



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

Press Release

Date: 25th December, 2022

Time of Issue: 1300 hours IST

- Subject:** (i) Gradual reduction in intensity & spread of Dense/Very Dense Fog conditions likely over Punjab, Haryana and north Rajasthan from 27th December onwards
(ii) Cold Day/Cold Wave conditions likely to continue over Punjab, Haryana and north Rajasthan during next 2 days and abate thereafter
(iii) Depression over Southwest Bay of Bengal and adjoining Sri Lanka coast.

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

- ❖ **Minimum temperatures** are in the range of 3-7°C over many parts of Punjab, Haryana, Chandigarh & Delhi and north Rajasthan.
- ❖ Yesterday, **Cold Day to Severe Cold Day conditions** prevailed in many parts of Punjab and Haryana & Chandigarh.
- ❖ Today, **Cold Wave conditions** prevailed in isolated pockets over Punjab, Haryana & Delhi and northwest Rajasthan.
- ❖ **Very dense fog** in most parts of Punjab; in many parts of Haryana, Chandigarh; in isolated pockets over northwest Rajasthan, Uttarakhand and West Uttar Pradesh; **Dense fog** in isolated pockets over East Uttar Pradesh and Odisha.

Weather systems and forecast & warning:

- ❖ A fresh Western Disturbance as a trough in middle tropospheric westerlies runs roughly along Longitude 50°E to the north of Latitude 32°N and another fresh Western Disturbance likely to affect Western Himalayan Region from the night of 29th December, 2022. Under the influence of these systems:
 - Isolated light rainfall/snowfall likely over Western Himalayan Region on 25th & 26th December.
 - Isolated to scattered light rainfall/snowfall likely over Western Himalayan Region on 29th & 30th December.

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

Fog Warning

- ❖ **Dense to Very Dense Fog** in many/some parts very likely over Punjab, Haryana and north Rajasthan during next 24 hours and gradual reduction in intensity & spread thereafter due to likely reduction in moisture in lower tropospheric levels over the region. However, **Dense Fog** in isolated pockets likely over the region during subsequent 3-4 days.

Minimum Temperature Forecast & Cold Wave/Cold Day Warning

- ❖ No significant change in minimum temperatures likely over plains of Northwest India during next 24 hours and rise by about 2-3°C thereafter. Rise in minimum temperatures by

2-3°C also likely over East India during next 2 days and fall by 2-3°C during subsequent 3 days. No significant change in minimum temperatures likely over rest parts of north India during next 4-5 days.

- ❖ **Cold Wave/Severe Cold Wave Conditions** very likely in some parts over Punjab, Haryana-Chandigarh-Delhi, north Rajasthan, Himachal Pradesh & Uttarakhand during next 24 hours and gradual reduction in intensity & spread thereafter with **Cold Wave Conditions** in isolated pockets over the region during subsequent 2 days.
- ❖ **Cold Wave Conditions** very likely in isolated pockets over Saurashtra & Kutch during next 2 days.
- ❖ **Cold Day/Severe Cold Day Conditions** very likely in some parts over Punjab and Haryana during next 24 hours and gradual reduction in intensity & spread thereafter with **Cold Day Conditions** in isolated pockets over the region during subsequent 24 hours.

Depression over southwest Bay of Bengal.

- The Depression over Southwest Bay of Bengal off Sri Lanka coast moved southwestwards with a speed of 09 kmph during past 06 hours and lay centered at 0830 hours IST of 25th December over Southwest Bay of Bengal and adjoining Sri Lanka coast near latitude 8.8°N and longitude 82.0°E about 80 km east-northeast of Trincomalee (Sri Lanka), 140 km southeast of Jaffna (Sri Lanka), 320 km southeast of Nagappattinam (Tamil Nadu) and 510 km south-southeast of Chennai (Tamil Nadu).
- It is likely to continue to move southwestwards and cross Sri Lanka coast to the south of Trincomalee around noon of today, the 25th December. Thereafter, it would move west-southwestwards and emerge into Comorin Area & neighbourhood by tomorrow, the 26th December morning. (**refer Annexure IV for Depression track**)

Warnings:

(i) Rainfall warning (refer Annexure II):

- ❖ 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.
- ❖ Light to moderate rainfall at many places with heavy rainfall at isolated places is likely over Lakshadweep Islands on 27th December 2022.

(ii) Wind warning (refer Annexure III):

- ❖ **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 26th 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 45-55 kmph gusting to 65 kmph on 25th and 26th December.
- ❖ **Lakshadweep Islands & adjoining Southeast Arabian Sea:** Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail on 27th December.
- ❖ **Southeast Arabian Sea & adjoining Lakshadweep Islands:** Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail on 28th December.

(iii) Sea condition (refer Annexure III):

- ❖ **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.
- ❖ **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 on 25th and 26th December.
- ❖ **Lakshadweep Islands & adjoining Southeast Arabian Sea:** Sea condition is likely to be rough to very rough on 27th December.
- ❖ **Southeast Arabian Sea & adjoining Lakshadweep Islands:** Sea condition is likely to be rough on 28th December.

(iv) Fishermen Warning (refer Annexure III):

Fishermen are advised not to venture into;

- ❖ Southwest Bay of Bengal and along & off Sri Lanka coast till 25th December.
- ❖ Gulf of Mannar, Comorin Area and along & off south Tamil Nadu and west Sri Lanka coasts during 25th-26th December.
- ❖ Sea areas of Lakshadweep Islands & adjoining Southeast Arabian Sea on 27th December.
- ❖ Sea areas of Southeast Arabian Sea & adjoining Lakshadweep Islands on 28th 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/few parts over Punjab, Haryana and north Rajasthan during next 24 hours.

Impact expected:

- **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.

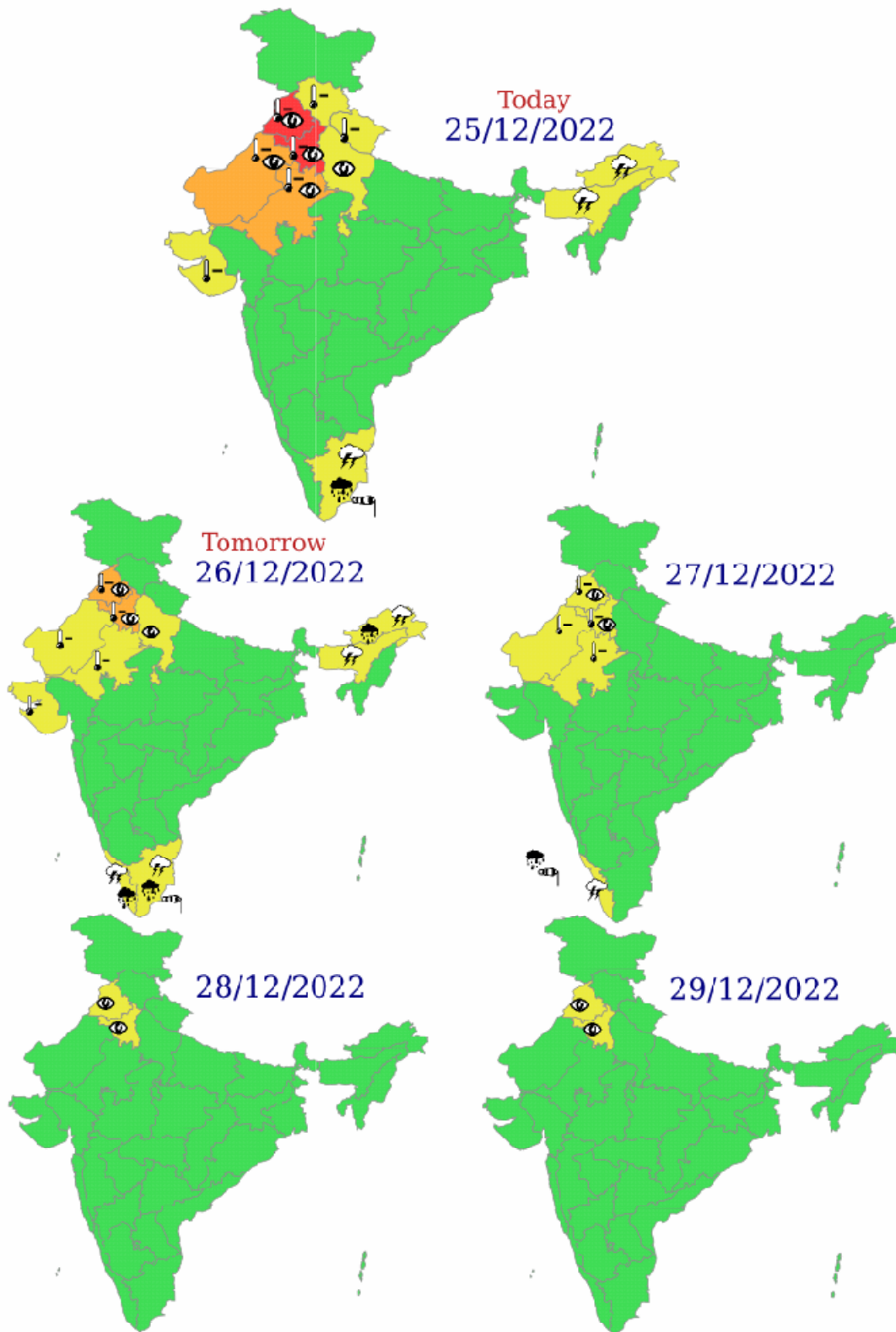
Impact expected and action suggested due to Cold Day/Severe Cold day conditions in isolated parts of Punjab, Haryana and north Rajasthan during next 2 days.

Impact expected:

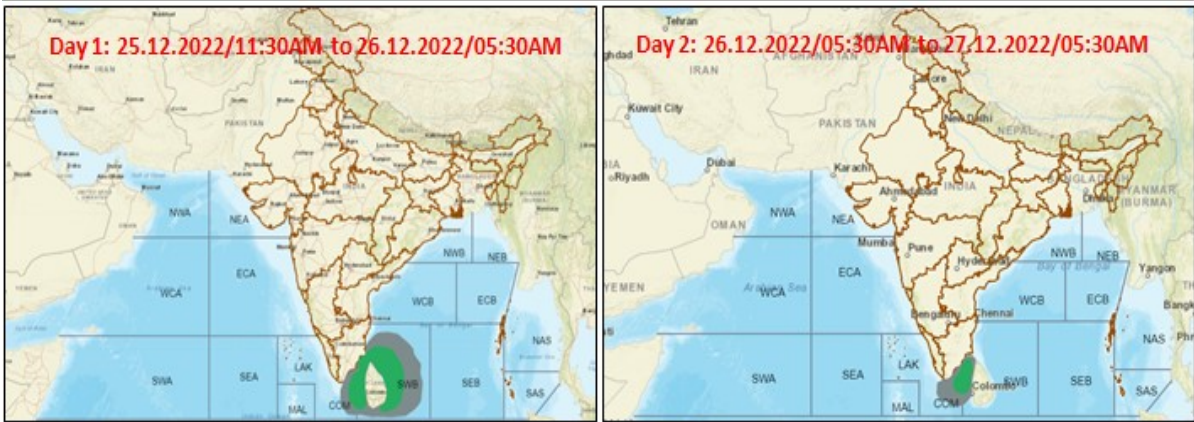
- An increased likelihood of various illnesses like flu, running/ stuffy nose or nosebleed, which usually set in or get aggravated due to prolonged exposure to cold.
- Do not ignore shivering. It is the first sign that the body is losing heat. Get Indoors.
- Frostbite can occur due to prolonged exposure to cold. The skin turns pale, hard and numb and eventually black blisters appear on exposed body parts such as fingers, toes, nose and or earlobes. Severe frostbite needs immediate medical attention and treatment.
- Impact on agriculture, crop, livestock, water supply, transport and power sector at some places.

Action suggested:

- Wear several layers of loose fitting, light weight; warm woolen clothing.
- Cover your head, neck, hands and toes adequately as majority of heat loss occurs through these body parts. Wear several layers of loose fitting, light weight; warm woolen clothing rather than one layer of heavy cloth.
- Eat vitamin-C rich fruits & vegetable and drink sufficient fluids preferably warm fluids to maintain adequate immunity.
- Avoid or limit outdoor activities.
- Keep dry, if wet, change cloths immediately to prevent loss of body heat. Wear insulated/waterproof shoes.
- Warm the affected area of the body slowly with lukewarm water; do not rub the skin vigorously.
- If the affected skin area turns black, immediately consult a doctor.
- Maintain ventilation while using Heaters to avoid inhaling toxic fumes.
- Take safety measures while using electrical and gas heating devices.
- Extreme care needed for vulnerable people.
- Seek medical attention as soon as possible for someone suffering from frostbite/ Hypothermia.
- Protect livestock from cold weather. (For details kindly refer NDMA guidelines: https://ndma.gov.in/Resources/awareness/Cold_Wave)



Fishermen warning graphics



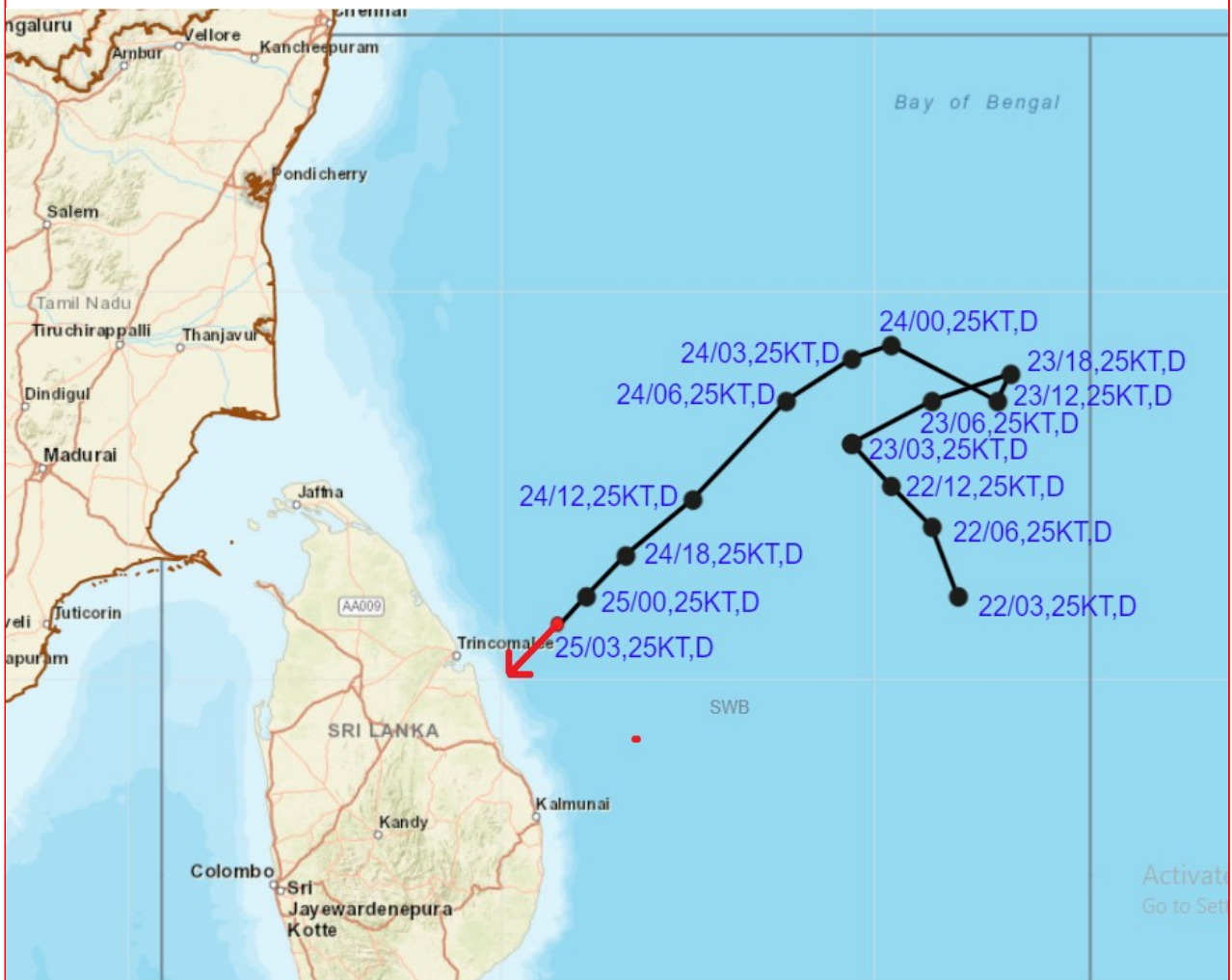
Squally WX with wind speed 40-50 kmph gusting to 60 kmph

Squally wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL AND ADJOINING SRI LANKA COAST BASED ON 0300 UTC OF 25th DECEMBER, 2022



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥20 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

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

