

Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 26th November, 2024

Time of Issue: 1420 hours IST

Subject: (i) Depression intensified into deep depression over Southwest Bay of Bengal and further intensification into a cyclonic storm on 27th November.

(ii) Heavy to very heavy rainfall at a few places with isolated extremely heavy rainfall over Coastal Tamil Nadu & Puducherry on 26th & 27th. Heavy to very heavy rainfall over Coastal Tamil Nadu & Puducherry on 28th and over Coastal Andhra Pradesh, Rayalaseema from 28th to 30th November, 2024.

i. Rainfall Forecast and warning over the country:

Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

- ❖ **Heavy rainfall** at isolated places over Andaman & Nicobar Islands.
- ❖ **Fog conditions observed** (between 0530 & 0830 hours IST of today): **Dense fog (visibility 50-200 m)** reported at isolated pockets of Uttar Pradesh, Tripura, Meghalaya, Odisha.
- ❖ **Visibility reported** (in m): **East Uttar Pradesh:** Kushinagar, Gorakhpur 50 each; **West Uttar Pradesh:** Muradabad 100; **Tripura:** Agartala 50, Kailashahar 500; **Meghalaya:** Barapani 50; **Odisha:** Rourkela 50.

Weather Systems:

- ❖ The Depression over Southwest Bay of Bengal moved north-northwestwards with a speed of 12 kmph during past 6 hours, intensified into a Deep Depression and lay centred at 0830 hours IST of today, the 26th November 2024 over the same region near latitude 6.3°N and longitude 82.8°E, about 310 km southeast of Trincomalee, 590 km south-southeast of Nagapattinam, 710 km south-southeast of Puducherry and 800 km south-southeast of Chennai. It is likely to continue to north-northwestwards and intensify further into a cyclonic storm on 27th November. Thereafter, it will continue to move north-northwestwards towards Tamil Nadu coasts skirting Sri Lanka coast during subsequent 2 days.
- ❖ **Jet Stream** Winds of the order upto 140 knots at 12.6 km above mean sea level are prevailing over Northwest India.
- ❖ A fresh Western disturbance is likely to affect Western Himalayan Region from 29th November.

Forecast & Warnings (upto 7 days) (Annexure II & III):

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm & lightning very likely over coastal Tamil Nadu & Puducherry and Kerala & Mahe on 26th & 27th November.
- ✓ Isolated **heavy to very heavy rainfall** at a few places **with extremely heavy falls** at isolated places very likely over coastal Tamil Nadu & Puducherry on 26th & 27th, **heavy to very heavy rainfall** at isolated places over coastal Tamil Nadu & Puducherry on 28th and **heavy rainfall** at isolated places over coastal Tamil Nadu & Puducherry on 29th & 30th November.
- ✓ **Heavy to very heavy rainfall** at isolated places very likely over Coastal Andhra Pradesh & Yanam, Rayalaseema during 28th-30th November.

- ✓ **Heavy rainfall** at isolated places very likely over Andaman & Nicobar Islands on 26th; Kerala & Mahe on 26th & 27th; Coastal Andhra Pradesh & Yanam, Rayalaseema on 26th, 27th November, 01st December and over Nagaland, Manipur, Mizoram & Tripura on 28th November.
- ✓ **Dense fog conditions** very likely to prevail during early morning hours in isolated pockets of Himachal Pradesh during 27th-29th, Punjab & Haryana-Chandigarh during 28th -30th and Uttar Pradesh during 27th November-01st December.

ii. Temperature conditions and Forecast:

Temperature Conditions during past 24 hours till 0830 hours IST of today

No significant change in minimum temperature observed over most parts of the country during past 24 hours. Minimum temperatures are **appreciably above normal (3°C to 5°C)** at isolated places over West Rajasthan and Bihar; **above normal (2°C to 3°C)** at a few places over Kerala & Mahe; at isolated places over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam, Uttar Pradesh, Saurashtra & Kutch. These are **appreciably below normal (-5°C to -3°C)** at isolated places over Madhya Pradesh; **below normal (-3°C to -1°C)** at isolated places over East Rajasthan, Gangetic West Bengal, Odisha, Coastal Karnataka, Konkan & Goa, Marathwada, Vidarbha, Telangana, Haryana-Chandigarh-Delhi and near normal over rest parts of the country. Today, **the lowest minimum temperature of 7.4°C** was reported at **Adampur_IAF (Punjab)** over the plains of the country.

Forecast of temperature:

- ❖ No large Change in minimum temperatures very likely over Western Himalayan region during next 24 hours and gradual fall by 2-3°C thereafter.
- ❖ No large Change in minimum temperatures very likely over Central India during next 3 days and fall by 2-3°C thereafter.
- ❖ No large Change in minimum temperatures very likely over Gangetic West Bengal, Odisha during next 3 days and fall by 3-4°C thereafter.
- ❖ No significant change in minimum temperatures over rest parts of the country during next 5 days.

iv. Fishermen & Wind Warnings (Annexure IV):

- Fishermen are advised not venture into
 - southwest Bay of Bengal and along & off Sri Lanka & Tamil nadu coasts till 29th November, 2024.
 - Adjoining areas of Westcentral Bay of Bengal and along & off south Andhra Pradesh coast during 27th to 29th November 2024.
- Fishermen out at sea are advised to return to coasts immediately.

Wind Warnings

- Squally wind speed reaching 50-60 kmph gusting to 70 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 till 29th November.
- Squally wind speed reaching 40-50 kmph gusting to 60 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.
- Squally wind speed reaching 40-50 kmph gusting to 60 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 50-60 kmph gusting to 70 kmph from 27th evening till 29th November.

Weather conditions and forecast over Delhi/NCR during 26th Nov. to 29th Nov. 2024 (Annexure V):

For more details, kindly refer National Weather Bulletin:

https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

For Fishermen warnings & National bulletin for depression over Bay of Bengal, kindly refer:

https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51_bdf575_GRAPHIC.png

https://rsmcnewdelhi.imd.gov.in/uploads/archive/1/1_72e1e7_1.%20National%20Bulletin%20No%201-25Nov2024_0830IST.pdf

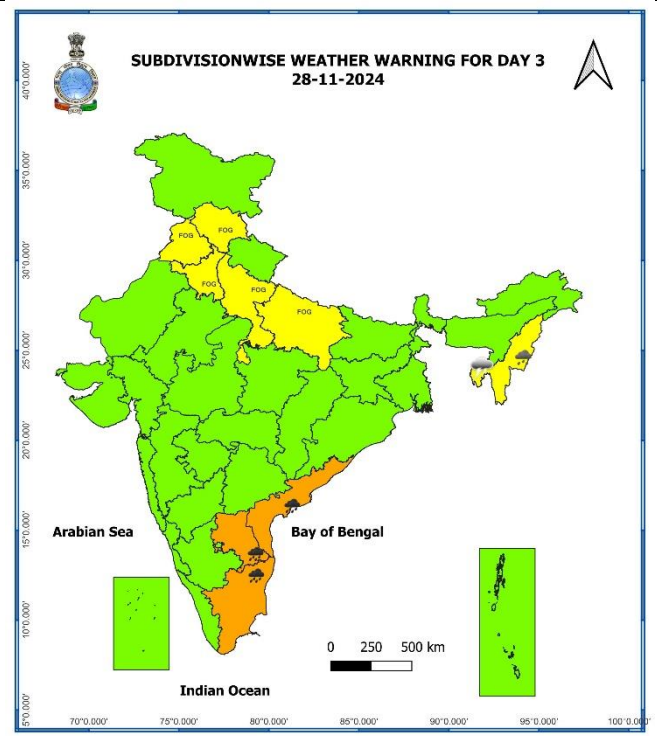
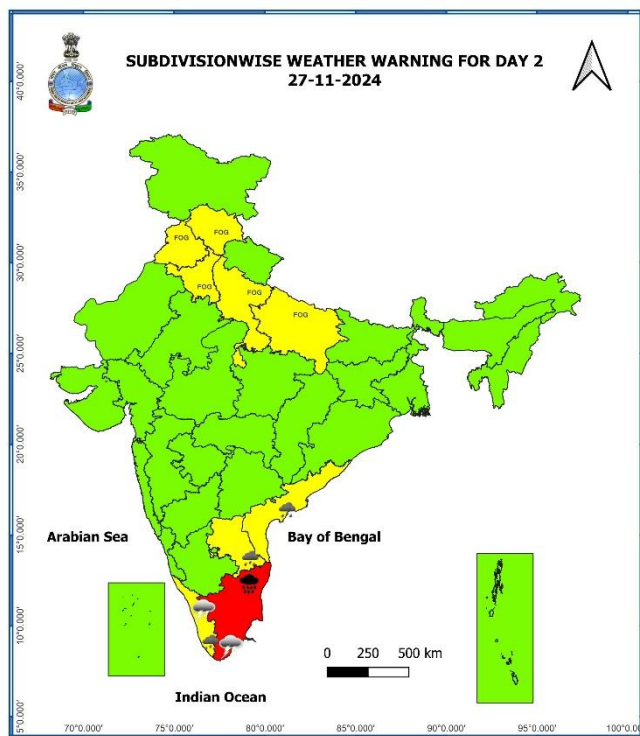
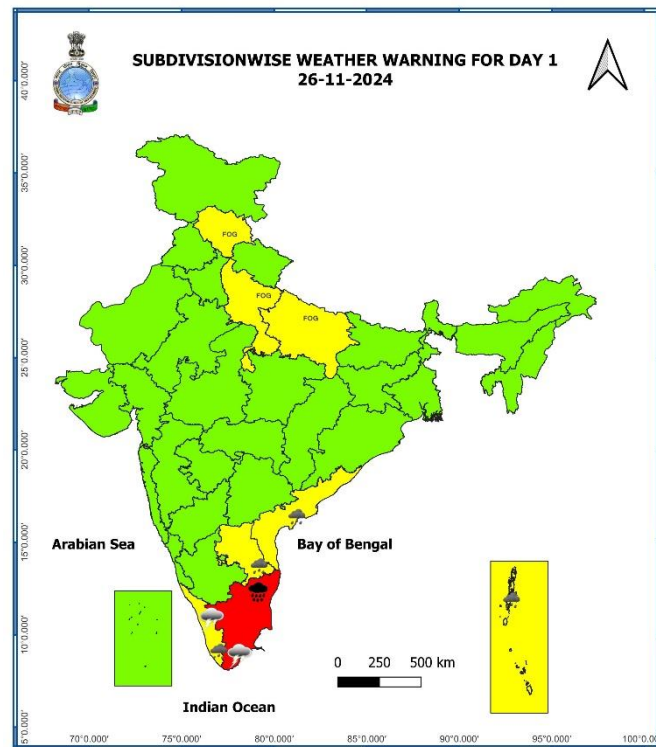
ANNEXURE I

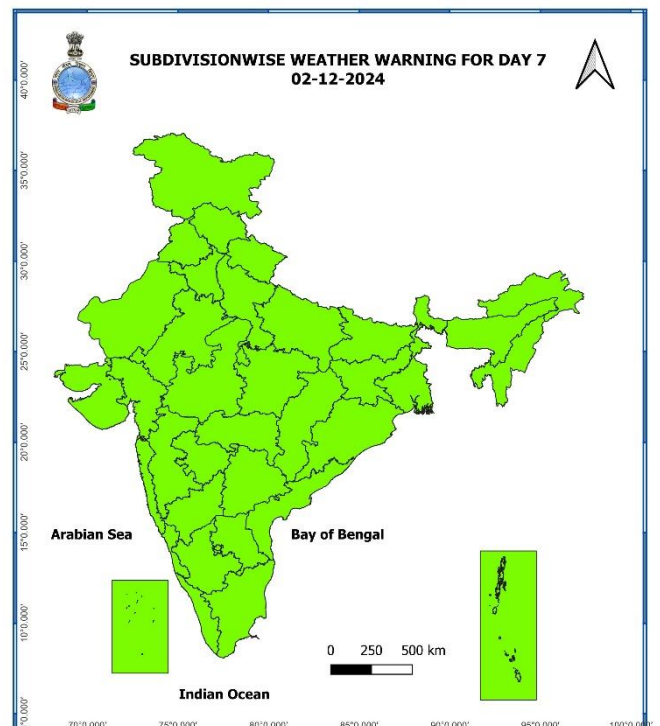
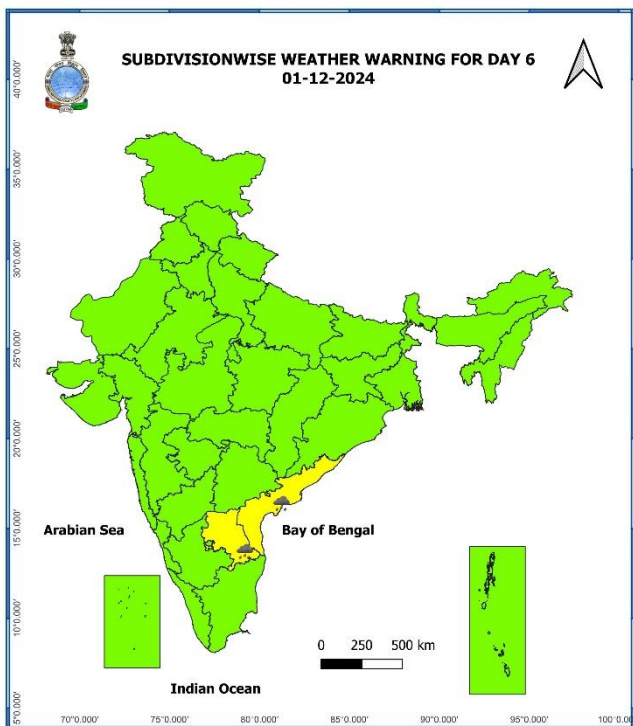
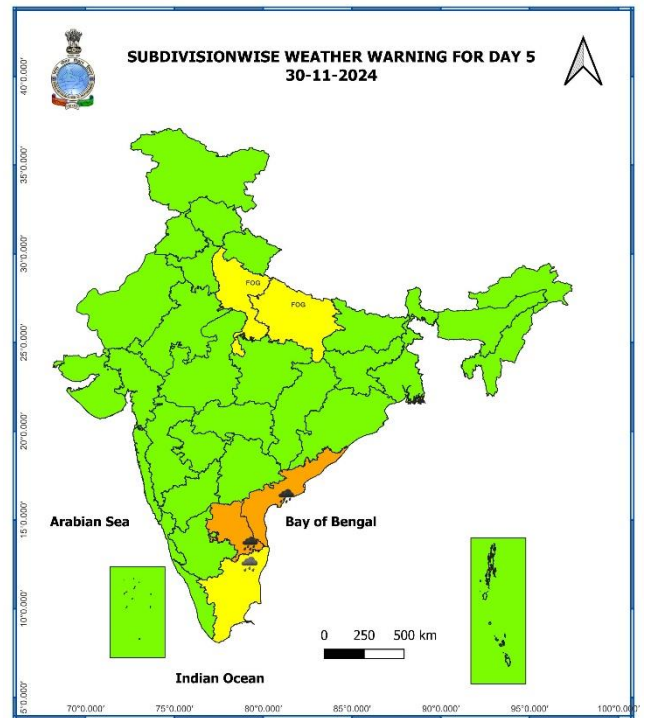
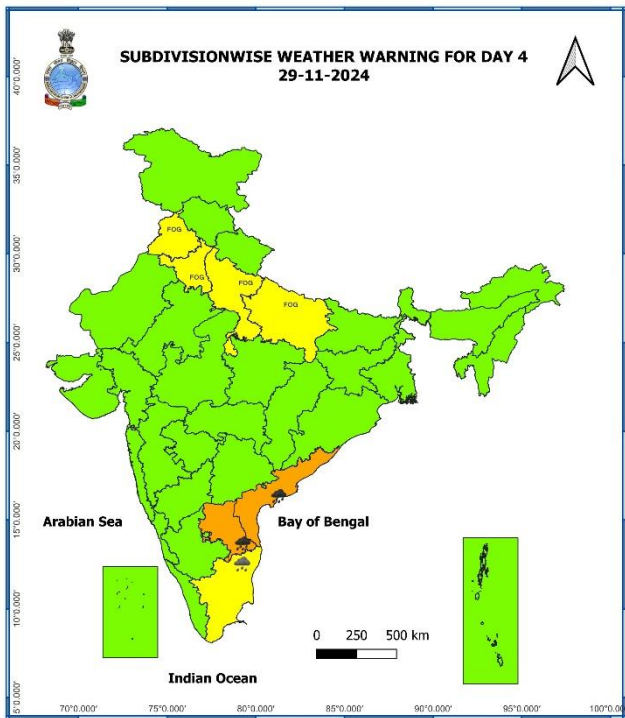
Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 26.11.2024 (in cm):

- ❖ **Andaman & Nicobar Islands:** Car Nicobar (dist Nicobar) 7,

7 Days Rainfall Forecast								
S. No.	Subdivision	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov	01-Dec	02-Dec
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	FWS	FWS	FWS	FWS	FWS	FWS
2	ARUNACHAL PRADESH	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
3	ASSAM & MEGHALAYA	DRY	DRY	WS	FWS	SCT	SCT	ISOL
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	DRY	DRY	WS	FWS	SCT	SCT	ISOL
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
6	GANGETIC WEST BENGAL	DRY	DRY	DRY	ISOL	ISOL	ISOL	DRY
7	ODISHA	DRY	DRY	ISOL	ISOL	ISOL	DRY	DRY
8	JHARKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
9	BIHAR	DRY	DRY	DRY	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
11	WEST UTTAR PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
12	UTTARAKHAND	DRY	DRY	DRY	DRY	DRY	DRY	DRY
13	HARYANA CHANDIGARH & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	ISOL	DRY	DRY	ISOL
16	JAMMU & KASHMIR AND LADAKH	DRY	DRY	DRY	ISOL	DRY	DRY	ISOL
17	WEST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
18	EAST RAJASTHAN	DRY	DRY	DRY	DRY	DRY	DRY	DRY
19	WEST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
21	GUJARAT REGION	DRY	DRY	DRY	DRY	DRY	DRY	DRY
22	SAURASHTRA & KUTCH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
23	KONKAN & GOA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
24	MADHYA MAHARASHTRA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
25	MARATHAWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
27	CHHATTISGARH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
28	COASTAL ANDHRA PRADESH & YANAM	ISOL	SCT	SCT	FWS	WS	FWS	SCT
29	TELANGANA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
30	RAYALASEEMA	ISOL	SCT	SCT	FWS	WS	FWS	FWS
31	TAMILNADU PUDUCHERRY & KARAIKAL	FWS	FWS	SCT	SCT	SCT	SCT	SCT
32	COASTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
35	KERALA & MAHE	FWS	FWS	ISOL	ISOL	SCT	SCT	SCT
36	LAKSHADWEEP	SCT	SCT	SCT	SCT	DRY	DRY	DRY

- As the lead period increases forecast accuracy decreases.



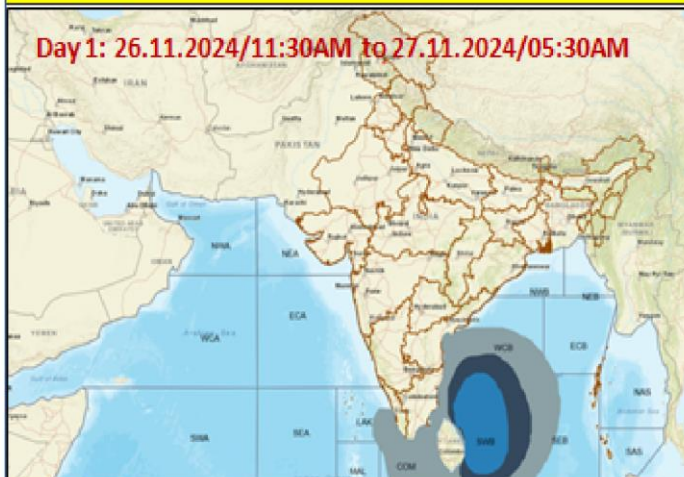


- Action may be taken based on **ORANGE AND RED COLOUR** warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

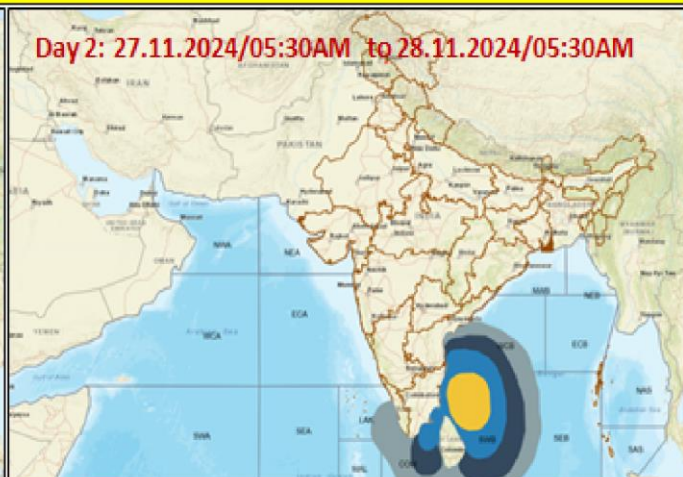


Fishermen Warning Graphics

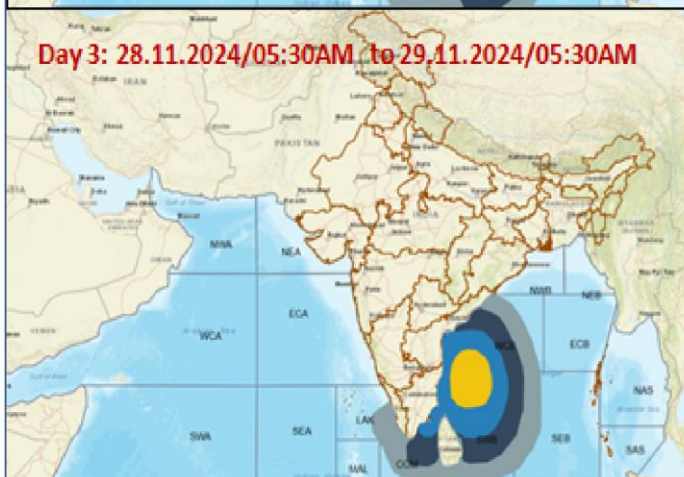
Day 1: 26.11.2024/11:30AM to 27.11.2024/05:30AM



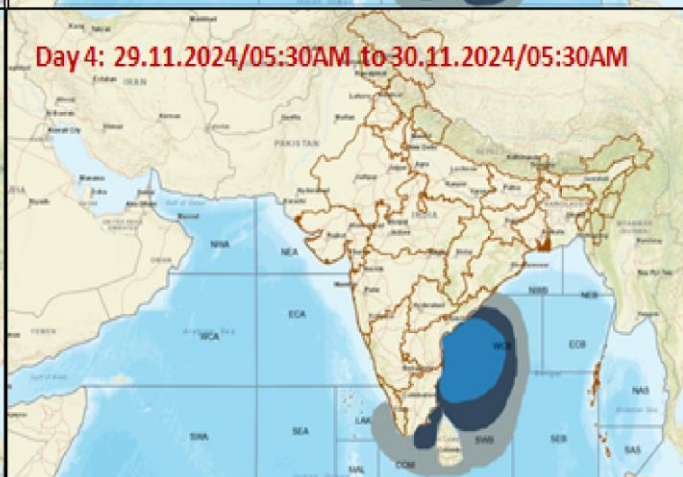
Day 2: 27.11.2024/05:30AM to 28.11.2024/05:30AM



Day 3: 28.11.2024/05:30AM to 29.11.2024/05:30AM



Day 4: 29.11.2024/05:30AM to 30.11.2024/05:30AM



Day 5: 30.11.2024/05:30AM to 01.12.2024/05:30AM



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.

Weather forecast over Delhi/NCR during 26th Nov. to 29th Nov. 2024 (Annexure V):

Past Weather:

There has been a fall upto 03°C in maximum temperature and fall upto 2°C in minimum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of 24 to 26°C and 10 to 13°C respectively. The maximum temperature was below normal by 01 to 02°C and the minimum temperature was near normal most places over the region. Mainly smog/ shallow fog condition with predominant surface wind from west direction with wind speed reaching 06 to 14 kmph prevailed on 25.11.2024. Shallow fog reported at Safdarjung airport during early morning today. Safdarjung airport recorded lowest visibility 700 m at 0230 hours IST which improved thereafter becoming 800m at 0530 hours IST. Mainly clear sky condition with wind speed less than 10 kmph west direction prevailed over the region in the forenoon today.

Weather Forecast:

26.11.2024: Mainly clear sky. The predominant surface wind is likely to be northwest direction with wind speed upto 08-10 kmph till evening. It would decrease thereafter becoming less than 06 kmph from northwest direction during night. Smog/shallow fog is likely in the evening/night.

27.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 04 kmph during morning hours. Smog/ moderate fog is likely in the morning. The wind speed will increase thereafter becoming less than 08 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 04 kmph from north direction during evening and night. Smog/ shallow fog is likely in the evening/night.

28.11.2024: Mainly clear sky. The predominant surface wind is likely to be from variable direction with speed less than 04 kmph during morning hours. Smog/ moderate to dense fog is likely in the morning. The wind speed will gradually increase becoming 04-06 kmph from north direction during afternoon. It will decrease thereafter becoming less than 04 kmph from variable direction during evening and night. Smog/ shallow to moderate fog is likely in the evening/night.

29.11.2024: Mainly clear sky. The predominant surface wind is likely to be from variable direction with wind speed less than 04 kmph during morning hours. Smog/moderate to dense fog in the morning. The wind speed will increase thereafter becoming 04-06 kmph from northeast direction during afternoon. It will gradually decrease becoming less than 04 kmph from variable direction during evening and night. Smog/ shallow fog is likely in the evening/night.

- ✓ **Impact & Action Suggested due to isolated extremely heavy rainfall** very likely over coastal Tamil Nadu & Puducherry on 26th & 27th November and **isolated heavy to very heavy rainfall** over coastal Tamil Nadu & Puducherry on 28th; Coastal Andhra Pradesh & Yanam during 28th -30th November.

A. Impact Expected

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

B. Action Suggested

- ❖ 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.

Impact expected due to dense fog in the night /morning hour:

- ❖ Transport and Aviation:
 - May affect some airports, highways and railway routes in the areas of met- sub-division.
 - Difficult driving conditions with slower journey times.
 - Unless taken precautionary measures, it may lead to some road traffic collisions.
- ❖ Power Sector:
 - Chances of Tripping of Power lines in the very dense fog routes.
- ❖ Human Health:
 - Lung related health impacts: Dense fog contains particulate matter and other pollutants and in case exposed it gets lodged in the lungs, clogging them and decreasing their functional capacity which increases episodes of wheezing, coughing and shortness of breath.
 - Impact on people having asthma bronchitis: Long time exposure to dense fog may cause respiratory problem for people having asthma bronchitis and other lung related health problems.
 - Eye Irritation: Dense fog contains pollutions of various types and these Pollutants in the air if exposed may tend to irritate the membranes of the eye causing various infections leading to redness or swelling of the eye.

Action suggested:

- ❖ Transport and Aviation:
 - Be careful while driving or outing through any transport.
 - Use fog lights during driving.
 - Be in touch with airlines, railways and state transport for schedule of your journey.
- ❖ Power Sector:
 - To keep ready Maintenance Team
 - Human Health: To avoid outing until unless emergency and to cover the face.

Agromet advisories for Heavy Rainfall likely over various parts of the country

- In **Tamil Nadu**, provide adequate drainage facilities for the removal of excess water from such as rice, cotton, sugarcane, turmeric, vegetables and other standing crops fields; coconut and banana orchards. Undertake propping in sugarcane. 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 Andaman & Nicobar Islands, Kerala and Andhra Pradesh.
- Harvest matured crops & vegetables and keep the harvested produce at safer places.
- Provide mechanical support to horticultural crops and staking to vegetables.

Livestock and Fishery

- Keep the animals inside the shed during heavy rainfall and provide balanced feed.
- Store the feed and fodder at safer place to avoid spoilage from rainfall.
- Hang gunny bags all around poultry sheds.
- Construct an outlet with proper netting around the pond to drain out excess rain water, thereby preventing fishes/fingerlings from escaping in case of overflowing.
- Check and repair dykes around the ponds to avoid entry of runoff water from catchment area.

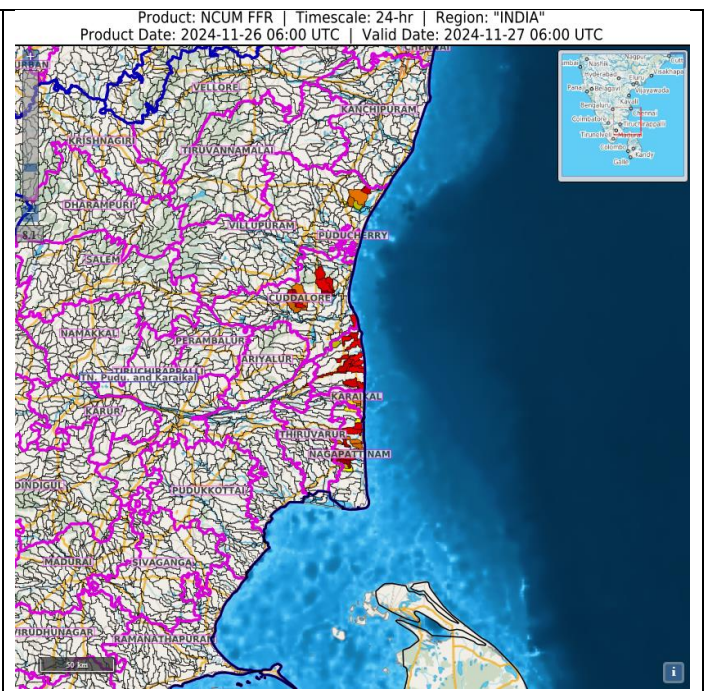
FLASH FLOOD GUIDANCE:

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 27-11-2024:

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

Tamilnadu, Puducherry & Karaikal:
Cuddallur, Villupuram, Nagapattinum, Karaikal and Thiruvavarur 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.

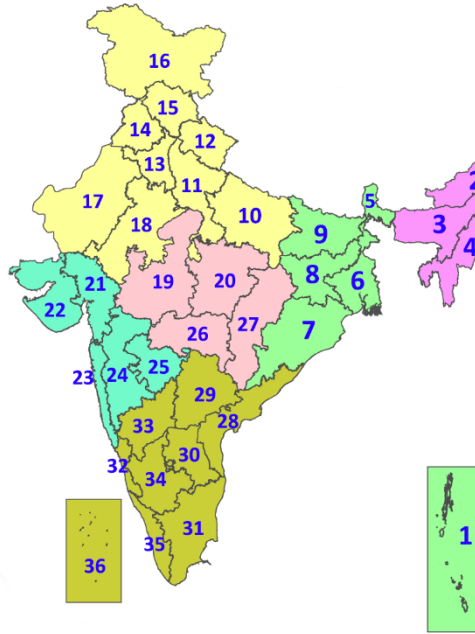


Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और माहे
36. लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathwada
26. Vidarbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. Lakshadweep

SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/A Few Places)
51-75	Fairly Widespread (FWS/Many Places)	1-25	Isolated (ISOL)



Fog



Heavy Snow



Cold Wave



Heavy Rain



Dust Storm



Cold Day



Very Heavy Rain



Heat Wave



Ground Frost



Extremely Heavy Rain



Warm Night



Thunder & Lightning



Hot Day



Hailstorm



Hot & Humid



Dust Raising Winds



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

* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
(Service to the Nation since 1875)

DEFINITION/CRITERIA

Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm*
Extremely Heavy: > 204.4 mm/cm *

Heat Wave

When maximum temperature of a station reaches $\geq 40^\circ \text{C}$ for plains and $\geq 30^\circ \text{C}$ for hilly regions
(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .

Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^\circ \text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^\circ \text{C}$.

Severe Heat Wave: When actual maximum temperature $\geq 47^\circ \text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^\circ \text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^\circ \text{C}$

Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .

Severe Warm Night: When minimum temperature departure $> 6.4^\circ \text{C}$.

Cold Wave

When minimum temperature of a station $\leq 10^\circ \text{C}$ for plains and $\leq 0^\circ \text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Wave: Minimum Temperature Departure from normal $\leq -6.5^\circ \text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave: When Minimum Temperature is $\leq 4.0^\circ \text{C}$

Severe Cold Wave: When Minimum Temperature is $\leq 2.0^\circ \text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^\circ \text{C}$ & actual Minimum Temperature is $\leq 15^\circ \text{C}$

Cold Day

When minimum temperature of a station $\leq 10^\circ \text{C}$ for plains and $\leq 0^\circ \text{C}$ for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^\circ \text{C}$

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1 \text{ km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres

Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)

Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.

Frost

Ice deposits on ground

Air temperature $\leq 4^\circ \text{C}$ (over Plains)

Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed > 87 kmph

Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre

Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Strom: Wind speed > 220 kmph (> 119 knots)

* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
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