Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 16th December, 2021
Time of Issue: 1215 hrs IST

Subject:

i. **Cold Wave/Severe cold wave Conditions over Punjab, Haryana, Chandigarh, Saurashtra & Kutch and north Rajasthan.**
ii. **Dense/Very Dense fog over Punjab, Haryana, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.**
iii. **Light/moderate isolated rainfall/snowfall over Western Himalayan Region and Light isolated rainfall over Tamilnadu, Kerala and Andaman & Nicobar Islands.**

Cold Wave and Fog Warning:(Annexure-I)

- Fall in minimum temperatures by 2-4°over most parts of Northwest & adjoining Central India and Gujarat State during next 4-5 days and by 2-3°over most parts of East India and Maharashtra during next 4 days.
- **Cold Wave/Severe Cold Wave conditions** over Punjab, Haryana, Chandigarh and Saurashtra & Kutch during 17th to 21th; over north Rajasthan during 18th to 21th; over West Uttar Pradesh during 19th to 21st and over Gujarat region on 19th & 20th December, 2021.
- **Dense/Very dense fog** in the morning hours at isolated pockets over Punjab and Haryana on 17th & 18th; over northwest Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 17th December, 2021.
- **Ground frost conditions** in the morning hours in isolated pockets very likely over Saurashtra & Kutch, Punjab and Haryana during next 4 days.

Rainfall Forecast:

- The Western Disturbance as a cyclonic circulation lies over north Pakistan & neighbourhood between 3.1 & 7.8 km above mean sea level. Under their influence; light to moderate rainfall/snowfall at isolated places very likely over Jammu, Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand during next 2 days and isolated light rainfall over northern parts of Punjab, Haryana on 16th December.
- Light to moderate rainfall at isolated places very likely over Tamilnadu-Puducherry-Karaikal and Kerala-Mahe during next 5 days; over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 20th December.
- Dry weather very likely over remaining parts of the country during next 5 days.

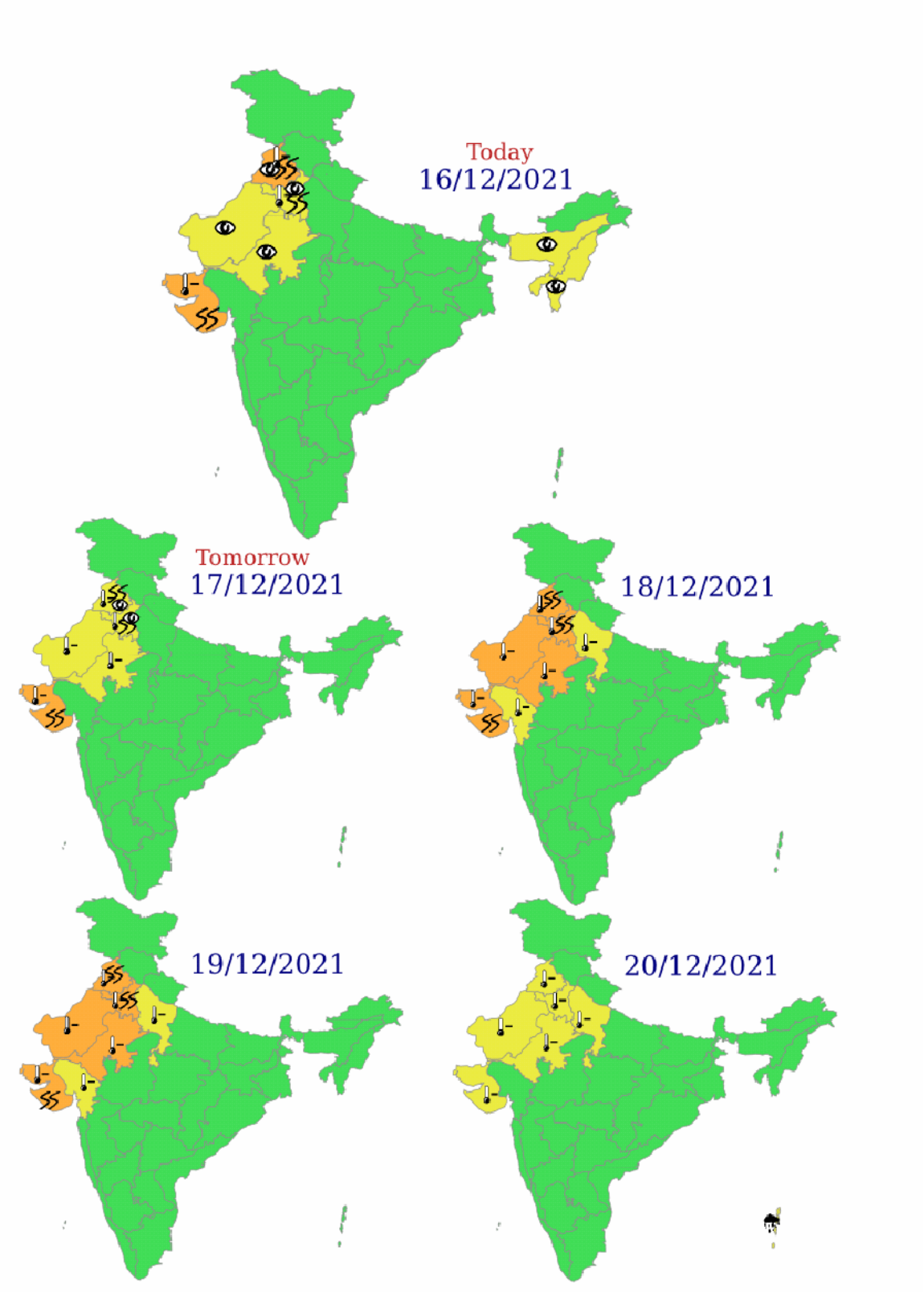
Sea Warning:(Annexure-II)

A cyclonic circulation lies over Equatorial Indian Ocean to the south of Sri Lanka and extends upto 5.8 km above mean sea level. Under its influence, a Low Pressure Area is likely to form over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal around 17th December.

- **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over Equatorial Indian Ocean & adjoining Southwest Bay of Bengal during 17th to 19th. Fishermen are advised not to venture into these areas.
- Light to moderate rainfall at a few/many places over Andaman & Nicobar Islands during 17th-20th December and Heavy rainfall over Nicobar Islands on 20th December, 2021

For more details refer:
https://mausam.imd.gov.in/imd_latest/contents/subdivisionwise-warning.php

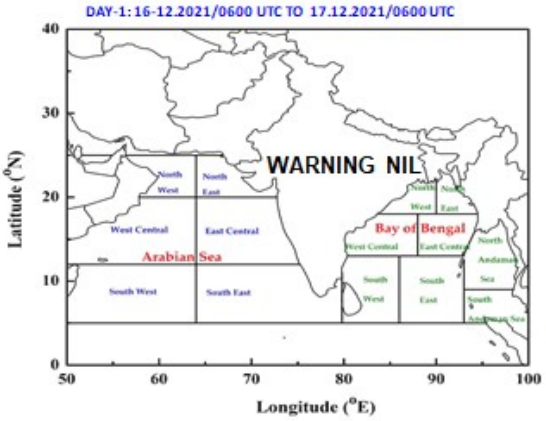
Annexure-I



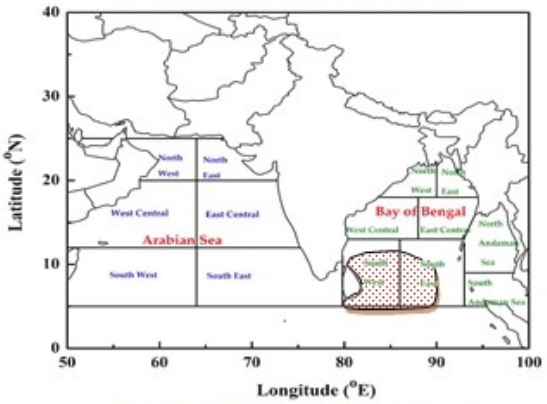
Annexure-II

INDIA METEOROLOGICAL DEPARTMENT
FISHERMAN WARNING FOR BAY OF BENGAL AND ARABIAN SEA

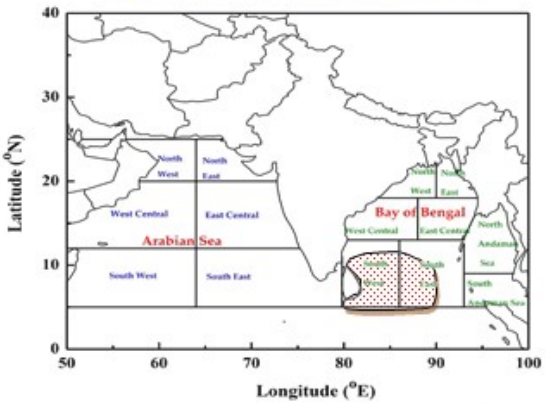
DAY-1: 16-12.2021/0600 UTC TO 17.12.2021/0600 UTC



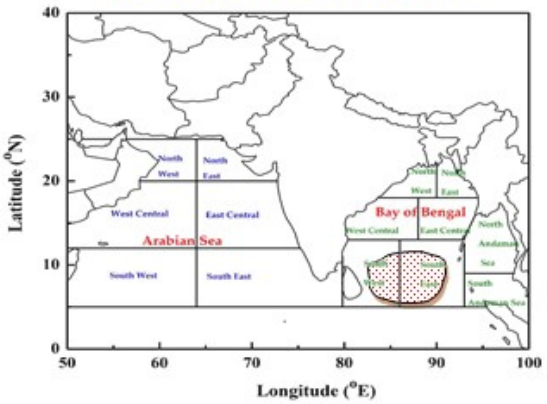
DAY-2: 17.12.2021/0600 UTC TO 18.12.2021/0600 UTC



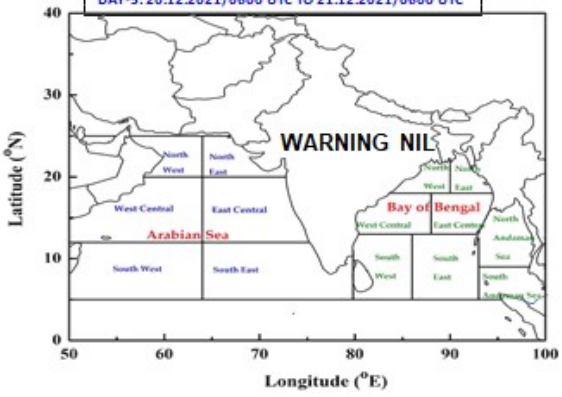
DAY-3-: 18.12.2021/0600 UTC TO 19.12.2021/0600 UTC



DAY-4 19.12.2021/0600 UTC TO 20.12.2021/0600 UTC



DAY-5: 20.12.2021/0600 UTC TO 21.12.2021/0600 UTC



AREA UNDER FISHERMEN WARNING

- 40-50 KMPH GUSTING TO 60 KMPH (SQ.WEATHER)
- 45-55 KMPH GUSTING TO 65 KMPH
- 50-60 KMPH GUSTING TO 70 KMPH
- 60-70 KMPH GUSTING TO 80 KMPH
- 70-80 KMPH GUSTING TO 90 KMPH
- 80-90 KMPH GUSTING TO 95 KMPH
- 90-100 KMPH GUSTING TO 110 KMPH

Impact expected and action suggested due to Cold Wave/Severe Cold Wave conditions over Punjab, Haryana, Chandigarh and Saurashtra & Kutch during 17th to 21th ; over north Rajasthan during 18th to 21th; over West Uttar Pradesh during 19th to 21st and over Gujarat region on 19th & 20th December, 2021.

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, water supply, transport and power sector at some places.

Action suggested:

- Moisturize your skin regularly with oil/cream.
- 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.

Impact expected and action suggested due to Dense/Very dense fog in the morning hours at isolated pockets over Punjab and Haryana on 17th & 18th; over northwest Rajasthan, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 17th December, 2021.

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.

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:** Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad; Himachal Pradesh, 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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Heavy Rain

Strong Winds

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

Thunderstorm with Lightning

Visibility/Fog

Cold wave