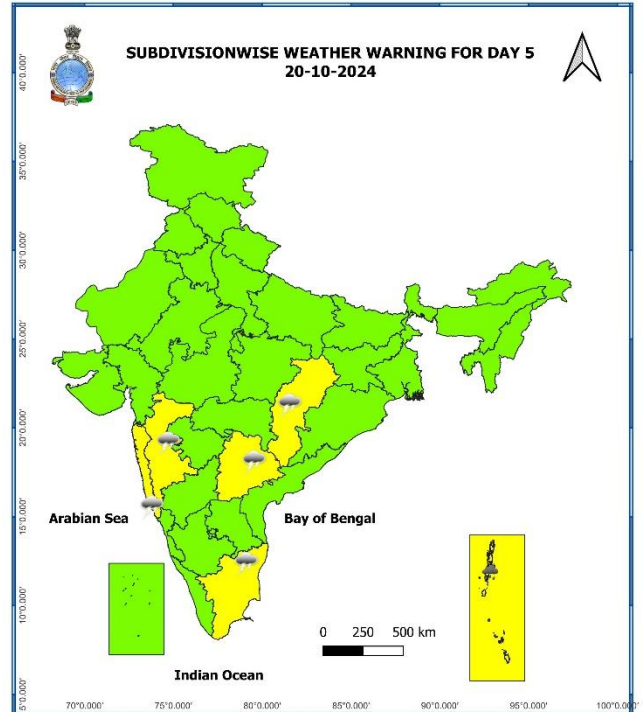
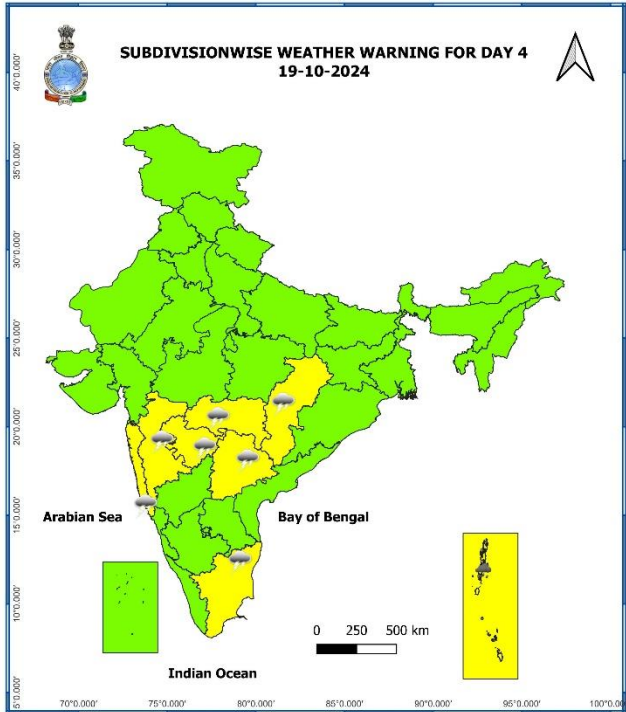
COLOUR CODED WARNING

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

Probabilistic Forecast

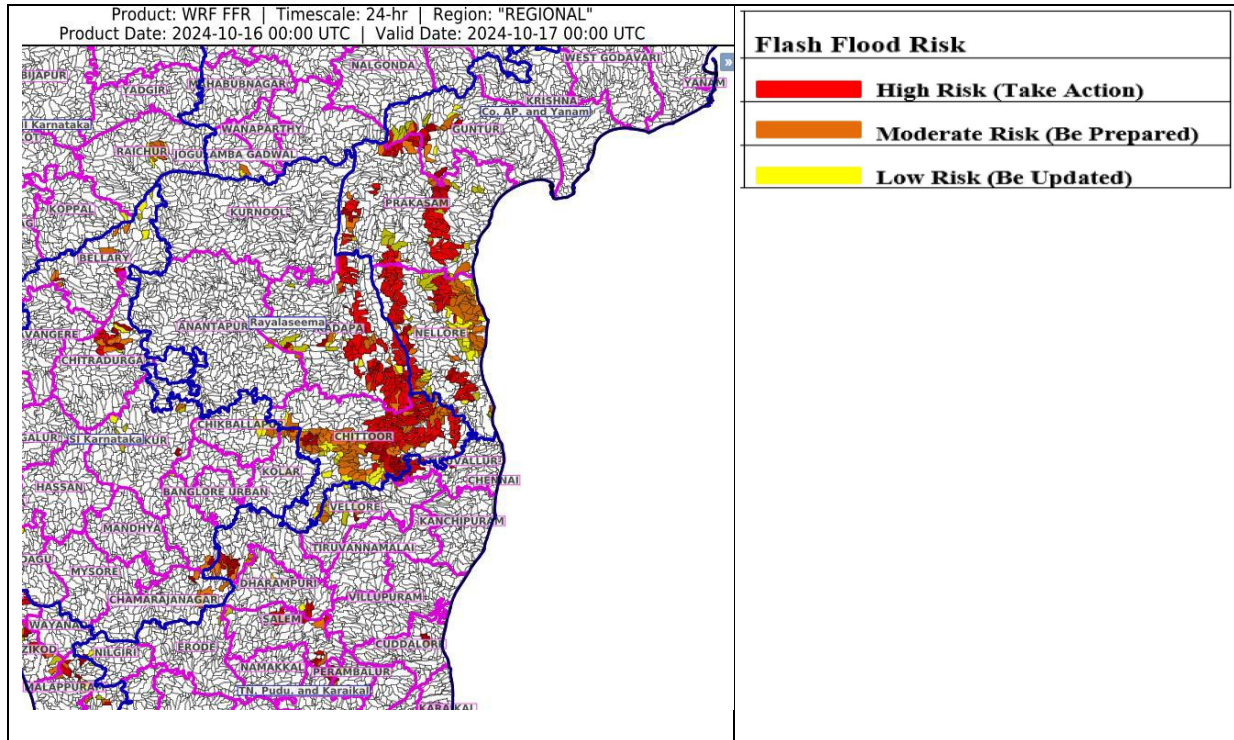
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75





- 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.

Flash Flood Guidance



24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 17-10-2024:

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

Coastal Andhra Pradesh & Yanam - Guntur, Prakasam and Nellore districts.

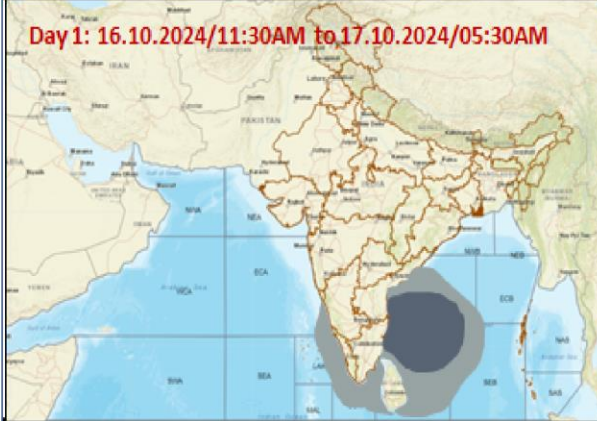
Rayalaseema - Chittoor and Kadapa districts.

Tamil Nadu - Cuddalore, Dharampuri, Krishnagiri, Perambalur, Salem, Tiruchirappalli, Tiruvallur and Vellore districts.

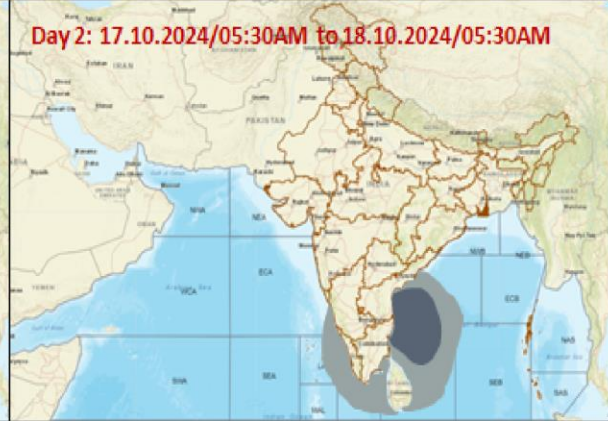
Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over area of concern as shown in map due to expected rainfall occurrence in next 24 hours.

Fishermen Warning Graphics

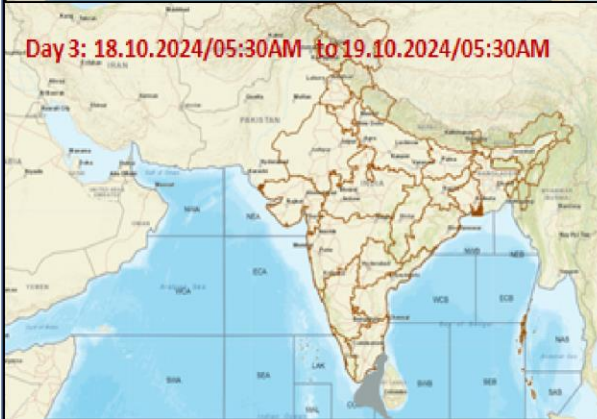
Day 1: 16.10.2024/11:30AM to 17.10.2024/05:30AM



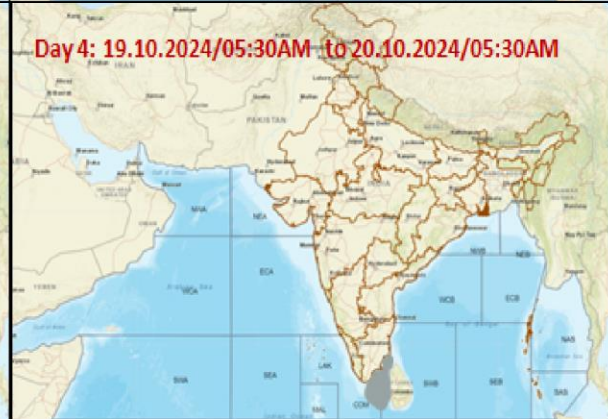
Day 2: 17.10.2024/05:30AM to 18.10.2024/05:30AM



Day 3: 18.10.2024/05:30AM to 19.10.2024/05:30AM



Day 4: 19.10.2024/05:30AM to 20.10.2024/05:30AM



Day 5: 20.10.2024/05:30AM to 21.10.2024/05:30AM



Squally Weather with wind speed 35-45 kmph gusting to 55 kmph

Squally WX with wind speed 40-50 kmph gusting to 60 kmph

Fishermen are advised not to venture into the marked areas.

ANNEXURE-I

Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 16.10.2024 (in cm):

❖ Tamil Nadu, Puducherry & Karaikal:

Extremely heavy rainfall (> 20 cm): Cholavaram (Tiruvallur) 30, Red Hills (Tiruvallur) 28, Avadi (Tiruvallur) 25, Zone 01 Kathivakkam (Chennai) 23, Zone 02 D15 Manali (Chennai) 21,

Very heavy rainfall (20 cm ≤ and ≥ 12cm): Zone 06 T.V.K Nagar (Chennai) 19, Zone 06 D65 Kolathur (Chennai), Zone 13 U39 Adyar (Chennai), Puzhal ARG (Tiruvallur), Zone 07 Ambattur (Chennai) 18 each, Zone 01 Thiruvottiyur (Chennai), Perungudi (Chennai), Zone 02 Manali (Chennai), Hindustan_University (Kancheepuram), Ennore AWS (Chennai) 17 each, Perambur (Chennai), Zone 08 Malar Colony (Chennai), Good Will School Villivakkam ARG (Tiruvallur), Zone 03 Puzhal (Chennai), Ayanavaram Taluk Office (Chennai), Anna University ARG (Chennai), Ponneri (Tiruvallur), Thamaraiakkam (Tiruvallur) 16 each, Ambathur (Chennai), Anna University (Chennai), MGR Nagar (Chennai), Sholinganallur (Chennai), Thiru-Vi-Ka Nagar (Chennai), Tondiarpet (Chennai), Zone 05 Royapuram (Chennai), Adayar (Chennai) 15 each, Zone 03 Madhavaram (Chennai), Zone 04 Tondiarpet (Chennai), Chennai(N) AWS (Chennai), Chennai (N) (Chennai), CD Hospital Tondiarpet (Chennai), YMCA Nandnam ARG (Chennai), Kodambakkam (Chennai) 14 each, Zone 08 Anna Nagar (Chennai), Anna Nagar (Chennai), Zone 07 U18 D81 Vanagaram (Chennai), Chennai Collector Office (Chennai), Zone 10 Kodambakkam (Chennai), DGP Office (Chennai), Royapuram (Chennai) 13 each, Zone 09 Ice House (Chennai), NIOT_Pallikaranai ARG (Chennai), Zone 09 Teynampet (Chennai), Teynampet (Chennai), Alandur (Chennai), Chennai (AP) (Chennai), Meenambakkam AWS (Chennai), Zone 11 U32 Maduravoyal (Chennai) 12 each,

Heavy rainfall (11 cm ≤ and ≥ 7cm): Zone 12 Meenambakkam (Chennai), Kolapakkam ARG (Kancheepuram), Zone 11 Valasaravakkam (Chennai), Zone 15 Uthandi (Chennai), Zone 05 GCC (Chennai), Tiruvottiyur (Chennai), Zone Adyar Eco Park (Chennai) 11 each, Zone 12 D156 Mugalivakkam (Chennai), Jaya Engg College AWS (Tiruvallur), Zone 14 Perungudi (Chennai), Zone 15 Sholinganallur (Chennai), Tiruppur IB PWD (Tiruppur) 10 each, Gummidipoondi (Tiruvallur), Zone 14 U41 Perungudi (Chennai), Uthukottai (Tiruvallur), Manimutharu Dam PWD (Kallakurichi), Tiruvallur (Tiruvallur), KCS Mill-2 Kachirayaopalayam (Kallakurichi), Mahabalipuram (Chengalpattu), Satyabama Uty ARG (Kancheepuram), Poonamallee (Tiruvallur), Chembarabakkam (Kancheepuram) 9 each, Zone Adyar (Chennai), ACS Medical College ARG (Kancheepuram), Bhuvanagiri (Cuddalore), VIT_Chennai AWS (Chengalpattu), RSCL-2 Valavanur (Villupuram), Mahabalipuram AWS (Chengalpattu), Koratur (Tiruvallur), RSCL-2 Koliyanur (Villupuram) 8 each, Uthangarai (Krishnagiri), Tiruttani (Tiruvallur), Pallipattu (Tiruvallur), Kundrathur (Kancheepuram), Tambaram (Chengalpattu), Tiruppur South (Tiruppur) 7 each;

❖ **Rayalaseema:** Sullurpeta (Tirupati) 22, Tada (Tirupati) 12, Tirupati Aero (Tirupati) 11, Satyavedu (Tirupati) 10, Porumamilla (Ysr District) 9, Srikalahasti (Tirupati) 8, Thottambedu (Tirupati) 8, Venkatagiri (Tirupati) 8, Penagaluru (Annamayya District) 8, Kodur (Ysr District) 8, Nagari (Chittoor) 8, Gudur (Tirupati) 7, Pullampeta (Annamayya District) 7;

❖ **Coastal Andhra Pradesh & Yanam:** Kavali (Nellore) 18, Nellore (Nellore) 13, Kandukur (Nellore) 10, Seetharamapuram (Nellore) 10, Vinjamur (Nellore) 9, Udayagiri (Nellore) 9;

❖ **South Interior Karnataka:** Bengaluru Hal Ap Obsy (Bengaluru Urban) 9, Hesaraghatta (Bengaluru Urban) 7, Bellur (Mandya) 7, Bengaluru City Obsy (Bengaluru Urban) 7;