



**Government of India
Ministry of Earth Sciences
India Meteorological Department**

**Press Release
Date: 22nd December, 2022
Time of Issue: 1315 hours IST**

**Subject: (i) Dense to Very Dense Fog conditions likely to continue over Punjab, Haryana, Chandigarh and Uttar Pradesh during next 48 hours and decrease in intensity & spread thereafter.
(ii) Depression over southwest and adjoining southeast Bay of Bengal.**

Weather observed during past 24 hours ending at 0830 hrs IST of today:

- ❖ **Minimum temperatures** are in the range of 7-10°C & near normal over many parts of plains of northwest India & adjoining north Madhya Pradesh.
- ❖ **Cold Day to Severe Cold Day Conditions** observed in isolated pockets over Punjab, Haryana and northwest Rajasthan.
- ❖ **Dense to Very Dense Fog** observed at many pockets over Punjab; in some pockets over Uttar Pradesh; **Dense Fog** observed at many pockets of Haryana; in some pockets over Himachal Pradesh, Uttarakhand, north Rajasthan, Bihar and Tripura.

Weather systems and forecast & warning:

(1) Minimum Temperature Forecast, Cold Wave/Day & Fog Warnings (Annexure I & II):

Fog Warning

- ❖ Due to moisture and light winds at lower tropospheric levels over Indo-Gangetic plains, **Dense to very dense fog** in many/most pockets very likely over Punjab, Haryana, Chandigarh and Uttar Pradesh in night/morning hours during next 48 hours.
- ❖ Subsequently, moisture at lower tropospheric levels over Indo-Gangetic plains is very likely to decrease over above regions, hence **Dense fog** in isolated pockets very likely over Punjab and Haryana & Chandigarh for subsequent 3 days.
- ❖ Dense Fog in isolated pockets also very likely over Himachal Pradesh, Uttarakhand, north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim and Tripura in night/morning hours during next 2-3 days.

Minimum Temperature Forecast & Cold Wave/Day Warning

- ❖ No significant change in minimum temperatures likely over northwest India during next 4-5 days.
- ❖ Fall in minimum temperature 2-4°C over Gujarat State during next 3 days and no significant change thereafter.
- ❖ No significant change in minimum temperatures likely over central India and Maharashtra during next 3 days and fall by 2-4°C thereafter.
- ❖ No significant change in minimum temperatures likely over East India during next 3 days and rise by 2-3°C thereafter.
- ❖ Due to dry north/northwesterly winds from Himalayas over plains of northwest India, **Cold Wave Conditions** very likely in isolated pockets over Punjab, Haryana and north Rajasthan during 24th-26th December.
- ❖ **Cold Day to severe cold day Conditions** also very likely in isolated pockets over Punjab, Haryana and west Uttar Pradesh; **Cold Day Condition** also very likely in isolated pockets over east Uttar Pradesh during next 2 days.

(2) Depression over southwest and adjoining southeast Bay of Bengal.

Latest observations indicate that yesterday's Well Marked Low Pressure Area over southwest Bay of Bengal and adjoining Equatorial Indian Ocean moved north-northwestwards and concentrated into a Depression at 0830 hours IST of today, the 22nd December over southwest and adjoining southeast Bay of Bengal near latitude 9.0°N and longitude 85.0°E about 420 km east-northeast of Trincomalee (Sri Lanka), 600 km south-southeast of Nagappattinam (Tamil Nadu) and 690 km southeast of Chennai (Tamil Nadu).

It is likely to continue to move north-northwestwards during next 24 hours and thereafter gradually recurve west-southwestwards towards Comorin Area across Sri Lanka during subsequent 48 hours.

Warnings:

Rainfall warning:

- ❖ Light to moderate rainfall at many places with **heavy rainfall** at isolated places is likely over south coastal Tamil Nadu on 25th & 26th December 2022.
- ❖ Light to moderate rainfall at a few places with **heavy rainfall** at isolated places is likely over south Kerala on 26th December 2022.

Wind warning:

- ❖ **Southwest Bay of Bengal along & off Tamil Nadu and Sri Lanka coasts:**
Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail till 25th December morning becoming 40-50 kmph gusting to 60 kmph till 26th morning and decrease thereafter.
- ❖ **Adjoining areas of southeast & westcentral Bay of Bengal:**
Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail till 24th December morning and decrease thereafter.
- ❖ **Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts:**
Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail on 24th December becoming squally wind speed reaching 45-55 kmph gusting to 65 kmph during 25th and 26th December.

Sea condition:

- ❖ **Southwest Bay of Bengal along & off Tamil Nadu and Sri Lanka coasts:**
Sea condition is likely to be rough to very rough till 26th December morning and improve thereafter.
- ❖ **Adjoining areas of southeast & westcentral Bay of Bengal:**
Sea condition is likely to be rough till 24th December morning and improve thereafter.
- ❖ **Gulf of Mannar and Comorin Area along & off south Tamil Nadu & west Sri Lanka coasts:**
Sea condition is likely to be rough to very rough during 25th and 26th December.

Fishermen are advised not to venture into (Annexure III):

- ❖ Southwest Bay of Bengal and along & off Sri Lanka coast during 22nd – 25th December.
- ❖ Gulf of Mannar and Comorin Area along & off south Tamil Nadu and west Sri Lanka coasts during 23rd-26th December.

For more details kindly refer: https://mausam.imd.gov.in/imd_latest/contents/all_india_forecast_bulletin.php

- ❖ **Impact expected and action suggested due to Dense/Very Dense fog in** many/most pockets very likely over Punjab, Haryana, Chandigarh and Uttar Pradesh in night/morning hours during next 48 hours and **dense fog** in isolated pockets for subsequent 3 days; **Dense fog** in isolated pockets over over Himachal Pradesh, Uttarakhand, north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim and Tripura in night/morning hours during next 2-3 days.

➤ **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.
- 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.
- Causes 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:

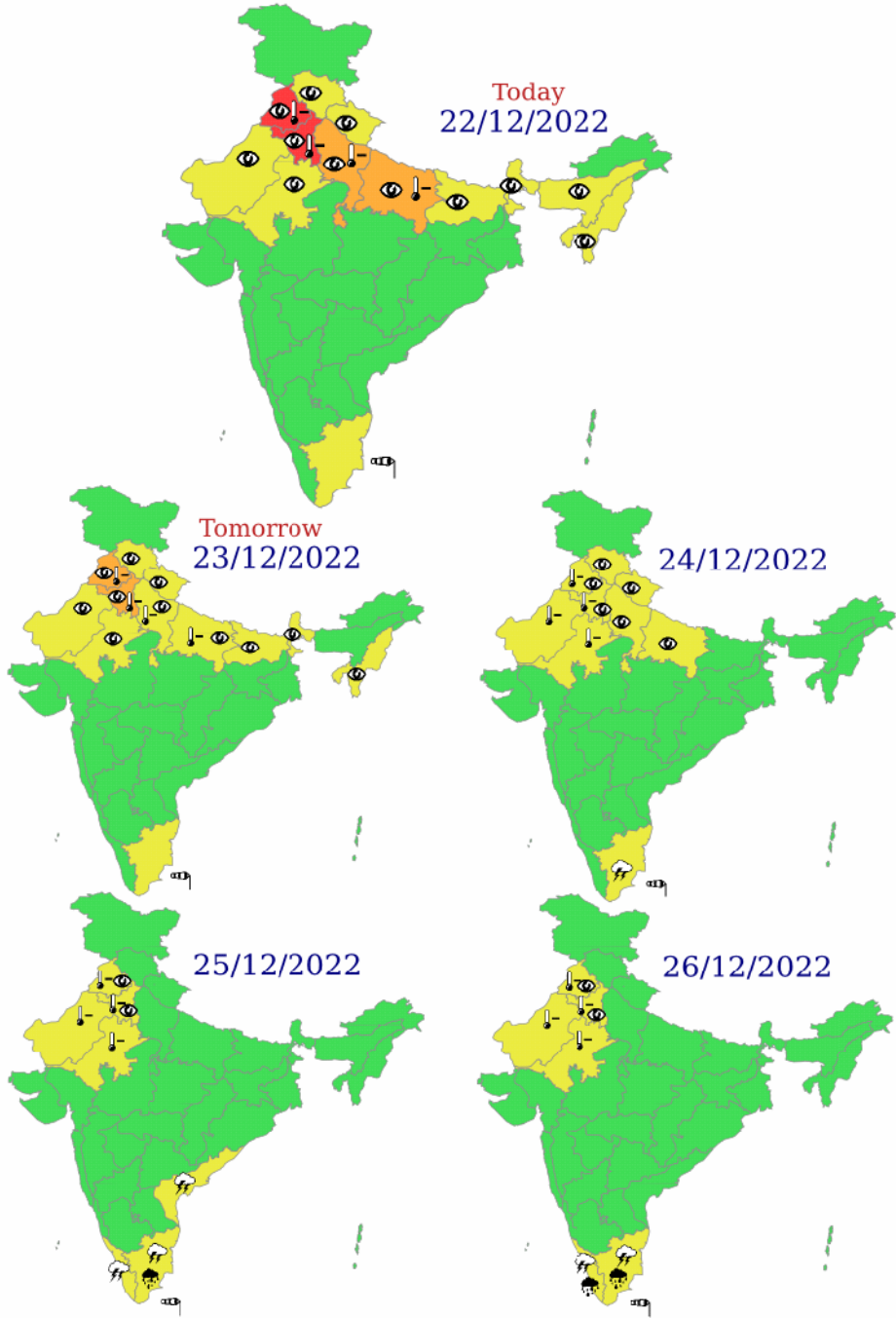
➤ **Transport and Aviation:**

- Careful while driving or outing through any transport.
- Use fog lights during driving.
- Be in touch with airlines and Railway and State transport for schedule of your journey.

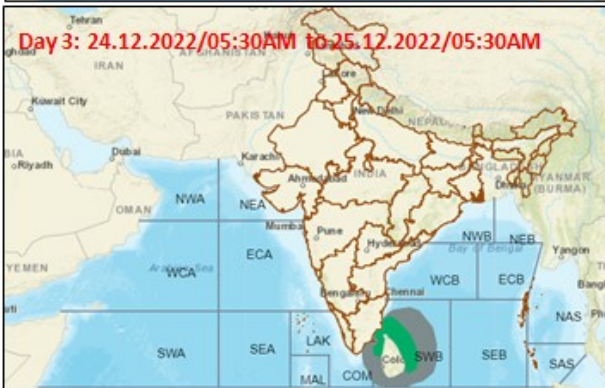
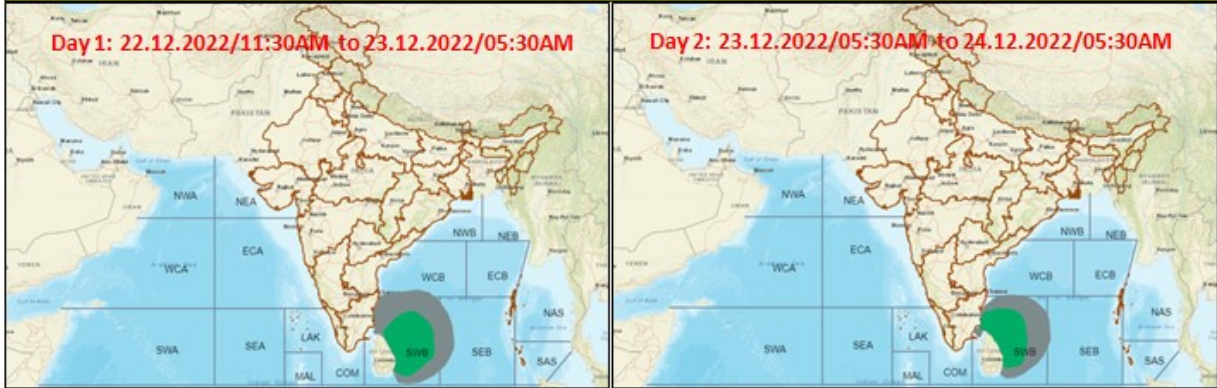
➤ **Power Sector:**

- To keep ready Maintenance Team

- **Human Health:** To avoid outing until unless emergency and to cover the face.



Fishermen warning graphics



Squally WX with wind speed 40-50 kmph gusting to 60 kmph
Squally wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

Legends:

Heavy Rain: 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4 mm.

Region wise classification of meteorological Sub-Divisions:

- 1) **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.
- 2) **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
- 3) **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
- 4) **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- 5) **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
- 6) **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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)

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

 Heavy Rain	 Heavy Snow	 Thunderstorm	 Dust Storm
 Strong Winds	 Visibility	 Cyclone	 Squall/ Hail
 Frost	 Cold Wave	 Heat Wave	 Sea State