

Government of India Ministry of Earth Sciences India Meteorological Department



Press Release Date: 13th November, 2024

Time of Issue: 1345 hours IST

Subject: (i) Isolated heavy rainfall activity likely over Tamil Nadu till 16th, Coastal Andhra Pradesh on 13th & 14th, Kerala till 17th and over South Interior Karnataka on 14th & 15th November 2024.

(ii) Dense fog likely to continue in night/morning hours over northwest India during next **2-3 days.**

- i. Rainfall Forecast and warning over the country: Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)
 - Heavy to very heavy rainfall occurred at isolated places over Tamil Nadu and Heavy rainfall occurred at isolated places over Rayalaseema.
 - Fog conditions observed (at 0530 & 0830 hours IST of today): Dense to very Dense fog reported in isolated pockets of Punjab, Delhi, West Rajasthan and West Uttar Pradesh; Dense fog reported in isolated pockets of Haryana; Following stations reported visibility (≤200metres): **Punjab:** Amritsar-0, Adampur-0, Halwara-100; Delhi: Delhi-IGI-0; West Rajasthan: Suratgarh-0; West Uttar Pradesh: Hindon Airport-0, Bareilly-0, Meerut-200; Haryana: Hissar, Bhiwani-50 each, Karnal, Nahan-200 each; Chandigarh-200; Himachal Pradesh: Una, Sundernagar-200

Weather Systems:

- Yesterday's low pressure area over southwest & adjoining westcentral Bay of Bengal off north Tamil Nadu & adjoining south Andhra Pradesh coasts has become less marked. However, the associated upper air cyclonic circulation lies over southwest Bay of Bengal off north Tamil Nadu in lower tropospheric levels.
- ❖ An upper air cyclonic circulation lies over southeast Arabian Sea off Kerala coast in lower tropospheric
- ❖ A fresh Western Disturbance seen as a trough in middle tropospheric westerlies runs roughly along Long. 58°E to the north of Lat. 33°N.

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

- ✓ Light to moderate rainfall at a few places accompanied with isolated thunderstorm and lightning very likely over Tamil Nadu, Puducherry & Karaikal, Coastal Andhra Pradesh & Yanam and Rayalaseema during 13th-16th November, 2024.
- ✓ **Isolated heavy rainfall** very likely over Rayalaseema on 13th; Tamil Nadu, Puducherry & Karaikal during 13th – 16th; Kerala & Mahe during 13th-17th; Coastal Andhra Pradesh & Yanam on 13th & 14th; South Interior Karnataka on 14th & 15th November, 2024.
- ✓ **Dense to very dense fog** conditions very likely to prevail in night/early morning hours in isolated pockets of Punjab till 15th morning hours and dense fog for subsequent 1 day; **Dense fog conditions** very likely to prevail in night/early morning hours in isolated pockets over Himachal Pradesh till 18th morning; Haryana,

Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand till 16th morning hours; Uttar Pradesh & north Rajasthan till 15th November, 2024.

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 reported **markedly above normal by 5.0°C or more** at many places over Punjab; at isolated places over West Rajasthan, Haryana-Chandigarh-Delhi, Bihar and East Uttar Pradesh; **appreciably above normal by 3.0°C-4.0°C** at a few places over West Uttar Pradesh, Rayalaseema and Coastal Andhra Pradesh & Yanam; at isolated places over East Rajasthan, East Madhya Pradesh, Jharkhand, Gangetic West Bengal, Telangana and Tamil Nadu, Puducherry & Karaikal; **above normal by 2.0°C-3.0°C** at most places over Coastal Karnataka; at many places over Gujarat Region; at a few places over Saurashtra & Kutch, West Madhya Pradesh, Assam & Meghalaya, Odisha and Kerala & Mahe; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Konkan & Goa, Sub-Himalayan West Bengal & Sikkim, Interior Karnataka and Nagaland, Manipur, Mizoram & Tripura. These are **below normal by 2.0°C-3.0°C** at isolated places over Vidarbha. Today, **the lowest minimum temperature** of **11.4°C** is reported at **Sidhi (East Madhya Pradesh)** over the plains of the country.

Forecast of temperature:

- ❖ Gradual fall in minimum temperatures by 2-3°C very likely over northwest India during next 5 days.
- ❖ No significant change in minimum temperatures over central India during next 5 days.
- ❖ Gradual fall in minimum temperatures by 3-4°C very likely over East India during next 5 days.
- * Rise by 2-3°C in Minimum Temperatures over West India during next 3 days and Gradual fall in minimum temperatures by 2-3°C thereafter.

iii. Weather forecast over Delhi/NCR during 13th Nov. to 16th Nov. 2024

Past Weather:

There has been slight fall in minimum temperature over Delhi/NCR during past 24hr. The Maximum and Minimum temperature over Delhi is in the range of $30\text{-}33^{\circ}\text{C}$ and $14\text{-}18^{\circ}\text{C}$ respectively. The maximum temperature was above normal by $2-5^{\circ}\text{C}$ over the region and minimum temperature was above normal by $3\text{-}4^{\circ}\text{C}$ over most places in the region. Mainly clear sky condition with predominant surface wind from northwest direction with wind speed reaching 04-12 kmph prevailed during past 24hr. Palam airport reported very dense fog with zero visibility during 0800 to 0930 hours IST which improved thereafter becoming 200m at 1000 hours IST. Safdarjung airport recorded lowest visibility 200m at 0700 hours IST which improve thereafter becoming 400m at 0930 hours IST. The mainly smog condition with wind speed less than 10 kmph from west/ northwest direction prevailed over the region in the forenoon today.

Weather Forecast:

13.11.2024: Mainly clear sky. The predominant surface wind is likely to be northwest with wind speed upto 08 - 10 kmph till evening. It would decrease thereafter becoming less than 08 kmph from northwest direction during night. Smog/moderate fog is likely in the evening/night.

14.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 06 kmph during morning hours. Smog /dense to very dense fog in the morning. The wind speed will increase thereafter becoming less than 10 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 08 kmph from northwest direction during evening and night. Smog/ mist/ moderate fog is likely in the evening/night.

15.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with speed less than 08 kmph during morning hours. Smog/moderate to dense fog at few places in the morning. The wind speed will gradually increase becoming 10-15 kmph from northwest direction during afternoon. It will decrease thereafter becoming less than 08 kmph from northwest direction during evening and night. Smog/ mist is likely in the evening/night.

16.11.2024: Mainly clear sky. The predominant surface wind is likely to be from northwest direction with wind speed less than 08 kmph during morning hours. Smog/ shallow to moderate fog at few places in the morning. The wind speed will increase thereafter becoming 10 - 15 kmph from northwest direction during afternoon. It will gradually decrease becoming less than 10 kmph from northwest directions during evening and night. Smog/ mist is likely in the evening/night.

For more details, kindly refer National Weather Bulletin:

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

For District wise warnings refer: https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php
For Fishermen warnings, kindly refer:

https://rsmcnewdelhi.imd.gov.in/uploads/archive/51/51 bdf575 GRAPHIC.png

ANNEXURE I

Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 13.11.2024 (in cm):

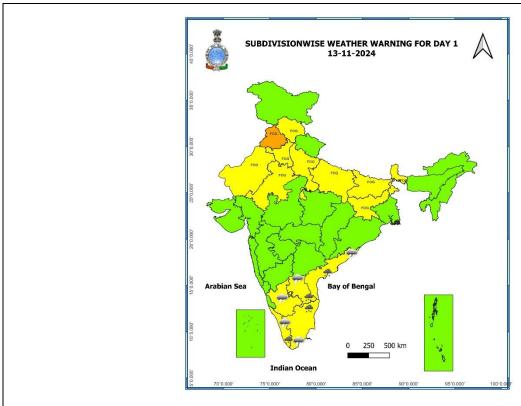
Tamil Nadu, Puducherry & Karaikal: Sirkali (dist Mayiladuthurai), Kollidam (dist Mayiladuthurai) 14 each, Puducherry AWS (dist Puducherry), Puducherry (dist Puducherry) 12 each, Kollidam ARG (dist Mayiladuthurai), Manalmedu ARG (dist Mayiladuthurai) 11 each, Puducherry Town (dist Puducherry), Jayamkondam (dist Ariyalur) 8 each, Lalpet (dist Cuddalore), Patthukannu (dist Puducherry), Bahour (dist Puducherry), Manalmedu (dist Mayiladuthurai), Sendurai (dist Ariyalur), Gummidipoondi (dist Tiruvallur) 7 each;

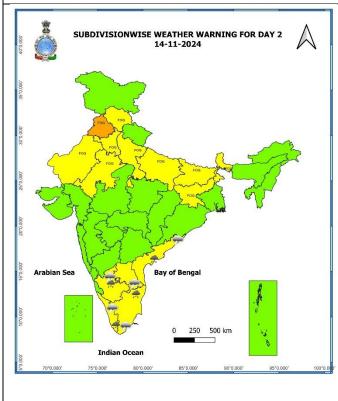
Rayalaseema: Gudur (dist Tirupati) 7, Pullampeta (dist Annamayya District) 5, Tada (dist Tirupati) 5, Satyavedu (dist Tirupati) 3, Kodur (dist Ysr District) 3, Venkatagiri (dist Tirupati) 3, Tirupati Aero (dist Tirupati) 3, Sullurpeta (dist Tirupati) 3, Rajampet (dist Annamayya District) 3, Penagaluru (dist Annamayya District) 3;

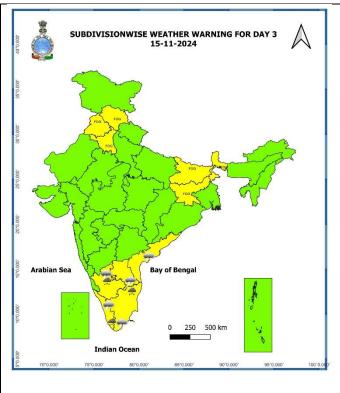
Coastal Andhra Pradesh & Yanam: Kavali (dist Spsr Nellore) 6, Nellore (dist Spsr Nellore) 6, Rapur (dist Spsr Nellore) 6, Kandukur (dist Spsr Nellore) 4, Vinjamur (dist Spsr Nellore) 4, Chintapalle (dist Alluri Sitharamaraju) 4, Chimakurthi (dist Prakasam) 3.

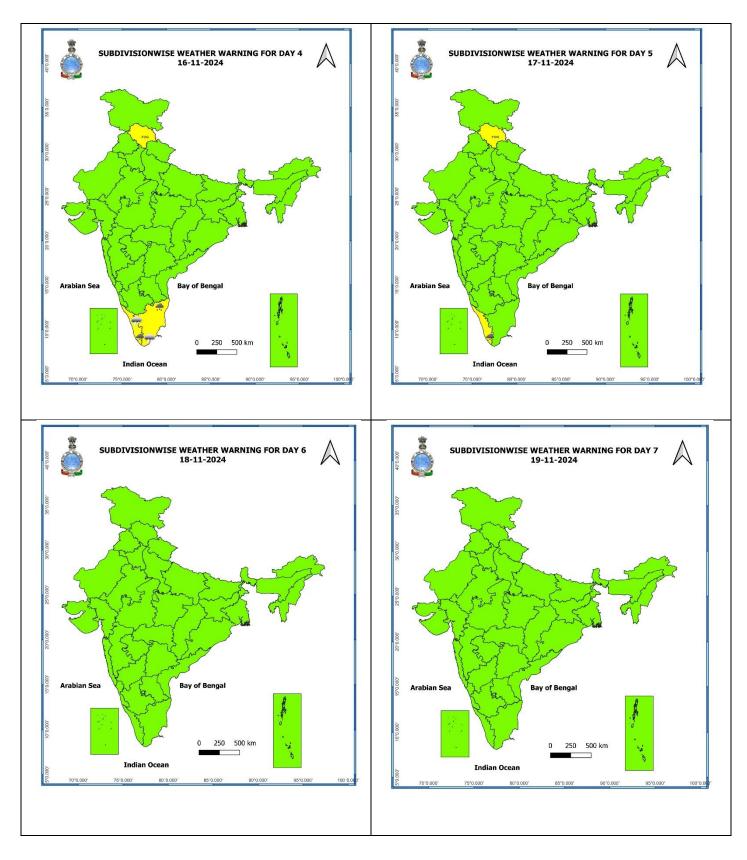
7 Days Rainfall Forecast										
S. No.	Subdivision	13- Nov Day 1	14- Nov Day 2	15- Nov Day 3	16- Nov Day 4	17- Nov Day 5	18- Nov Day 6	19- Nov Day 7		
1	ANDAMAN & NICOBAR ISLANDS	SCT	ISOL	ISOL	ISOL	SCT	SCT	FWS		
2	ARUNACHAL PRADESH	DRY								
3	ASSAM & MEGHALAYA	DRY								
4	NAGALAND, MANIPUR, MIZORAM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

• 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.

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

- Make arrangements to drain out excess water from the standing crop fields in Tamil Nadu, Kerala, South Interior Karnataka and Andhra Pradesh.
- ➤ Keep the harvested produce at safer places.
- ➤ Provide mechanical support to horticultural crops and staking to vegetables.

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.



34. आतंरिक दक्षिणी कर्नाटक

35. केरल और माहे

36. लक्षद्वीप

राष्ट्रीय मौसम पूर्वानुमान केन्द्र भारत मौसम विज्ञान विभाग पृथ्वी विज्ञान मंत्रालय

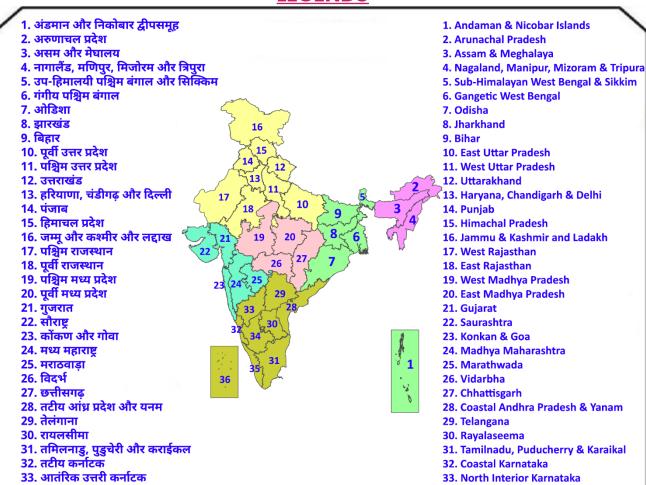
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34. South Interior Karnataka

35. Kerala & Mahe

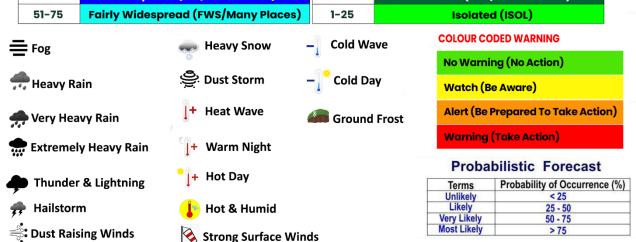
36. Lakshadweep

LEGENDS



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)





Cyclone



DEFINITION/CRITERIA Heavy: 64.5 to 115.5 mm/cm * Very Heavy: 115.6 to 204.4 mm/cm Rain/ Snow * Extremely Heavy: > 204.4 mm/cm When maximum temperature of a station reaches ≥40° C for plains and ≥30° 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 ≥6.5° C (b). Based on Actual maximum temperature **Heat Wave** Heat Wave: When actual maximum temperature ≥45°C Severe Heat Wave: When actual maximum temperature ≥47°C (c). Criteria for heat wave for coastal stations When maximum temperature departure is >4.5°C from normal. Heat Wave may be described provided maximum temperature ≥37°C When maximum temperature remains 40°C Warm Night: When minimum temperature departure 4.5 °C to 6.4 °C Warm Night Severe Warm Night: When minimum temperature departure >6.4 °C When minimum temperature of a station ≤10°C for plains and ≤0°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 °C **Cold Wave** (b) Based on actual Minimum Temperature (for Plains only) Cold Wave : When Minimum Temperature is ≤ 4.0 °C Severe Cold Wave: When Minimum Temperature is ≤ 2.0 °C (c) For Coastal Stations When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions Based on departure **Cold Day** 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 °C Phenomenon of small droplets suspended in air and the horizontal visibility < 1km Moderate Fog: When the visibility between 500-200 metres Fog when the visibility between 50- 200 metres Dense Fog: v Very Dense Fog: when the visibility < 50 metres Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder) Thunderstorm Dust/Sand An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind. Ice deposits on ground Frost Air temperature ≤4°C (over Plains) A strong wind that rises suddenly, lasts for atleast 1 minute. Moderate: Wind speed 52-61 kmph Squall Severe: Wind speed 62-87 kmph Very Severe: Wind speed >87 kmph 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 Sea State 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 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)