Subject:

i) Well Marked Low pressure area over southeast Bay of Bengal and adjoining south Andaman Sea is likely to intensify into a cyclonic storm by 21st March, 2022.

ii) Heat Wave to Severe Heat wave conditions prevail over West Rajasthan and Heat wave conditions prevail over Gujarat State, West Madhya Pradesh and Vidarbha. Likely to abate from tomorrow.

Weather observed during past 24 hours:

- **Maximum Temperatures** (as on 18/03/2022) recorded 40°C and above over most parts of West Rajasthan and Marathwada; over many parts of Gujarat state and Vidarbha; over some parts of West Madhya Pradesh, Madhya Pradesh and Rayalaseema and at isolated pockets over Telangana and Odisha.

- The maximum temperatures were **above normal by 4.5°C** over most parts of Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Punjab and West Rajasthan; over many parts of Haryana-Chandigarh-Delhi, East Rajasthan and Assam-Meghalaya; over some parts of West Madhya Pradesh, Arunachal Pradesh and Sub-Himalayan West Bengal-Sikkim and at isolated pockets over Vidarbha and Gujarat state.

- Yesterday, **Severe Heat Wave conditions** were observed at most parts over West Rajasthan; in many pockets over Himachal Pradesh and **Heat wave conditions** in some pockets over Saurashtra-Kutch, West Madhya Pradesh and Vidarbha and in isolated pockets over Gujarat Region.

- **Heavy rainfall observed** at isolated places over Andaman-Nicobar Islands and Kerala & Mahe. Significant rainfall amounts (in cm): Andaman-Nicobar Islands- Car Nicobar-9; Nancowry-4; and Kerala-Mahe: Konni-7.

**Well Marked Low pressure area southeast Bay of Bengal and adjoining areas & it’s likely intensification into a cyclonic storm by 21st March, 2022:**

Yesterday’s **Low Pressure Area** over southeast Bay of Bengal & adjoining south Andaman Sea and East Equatorial Indian Ocean moved east-northeastwards and lies as a **well marked low pressure area** over southeast Bay of Bengal & adjoining south Andaman Sea at 0830 hours IST of today, the 19th March. It is likely to move nearly northwards along & off Andaman & Nicobar Islands, intensify into a depression by morning of 20th March and into a cyclonic storm on 21st March. Thereafter, it is likely to move nearly north-northeastwards and reach near north Myanmar-southeast Bangladesh coasts on 22nd March, 2022.
**Warnings:**

(i) Rainfall (warning graphics enclosed):

- **19th March:** Light to moderate rainfall/thundershower at most places with **heavy to very heavy rainfall at a few places very likely** over Andaman & Nicobar Islands and **isolated Extremely Heavy rainfall** also very likely over Nicobar Islands and south Andaman Islands.
- **20th March:** Light to moderate rainfall/thundershower at most places with **heavy to very heavy rainfall at a few places and isolated extremely heavy rainfall** are very likely over Andaman Islands and **isolated heavy rainfall** over Nicobar Islands.
- **21st March:** Light to moderate rainfall/thundershower at most places with **heavy to very heavy rainfall at a few places and isolated extremely heavy rainfall** are very likely over Andaman Islands. Light to moderate rainfall at a few places is likely over Nicobar Islands.

(ii) Wind warning:

- **19th March:** Squally winds speed reaching 45-55 kmph gusting to 65 kmph are very likely to prevail over Andaman and Nicobar Islands, Andaman Sea and southeast Bay of Bengal.
- **20th March:** Squally winds speed reaching 55-65 kmph gusting to 75 kmph are very likely to prevail over Andaman and Nicobar Islands, Andaman Sea and adjoining southeast Bay of Bengal from forenoon and would gradually increase thereafter.
- **21st March:** Gale winds speed reaching 70-80 kmph gusting to 90 kmph are very likely to prevail over Andaman and Nicobar Islands, eastcentral Bay of Bengal and adjoining southeast Bay of Bengal.
- **22nd March:** Gale winds speed reaching 60-70 kmph gusting to 80 kmph are very likely to prevail over eastcentral Bay of Bengal and along & off Myanmar coast. Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over north Andaman Islands, north Andaman Sea and adjoining southeast Bay of Bengal, northeast Bay of Bengal and along & off southeast Bangladesh-north Myanmar coasts.

(iii) Sea condition:

- Sea condition is very likely to become rough to very rough over Andaman Sea and adjoining southeast Bay of Bengal during 19th March. It would become very rough over the same region on 20th March.
- Sea condition is very likely to become very rough high over Andaman Sea, southeast and adjoining eastcentral Bay of Bengal on 21st, over eastcentral and adjoining southeast & northeast Bay of Bengal and north Andaman Sea and along & off Myanmar coast on 22nd March. It would be rough to very rough over northeast Bay of Bengal; along & off southeast Bangladesh-north Myanmar coasts during the same period.

(iv) Fishermen Warning (Graphics enclosed):

- Fishermen are advised not to venture into southeast Bay of Bengal during 19th to 21st March.
- Into Andaman Sea and along & off Andaman and Nicobar Islands during 19th to 22nd March.
- Into eastcentral Bay of Bengal during 21st to 22nd March and into northeast Bay of Bengal on 22nd March.
Forecast & Warnings for other parts of the country:

✓ Under the influence of the Western Disturbance, isolated to scattered rainfall/snowfall with isolated thunderstorm/lightning very likely over Western Himalayan Region on 19th & 20th March, 2022.
✓ Light isolated rainfall with thunderstorm/lightning very likely over Kerala & Mahe, Tamilnadu, Puducherry & Karaikal and Karnataka during next 5 days; over Rayalaseema and Coastal Andhra Pradesh during 20th to 22nd; over Telangana on 19th March, 2022.
✓ Light to moderate isolated rainfall with thunderstorm/lightning very likely over Northeast India from 21st March, 2022.

Maximum Temperature Forecast:

✓ No significant change in maximum temperatures very likely over most parts of Northwest India during next 24 hours and fall by about 2°C thereafter.
✓ Fall in maximum temperatures by 1-2°C very likely over most parts of West, Central and South India during next 2-3 days.
✓ No significant change in maximum temperatures over rest parts of the country.

Heat Wave warning (Graphics enclosed):

✓ Reported maximum temperatures indicates a falling tendency throughout the country. This trend is likely to cause abatement in heat wave conditions from most of the affected regions from tomorrow.
✓ **Heat Wave to Severe Heat Wave conditions** very likely to prevail in isolated pockets over West Rajasthan today, the 19th March and isolated **Heat Wave conditions** on 20th March, 2022.
✓ **Heat Wave conditions** very likely to prevail in isolated to some parts of Vidarbha during next 3 days; West Madhya Pradesh during next 4 days and over Gujarat state today, the 19th March.

For more details refer:
EXPERIMENTAL PRE-GENESIS TRACK AND INTENSITY FORECAST ALONGWITH CONE OF UNCERTAINTY ISSUED AT THE STAGE OF LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING SOUTH ANDAMAN SEA ON 0300 UTC OF 19TH MARCH 2022
EXPERIMENTAL PRE-GENESIS TRACK AND INTENSITY FORECAST ALONGWITH QUADRANT WIND DISTRIBUTION ISSUED AT THE STAGE OF LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING SOUTH ANDAMAN SEA ON 0300 UTC OF 19TH MARCH 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)
ECS: EXTREMELY SEVERE CYCLONIC STORM (90.119 KT)
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

AREA OF MAXIMUM SUSTAINED WIND SPEED:
28-33 KT (52-61 KMPH)
34-49 KT (62-91 KMPH)
50-63 KT (92-117 KMPH)
≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

<table>
<thead>
<tr>
<th>MSW (knot/kmph)</th>
<th>Impact</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-33 (52-61)</td>
<td>Very rough seas</td>
<td>Total suspension of fishing operations</td>
</tr>
<tr>
<td>34-49 (62-91)</td>
<td>High to very high seas</td>
<td>Total suspension of fishing operations</td>
</tr>
<tr>
<td>50-63 (92-117)</td>
<td>Very high seas</td>
<td>Total suspension of fishing operations</td>
</tr>
<tr>
<td>≥ 64 (≥118)</td>
<td>Phenomenal</td>
<td>Total suspension of fishing operations</td>
</tr>
</tbody>
</table>
AREA UNDER FISHERMEN WARNING

- 40-50 Kmph gusting to 55 Kmph (squally 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
Impact expected and action suggested due to Heat wave to Severe heat wave conditions over West Rajasthan on 19th March, 2022.

Impact expected:

- Heat wave could lead to moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases
- Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work.

Action suggested:

- Drink sufficient water- even if not thirsty.
- Avoid heat exposure, wear lightweight, light-colored, loose, cotton clothes and cover the head by use of cloth, hat or umbrella etc.
- Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

EXPECTED IMPACT & ACTION SUGGESTED for Andaman and Nicobar Islands

Impact Expected

- Localized Flooding of roads, inundation and water logging in low lying areas.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging in roads leading to increased travel time.
- Adverse impact on marine and tourist activities along the coasts.
- Damage to kutcha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- Damage to horticulture and standing crops in some areas due to squally wind and inundation.

Action Suggested

- Total suspension of fishing and tourism activities during 19th to 22nd March.
- Avoid going to areas that face the water logging problems often.
- People are advised to stay in safe places and avoid staying in vulnerable structure.
- Regulate off-shore activities from 19th and suspension of off-shore activities during 20th to 22nd March.
- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
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 Table]

![Probalistic Forecast Table]

![Threat Symbols]