



Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release

Date: 15th June, 2023

Time of Issue: 1315 hours IST

Subject: i) The Very severe cyclonic storm “Biparjoy” is very likely to cross Saurashtra & Kutch and adjoining Pakistan coasts between Mandvi (Gujarat) and Karachi (Pakistan) near Jakhau Port (Gujarat) by evening of 15th June with maximum sustained wind speed of 115-125 kmph gusting to 140 kmph.
ii) Heat wave to severe heat wave conditions likely to continue over East India during next 4 days and abate thereafter.
iii) Widespread rainfall activity with isolated heavy to very heavy falls likely to continue over northeast India and Sub-Himalayan West Bengal & Sikkim during next 5 days.

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

Advance of Southwest Monsoon (Annexure II)

- ❖ The Northern Limit of Monsoon (NLM) continues to pass through lat. 16.5°N/ Long. 55°E, lat. 17.0°N/ Long. 60°E, lat. 17°N/ Long. 65°E, lat. 17°N/ Long. 70°E, Ratnagiri, Koppal, Puttaparthi, Shriharikota, lat. 15.0°N/ Long. 83.0°E, 18.0°N/87.0°E, 22°N/89.0°E, Malda and Forbesganj, 28°N/86°E.
- ❖ Conditions are becoming favourable for further advance of Southwest Monsoon over some more parts of south Peninsular & East India and adjoining areas during 18th -21st June.

Very Severe Cyclonic Storm “Biparjoy” over Northeast Arabian Sea

The Very Severe Cyclonic Storm “Biparjoy” (pronounced as “Biparjoy”) over Northeast Arabian Sea moved north-northeastward with a speed of 7 kmph during past 6-hours and lay centered at 0830 hours IST of 15th June, 2023 over the same region near latitude 22.6°N and longitude 67.1°E, about 170 km west-southwest of Jakhau Port (Gujarat), 210 km west of Devbhumi Dwarka, 190 km west-southwest of Naliya, 290 km west-northwest of Porbandar, and 260 km south of Karachi (Pakistan).

It is very likely to move northeastwards and cross Saurashtra & Kutch and adjoining Pakistan coasts between Mandvi (Gujarat) and Karachi (Pakistan) near Jakhau Port (Gujarat) by evening of 15th June as a very severe cyclonic storm with maximum sustained wind speed of 115-125 kmph gusting to 140 kmph.

Heavy Rainfall warning:

- Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy falls at isolated places very likely over Kachchh, Devbhumi Dwarka & Jamnagar and heavy to very heavy rainfall at a few places over Porbandar, Rajkot, Morbi & Junagarh districts of Gujarat and Isolated heavy to very heavy rainfall is very likely over remaining districts of Saurashtra and north Gujarat region on 15th June.

- Light to moderate rainfall at most places with heavy to extremely heavy rainfall at isolated places very likely over north Gujarat and adjoining south Rajasthan on 16th and southeast Rajasthan & adjoining North Gujarat region on 17th June.

Wind warning along & off Saurashtra & Kutch coasts (Kachchh, Devbhumi Dwarka, Porbandar, Jamnagar, Rajkot, Junagarh and Morbi districts) including Gulf of Kutch:

- Gale wind speed reaching 70-80 kmph gusting to 90 kmph are prevailing along & off Porbandar & Devbhoomi Dwarka district coasts. It would gradually increase becoming gale wind speed reaching 115-125 kmph gusting to 135 kmph during 15th afternoon to night along & off Kachchh, Devbhumi Dwarka, Porbandar, Jamnagar, Rajkot, Junagarh and Morbi districts. Thereafter, it would decrease gradually becoming 70-80 kmph gusting to 90 kmph over Kachchh and adjoining districts of Saurashtra & Kutch by 16th early morning and squally wind speed reaching 45-55 kmph gusting to 65 kmph by 16th afternoon.
- Squally wind speed reaching 50-60 kmph gusting to 70 kmph very likely to prevail along & off remaining districts of Saurashtra coast on 15th June.

Storm Surge Warning (Kachchh, Devbhumi Dwarka, Porbandar, Jamnagar and Morbi districts)

Storm surge of about 2-3 m above the astronomical tide is likely to inundate the low lying areas of above districts during the time of landfall. The astronomical tides along these districts could be upto 3-6 meters in different places.

Damage expected over Kachchh, Devbhumi Dwarka, Porbandar, Jamnagar, Morbi & Junagarh & Rajkot districts of Gujarat on 15th June:

- Total destruction of thatched houses/ extensive damage to kutcha houses. Some damage to Pucca houses.
- Potential threat from flying objects.
- Bending/ uprooting of power and communication poles.
- Major damage to Kutch and Pucca roads. Flooding of escape routes. Disruption of railways, overhead power lines and signalling systems.
- Widespread damage to standing crops, plantations, orchards, falling of green coconuts and tearing of palm fronds. Blowing down of bushy trees like mango.
- Small boats, country crafts may get detached from moorings.
- Visibility severely affected due to salt spray.

Fishermen Warning & Action Suggested (Kutch, Devbhumi Dwarka, Porbandar, Jamnagar, Rajkot, Junagarh and Morbi districts) and for Offshore & Onshore Industries (Graphics Attached):

- Total suspension of fishing operations over northeast and adjoining eastcentral Arabian Sea till 15th June.
- Those out at sea are advised to return to coast.
- Judicious regulation of offshore and onshore activities.
- Ports along the west coast of India may take necessary precautions.
- Naval base operations may maintain necessary precautions.
- Movement in motor boats and small ships all & off these coasts to be avoided.
- Mobilise evacuation from coastal areas of Saurashtra and Kutch (Kachchh, Devbhumi Dwarka, Porbandar, Jamnagar, Rajkot, Junagarh and Morbi districts).
- Judicious regulation of rail and road traffic.
- People in affected areas to remain indoors.
- Tourism activities may be restricted over these areas.

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

Northeast India:

- ❖ Widespread light/moderate rainfall at most places with isolated **Heavy to Very Heavy falls** very likely over the region during next 5 days. Isolated **extremely heavy rainfall** also likely over Arunachal Pradesh on 15th & 16th and Assam & Meghalaya during 15th-17th June.

East India:

- ❖ Light/moderate fairly widespread to widespread rainfall with thunderstorm/lightning/gusty winds very likely Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands during next 5 days.
- ❖ **Heavy to very heavy rainfall** very likely at isolated places over Sub-Himalayan West Bengal & Sikkim during next 5 days.

Northwest India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm & lightning very likely in isolated places over Himachal Pradesh & Uttarakhand during next 5 days. **Thundersquall and hailstorm** very likely at isolated places over Uttarakhand on 18th & 19th June.
- ❖ Light to moderate rainfall at many places with **Heavy to very heavy rainfall with extremely heavy falls** very likely at isolated places over southwest Rajasthan on 16th & 17th June; southeast Rajasthan on 17th & 18th June.
- ❖ **Isolated Heavy to very heavy rainfall** also likely over southwest Rajasthan on 18th and **heavy rainfall** over southeast Rajasthan on 16th & 19th June.

No significant weather 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 42-44°C over parts of East Uttar Pradesh, Bihar, Odisha and 40-42°C over parts of East Madhya Pradesh, Vidarbha, Chhattisgarh and Coastal Andhra Pradesh & Yanam.
- ❖ Yesterday, **Heat Wave to Severe Heat Wave conditions** prevailed over some parts of north Coastal Andhra Pradesh, Bihar, Odisha and in isolated parts of Telangana and Chhattisgarh. **Heat Wave conditions** also observed over some parts of Jharkhand and Gangetic West Bengal.
- ❖ No significant change in maximum temperatures very likely over most parts of the country during next 5 days except over Gujarat state, where temperatures are likely to fall by 4-6°C during next 5 days and by 2-4°C over Northwest India (except Uttar Pradesh) on 16th to 18th June.
- ❖ **Heat Wave conditions** very likely to continue in isolated pockets over Odisha, Jharkhand, Chhattisgarh during next 5 days; Gangetic West Bengal, Bihar during next 4 days, Coastal Andhra Pradesh & Yanam, Telangana during next 3 days; southeast Uttar Pradesh, East Madhya Pradesh, during next 2 days.
- ❖ **Warm night conditions** likely to prevail in isolated pockets over East Uttar Pradesh, East Madhya Pradesh on 15th & 16th June.
- ❖ Hot and humid conditions very likely over Tamil Nadu and Rayalaseema during next 2 days.

For more details kindly refer:

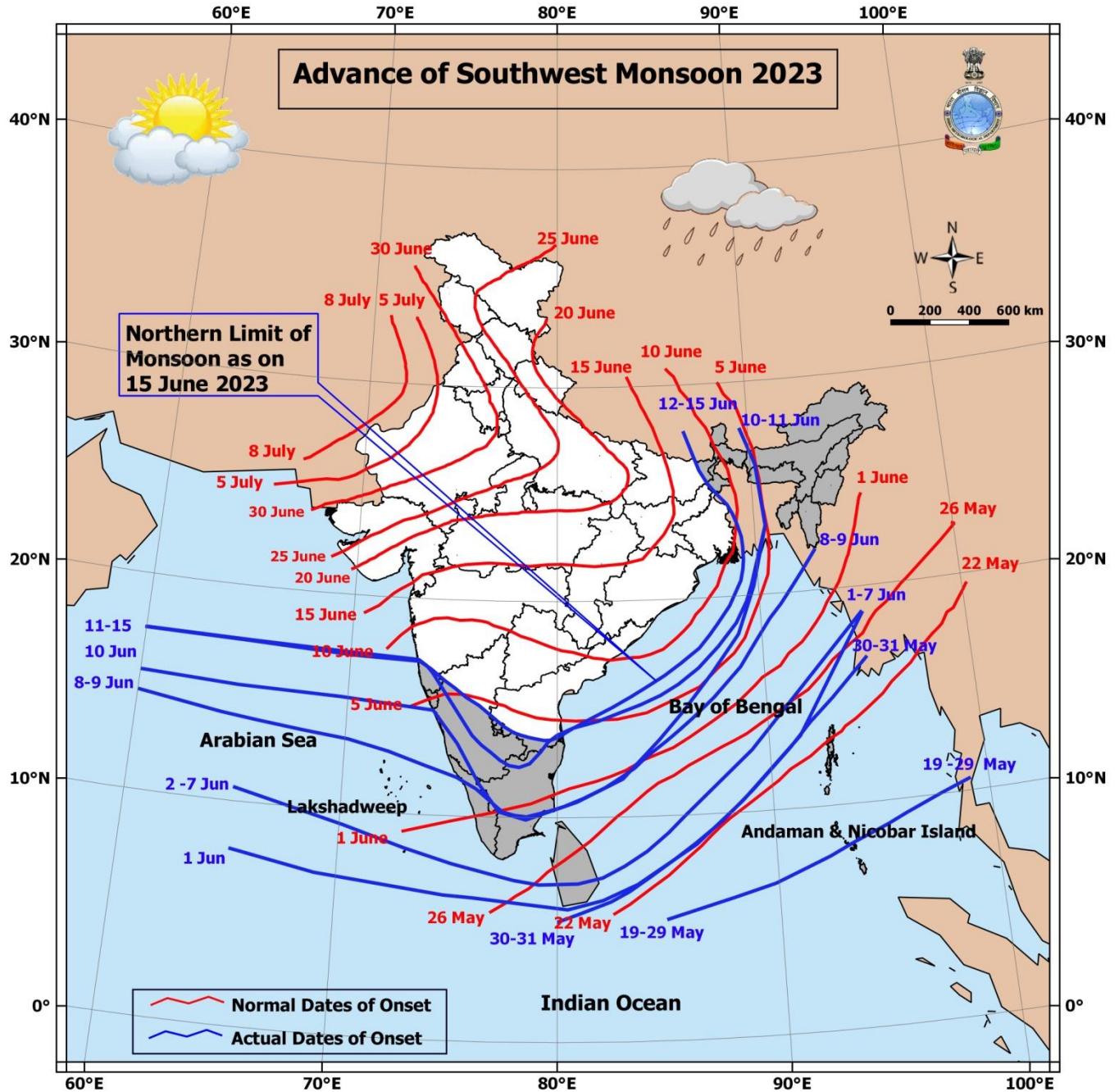
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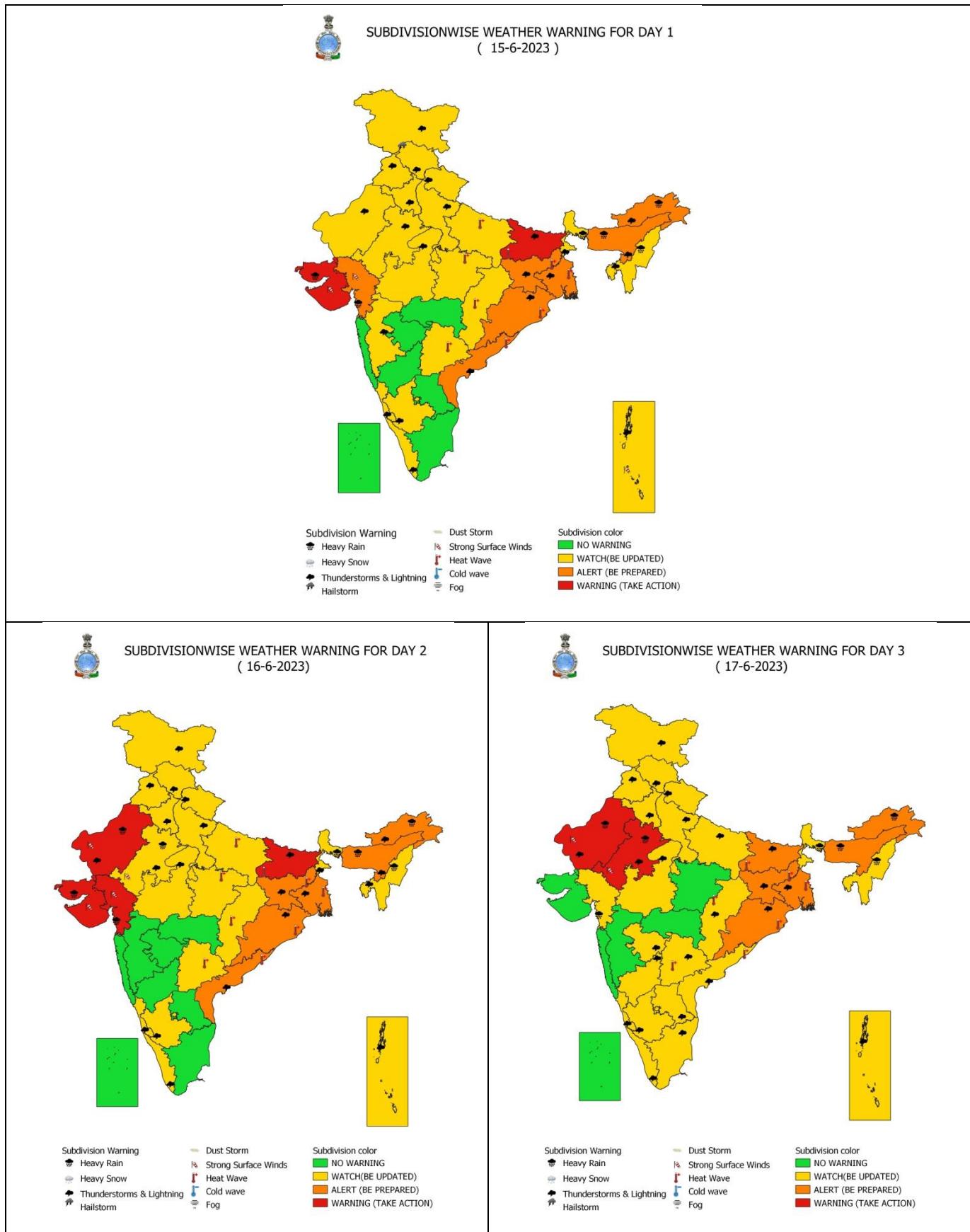
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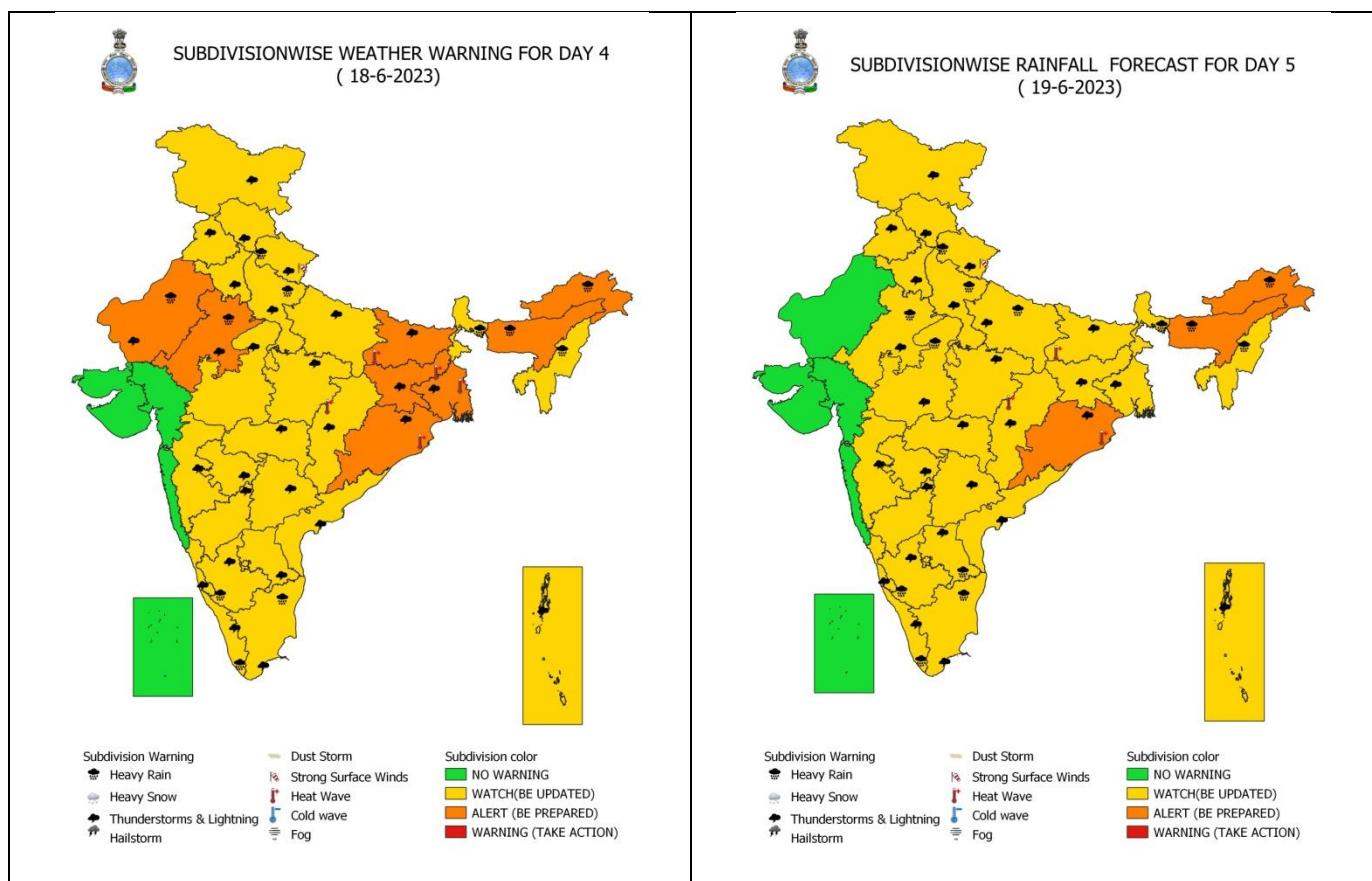
Weather Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- ❖ **Rainfall/thundershowers observed:** at most places over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Konkan & Goa; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Kerala & Mahe and at a few places over Gujarat Region, Gangetic West Bengal, Vidarbha, Lakshadweep and North Interior Karnataka.
- ❖ **Heavy rainfall observed:** Extremely heavy rainfall at isolated places over Meghalaya; Very Heavy rainfall at isolated places over Arunachal Pradesh, Tripura, Sub-Himalayan West Bengal & Sikkim, Assam; Heavy rainfall at isolated places over Punjab.
- ❖ **Significant rainfall recorded (in cm):** **Arunachal Pradesh:** Tuting (dist Upper Siang) 12, Bhalukpong (dist West Kameng) 6, **Assam & Meghalaya:** Shella (dist East Khasi Hills) 21, Mawsynram (dist East Khasi Hills) 20, Cherrapunji (dist East Khasi Hills) 19, Cherrapunji(rkm) (dist East Khasi Hills) 17, Mawkyrwat (dist South West Khasi Hills) 16, Karimganj_aws (dist Karimganj) 15, Mizoram & Tripura: 06/15/2023: Kanchanpur (dist North Tripura) 10, Lengpui (dist Aizawl) 7, Chottabekra (dist Imphal West) 6, **Sub-Himalayan West Bengal & Sikkim:** Jalpaiguri-15, Cooch Behar-13, North Sikkim-9; **Saurashtra & Kutch:** Visavadar (dist Junagadh) 5, Bhuj (dist Kutch) 4, Dhrol (dist Jamnagar) 4, **Uttarakhand:** Chamoli, Pithoragarh-3 each; **Punjab:** Amritsar Aws (dist Amritsar) 13, Amritsar (dist Amritsar) 11, Amritsar Rev (dist Amritsar) 9, Jandiala Irr (dist Amritsar) 8, Ajanala Arg (dist Amritsar) 7.

Annexure II

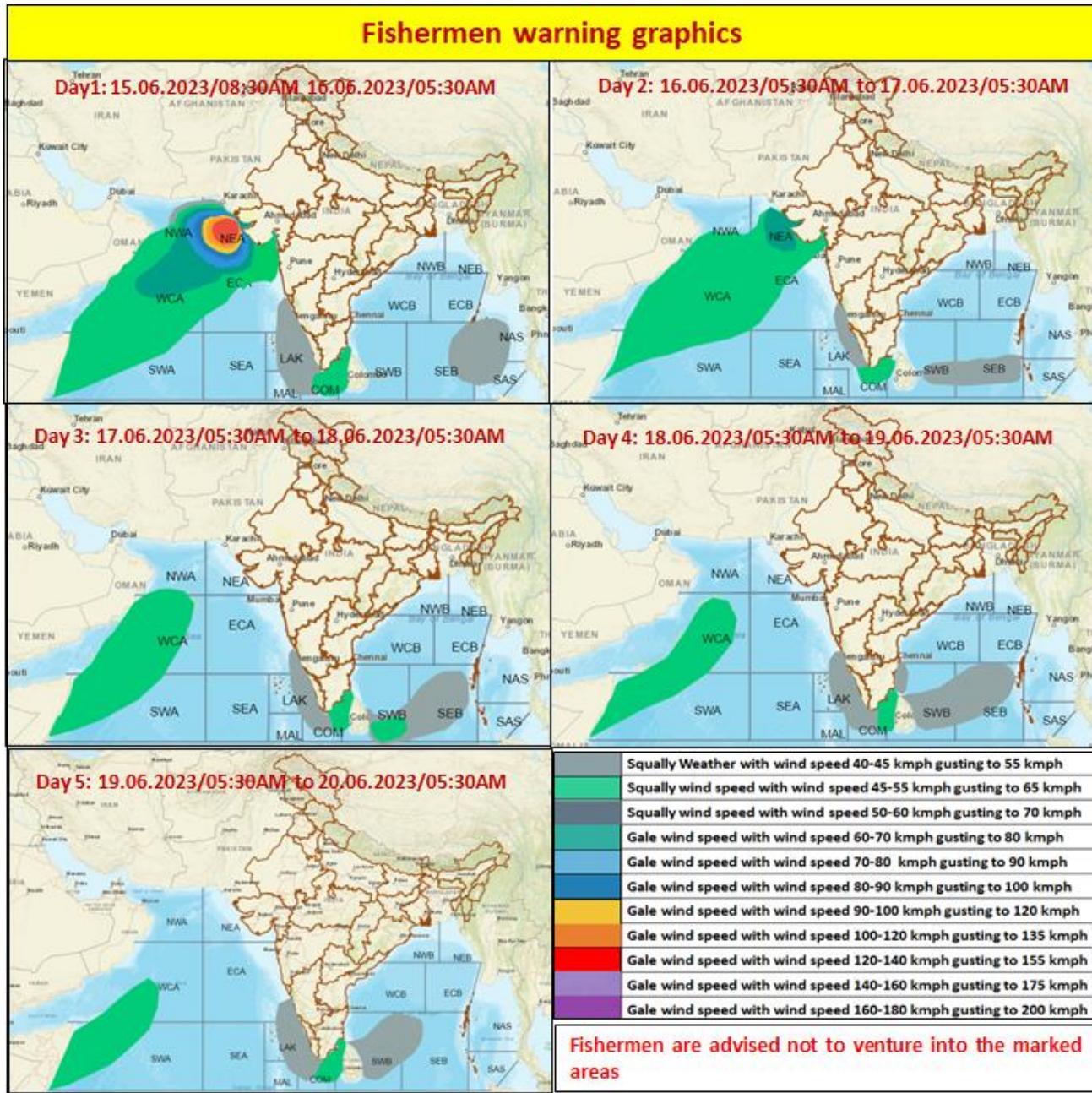






Agromet advisories for Gujarat and Rajasthan in view of Cyclonic storm “Biparjoy”

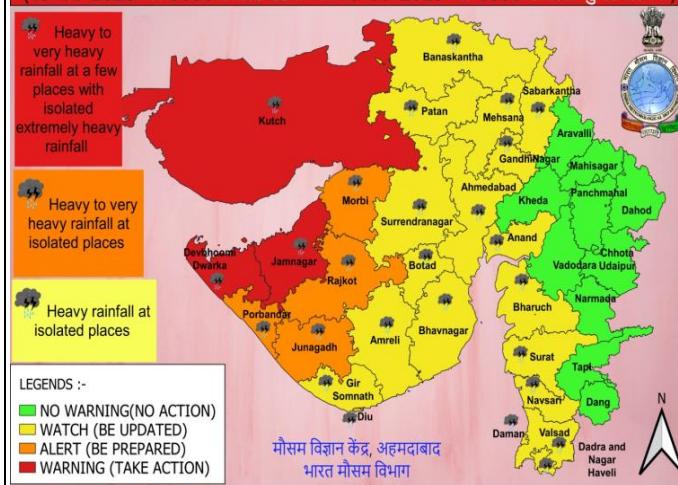
- Harvest matured vegetables and fruits such as mango, banana immediately and store them in safer places.
- Shift to safer places the harvested produce of crops like castor, groundnut, pearl millet and green gram in Gujarat and summer pearl millet in Rajasthan.
- Make arrangements for adequate drainage to avoid water logging in crop fields.
- Postpone sowing of cotton, groundnut and pigeon pea in Gujarat and cotton and groundnut in Rajasthan.
- Provide mechanical support to young fruit plants and staking in vegetables to avoid lodging.
- Keep the livestock indoors during the rainfall period.
- Provide a net around the fish pond to avoid escape of fish / spawn.



District-wise Heavy Rainfall Warning Maps for 15th to 17th June

દિવસ -2 ગુજરાત રાજ્ય માટે ભારે વરસાદની ચેતવણી

(15-06-2023 ના 0830 કલાક IST થી 16-06-2023 ના 0830 કલાક સુધી માન્ય)



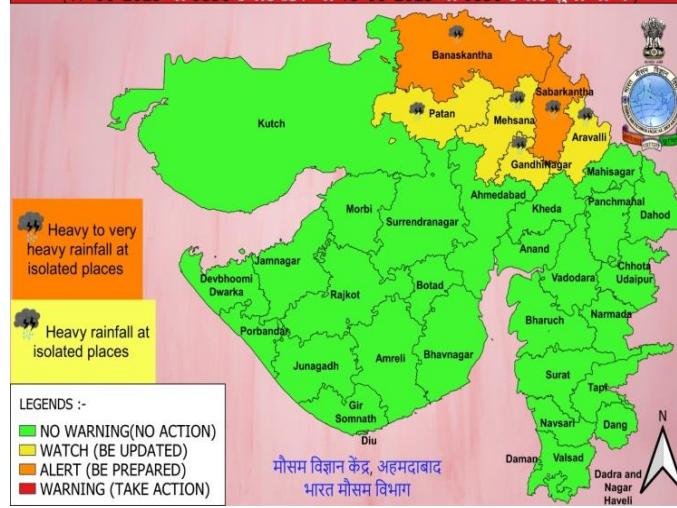
દિવસ - 3 ગુજરાત રાજ્ય માટે ભારે વરસાદની ચેતવણી

(16-06-2023 ના 0830 કલાક IST થી 17-06-2023 ના 0830 કલાક સુધી માન્ય)

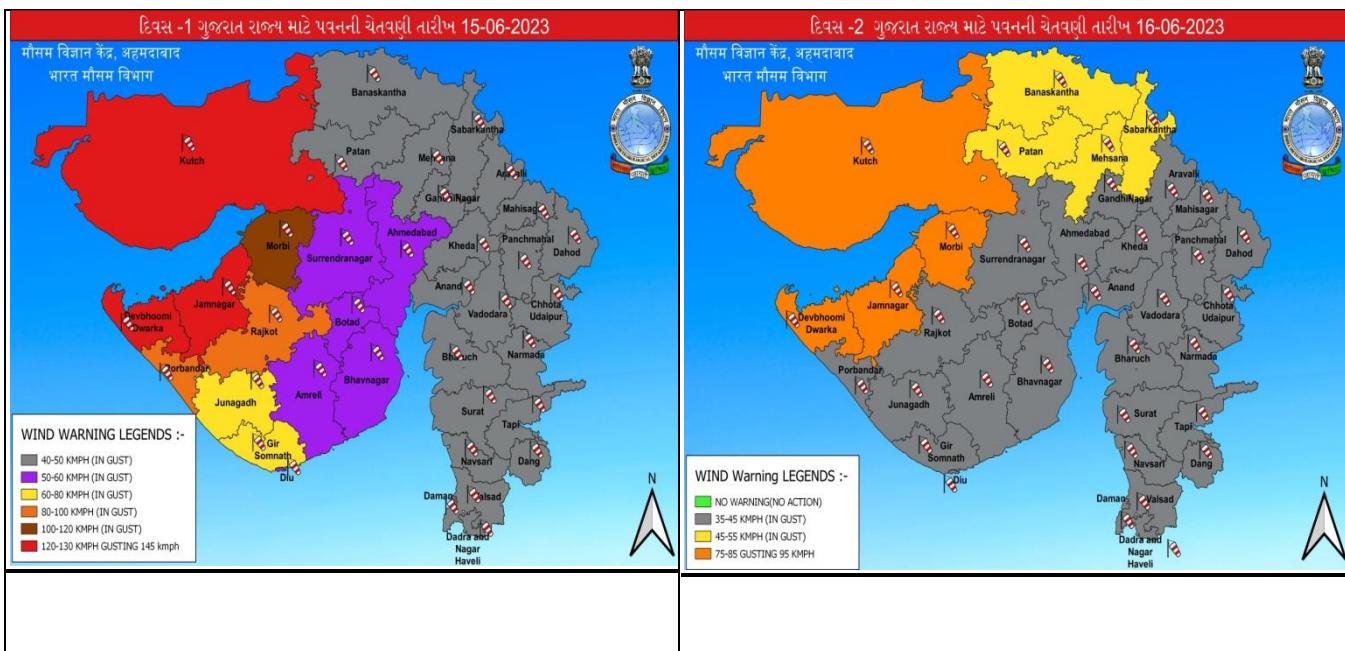


દિવસ -4 ગુજરાત રાજ્ય માટે ભારે વરસાદની ચેતવણી

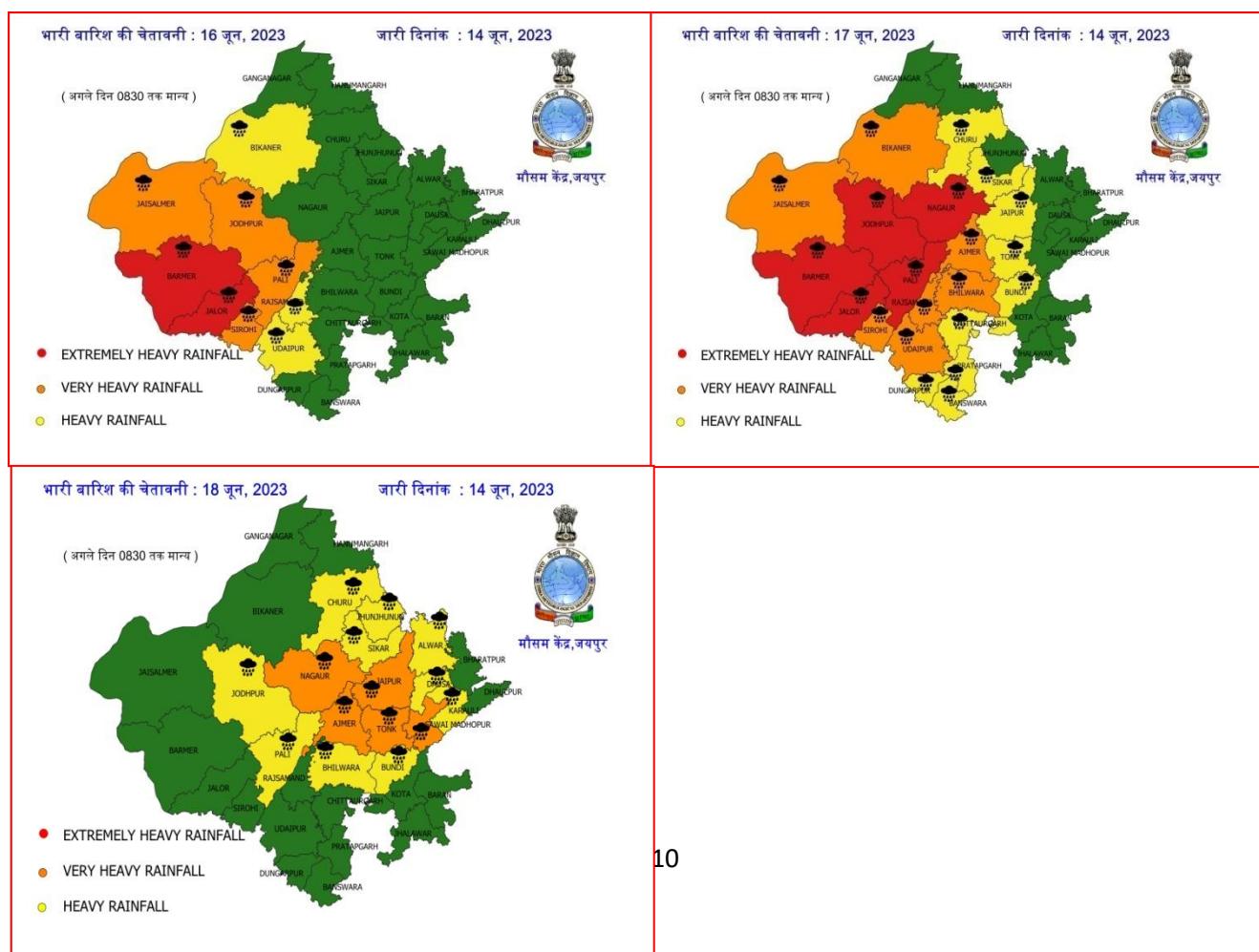
(17-06-2023 ના 0830 કલાક IST થી 18-06-2023 ના 0830 કલાક સુધી માન્ય)



District-wise Wind Warning Maps for 15th to 16th June



District-wise Heavy Rainfall Warning Maps for 16th, 17th and 18th June for Rajasthan



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 Widespred (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) |

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