2026-11-20
Time of Issue: 08:00:00 hours IST
(Morning)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Weather system, Forecast and Warnings:

- The **Severe Cyclonic Storm "Akvan" [Pronunciation: Akvan]** over the westcentral Bay of Bengal weakened into a **Cyclonic Storm** over the same region at 0230 hours IST of today, the 20th November, 2026. Further, it moved north-northwestwards with the speed of 23 kmph during past 06 hours and lay centered at 0530 hours IST of today, the 20th November, 2026 over the same region, near Latitude 18.3°N and Longitude 84.8°E, about 70 km east of Kalingapatnam (Andhra Pradesh), 110 km south of Gopalpur (Odisha), 170 km east-northeast of Visakhapatnam (Andhra Pradesh), and 200 km south-southwest of Puri (Odisha). It is likely to continue to move north-northwestwards and cross North Andhra Pradesh and South Odisha coasts close to Gopalpur, by forenoon of 20th November, 2026 with the maximum sustained wind speed of 70-80 kmph gusting to 90 kmph.

South Peninsular India:

- **Isolated to Scattered** rainfall likely over Coastal Andhra Pradesh & Yanam, Kerala & Mahe, Rayalaseema and Tamil Nadu, Puducherry & Karaikal during 20th-25th November; Coastal Karnataka and Lakshadweep on 25th November; South Interior Karnataka during 24th-25th November; Telangana during 20th-21st November.
- Isolated **thunderstorm & lightning** likely over Tamil Nadu, Puducherry & Karaikal during 23rd-25th November; Rayalaseema on 23rd November.
- Isolated **heavy rainfall** likely over Tamil Nadu, Puducherry & Karaikal during 23rd-25th November with isolated **very heavy rainfall** also likely over Coastal Andhra Pradesh & Yanam on 20th November.
- **Thundersquall (wind speed reaching 60-70 kmph gusting to 80 kmph)** likely over Coastal Andhra Pradesh & Yanam on 20th November.

East India:

- **Isolated to Scattered** rainfall likely over Andaman & Nicobar Islands during 20th-25th November; Sub-Himalayan West Bengal & Sikkim during 20th-23rd November; Gangetic West Bengal during 22nd-23rd November; Jharkhand during 22nd-23rd November; Bihar during 21st-22nd November; Odisha during 21st-23rd November.
- **Fairly Widespread to Widespread** rainfall likely over Gangetic West Bengal during 20th-21st November; Jharkhand during 20th-21st November; Odisha on 20th November.
- Isolated **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph gusting to 60 kmph)** likely over Gangetic West Bengal on 20th November; Odisha on 21st November, **with gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Sub-Himalayan West Bengal & Sikkim during 20th-21st November; Bihar and Gangetic West Bengal on 21st November; Jharkhand on 20th November.
- Isolated **heavy rainfall** likely over southeast Bihar, Gangetic West Bengal and Odisha on 21st November; Jharkhand on 21st November with isolated **very heavy rainfall** also likely over Gangetic West Bengal on 20th November; Jharkhand on 20th November.
- Isolated **extremely heavy rainfall** likely over Odisha on 20th November.
- **Thundersquall (wind speed reaching 70-80 kmph gusting to 90 kmph)** likely over Odisha on 20th November.

Central India:

- **Isolated to Scattered** rainfall likely over West Madhya Pradesh during 21st-22nd November; East Madhya Pradesh during 20th-22nd November; Vidarbha during 20th-21st November; Chhattisgarh during 22nd-25th November.
- **Fairly Widespread to Widespread** rainfall likely over Chhattisgarh during 20th-21st November.
- Isolated **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph gusting to 60 kmph)** likely over Chhattisgarh during 20th-21st November, **with gusty winds (speed reaching 30-40 kmph gusting to 50**

kmph) likely over East Madhya Pradesh during 20th-22nd November.
- Isolated **heavy rainfall** likely over Chhattisgarh during 20th-21st November.

Northeast India:

- **Isolated to Scattered** rainfall likely over Arunachal Pradesh and Assam & Meghalaya during 20th-25th November; Nagaland, Manipur, Mizoram & Tripura during 21st-25th November.
- **Fairly Widespread to Widespread** rainfall likely over Nagaland, Manipur, Mizoram & Tripura on 20th November.
- Isolated **thunderstorm, lightning & gusty winds (speed reaching 40-50 kmph gusting to 60 kmph)** likely over Nagaland, Manipur, Mizoram & Tripura during 20th-21st November, **with gusty winds (speed reaching 30-40 kmph gusting to 50 kmph)** likely over Assam & Meghalaya on 21st November.
- Isolated **thunderstorm & lightning** likely over Assam & Meghalaya on 20th November.
- Isolated **heavy rainfall** likely over Assam & Meghalaya on 20th November; Nagaland, Manipur, Mizoram & Tripura during 20th-21st November with isolated **very heavy rainfall** also likely over Assam & Meghalaya on 21st November.

Fog warning:

- **Dense fog conditions** very likely over East Uttar Pradesh during 22nd-23rd November; Haryana Chandigarh & Delhi and Punjab during 20th-22nd November; West Uttar Pradesh during 21st-23rd November.

Wind warning:

- **Westcentral Bay of Bengal: Gale wind speed reaching 90-100 kmph gusting to 110 kmph** is prevailing and will continue till landfall on 20th noon. It will decrease gradually thereafter.
- **Northwest Bay of Bengal: Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is prevailing. It is likely to increase becoming Gale wind speed reaching 70-80 gusting to 90 kmph till 20th November noon and decease thereafter.
- **Along & off North Andhra Pradesh & Yanam coasts:** Gale wind speed reaching 90-100 gusting to 110 kmph till landfall on 20th Nov noon and decrease gradually thereafter.
- **Along & off South Odisha coasts: Squally wind speed reaching 50-60 kmph gusting to 70 kmph** is prevailing and likely to increase becoming 70-80 gusting to 90 kmph till 20th November afternoon and decease thereafter.
- **Along & off North Odisha, South Andhra Pradesh & West Bengal coasts: Squally wind speed reaching 50-60 gusting 70 kmph** from is likely to prevail till 20th Nov noon and decrease thereafter**.**

Sea condition:

- **Westcentral Bay of Bengal:** Very High Sea condition is prevailing; it is likely to continue till landfall on 20th November. It is likely to improve thereafter becoming very rough to rough by 21st November morning.
- **Northwest Bay of Bengal:** Rough to very rough sea condition is likely to prevail till 20th November noon and improve thereafter.
- **Along & off North Tamil Nadu & Puducherry coasts:** Rough to very rough sea condition is very likely till 20th November.
- **Along & off North Andhra Pradesh & Yanam coasts:** High Sea condition is Becoming High to very high till landfall on 20th Nov Noon and improve thereafter.
- **Along & off South Odisha coasts:** Rough to very rough sea condition is prevailing till 20th November afternoon and improve thereafter.
- **Along & Off adjoining areas of North Odisha, South Andhra Pradesh & West Bengal coasts:** Rough Sea condition is prevailing: Becoming very rough to high till landfall on 20th Nov noon and improve gradually thereafter.

Storm Surge Warning:

- Storm surge of 0.5 to 1.0 m height above astronomical tide is very likely to inundate low lying areas of Andhra

Pradesh (**West Godavari, Konaseema, Kakinada, Vizianagaram, Srikakulam and Visakhapatnam** districts) and south coastal Odisha (**Ganjam and Puri** districts) during the time of landfall.

Fisherman warning: Fishermen are advised not to venture into

- Northern parts of Southwest Bay of Bengal till 20th November.
- Westcentral Bay of Bengal till 21st November morning.
- Northwest Bay of Bengal till 21st November morning.

For Wind warning, Fisherman warning, sea condition and updates on Severe Cyclonic Storm "Akvan" [Pronunciation: Akvan] kindly refer to National bulletin available at https://mausam.imd.gov.in/responsive/cycloneinformation.php

Main Weather Observations:

❖ **Rainfall distribution** (from 0830 hours IST of yesterday to 0530 hours IST of today): **at most places** over Odisha, Gangetic West Bengal, Nagaland, Manipur, Mizoram & Tripura, Jharkhand and Andaman & Nicobar Islands; **at many places** over Bihar, Assam & Meghalaya, Coastal Andhra Pradesh & Yanam and Chhattisgarh; **Dry** over rest of the country.

❖ **Significant rainfall recorded(in cm)** (from 0830 hours IST of yesterday to 0530 hours IST of today): **Odisha**: Gopalpur (dist Ganjam) 18, Chandbali (dist Bhadrak) 10, Paradip Port (dist Jagatsinghapur) 9, Puri (dist Puri) 8, Balasore (dist Balasore) 4, Bhubaneshwar (dist Khordha) 3, Keonjhargarh (dist Kendujhar) 2, Jharsuguda (dist Jharsuguda) 1; **Gangetic West Bengal**: Kolkata (dum Dum) AP, Digha (dist North 24 Parganas) 5 Each, Kolkata-alipur (dist Kolkata), Haldia (dist Purba Medinipur) 4 Each, Diamond Harbour (dist South 24 Parganas) 3; **Nagaland, Manipur, Mizoram & Tripura**: Agartala AP (dist West Tripura), Imphal (tulihal) AP (dist Imphal East), Aizawl-lengpui (dist Mamit) 2 Each, Kailashahar AP (dist Unakoti) 1; **Jharkhand**: Jamshedpur AP (dist East Singhbhum) 2; **Coastal Andhra Pradesh & Yanam**: Tuni (dist Kakinada) 1.

❖ **Heavy Rainfall observed** (from 0830 hours IST of yesterday to 0530 hours IST of today):**Heavy to very heavy rain** at isolated places over Odisha **Heavy rain** at a few places over Odisha

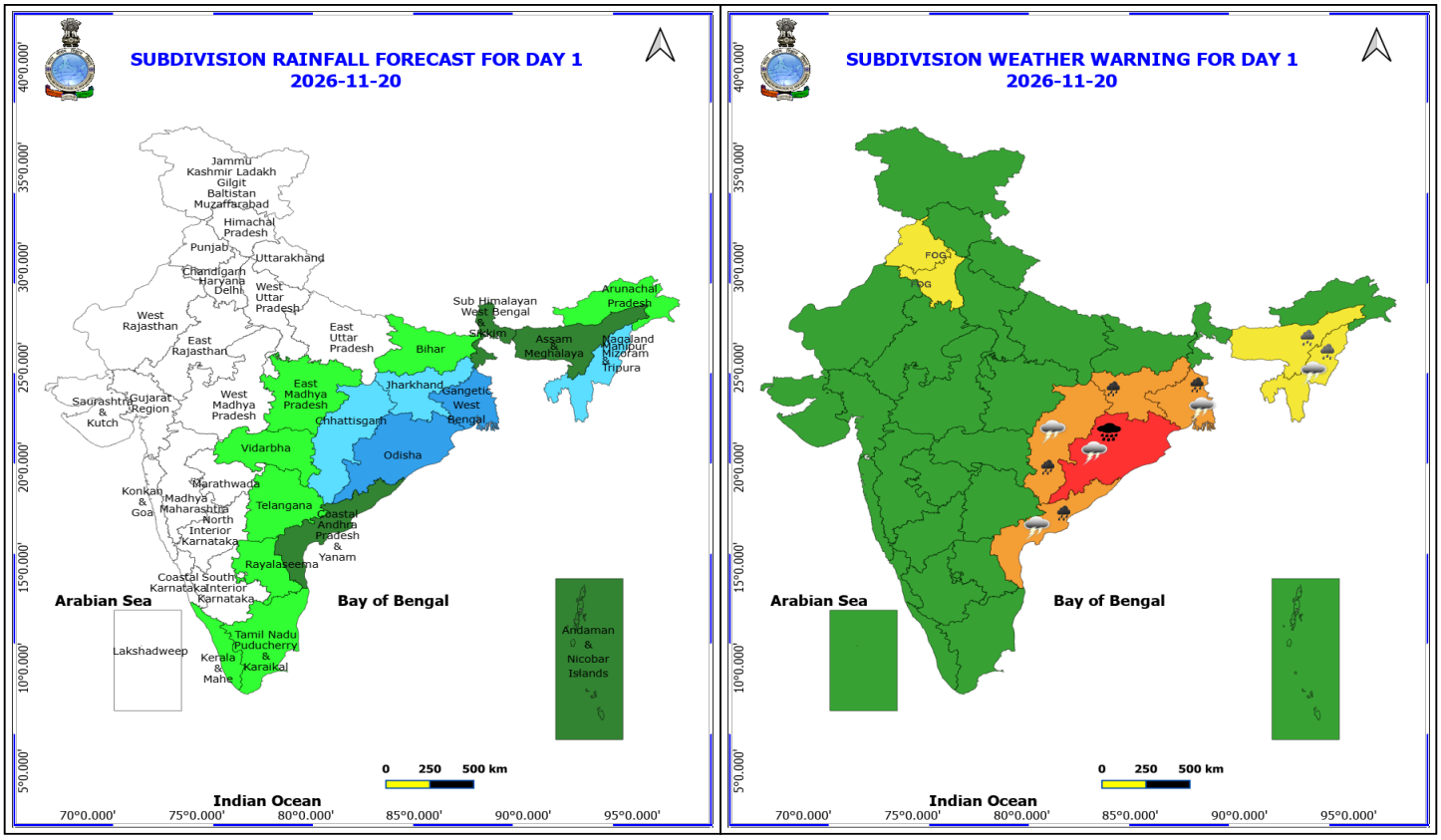
❖ **Fog Condition Observed (at 0530 hours of today): Shallow fog conditions:** at many places over East Uttar Pradesh, at a few places over Punjab, at isolated places over Assam & Meghalaya

❖ **Minimum Temperature Departures (as on 19-11-2026): below normal(-1.6°C to -3.0°C)** at many places over Haryana-Chandigarh-Delhi; at few places over Sub Himalayan West Bengal & Sikkim, Punjab, East Rajasthan, Vidarbha, Chhattisgarh, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, North Interior Karnataka and South Interior Karnataka; at isolated places over Assam & Meghalaya, Odisha, Jharkhand, Bihar, West Uttar Pradesh, Himachal Pradesh, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam and Kerala & Mahe. **appreciably below normal(-5.0°C to -3.1°C)** at few places over East Madhya Pradesh, Coastal Karnataka and North Interior Karnataka; at isolated places over Assam & Meghalaya, Gangetic West Bengal, Odisha, Bihar, East Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Saurashtra & Kutch, Marathwada, Vidarbha, Chhattisgarh, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and Kerala & Mahe. **markedly below normal(< -5.0°C)** at few places over West Madhya Pradesh, East Madhya Pradesh, Chhattisgarh and Telangana; at isolated places over Gangetic West Bengal, Odisha, Jharkhand, Bihar, East Uttar Pradesh, West Uttar Pradesh, Himachal Pradesh, West Rajasthan, Konkan & Goa, Vidarbha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Tamil Nadu, Puducherry & Karaikal and North Interior Karnataka. **The lowest minimum temperature** of 6.5°C was reported at SIKAR (EAST RAJASTHAN) over the Plains of India.

❖ **Maximum Temperature Departures (as on 19-11-2026): appreciably below normal(-5.0°C to -3.1°C)** at few places over Nagaland, Manipur, Mizoram & Tripura. **The highest maximum temperature** of 36.5°C was reported at KOZHIKODE (CALICUT) (KERALA).

Meteorological Analysis (Based on 0530 hours IST)

- The **Severe Cyclonic Storm "Akvan" [Pronunciation: Akvan]** over the westcentral Bay of Bengal weakened into a **Cyclonic Storm** over the same region at 0230 hours IST of today, the 20th November, 2026. Further, it moved north-northwestwards with the speed of 23 kmph during past 06 hours and lay centered at 0530 hours IST of today, the 20th November, 2026 over the same region, near Latitude 18.3°N and Longitude 84.8°E, about 70 km east of Kalingapatnam (Andhra Pradesh), 110 km south of Gopalpur (Odisha), 170 km east-northeast of Visakhapatnam (Andhra Pradesh), and 200 km south-southwest of Puri (Odisha). It is likely to continue to move north-northwestwards and cross North Andhra Pradesh and South Odisha coasts close to Gopalpur, by forenoon of 20th November, 2026 with the maximum sustained wind speed of 70-80 kmph gusting to 90 kmph.
- The **upper air cyclonic circulation** over Northeast Assam & neighbourhood at 3.1 km above mean sea level persists.
- The **upper air cyclonic circulation** over Southeast Arabian sea & adjoining south Lakshadweep area extending upto 3.1 km above mean sea level persists.
- The **upper air cyclonic circulation** over east Bangladesh & neighbourhood extending upto 1.5 km above mean sea level persists.
- The feeble **Western Disturbance** as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 75°E to the north of Lat. 33°N persists.



20 November (Day 1)

❖ **Heavy to Very Heavy Rainfall with isolated Extremely Heavy Rainfall** very likely at isolated places over Odisha.

❖ **Heavy to Very Heavy Rainfall** very likely at isolated places over Chhattisgarh, Coastal Andhra Pradesh, Gangetic West Bengal and Jharkhand.

❖ **Heavy Rainfall** very likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram and Tripura.

❖ **Thundersquall with wind speed reaching(60-70kmph) gusting to 80 kmph** very likely at isolated places over Coastal Andhra Pradesh.

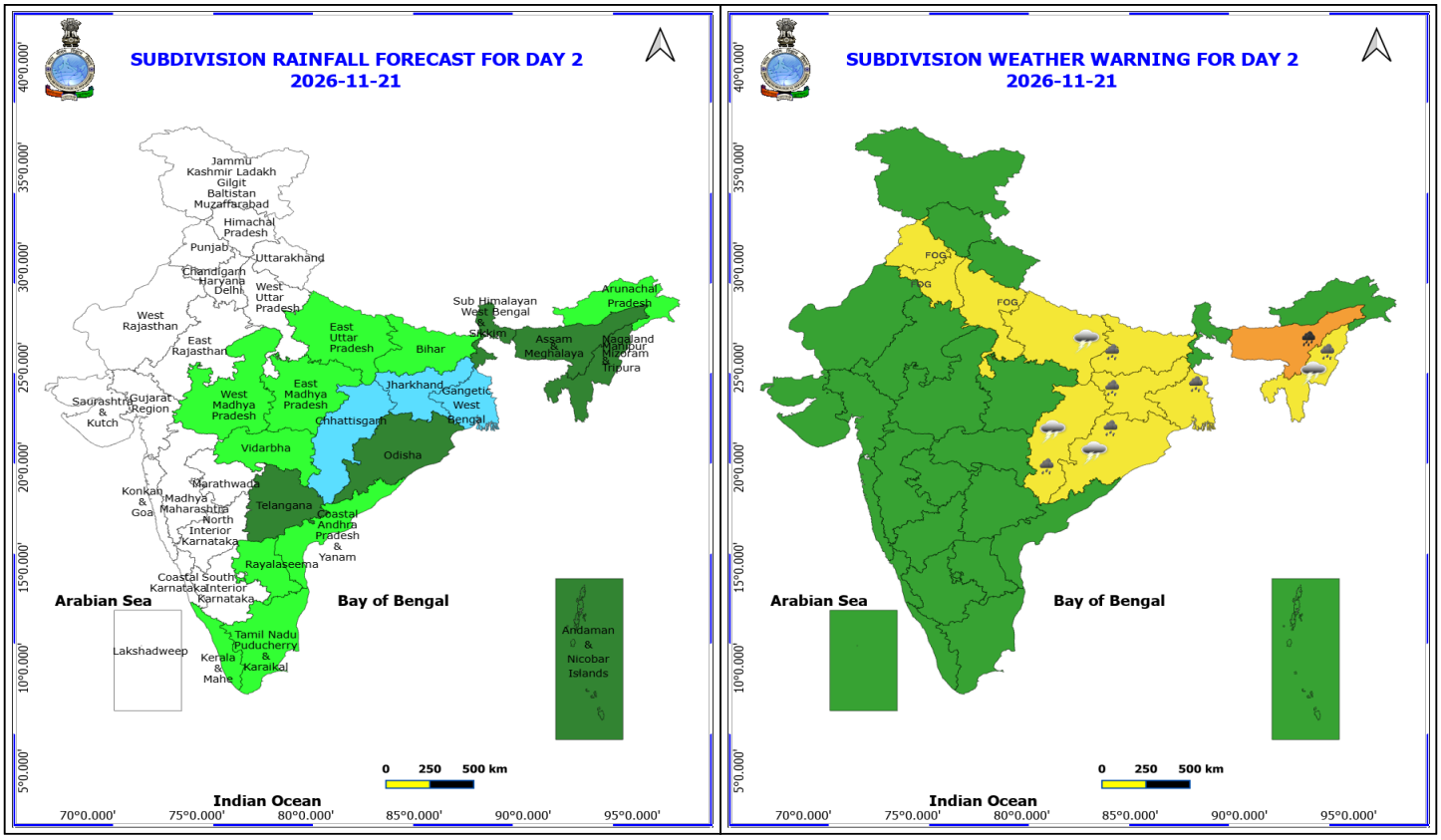
❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Chhattisgarh, Gangetic West Bengal and Nagaland, Manipur, Mizoram and Tripura.

❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over East Madhya Pradesh, Jharkhand and Sub Himalayan West Bengal & Sikkim.

❖ **Thunderstorm accompanied with Lightning** very likely at isolated places over Assam & Meghalaya.

❖ **Dense Fog** very likely at isolated places over Haryana, Chandigarh & Delhi and Punjab.

❖ Fishermen are advised not to venture into Northern parts of Southwest Bay of Bengal, Westcentral Bay of Bengal, Eastcentral Bay of Bengal and Northwest Bay of Bengal.



21 November (Day 2)

❖ **Heavy to Very Heavy Rainfall** very likely at isolated places over Assam & Meghalaya.

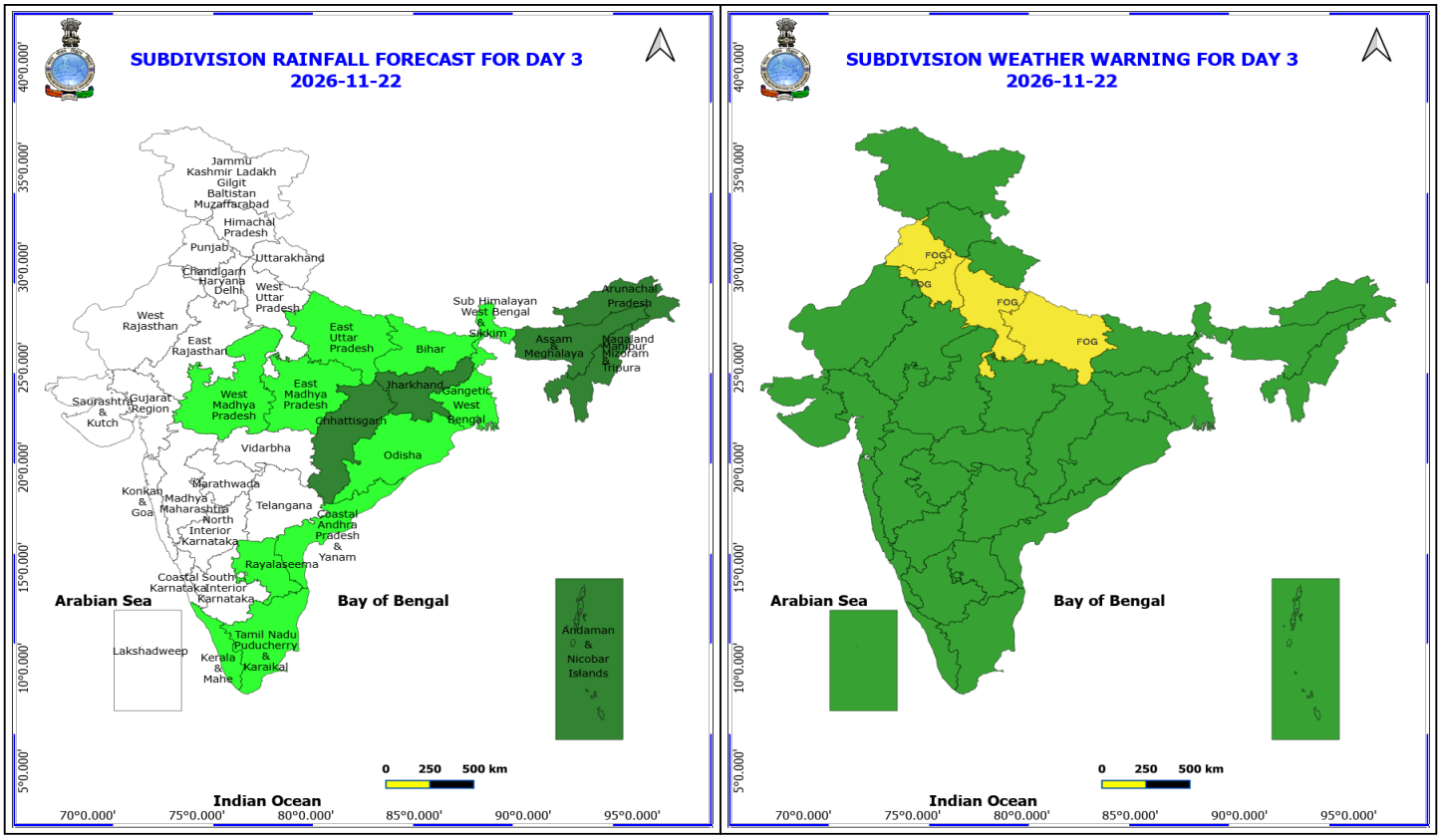
❖ **Heavy Rainfall** very likely at isolated places over Bihar, Chhattisgarh, Gangetic West Bengal, Jharkhand, Nagaland, Manipur, Mizoram and Tripura and Odisha.

❖ **Thunderstorm accompanied with lightning & gusty winds(40-50kmph)** very likely at isolated places over Chhattisgarh, East Uttar Pradesh, Nagaland, Manipur, Mizoram and Tripura and Odisha.

❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over Assam & Meghalaya, Bihar, East Madhya Pradesh and West Bengal & Sikkim.

❖ **Dense Fog** very likely at isolated places over Haryana, Chandigarh & Delhi, Punjab and West Uttar Pradesh.

❖ Fishermen are advised not to venture into Northern parts of Southwest Bay of Bengal, Westcentral Bay of Bengal and Northwest Bay of Bengal.

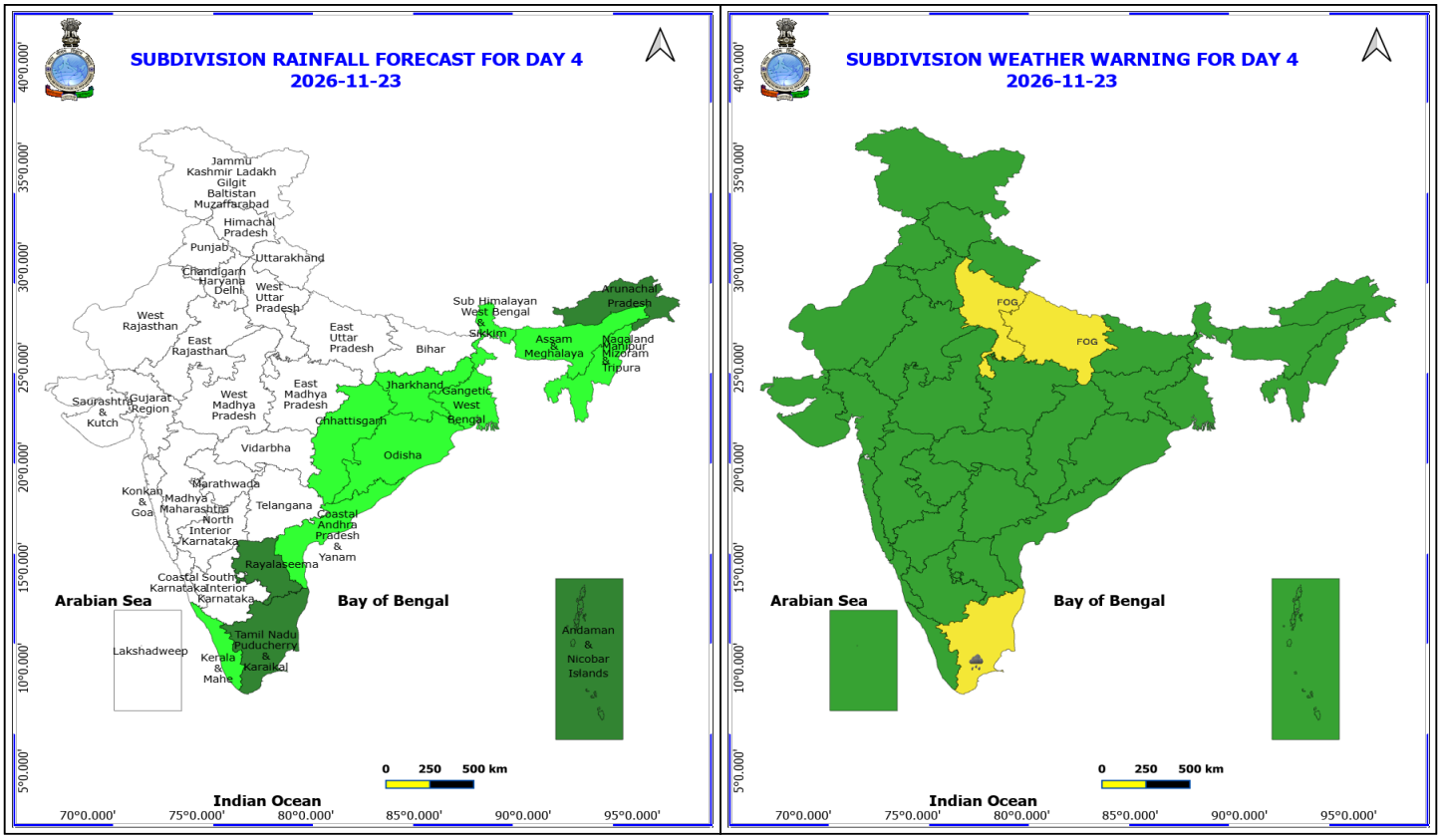


22 November (Day 3)

❖ **Thunderstorm accompanied with lightning & gusty winds(30-40kmph)** very likely at isolated places over East Madhya Pradesh.

❖ **Dense Fog** very likely at isolated places over Haryana, Chandigarh & Delhi, Punjab and Uttar Pradesh.

❖ Fishermen are advised not to venture into Westcentral Bay of Bengal and Northwest Bay of Bengal.



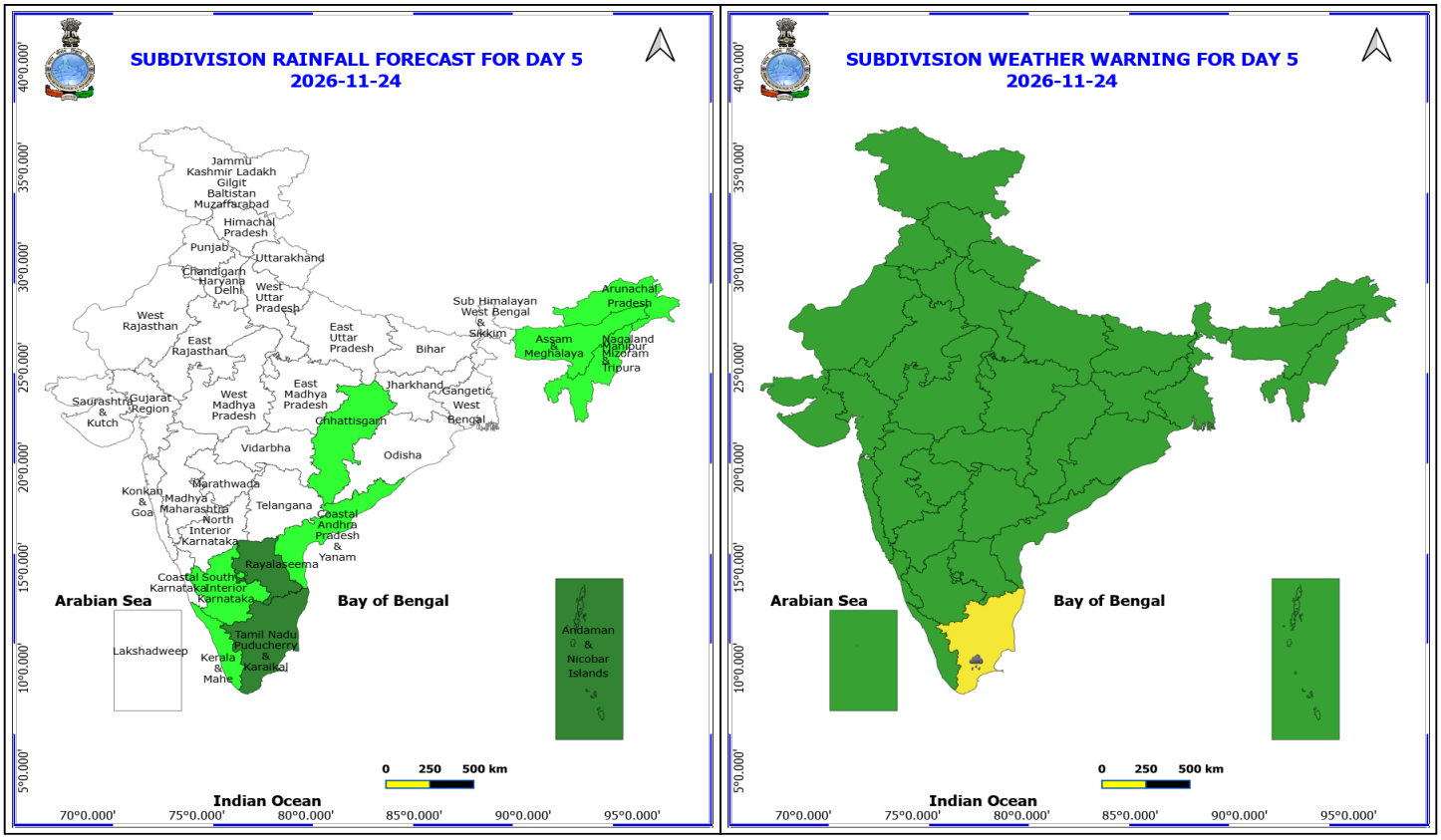
23 November (Day 4)

❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu Puducherry & Karaikal.

❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Rayalaseema, Tamil Nadu Puducherry & Karaikal and Telangana.

❖ **Dense Fog** likely at isolated places over Uttar Pradesh.

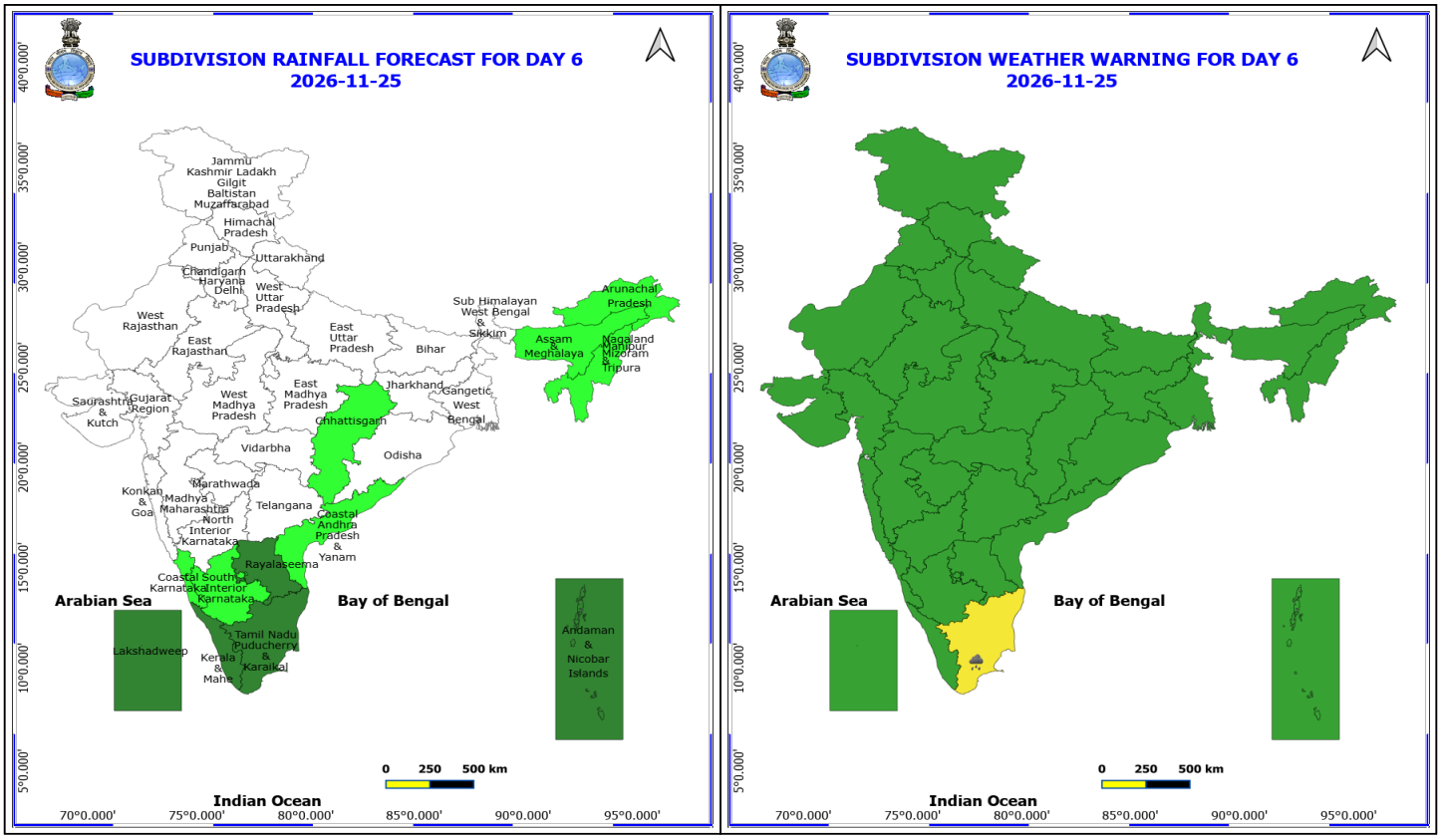
No Fishermen Warning



24 November (Day 5)

- ❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Tamil Nadu Puducherry & Karaikal.

No Fishermen Warning

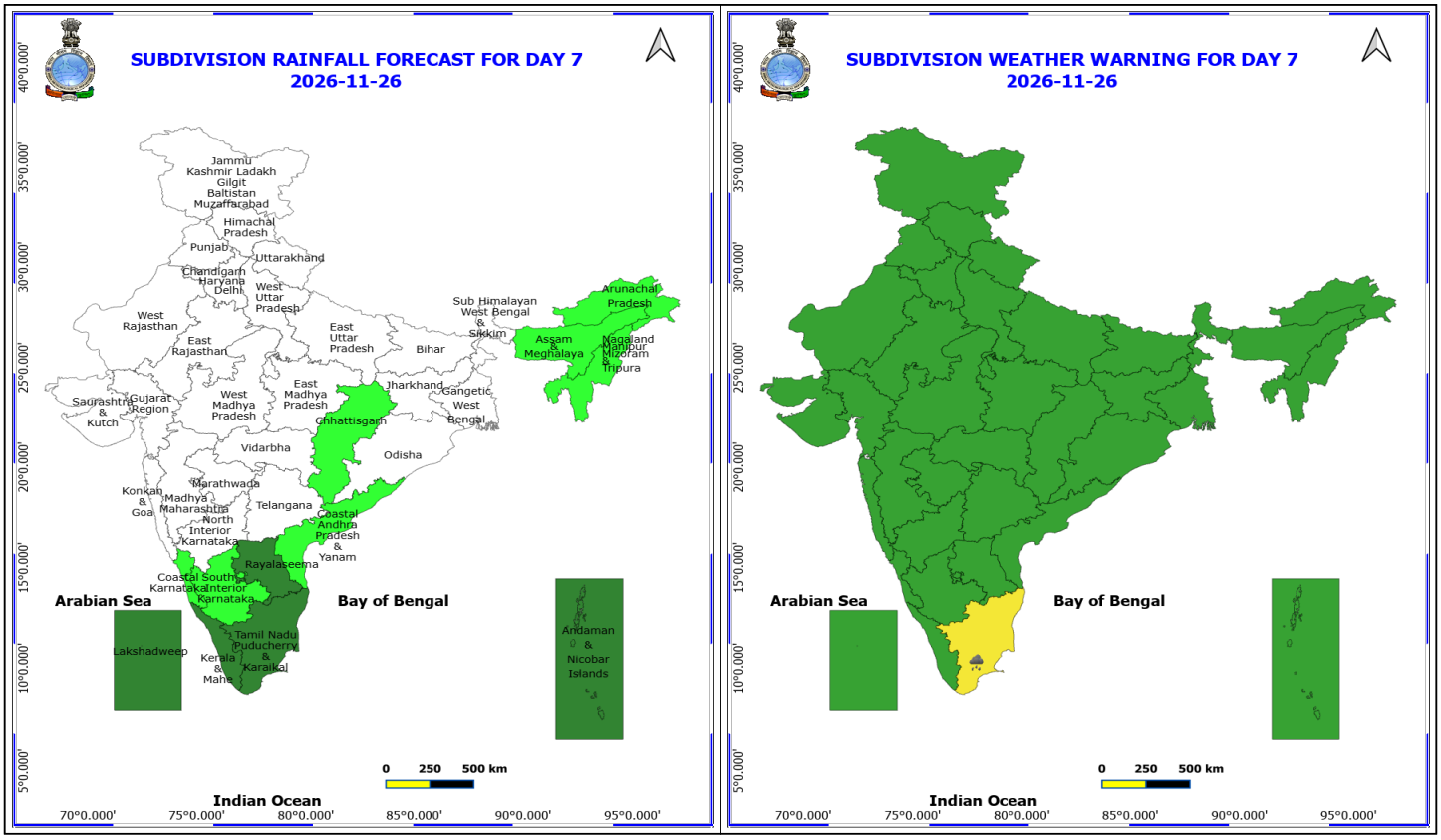


25 November (Day 6)

❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu Puducherry & Karaikal.

❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Tamil Nadu Puducherry & Karaikal.

No Fishermen Warning



26 November (Day 7)

- ❖ **Heavy Rainfall** likely at isolated places over Tamil Nadu Puducherry & Karaikal.
- ❖ **Thunderstorm accompanied with Lightning** likely at isolated places over Tamil Nadu Puducherry & Karaikal.

No Fishermen Warning

Flash Flood Warnings

Flash Flood Risk (FFR) till 0530 IST of 21-11-2026:

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

Coastal Andhra Pradesh & Yanam: Srikakulam district

Odisha: Gajapati, Ganjam, Jagatsinghpur, Kendrapara, Puri, Balasore, Keonjhargarh, Mayurbhanj, Sambalpur, Sundargarh and Deogarh districts

Gangetic West Bengal: Bankura, Purulia, West Midnapore, East Midnapore, Howrah, North 24 Parganas, South 24 Parganas, Hooghly, Nadia and Purba Bardhaman districts

Jharkhand: East Singhbhum, Seraikela-Kharsawan, West Singhbhum, Khunti, Ranchi, Simdega and Gumla 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 24 hours.

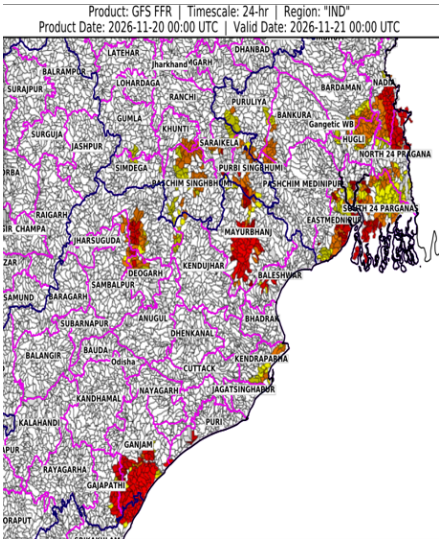


Table-1

7 Days Rainfall Forecast

S.No.	Subdivision	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov	25-Nov	26-Nov
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	SCT	SCT	SCT	SCT	SCT	SCT	SCT
2	ARUNACHAL PRADESH	ISOL	ISOL	SCT	SCT	ISOL	ISOL	ISOL
3	ASSAM & MEHGHALAYA	SCT	SCT	SCT	ISOL	ISOL	ISOL	ISOL
4	N. M. M. & T.	FWS	SCT	SCT	ISOL	ISOL	ISOL	ISOL
5	S.H. WEST BENGAL & SIKKIM	SCT	SCT	ISOL	ISOL	DRY	DRY	DRY
6	GANGETIC WEST BENGAL	WS	FWS	ISOL	ISOL	DRY	DRY	DRY
7	ODISHA	WS	SCT	ISOL	ISOL	DRY	DRY	DRY
8	JHARKHAND	FWS	FWS	SCT	ISOL	DRY	DRY	DRY
9	BIHAR	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
10	EAST UTTAR PRADESH	DRY	ISOL	ISOL	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, CHD & DELHI	DRY	DRY	DRY	DRY	DRY	DRY	DRY
14	PUNJAB	DRY	DRY	DRY	DRY	DRY	DRY	DRY
15	HIMACHAL PRADESH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
16	JAMMU AND KASHMIR AND LADAKH	DRY	DRY	DRY	DRY	DRY	DRY	DRY
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	ISOL	ISOL	DRY	DRY	DRY	DRY
20	EAST MADHYA PRADESH	ISOL	ISOL	ISOL	DRY	DRY	DRY	DRY
21	GUJRAT 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	MARATHWADA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
26	VIDARBHA	ISOL	ISOL	DRY	DRY	DRY	DRY	DRY
27	CHATTISGARH	FWS	FWS	SCT	ISOL	ISOL	ISOL	ISOL
28	COASTAL ANDHRA PRADESH	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
29	TELANGANA	ISOL	SCT	DRY	DRY	DRY	DRY	DRY
30	RAYALASEEMA	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
31	TAMILNADU & PUDUCHERRY	ISOL	ISOL	ISOL	SCT	SCT	SCT	SCT
32	COSTAL KARNATAKA	DRY	DRY	DRY	DRY	DRY	ISOL	ISOL
33	NORTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	DRY	DRY	DRY
34	SOUTH INTERIOR KARNATAKA	DRY	DRY	DRY	DRY	ISOL	ISOL	ISOL
35	KERALA	ISOL	ISOL	ISOL	ISOL	ISOL	SCT	SCT
36	LAKSHDWEEP	DRY	DRY	DRY	DRY	DRY	SCT	SCT

Legend	Category	%Stations
WS	Widespread/Most Places	76-100
FWS	Fairly Widespread/Many Places	51-75
SCT	Scattered/ A Few Places	26-50
ISOL	Isolated Places	1-25
DRY	No Rain	0

*Red color warning does not mean "Red Alert" Red color 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)

Fig. 1: Maximum Temperatures Dated 2026-11-19

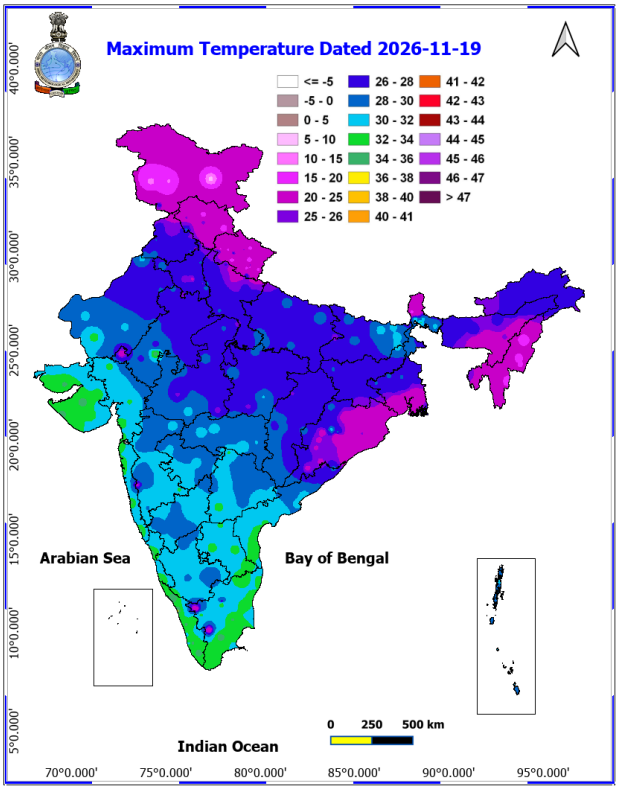


Fig. 2: Departure of Maximum Temp. Dated 2026-11-19

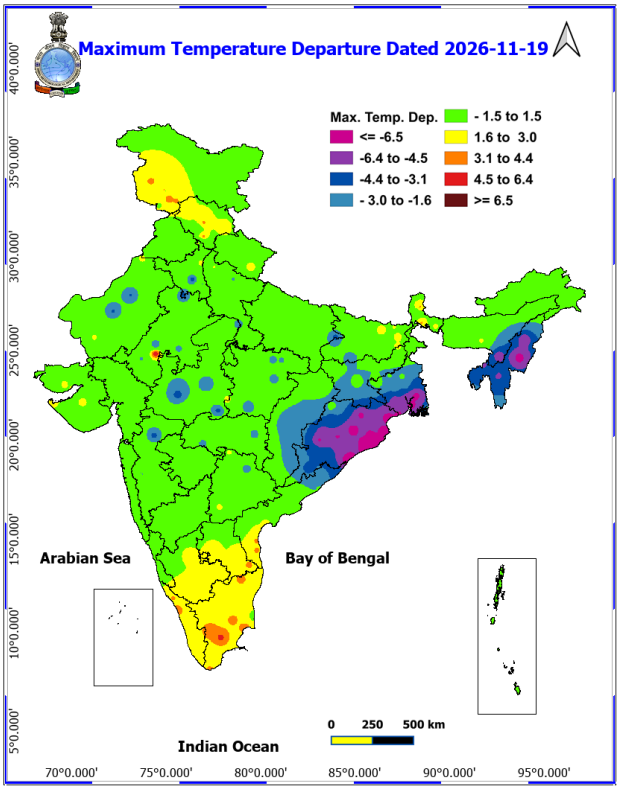


Fig. 3: Minimum Temperatures Dated 2026-11-19

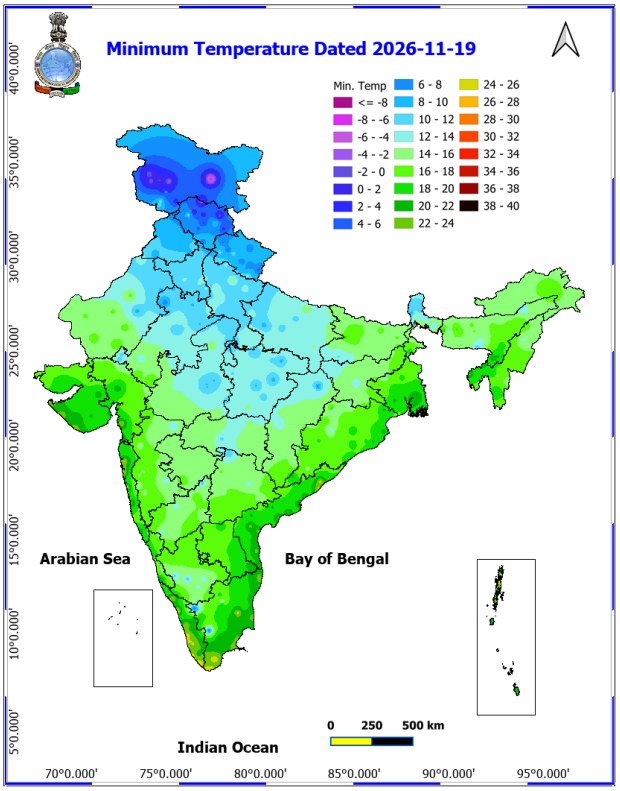
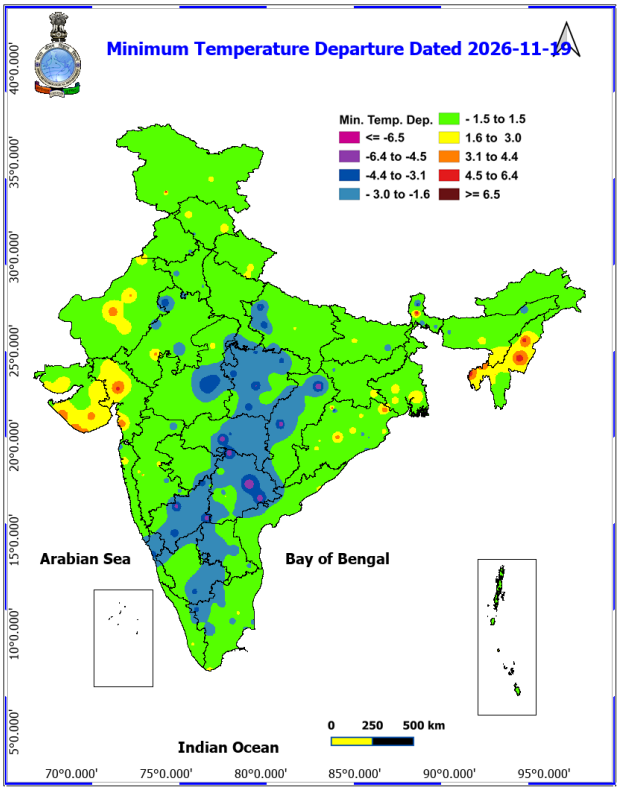
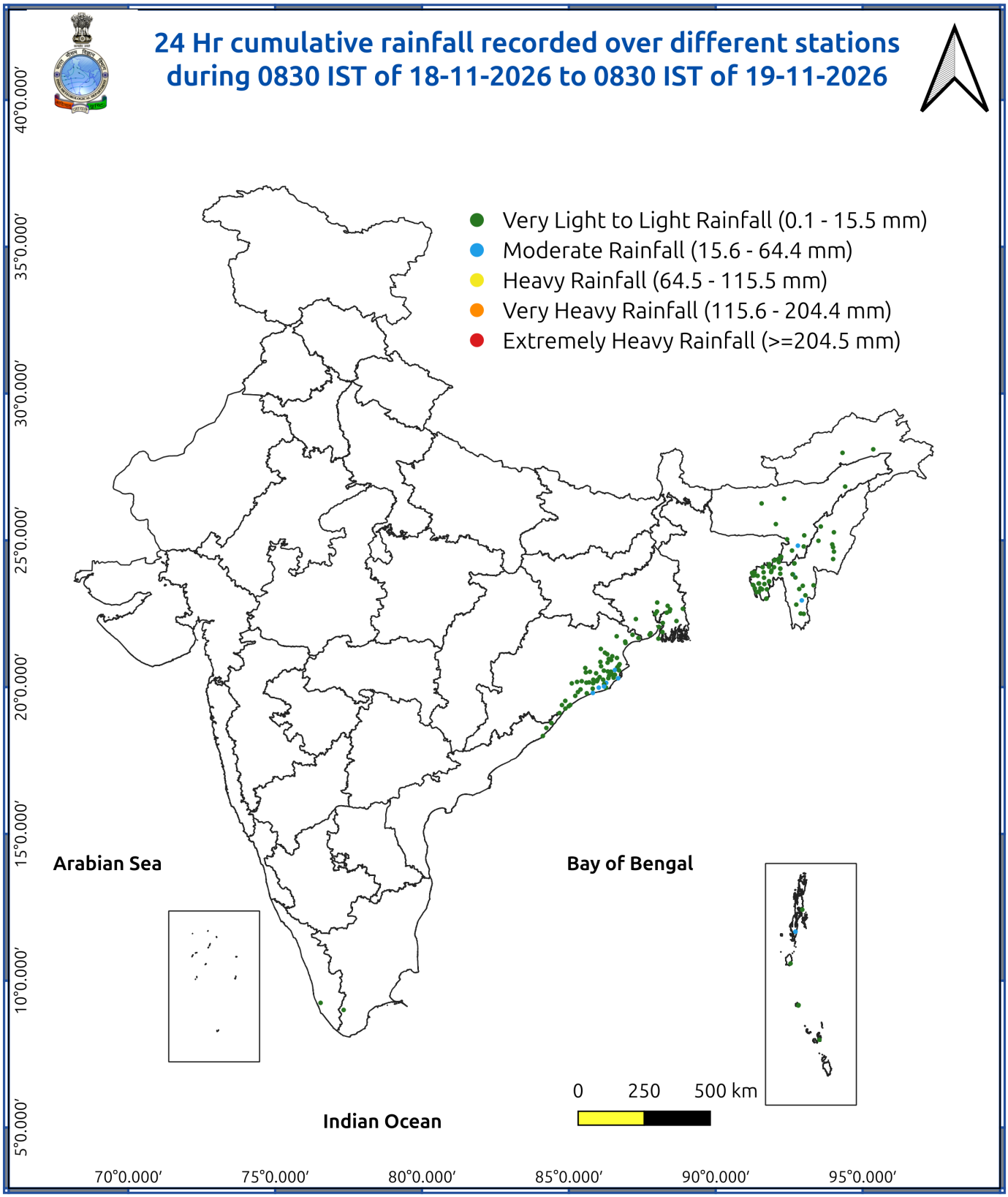


Fig. 4: Departure of Minimum Temp. Dated 2026-11-19



24 Hr cumulative rainfall recorded over different stations during 0830 IST of 18-11-2026 to 0830 IST of 19-11-2026



Impace and Actions

Impact Expected and Action Suggested due to heavy rainfall:

- Isolated **extremely heavy rainfall** likely over Odisha on 20th November.
- Isolated **very heavy rainfall** also likely over Gangetic West Bengal on 20th; Jharkhand on 20th; over Coastal Andhra Pradesh & Yanam on 20th; over Assam & Meghalaya on 21st November.

Impact expected:

- Breaking of tree branches, uprooting of small trees like banana, papaya, drum sticks. Strong wind and rain may damage plantation, horticulture and standing crops.
- Partial damage to vulnerable structures due to strong winds and rain.
- Minor damage to kutcha houses/walls, huts and roads due to heavy rain.
- Loose objects may fly.
- Small ships, trawlers and boats may be affected.
- Road and rail traffic may be affected due to heavy rain and squally winds.
- There could be localised landslides, mudslides, landslips, water logging, inundation and flooding over low lying areas.
- Occasional reduction in visibility due to heavy rainfall.
- Helicopter services may get affected.

Action suggested:

- People are advised to keep a watch on the weather for worsening conditions and be ready to move to safer places accordingly.
- Take safe shelters; do not take shelter under trees, as there could be lightning.
- In case of expected lightning, unplug electrical/ electronic appliances, immediately, get out of water bodies and keep away from all the objects that conduct electricity.
- Tourism and recreational activities to be regulated.
- Onshore and offshore activities to be judiciously regulated.
- Helicopter services to be regulated.

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

- **Dense fog conditions** very likely over East Uttar Pradesh during 22nd-23rd November; Haryana Chandigarh & Delhi and Punjab during 20th-22nd November; West Uttar Pradesh during 21st-23rd November.

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 various parts of the country

Agromet advisories for likely impact of Heavy / Very Heavy / Extremely Heavy Rainfall

- In **Coastal Andhra Pradesh,** postpone sowing of *rabi* crops such as green gram, black gram, maize, ragi and sunhemp. Make necessary arrangements for draining excess water from fields of rice, red gram, cotton, maize, sugarcane, turmeric, ginger, niger, rajmash, ragi and vegetables; plantations of banana and and already sown *rabi* crops.Provide adequate support to banana, coffee, black pepper and other plantation crops to minimize damage due to strong winds.
- In **Odisha,** postpone sowing of *rabi* crops such as mustard, toria, groundnut, sunflower, green gram, black gram, chickpea and lentil. Cover vegetables nurseries like tomato, chilli and brinjal using plastic covers or polythene sheets, if feasible. Make provision to drain excess water from standing rice fields, vegetable nurseries and recently sown fields of *rabi* crops. Provide support to the crops like banana and papaya. Arrange for strong staking in vegetables.
- In **Gangetic West Bengal**, harvest mature aman rice immediately and keep the harvested produce in a safe, elevated and covered place or heap the harvested produce in the field and cover it properly with polythene. Harvest mature fruits of brinjal, papaya and banana. Make proper arrangement for draining out excess water from fields of standing crops, winter vegetables and betel vine garden. Postpone the land preparation and sowing of *rabi* crops such as mustard, rapeseed, lentil and potato. Strengthen trellises for climbing vegetables like beans and gourds.
- In **Jharkhand,** postpone harvesting of pigeon pea and late sown and long duration rice crop. Store the already harvested produce in a safe and dry place as soon as possible. Postpone sowing of wheat, mustard, rapeseed and vegetables. Ensure proper drainage facilities in vegetable nurseries and fields of potato and pulses. Provide staking to vegetable crops such as tomato, chilli and brinjal to prevent from lodging.
- In **Chhattisgarh**, keep harvested produce of rice in safe and elevated place at the earliest. Postpone the sowing of *rabi* crops such as chickpea, wheat, mustard and vegetables (cauliflower, broccoli, beetroot, late-season cucumber and late-season bitter gourd). Make provision to drain excess water from the standing crop fields. Provide support / staking to banana and tomato plants; support for vine-type vegetables such as bitter gourd, bottle gourd and other cucurbitaceous vegetables.

Agromet advisories for likely impact of Thunderstorm / Gusty Winds

- Shift the harvested produce in safer places or cover the produce with tarpaulin sheets in the fields. Tie the harvested crops securely and cover them to minimize the risk of displacement from strong surface winds.
- Provide mechanical support to horticultural crops and staking or support to vegetables and young fruit plants / fruit-bearing plants to avoid lodging due to strong winds.

Advisories for likely impact of Heavy Rainfall for Livestock / Poultry / Fisheries

- Keep the animals inside the shed during heavy rainfall and provide them balanced feed.
- Store the feed and fodder in a safe place to prevent spoilage.
- Construct an outlet with proper netting around the ponds to drain excess water, thereby preventing fish from

escaping in the event of overflow.

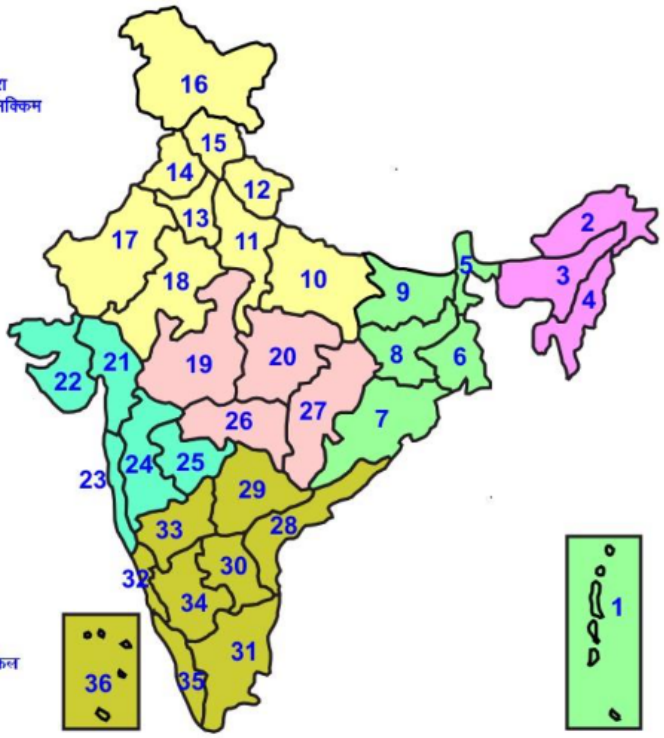
Legends & abbreviations:

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, Coastal Maharashtra (Konkan) & Goa, Madhya Maharashtra and Marathawada.
- **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Keralam & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

LEGENDS

1 अंडमान और निकोबार द्वीप समुह
2 अरुणाचल प्रदेश
3 असम और मेघालय
4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
5 उप हिमालय पश्चिम बंगाल एंवम् सिक्किम
6 पश्चिम गांगेय बंगाल
7 ओडिसा
8 झारखंड
9 बिहार
10 पूर्वी उत्तर प्रदेश
11 पश्चिम उत्तर प्रदेश
12 उत्तराखंड
13 हरियाणा चंडिगढ़ एंवम् दिल्ली
14 पंजाब
15 हिमाचल प्रदेश
16 जम्मू एवंम कश्मीर एवंम लद्दाख
17 पश्चिम राजस्थान
18 पूर्वी राजस्थान
19 पश्चिम मध्य प्रदेश
20 पूर्वी मध्य प्रदेश
21 गुजरात क्षेत्र
22 सौराष्ट्र एंवम् कच्छ
23 कोंकण एंवम् गोवा
24 मध्य महाराष्ट्र
25 मराठावाडा
26 विदर्भ
27 छत्तीसगढ़
28 तटीय आंध्र प्रदेश एवं यनम
29 तेलंगाना
30 रायलसीमा
31 तमिलनाडु ,पुदुचेरी एवंम कराईकल
32 तटिय कर्नाटक
33 आंतरिक उत्तरी कर्नाटक
34 आंतरिक दक्षिणी कर्नाटक
35 केरल एवंम 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. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajsthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathawada
26. Vidharbha
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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Subdivision Colour

- NO WARNING
- WATCH (BE UPDATED)
- 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

Heavy Rain
Very Heavy Rain
Extremely Heavy Rain
Heavy Snow
Thunderstorm & Lightning
Hailstrom
Dust Strom
Dust Raising Winds
Strong surface winds
Heat Wave
Hot Day
Warm Night
Cold Wave
Cold Day
Ground Frost
Fog
Hot & Humid

*Red color warning does not mean "Red Alert" Red color 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)

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

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

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 ≥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:** 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

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 °C.

Cold Wave

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 ≤ -6.5 °C

(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

Cold Day

When minimum temperature of a station ≤10°C for plains and ≤0°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 ≤ -6.5 °C

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility < 1km

- **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 ≤4°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)