



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 21st 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 24 hours and decrease in intensity & spread thereafter.
(ii) A Well Marked Low Pressure area over southwest Bay of Bengal and adjoining Equatorial Indian Ocean.

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

- ❖ **Minimum temperatures** are in the range of 6-9°C & near normal over many parts of plains of northwest India & adjoining north Madhya Pradesh.
- ❖ **Cold Wave Conditions** observed in isolated pockets over Himachal Pradesh.
- ❖ **Dense to Very Dense Fog** observed at many places over Punjab; in some pockets over Haryana, northwest Rajasthan, East Uttar Pradesh and Bihar and in isolated pockets over Uttarakhand, West Uttar Pradesh and Tripura.

Weather systems and forecast & warning:

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

Fog forecast

- ❖ 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 & Delhi and Uttar Pradesh in night/morning hours during next 24 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 4 days and over Uttar Pradesh for subsequent 02 days.
- ❖ **Dense fog** in isolated pockets also very likely over Himachal Pradesh, Uttarakhand, north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, south Assam and Manipur & Tripura in night/morning hours during next 2 days.

Minimum Temperature, Cold Wave/Day

- ❖ No significant change in minimum temperatures likely over northwest India during next 24 hours days and fall by about 2°C thereafter. No significant change in minimum temperatures likely over rest parts of north India during next 4-5 days.
- ❖ 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 23rd-25th December.
- ❖ **Cold Day Conditions** also very likely in isolated pockets over Punjab and Haryana during next 2 days.

(2) Well Marked Low Pressure area southwest Bay of Bengal and adjoining Equatorial Indian Ocean.

Latest observations indicate that the Low Pressure Area over central parts of south Bay of Bengal and adjoining Equatorial Indian Ocean lay as a **Well Marked Low Pressure Area** over southwest Bay of Bengal and adjoining Equatorial Indian Ocean in the morning of today, the 21st December. It is likely to move northwestwards and concentrate into a **depression** over southwest Bay of Bengal off Sri Lanka coast during next 48 hours. Thereafter, it is likely to move west-southwestwards towards Comorin Area across Sri Lanka.

Warnings:

(i) Wind warning:

- ❖ **21st December:** Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over southwest and adjoining southeast Bay of Bengal with rough sea conditions over the region.
- ❖ **22nd December:** Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over Southwest Bay of Bengal and along & off Sri Lanka coast with rough sea conditions over the region.
- ❖ **23rd – 24th December:** Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail over southwest Bay of Bengal and along & off Tamil Nadu coasts, Comorin Area, Gulf of Mannar and Sri Lanka coast with rough sea conditions over the region.
- ❖ **25th December:** Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail over southwest Bay of Bengal and along & off South Tamil Nadu coast, Comorin Area, Gulf of Mannar and West Sri Lanka coast with rough sea conditions over the region. Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over southwest Bay of Bengal and along & off East Sri Lanka coast with rough sea conditions over the region.

(ii) Warnings for Fishermen (Annexure III):

Fishermen are advised not to venture into;

- ❖ Southwest & adjoining southeast Bay of Bengal on 21st December.
- ❖ Southwest Bay of Bengal and along & off Sri Lanka coast during 22nd – 25th December.
- ❖ Southwest Bay of Bengal and along & off Tamil Nadu coasts, Comorin Area, Gulf of Mannar during 23rd-25th December.

(iii) Heavy rainfall likely at isolated places over south coastal Tamil Nadu on 25th 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 most/many parts over Punjab, Haryana & Chandigarh in night/morning hours during next 2 days and **dense fog** in isolated pockets for subsequent 3 days; **Dense fog** in isolated pockets over Uttar Pradesh north Rajasthan, Bihar, Sub-Himalayan West Bengal & Sikkim, south Assam, Manipur and Tripura during next 2 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:

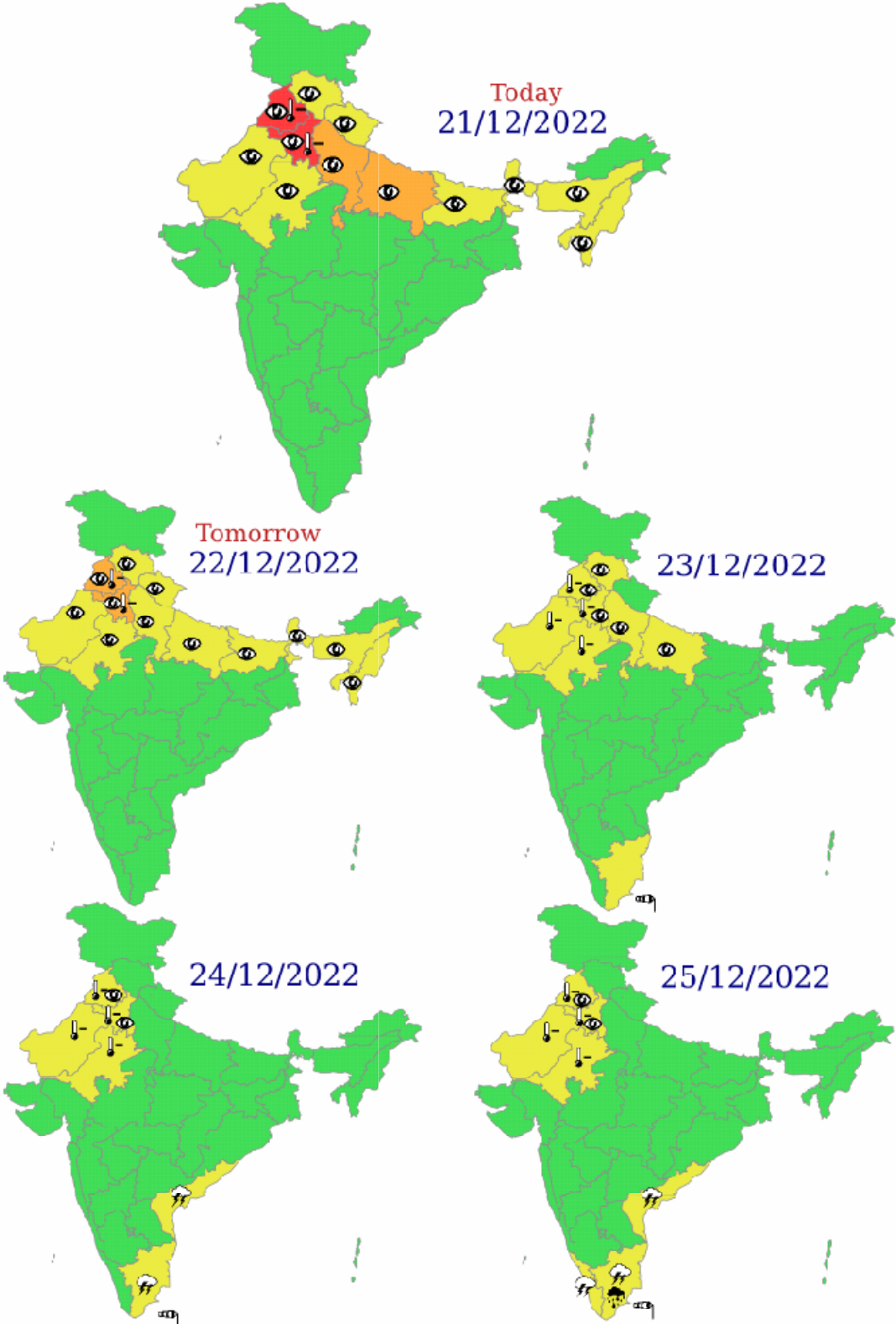
➤ **Transport and Aviation:**

- 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