



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

**Press Release
Date: 08th June, 2023
Time of Issue: 1345 hours IST**

**Subject: i) Monsoon has onset over Kerala today, the 08 June. Further advance likely into more parts of Arabian Sea, south peninsular India, Bay of Bengal and Northeast India during next 48 hours.
ii) Heat wave conditions likely to continue over Bihar, Jharkhand, West Bengal, Odisha, Uttar Pradesh, Andhra Pradesh and Telangana during next 2-4 days.
iii) The Very Severe Cyclonic Storm “Biparjoy” (pronounced as “Biporjoy”) over eastcentral Arabian Sea**

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

Advance of Southwest Monsoon:

- ❖ The Southwest Monsoon has advanced into remaining parts of south Arabian Sea and some parts of central Arabian Sea, entire Lakshadweep area, most parts of Kerala, most parts of south Tamil Nadu, remaining parts of Comorin area, Gulf of Mannar and some more parts of southwest, central and northeast Bay of Bengal today, the 08th June 2023. Thus, Southwest Monsoon has set in over Kerala today, the 08th June, 2023 against the normal date of 01st June.
- ❖ During past 24 hours, clouding has increased over Southeast Arabian sea with Outgoing Long wave Radiation(OLR) being <200 w/m². The depth of westerlies over Southeast Arabian sea extends upto mid tropospheric levels. The strength of Westerlies in the lower levels has increased to about 19 knots. Thus, there has been widespread rainfall (refer. [Annexure I](#)) over Kerala during past 24 hours. Considering all the above satisfied conditions, Southwest Monsoon has set in over Kerala today, the 08th June, 2023.
- ❖ The Northern Limit of Monsoon (NLM) now passes through lat. 13.5°N/ Long. 55°E, lat. 14.0°N/ Long. 60°E, lat. 13.5°N/ Long. 65°E, lat. 13°N/ Long. 70°E, Cannur, Kodaikanal, Adirampattinam, lat. 12.0°N/ Long. 83.0°E, 16.0°N/88.0°E, 18.5°N/90.0°E, 22.0°N/93.0°E. ([Annexure II](#)).
- ❖ Conditions are favourable for further advance of Southwest monsoon into some more parts of central Arabian Sea, remaining parts of Kerala, some more parts of Tamil Nadu, some parts of Karnataka and some more parts of southwest, Central and northeast Bay of Bengal and some parts of northeastern states 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 5 kmph during past 6 hours and lay centered at **0830 hours** IST of today, the 08th June, 2023 over the same region near latitude 14.0°N and longitude 66.0°E, about 850 km west-southwest of Goa, 900 km southwest of Mumbai, 930 km south-southwest of Porbandar and 1220 km south of Karachi.

It would intensify further gradually during next 24 hours and move nearly north-northwestwards during next 3 days.

Fishermen Warning ([Annexure IV](#))

- Total suspension of fishing operations over
 - eastcentral and adjoining westcentral & south Arabian Sea till 12th June.
 - north and adjoining central Arabian Sea during 12th -14th June
- Fishermen are advised not to venture into:
 - Central Arabian Sea till 13th June.
 - Adjoining areas of north Arabian Sea during 12th -14th June.
- Those out at sea are advised to return to coast.

Other Significant Meteorological features

- ❖ A Western Disturbance lies over Uttarakhand at middle tropospheric levels.
- ❖ A cyclonic circulation lies over north Coastal Andhra Pradesh & neighbourhood at middle tropospheric levels.

Forecast and warning over the country during next 5 days:

South India:

- ❖ Light/moderate fairly widespread rainfall with thunderstorm/lightning/gusty winds very likely over Kerala, Lakshadweep, Coastal & South Interior Karnataka; isolated to scattered activity over North Interior Karnataka, Tamil Nadu and Andhra Pradesh during next 5 days.
- ❖ **Very Heavy rainfall** very likely at isolated places over Kerala on 08th; **Heavy rainfall** at isolated places over Andaman & Nicobar Islands during 08th-10th; Kerala during 08th-12th; Lakshadweep during 09th-11th; and Coastal & South Interior Karnataka during 10th-12th June.

Northeast India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm/lightning very likely over the region during next 5 days. **Very Heavy rainfall** very likely at isolated places over Manipur, Mizoram & Tripura on 09th and Assam & Meghalaya on 12th; Isolated **heavy rainfall** over Arunachal Pradesh and Assam & Meghalaya during 09th-12th; Manipur & Mizoram during 08th-12th 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 parts of Vidarbha, Chhattisgarh, East India, Andhra Pradesh and Telangana. **Maximum temperatures** are **above normal** by 3-5°C over parts of Northeast India, Bihar and West Bengal.
- ❖ Yesterday, **Heat Wave to Severe Heat Wave** conditions prevailed in some parts of Bihar; **Heat Wave conditions** in some parts of Gangetic West Bengal and in isolated pockets over Sub-Himalayan West Bengal & Sikkim. This was 08th day of **Heat Wave conditions** over the above areas. **Heat Wave conditions** also observed in isolated pockets over Coastal Andhra Pradesh and Telangana.
- ❖ **Rise in maximum temperatures** by 2°C very likely over plains of Northwest India (except Rajasthan) during next 3 days and no significant change thereafter.
- ❖ **Heat wave to severe heat wave conditions** very likely to continue in some pockets over Bihar during 08th to 11th June and heat wave in isolated pockets on 12th June.
- ❖ **Heat wave conditions** very likely to continue in isolated pockets over West Uttar Pradesh during 09th-11th; over East Uttar Pradesh during 08th-11th; over Jharkhand & Gangetic West Bengal 08th-11th; over Sub-Himalayan West Bengal & Sikkim and Odisha during 08th-10th June.

For more details kindly refer:

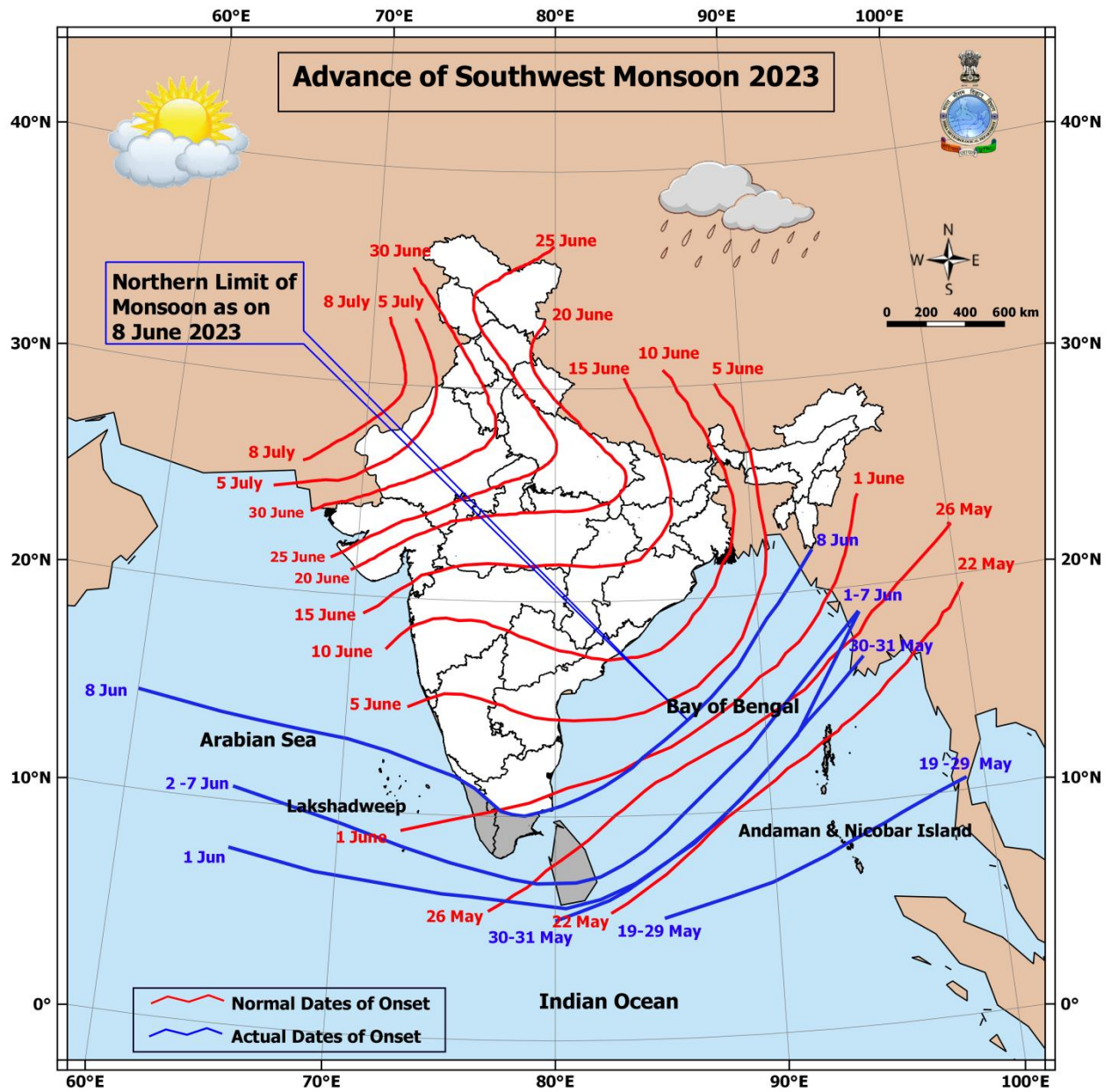
https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

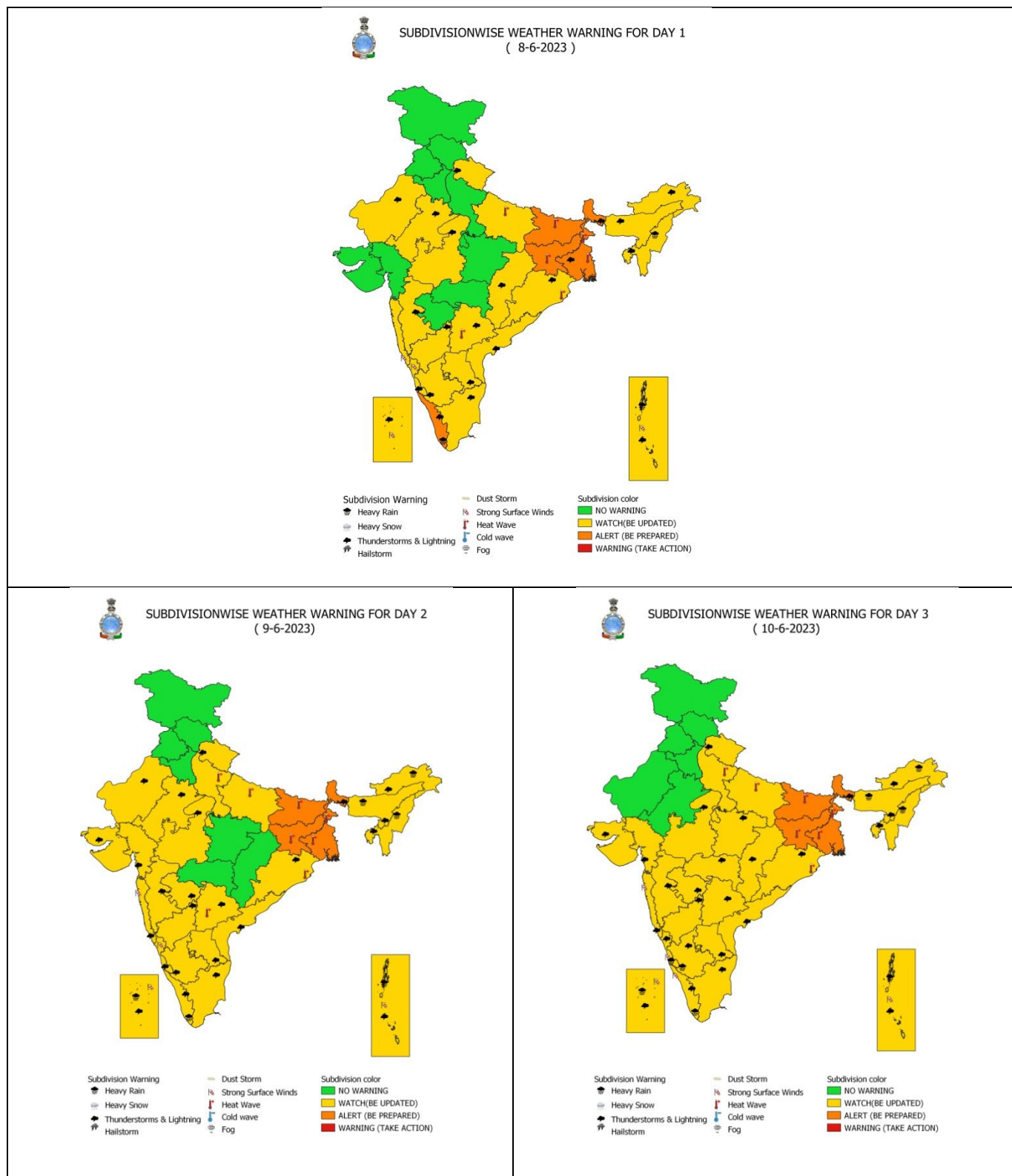
<https://mausam.imd.gov.in/responsive/districtWiseNowcast.php>

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

- **Rainfall/thundershowers** observed **at most places** over Andaman & Nicobar Islands, Kerala & Mahe; **at many places** over Coastal Karnataka; at a few places over Vidarbha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh & Yanam, Rayalaseema, Lakshadweep; **at isolated places** over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, West Uttar Pradesh, Rajasthan, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Arunachal Pradesh, Assam & Meghalaya, Gujarat State, Madhya Maharashtra, Marathwada, Konkan & Goa, Telangana, Interior Karnataka and Tamil Nadu, Puducherry & Karaikal.
- **Heavy to very heavy rainfall observed** at isolated places over Andaman & Nicobar Islands and **heavy rainfall observed** at isolated places over Rayalaseema and Kerala & Mahe.
- **Hailstorm observed** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and West Madhya Pradesh.
- **Significant rainfall recorded (in cm):** **Tamilnadu:** Rasipuram (dist Namakkal), Tozhudur (dist Cuddalore), Malaiyur (dist Pudukkottai), Kudimiyanmalai (dist Pudukkottai), Labbaikudikadu (dist Perambalur), Kurungulam (dist Thanjavur) 3 each, Yercaud (dist Salem), Chinnakalar (dist Coimbatore), Vilathikulam (dist Toothukudi), Alangudi (dist Pudukkottai), Pattukottai (dist Thanjavur) 2 each, Thuvakudi (dist Trichy), Lakkur (dist Cuddalore), Perungalur (dist Pudukkottai), Pudukottai (dist Pudukkottai), Mambzhathuraiyaru (dist Kanyakumari), Thanjavur (dist Thanjavur), Coonoor (dist Nilgiris), Adirampatnam (dist Thanjavur), Anaikedanku (dist Kanyakumari), V.Kalathur (dist Perambalur), Vettikadu (dist Thanjavur), Dindigul (dist Dindigul), Valparai PTO (dist Coimbatore), Balamore (dist Kanyakumari), Suralacode (dist Kanyakumari), Ammoor (walajah Railway) (dist Ranipet), Tirukattupalli (dist Thanjavur), Vamban KVK AWS (dist Pudukkottai), Barur (dist Krishnagiri), Thanjavur PTO (dist Thanjavur), Udayalipatti (dist Pudukkottai), TNAU Yethapur (dist Salem), Gandarvakottai (dist Pudukkottai), Omalur (dist Salem) 1 each. **Kerala & Lakshadweep Area:** Piravam & Koothattukulam AWS (both in Ernakulam district) 11 each, Chalakkudy & Enamakal (both in Thrissur district) 10 each, Aluva (Ernakulam district) & Irinjalakuda (Thrissur district) 9 each, Aluva AWS (Ernakulam district) 8, C.I.A.L. Kochi (Ernakulam district), Kozhikode, Kurudamannil (Pathanamthitta district) & Ponnani (Malappuram district) 7 each. Other chief amounts of rainfall reports in cm are: Punalur (Kollam district), Kunnamkulam & Kodungallur (both in Thrissur district), Quilandi (Kozhikode district), Kalamassery AWS (Ernakulam district), Thavanur AWS (Malappuram district) & Thodupuzha ARG (Idukki district) 6 each, Kottayam, Ernakulam South, Perumbavur (Ernakulam district), Enadimangalam AWS, Ranni AWS & Venkurinji AWS (all in Pathanamthitta district), Mattanchery AWS, Choondy AWS & Idamalayar Dam AWS (all in Ernakulam district) & Athirappalli AWS (Thrissur district) 5 each, Karipur AP (Malappuram district), Konni (Pathanamthitta district), Kayamkulam_agri & Cherthala (both in Alappuzha district), Kumarakom & Vaikom (both in Kottayam district), Thodupuzha (Idukki district), Angadipuram (Malappuram district), Vadakara (Kozhikode district) & Odakali AWS (Ernakulam district) 4 each, Vellanikkara (Thrissur district), NAS Kochi (Ernakulam district), Neyyattinkara (Thiruvananthapuram district), Kanjirappally (Kottayam district), Ottappalam, Thrithala & Mannarkkad (all in Palakkad district), Pirappancode AWS (Thiruvananthapuram district), Paripalli AWS & West Kallada AWS (both in Kollam district), Thycattussery AWS (Alapuzha district), Munakkal AWS & Kunnamkulam AWS (both in Thrissur district) 3 each, Thiruvananthapuram Airport, Kayamkulam & Mavelikkara (both in Alappuzha district), Myladumpara & Peerumedu (both in Idukki district), Pattambi (Palakkad district), Perinthalamanna (Malappuram district), Kudulu (Kasaragod district), Thattathumala AWS (Thiruvananthapuram district), Cherthala AWS (Alappuzha district), Ottapalam AWS (Palakkad district), Cheruvanchery AWS (Kannur district), Bayar AWS (Kasaragod district) & Palluruthy ARG (Ernakulam district) 2 each and Thiruvananthapuram, Palakkad, Varkala (Thiruvananthapuram district), Kollam, Mancompu (Alappuzha district), Irikkur (Kannur district), Mahe (Puducherry UT), Hosdurg (Kasaragod district), Vellayani AWS (Thiruvananthapuram district), Thiruvalla AWS (Pathanamthitta district), Malampuzha Dam AWS (Palakkad district), Urumi AWS (Kozhikode district), Madikkai AWS (Kasaragod district) & Anchal ARG (Kollam district) 1

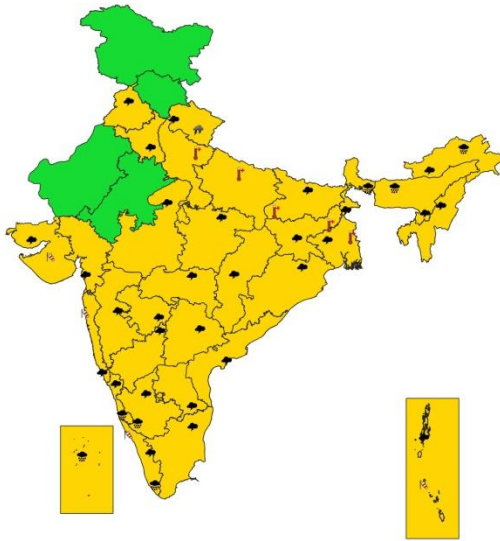
each; **Rayalaseema:** Dharmavaram (dist Sri Sathyasai District) 8, Bathalapalle (dist Sri Sathyasai District) 7, Tadimarri (dist Sri Sathyasai District) 5, Singanamala (dist Anantapuramu) 5, Anantpur (dist Anantapuramu) 3, Pamidi (dist Anantapuramu) 3, Raptadu (dist Anantapuramu) 3, Guntakal (dist Anantapuramu) 3, Gudur (dist Kurnool) 3; **Telangana:** Damaragidda (dist Narayanpet) 4, Khila Ghanpur (dist Wanaparthy) 4, Devarakonda (dist Nalgonda) 3; **Coastal Andhra Pradesh:** Srungavarapukota (dist Vizianagaram) 3; **N. I. Karnataka:** Kawadimatti Arg (dist Yadgir) 6, Sulepet (dist Kalaburgi) 3; **Andaman & Nicobar Islands:** Port Blair-14, Long Islands-7; **Nagaland, Manipur, Mizoram & Tripura:** Jharnapani _aws (dist Dimapur) 6, Jharnapani (dist Dimapur) 6, Kohima (dist Kohima) 6, **Odisha:** Kantapada (dist Cuttack) 5.







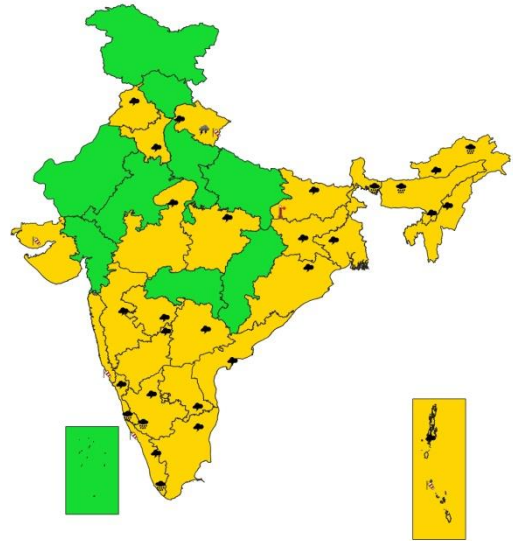
SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(11-6-2023)



- | | | |
|----------------------------|----------------------|--------------------------|
| 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) |

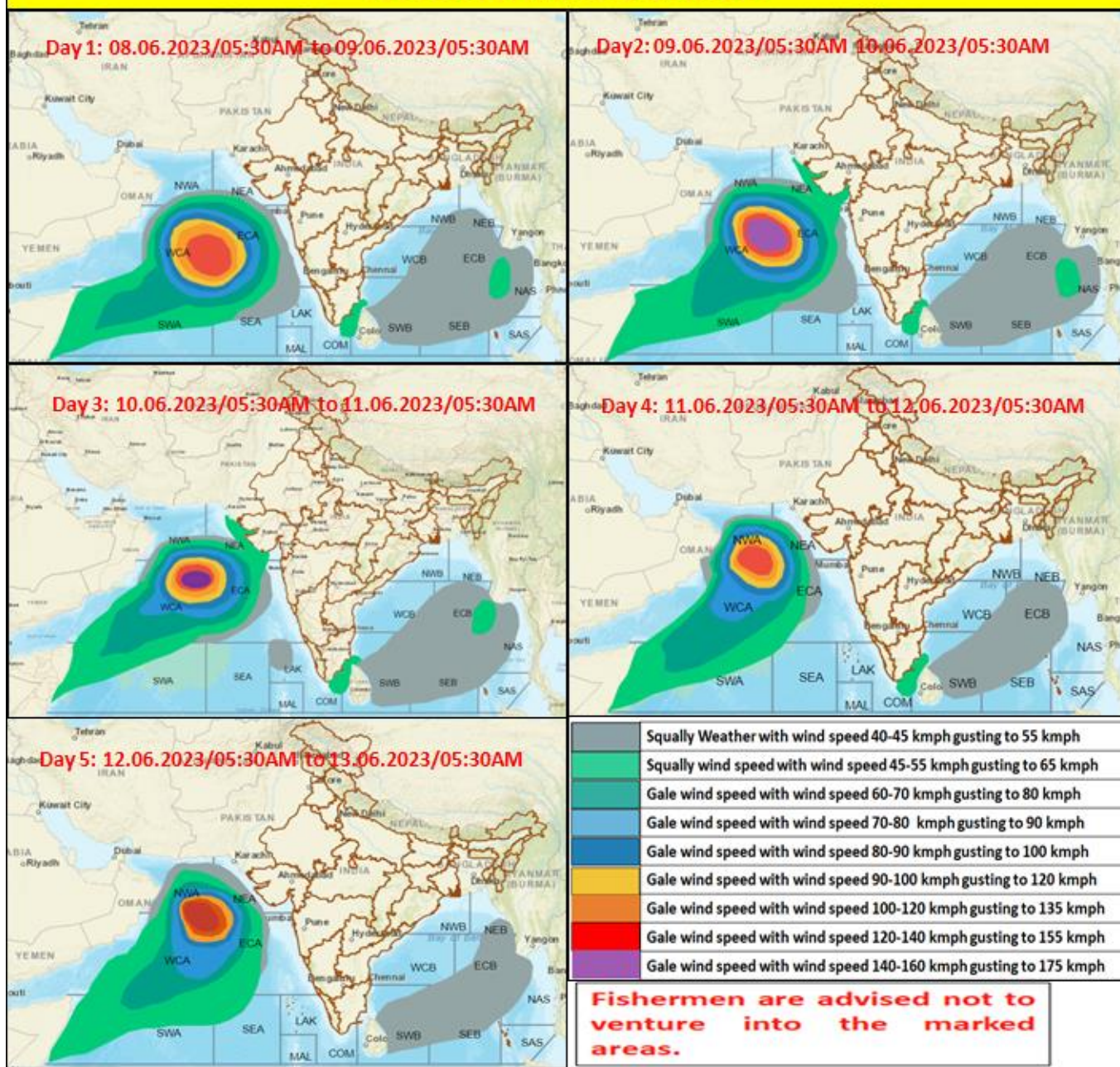


SUBDIVISIONWISE RAINFALL FORECAST FOR DAY 5
(12-6-2023)



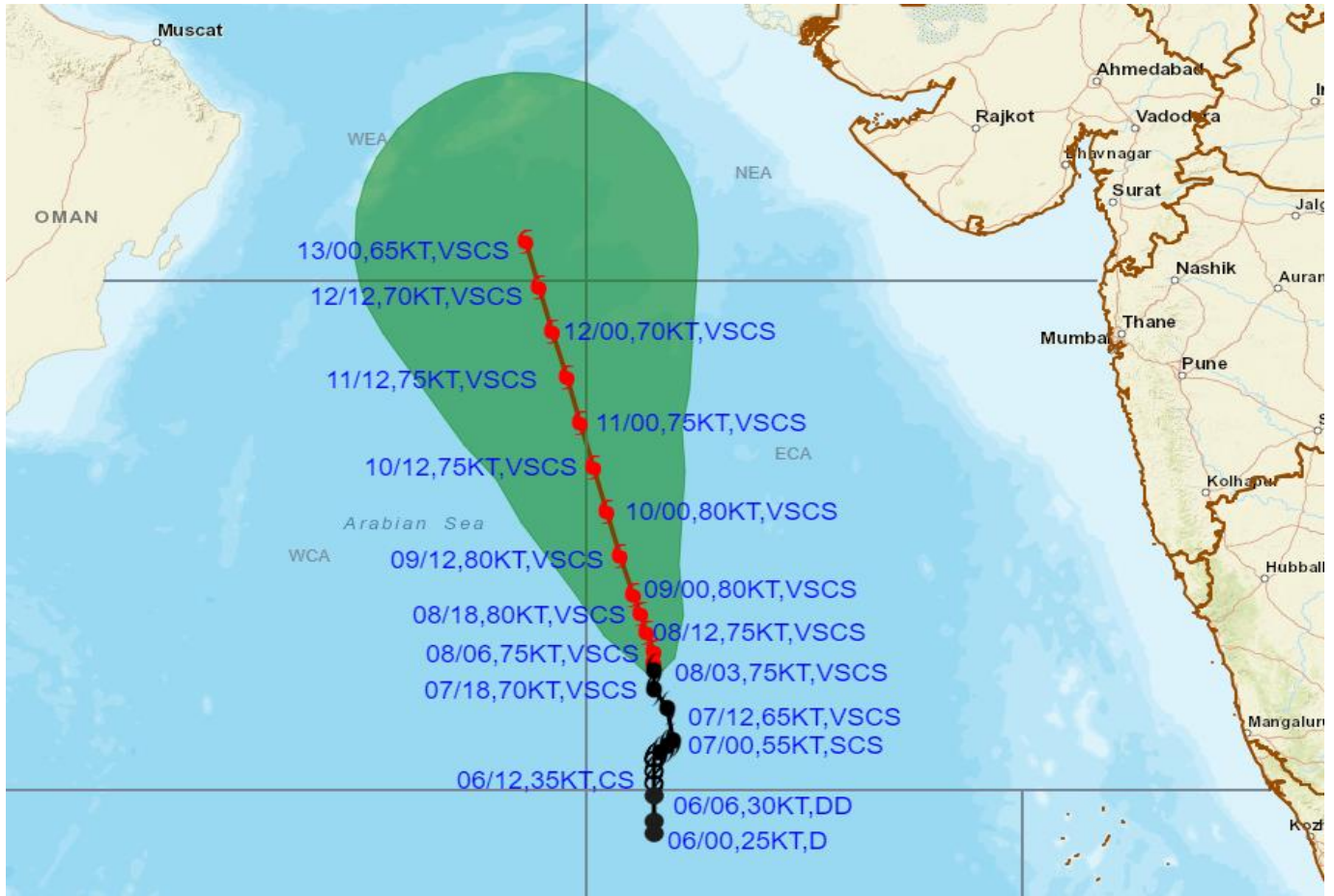
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|----------------------------|----------------------|--------------------------|
| Subdivision Warning | Dust Storm | Subdivision color |
| Heavy Rain | Strong Surface Winds | NO WARNING |
| Heavy Snow | Heat Wave | WATCH (BE UPDATED) |
| Thunderstorms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

Fishermen warning graphics





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 08TH JUNE 2023.



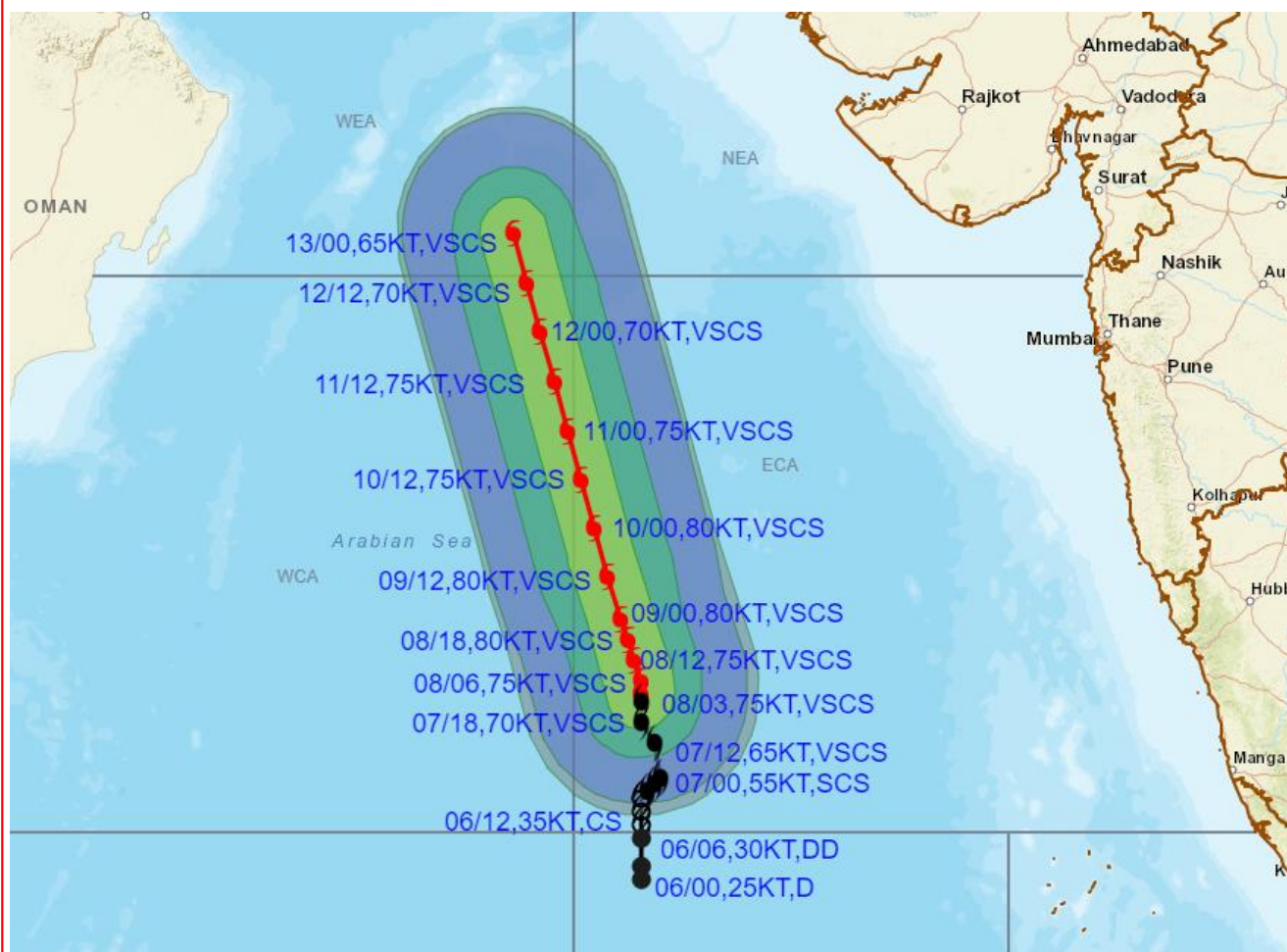
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	09.06.23/0300	10.06.23/0000	11.06.23/0000
PORBANDAR	840, SSW	740, SW	650, SW
BOMBAY / COLABA	860, WSW	850, WSW	840, W
GOA/PANJIM	880, W	920, W	980, WNW
KARACHI AIRPORT	1100, S	960, S	820, SSW
MASIRAH	940, SE	820, SE	700, ESE



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 08TH 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.

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)

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

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