



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

**Press Release  
Date: 10<sup>th</sup> June, 2023  
Time of Issue: 1445 hours IST**

**Subject: i) Advancement of southwest monsoon into most parts of northeast India and more parts of south peninsular India, Arabian Sea and Bay of Bengal today, the 10<sup>th</sup> June.  
ii) Heat wave conditions likely to continue over Bihar, Jharkhand, West Bengal, Odisha, Uttar Pradesh, Andhra Pradesh and Telangana during next 2-3 days.  
iii) Well Marked Low Pressure Area over northeast Bay of Bengal.  
iv) Very Severe Cyclonic Storm “Biparjoy” over eastcentral Arabian Sea.**

**Weather observed during past 24 hours ending at 0830 hrs IST of today: (Annexure I)**

**Advance of Southwest Monsoon: Annexure II**

- ❖ The Southwest monsoon has further advanced into some more parts of central Arabian Sea, remaining parts of Kerala, some parts of Karnataka, some more parts of southwest Bay of Bengal, entire parts of eastcentral Bay of Bengal, most parts of northeast Bay of Bengal, some parts of northwest Bay of Bengal and most parts of northeastern States today, the 10th June.
- ❖ The Northern Limit of Monsoon (NLM) now passes through lat. 14.5°N/ Long. 55°E, lat. 15.0°N/ Long. 60°E, lat. 15°N/ Long. 65°E, lat. 15°N/ Long. 70°E, Karwar, Mercara, Kodaikanal, Adirampattinam, lat. 12.0°N/ Long. 83.0°E, 16.0°N/87.0°E, 21°N/90.0°E, 23.5°N /90.5°E, Dhubri, 28°N/89°E.
- ❖ Conditions are favourable for further advance of Southwest monsoon into some more parts of central Arabian Sea, some more parts of Karnataka, Goa, some parts of Maharashtra, some more parts of Tamil Nadu, some more parts of southwest and westcentral Bay of Bengal, entire northeast Bay of Bengal, some more parts of northwest Bay of Bengal, remaining parts of northeastern states and some parts of Sub-Himalayan West Bengal & Sikkim during next 48 hours.

**Very Severe Cyclonic Storm “Biparjoy” (pronounced as “Biporjoy”) over eastcentral Arabian Sea**

The **very severe cyclonic storm “Biparjoy”** (pronounced as “Biporjoy”) over eastcentral Arabian Sea moved nearly northwards with a speed of 7 kmph during past 6-hours and lay centred at 0830 hours IST of today, the 10th June, 2023 over the same region near latitude 16.7°N and longitude 67.4°E, about 700 km west-northwest of Goa, 620 km west-southwest of Mumbai, 600 km south-southwest of Porbandar and 910 km south of Karachi. It is very likely to intensify further and move north-northeastwards gradually during next 24 hours. Then it would move gradually north-northwestwards during subsequent 3 days.

**Fishermen Warning (Graphics in Annexure IV)**

- Total suspension of fishing operations over
  - eastcentral and adjoining westcentral Arabian Sea till 15<sup>th</sup> June.
  - north and adjoining central Arabian Sea during 12<sup>th</sup> -15<sup>th</sup> June
- Fishermen are advised not to venture into:
  - Central Arabian Sea till 15<sup>th</sup> June.
  - North Arabian Sea during 12<sup>th</sup> -15<sup>th</sup> June.
  - **Along & off Saurashtra & Kutch coasts during 10<sup>th</sup> to 15<sup>th</sup> June.**
- Those out at sea are advised to return to coast.
- Judicious regulation of offshore and onshore activities.

## Well Marked Low Pressure Area over northeast Bay of Bengal

The well marked low pressure area over Northeast Bay of Bengal and adjoining area of Southeast Bangladesh North Myanmar Coasts persists over the same region at 0830 hours IST of today, the 10th June, 2023.

## Weather forecast and warning over the country during next 5 days:

### Northeast India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm/lightning very likely over the region during next 5 days.
- ❖ **Heavy to Very Heavy rainfall** very likely at isolated places during next 5 days over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Arunachal Pradesh.

### South India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over the region during next 5 days.
- ❖ **Heavy rainfall** very likely at isolated places over Kerala and Coastal Karnataka during next 3 days; over Lakshadweep during next 2 days and over South Interior Karnataka during 12<sup>th</sup> to 14<sup>th</sup> June.

### East India:

- ❖ **Heavy rainfall** very likely at isolated places over Andaman & Nicobar islands on 10<sup>th</sup> June.

**No significant weather is likely over rest parts of the country during next 5 days.**

## Maximum Temperatures and Heat Wave warning (Graphics in Annexure III):

- ❖ Yesterday, **Maximum Temperatures** were in the range of 40-42°C over many parts of Central and East India and some parts of North India and northern parts of Peninsular India.
- ❖ Yesterday, **Heat Wave to Severe Heat Wave conditions** prevailed in some parts of Bihar; **Heat Wave conditions** in some parts of Gangetic West Bengal; in isolated pockets over Odisha, Jharkhand, East Uttar Pradesh and Coastal Andhra Pradesh. This was 9<sup>th</sup> day of Heat Wave conditions over Bihar and Gangetic West Bengal.
- ❖ No significant change in maximum temperatures very likely over east & central India during next 3 days and fall by 2-3°C thereafter. No significant change in maximum temperatures over rest parts of the country during next 5 days
- ❖ **Heat wave conditions** very likely to continue in isolated pockets over Jharkhand and Odisha during 10<sup>th</sup> to 13<sup>th</sup>; over Gangetic West Bengal during 10<sup>th</sup> to 12<sup>th</sup>; over Bihar, Coastal Andhra Pradesh & Yanam and Telangana during 10<sup>th</sup> to 11<sup>th</sup> and over Uttar Pradesh on 10<sup>th</sup> June.

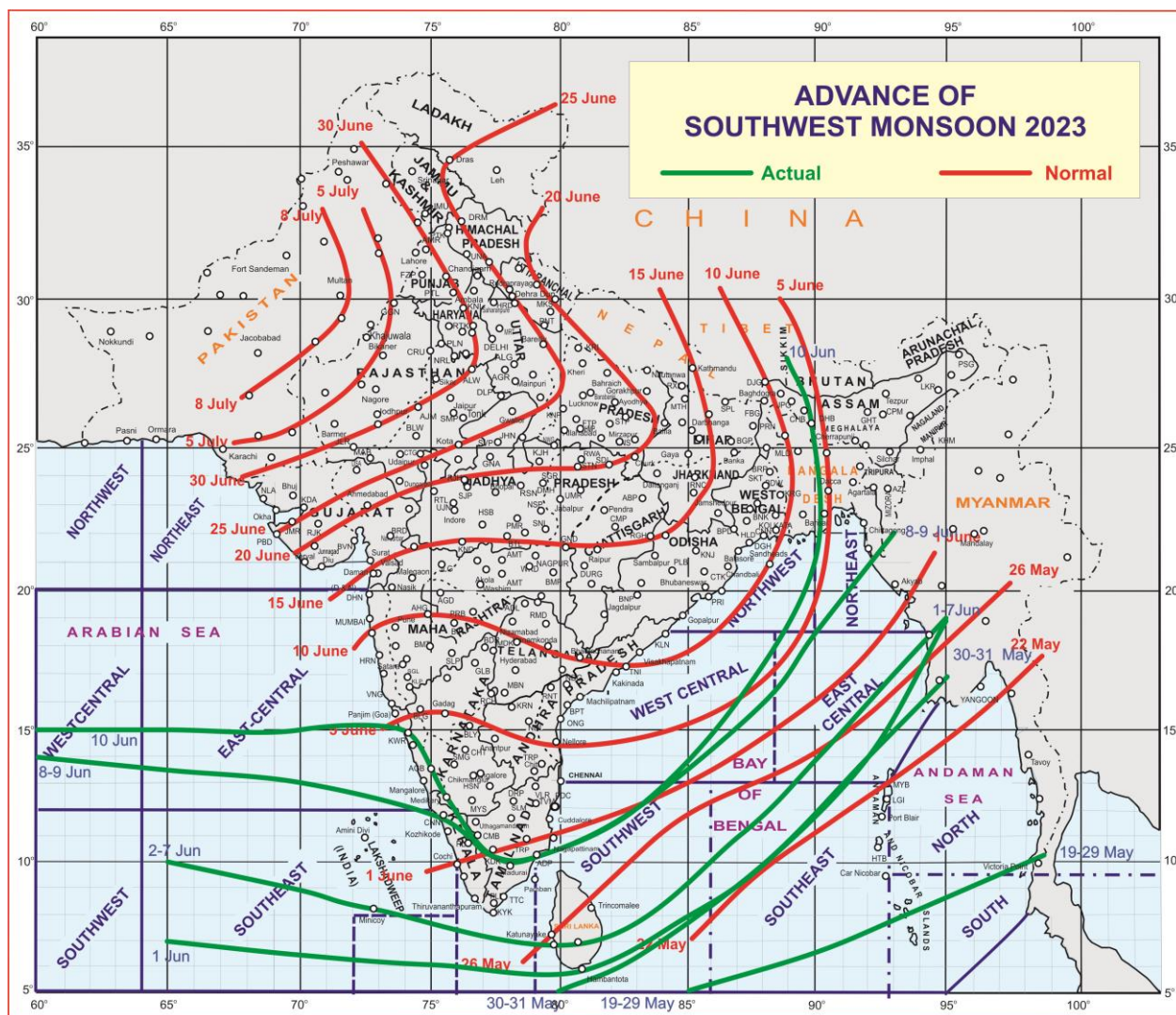
For more details kindly refer:

[https://mausam.imd.gov.in/responsive/all\\_india\\_forcast\\_bulletin.php](https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php)

<https://mausam.imd.gov.in/responsive/districtWiseNowcast.php>

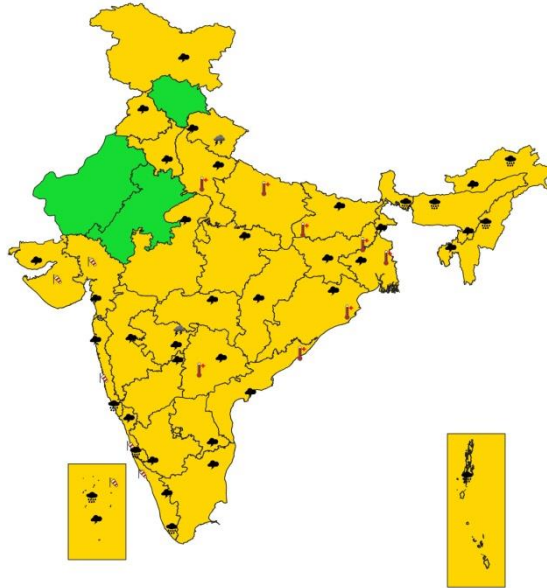
**Weather Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):**

- **Rainfall/thundershowers** observed at **most places** over Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Kerala & Mahe; at a few places over Vidarbha and at isolated places over Uttarakhand, Haryana, Chandigarh & Delhi, Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Chhattisgarh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, Interior Karnataka.
- **Heavy to very heavy rainfall observed** at isolated places over Assam & Meghalaya and **heavy rainfall observed** at isolated places over Nagaland, Manipur, Mizoram & Tripura and Coastal Karnataka.
- **Hailstorm observed** at isolated places over Himachal Pradesh, West Madhya Pradesh and Madhya Maharashtra.
- **Significant rainfall recorded (in cm):** **Assam & Meghalaya:** BijniArg (distChirang) 19, ManashNh Xing (distBarpeta) 14, Shella (dist East Khasi Hills) 13, Tamulpur (distBaksa) 11, AieNh Xing (distBongaigaon) 10, Williamnagar (dist East Garo Hills) 10, Dhemaji (distDhemaji) 9, BekyRly.bridge (distBarpeta) 8, Barpeta (distBarpeta) 8, BarpetaArg (distBarpeta) 8, BokajanArg (distKarbiAnglong) 7, Panbari (distChirang) 7, Melabazar/matunga (distNalbari) 6, Jiagaon (distTinsukia) 6, Williamnagar\_ Aws (dist East Garo Hills) 5, AmraghatArg (distCachar) 5, Amraghat (distCachar) 5, Hazuah (distBarpeta) 5, JiaBharali N T Xing (distShonitpur) 5, ShillongC.s.o. (dist East Khasi Hills) 5, Kokrajhar (distKokrajhar) 5, Beki Mathungari (distBarpeta) 4, Nongstain\_aws (dist West Khasi Hills) 4, Mawkyrwat\_arg (dist South West Khasi Hills) 4, Bahalpur (distDhubri) 4, Mawkyrwat (dist South West Khasi Hills) 4, Dholai (distCachar) 4, A P Ghat (distCachar) 4, Majbat (distUdalguri) 4; **N M M T:** Serchip\_ Aws (distSerchhip) 9, Saiha\_ Aws (distSaiha) 7, Saiha (distSaiha) 5, Sonamura (distSipahijala) 5, Lawngtlai (distLawngtlai) 4, **Tamilnadu:** Uthukottai (dist Tiruvallur) 6, Vellore (dist Vellore) 5, Keelpennathur (dist Tiruvannamalai), Taluk Office Pandalur (dist Nilgiris) 4 each, Virinjipuram AWS (dist Vellore), Katpadi (dist Vellore), Arani (dist Tiruvannamalai), Chinnakalar (dist Coimbatore) 3 each; **Kerala & Lakshadweep Area:** Chalakkudy & Enamakal (both in Thrissur district), Angadipuram (Malappuram district), Laha AWS & Ranni AWS (both in Pathanamthitta district) & Mattannur ARG (Kannur district) 5 each, Kannur, Amini, Agathi & Minicoy (all in Lakshadweep UT), Vellanikkara (Thrissur district), Kudulu (Kasaragod district), Idamalayar Dam AWS (Ernakulam district), Vadakara AWS (Kozhikode district) & Vellarikkundu AWS (Kasaragod district) 4 each, Alappuzha, NAS Kochi (Ernakulam district), Thodupuzha (Idukki district), Kodungallur, Irinjalakuda & Vadakkancherry (all in Thrissur district), Perinthalamanna (Malappuram district), Vadakara (Kozhikode district), Vythiri (Wayanad district), Thiruvalla AWS & Kunnathanam AWS (both in Pathanamthitta district), Karumadi AWS (Alapuzha district), Mattanchery AWS & Odakali AWS (both in Ernakulam district), Thavanur AWS & Thennala AWS (both in Malappuram district), Thodupuzha ARG (Idukki district), Palluruthy ARG (Ernakulam district) & Kannur Airport AWS 3 each; **Coastal Karnataka:** Kollur (dist Udupi) 7, Mangaluru (dist Dakshina Kannada) 5, Karwar Obsy (dist Uttara Kannada) 5, Kota (dist Udupi) 4, Udupi (dist Udupi) 3, Ankola (dist Uttara Kannada) 3; **S. I. Karnataka:** Kottigehara (dist Chikkamagaluru) 3; **Rayalaseema:** Dhone (dist Nandyal) 3, **Telangana:** Nawabpetmbn (dist Mahabubnagar) 6, Nawabpet (dist Vikarabad) 6, Mominpet (dist Vikarabad) 4, Shadnagar (dist Rangareddy) 4, Vangoor (dist Nagarkurnool) 3, Pebbair (dist Wanaparthy) 3; **Arunachal Pradesh:** Tuting (dist Upper Siang) 6, Daparijo (dist Upper Subansiri) 4, Tawang (distTawang) 4.





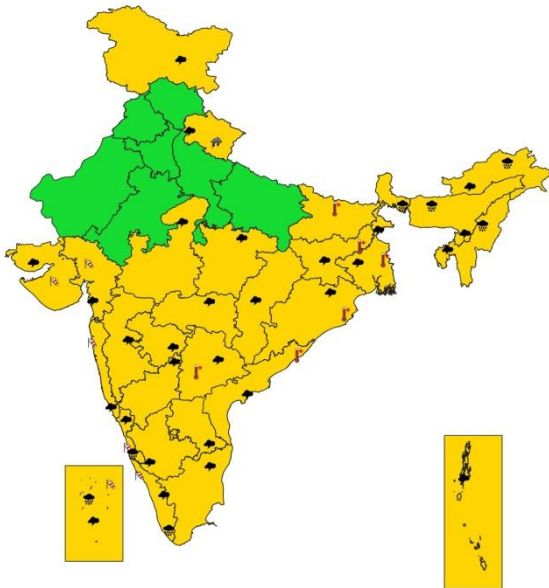
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1  
( 10-6-2023 )**



- |                            |                      |                          |
|----------------------------|----------------------|--------------------------|
| <b>Subdivision Warning</b> | Dust Storm           | <b>Subdivision color</b> |
| Heavy Rain                 | Strong Surface Winds | NO WARNING               |
| Heavy Snow                 | Heat Wave            | WATCH (BE UPDATED)       |
| Thunderstorms & Lightning  | Cold wave            | ALERT (BE PREPARED)      |
| Hailstorm                  | Fog                  | WARNING (TAKE ACTION)    |



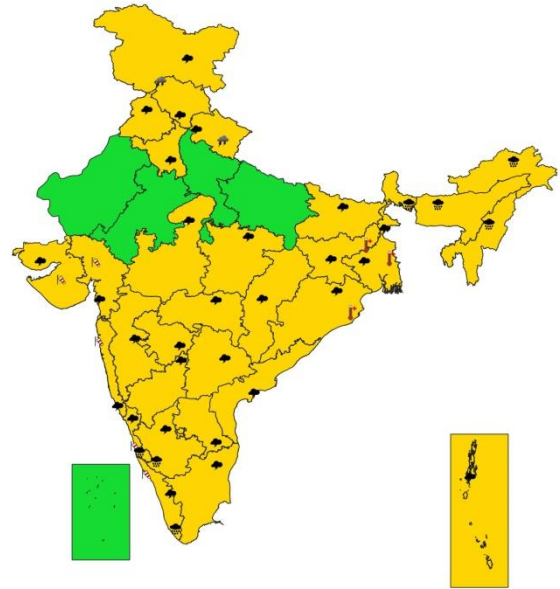
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2  
( 11-6-2023 )**



- |                            |                      |                          |
|----------------------------|----------------------|--------------------------|
| <b>Subdivision Warning</b> | Dust Storm           | <b>Subdivision color</b> |
| Heavy Rain                 | Strong Surface Winds | NO WARNING               |
| Heavy Snow                 | Heat Wave            | WATCH (BE UPDATED)       |
| Thunderstorms & Lightning  | Cold wave            | ALERT (BE PREPARED)      |
| Hailstorm                  | Fog                  | WARNING (TAKE ACTION)    |



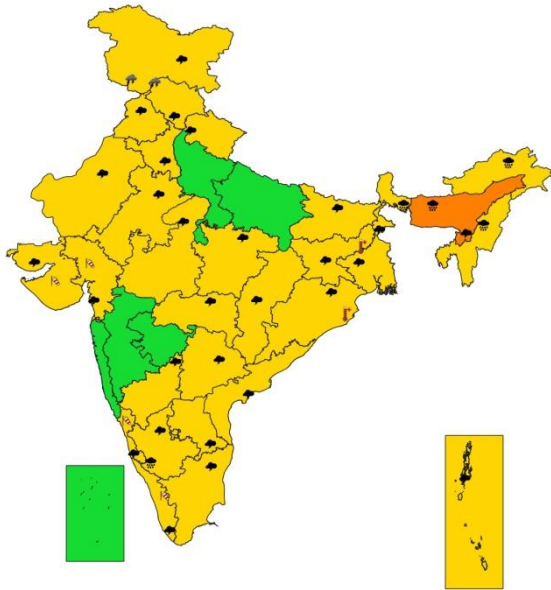
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3  
( 12-6-2023 )**



- |                            |                      |                          |
|----------------------------|----------------------|--------------------------|
| <b>Subdivision Warning</b> | Dust Storm           | <b>Subdivision color</b> |
| Heavy Rain                 | Strong Surface Winds | NO WARNING               |
| Heavy Snow                 | Heat Wave            | WATCH (BE UPDATED)       |
| Thunderstorms & Lightning  | Cold wave            | ALERT (BE PREPARED)      |
| Hailstorm                  | Fog                  | WARNING (TAKE ACTION)    |



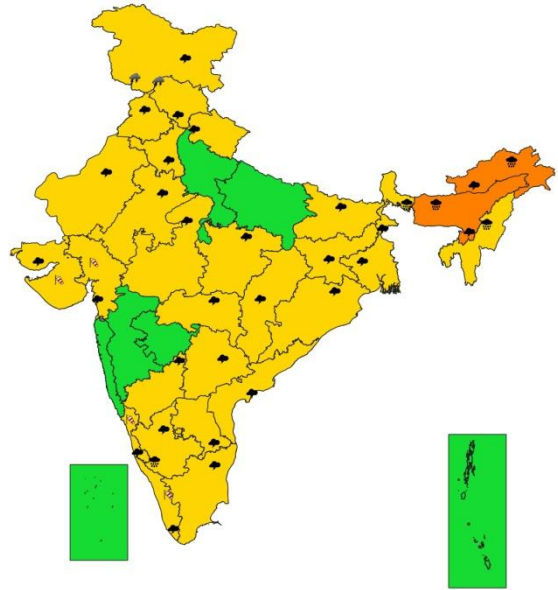
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4**  
( 13-6-2023)



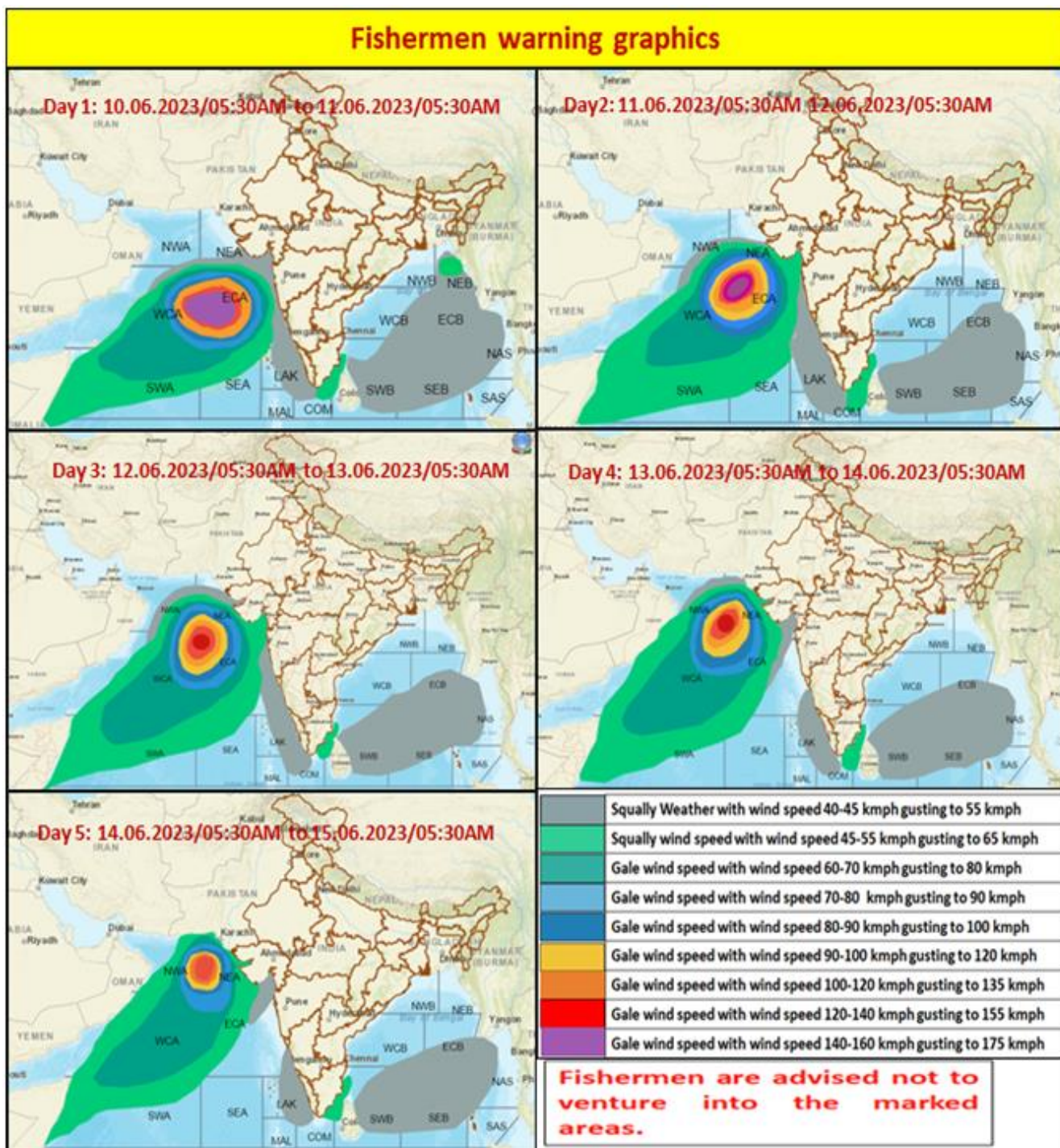
- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Subdivision Warning         | Dust Storm             | Subdivision color       |
| ☁ Heavy Rain                | ⚡ Strong Surface Winds | 🟢 NO WARNING            |
| ❄ Heavy Snow                | 🔥 Heat Wave            | 🟡 WATCH(BE UPDATED)     |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | 🟠 ALERT (BE PREPARED)   |
| 🌨 Hailstorm                 | 🌫 Fog                  | 🔴 WARNING (TAKE ACTION) |



**SUBDIVISIONWISE RAINFALL FORECAST FOR DAY 5**  
( 14-6-2023)

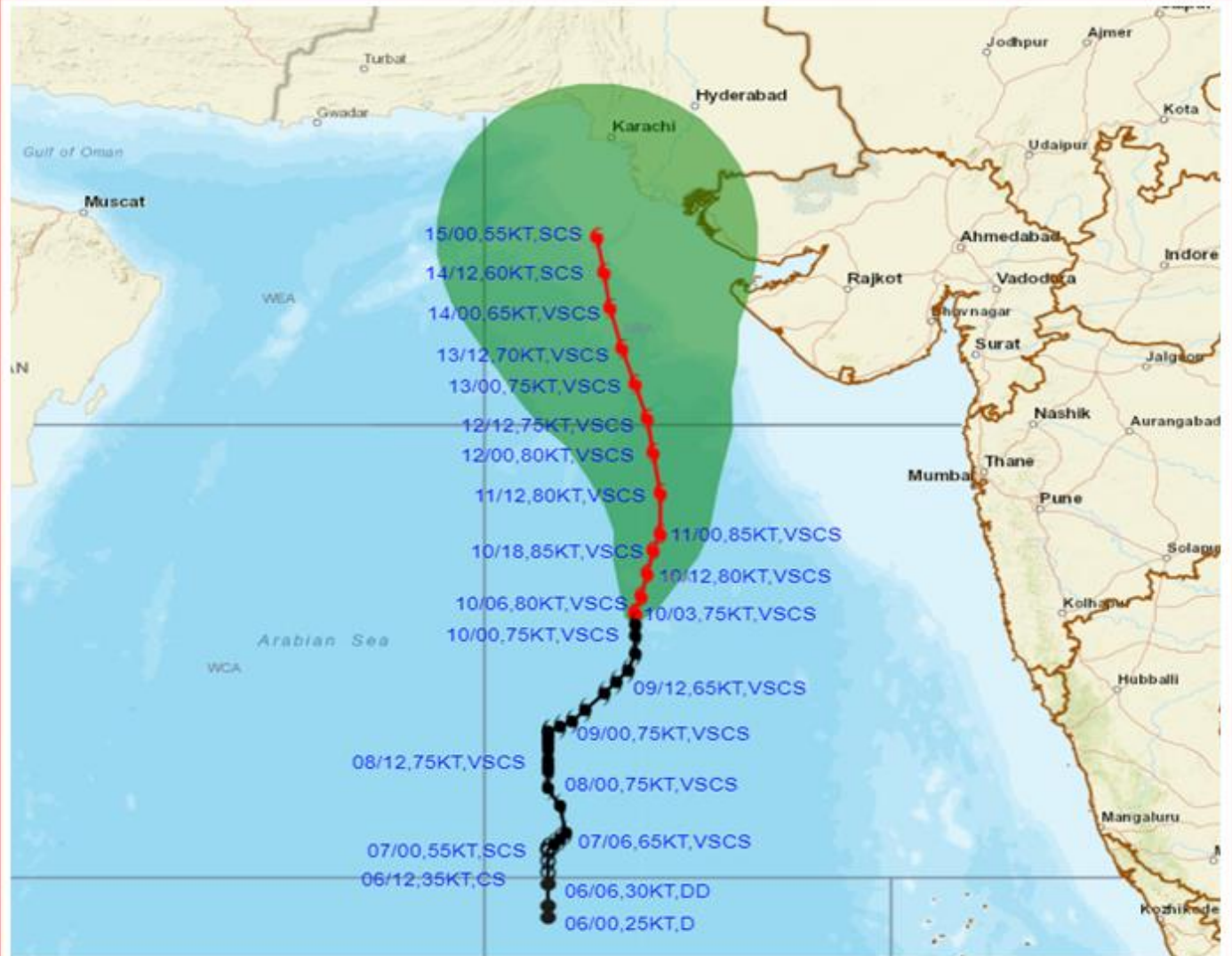


- |                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Subdivision Warning         | Dust Storm             | Subdivision color       |
| ☁ Heavy Rain                | ⚡ Strong Surface Winds | 🟢 NO WARNING            |
| ❄ Heavy Snow                | 🔥 Heat Wave            | 🟡 WATCH(BE UPDATED)     |
| ⚡ Thunderstorms & Lightning | ❄ Cold wave            | 🟠 ALERT (BE PREPARED)   |
| 🌨 Hailstorm                 | 🌫 Fog                  | 🔴 WARNING (TAKE ACTION) |





**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 0300 UTC (0830 IST) OF 10<sup>TH</sup> JUNE 2023.**



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 (≥ 120 KT)

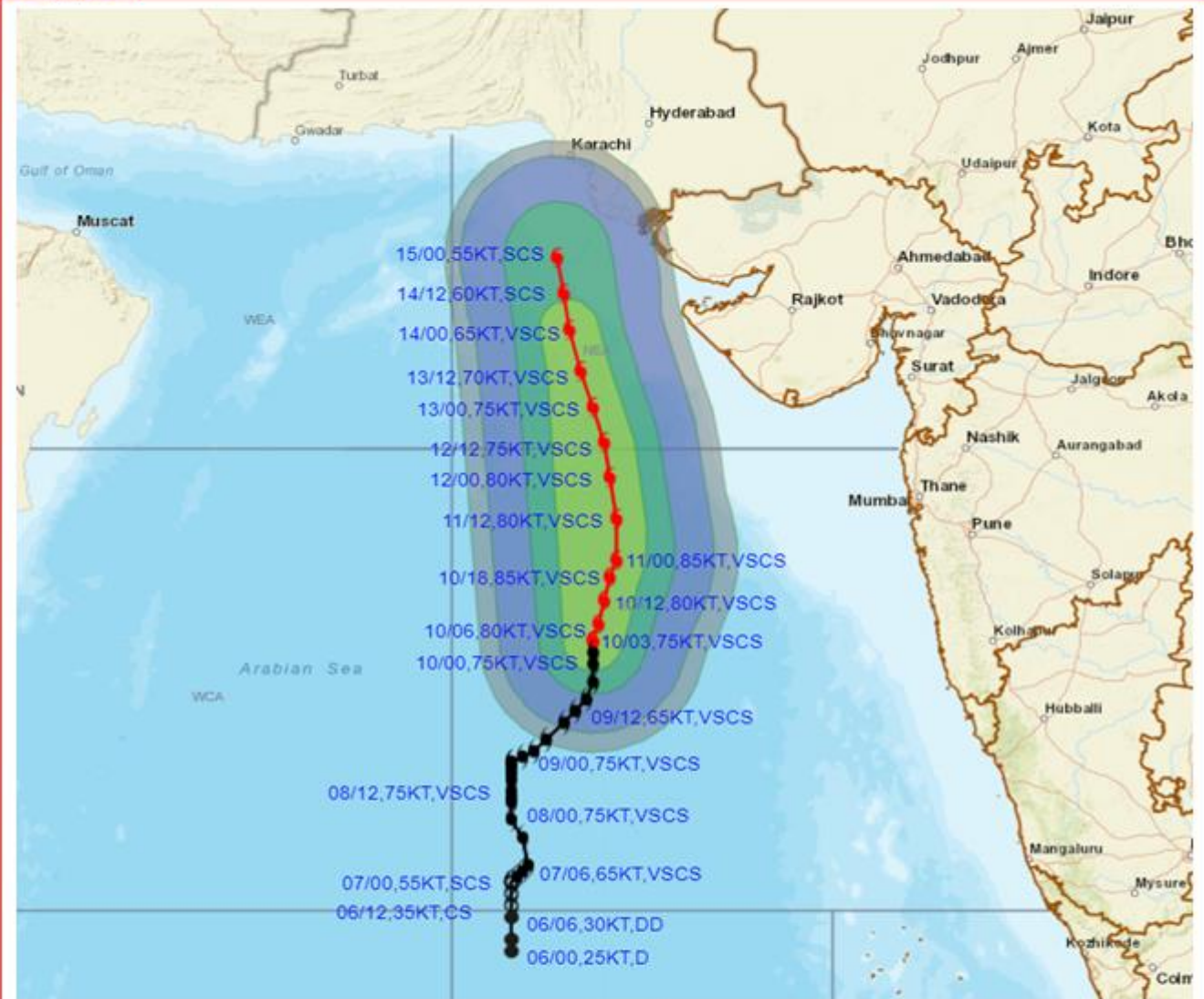
- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS				
	PORBANDAR	BOMBAY / COLABA	GOA/PANJIM	KARACHI AIRPORT	MASIRAH
11.06.23/0000	440, SSW	540, W	710, WNW	760, S	970, ESE
12.06.23/0000	310, SW	550, W	790, NW	600, S	920, E
13.06.23/0000	260, WSW	610, WNW	900, NW	460, S	880, E
14.06.23/0000	280, W	700, WNW	1030, NW	320, S	860, ENE
15.06.23/0000	340, WNW	780, NW	1130, NW	190, S	860, ENE





**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 0300 UTC (0830 IST) OF 10TH JUNE 2023.**



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 (≥ 120 KT)

● LESS THAN 34 KT  
 ○ 34-47 KT  
 ● ≥ 48 KT  
 — OBSERVED TRACK  
 — FORECAST TRACK  
 ▲ CONE OF UNCERTAINTY  
 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**

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

**Legends:**

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

❖ **Region wise classification of meteorological Sub-Divisions:**

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

<b>SPATIAL DISTRIBUTION</b> (% 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)

Subdivision Warning	Dust Storm	Subdivision color
Heavy Rain	Strong Surface Winds	NO WARNING
Heavy Snow	Heat Wave	WATCH(BE UPDATED)
Thunderstorms & Lightning	Cold wave	ALERT (BE PREPARED)
Hailstorm	Fog	WARNING (TAKE ACTION)

<b>Probabilistic Forecast</b>	
Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75