



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

**Press Release
Date: 17th June, 2023
Time of Issue: 1400 hours IST**

**Subject: i) Deep Depression (Remnant of Cyclonic Storm ‘Biparjoy’) persists over Southwest Rajasthan, adjoining Gujarat and Southeast Pakistan.
ii) Heat wave to severe heat wave conditions likely to continue over East, east central and east peninsular India during next 3-4 days and gradual abatement thereafter.
iii) Heavy to very heavy falls very 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 19th -22nd June.

Deep Depression (Remnant of Cyclonic Storm ‘Biparjoy’) over Southwest Rajasthan adjoining Gujarat and Southeast Pakistan

Yesterday’s Cyclonic Storm “Biparjoy” (pronounced as “Biporjoy”) over Saurashtra & Kutch weakened into a **Deep Depression** at 2330 hours IST of 16th June over Southeast Pakistan and adjoining southwest Rajasthan & Kutch. It moved northeastwards with a speed of 10 kmph during past 6-hours and lay centered at 0830 hours IST of today, the 17th June, 2023 over southwest Rajasthan and adjoining Gujarat & southeast Pakistan near latitude 25.0°N and longitude 71.5°E, about 80 km south of Barmer and 210 km southwest of Jodhpur.

It is very likely to move nearly east-northeastwards and weaken into a **Depression** during next 6 hours. Thereafter, it is very likely to continue to move east-northeastwards and maintain the intensity of Depression during subsequent 12 hours.

Warnings:

(i) Heavy Rainfall warning:

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

(ii) Wind warning:

Wind Warning for South Rajasthan and adjoining north Gujarat

- Squally wind speed reaching 45-55 kmph gusting to 65 kmph during next 12 hours and decrease thereafter becoming 35-45 kmph gusting to 55 kmph.

(iii) Damage expected over Kachchh and North Saurashtra districts during next 06 hours:

- Minor damage to loose / unsecured structures.
- Some breaches in Kutcha road due to flooding.
- Minor damage to Banana trees and near coastal agriculture due to salt spray. Damage to ripe paddy crops.
- Minor damage to Kutcha embankments.

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

Northeast & adjoining East India:

- ❖ Light/moderate rainfall at most places with isolated **Heavy to Very Heavy falls** very likely over Northeast India and Sub-Himalayan West Bengal & Sikkim during next 5 days. Isolated **extremely heavy rainfall** also likely over Meghalaya during 17th-19th June.
- ❖ Light isolated to scattered rainfall with thunderstorm & lightning very likely over Gangetic West Bengal, Bihar, Jharkhand, Odisha during next 3 days and fairly widespread rainfall thereafter.

Northwest & adjoining Central India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm & lightning very likely in isolated places over Himachal Pradesh & Uttarakhand during next 4 days and isolated to scattered rainfall over plains of Northwest India during next 3 days.
- ❖ **Thundersquall (60-70 kmph) and hailstorm** very likely at isolated places over Uttarakhand on 18th & 19th June.
- ❖ **Isolated Heavy to very heavy rainfall** also likely over southwest Rajasthan on 17 & 18th; southeast Rajasthan during 17th-19th; northwest Madhya Pradesh during 19th-21st June.
- ❖ **Isolated extremely heavy falls** also likely at isolated places over south Rajasthan today on 17th June.

South India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm & lightning very likely over the region during next 5 days. **Isolated Heavy rainfall** also likely over Tamilnadu during 17th-19th; Kerala during 18th-21st; South Interior Karnataka during 19th-21st 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 Coastal Andhra Pradesh & Yanam, Gangetic West Bengal, Bihar, Odisha, Chhattisgarh and 40-42°C over parts of East Uttar Pradesh, East Madhya Pradesh, Telangana and Jharkhand.
- ❖ Yesterday, **Heat Wave to Severe Heat Wave conditions** prevailed over many parts of Odisha, Gangetic West Bengal, Coastal Andhra Pradesh & Yanam, Telangana, East Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand and Bihar. **Heat Wave conditions** prevailed some parts of East Uttar Pradesh.

- ❖ No significant change in maximum temperatures very likely over Central, East & south India during next 3 days and fall by 2-4°C thereafter. No significant change in maximum temperatures very likely over many parts of Northwest India and some parts of West India during next 3 days and gradual rise by 2-4°C thereafter.
- ❖ **Heat Wave/Severe heat wave conditions** very likely to continue in some/many pockets over
 - Vidarbha, Chhattisgarh during next 5 days;
 - Odisha, Jharkhand during next 4 days;
 - Coastal Andhra Pradesh & Yanam, Bihar, Gangetic West Bengal during next 3 days;
 - Telangana, East Uttar Pradesh during next 2 days and gradual abatement of heat wave conditions from above regions thereafter.
- ❖ **Warm night conditions** likely to prevail in isolated pockets over East Madhya Pradesh, Vidarbha, Chhattisgarh on 17th & 18th June.

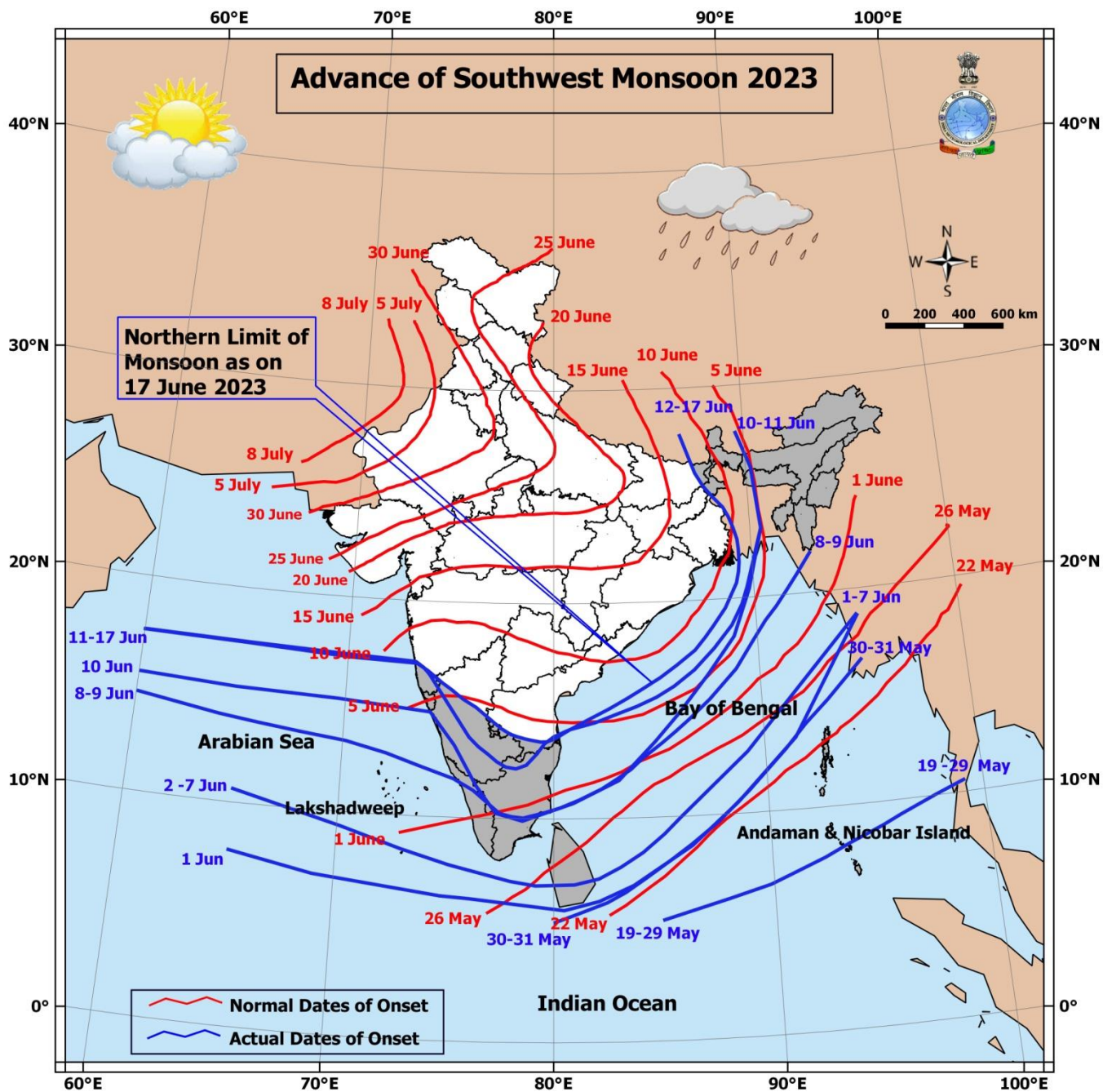
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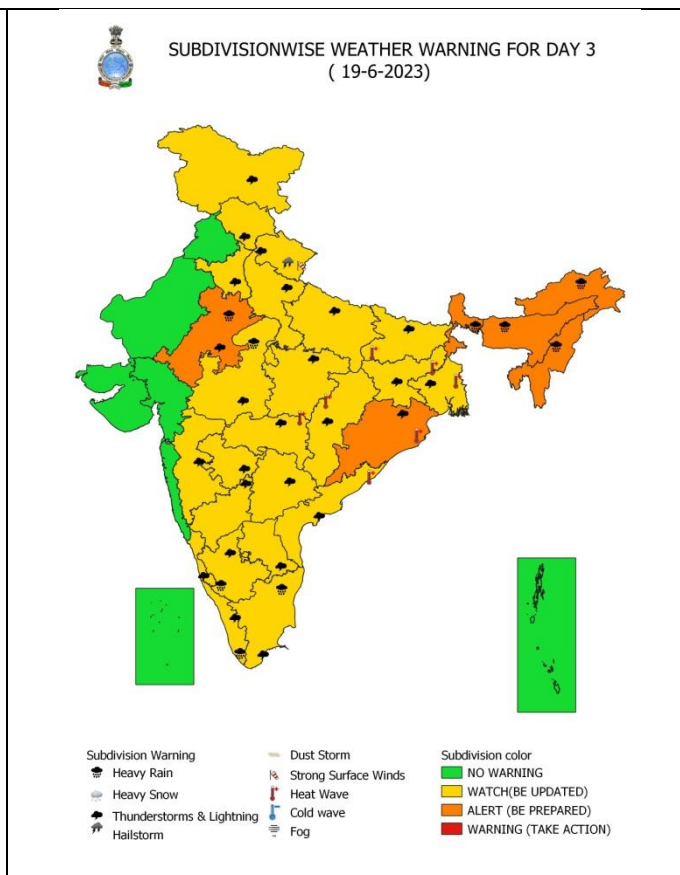
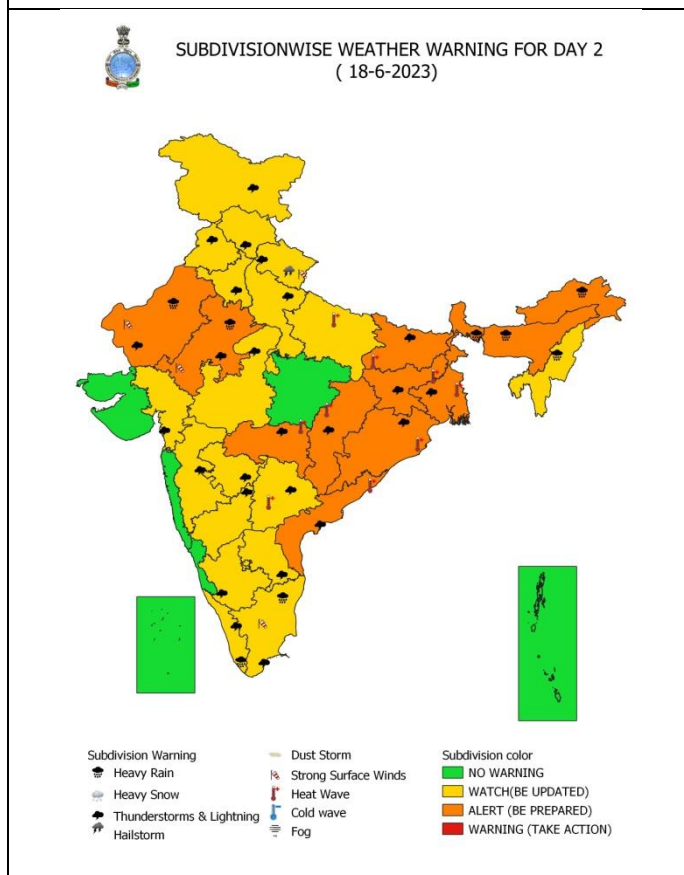
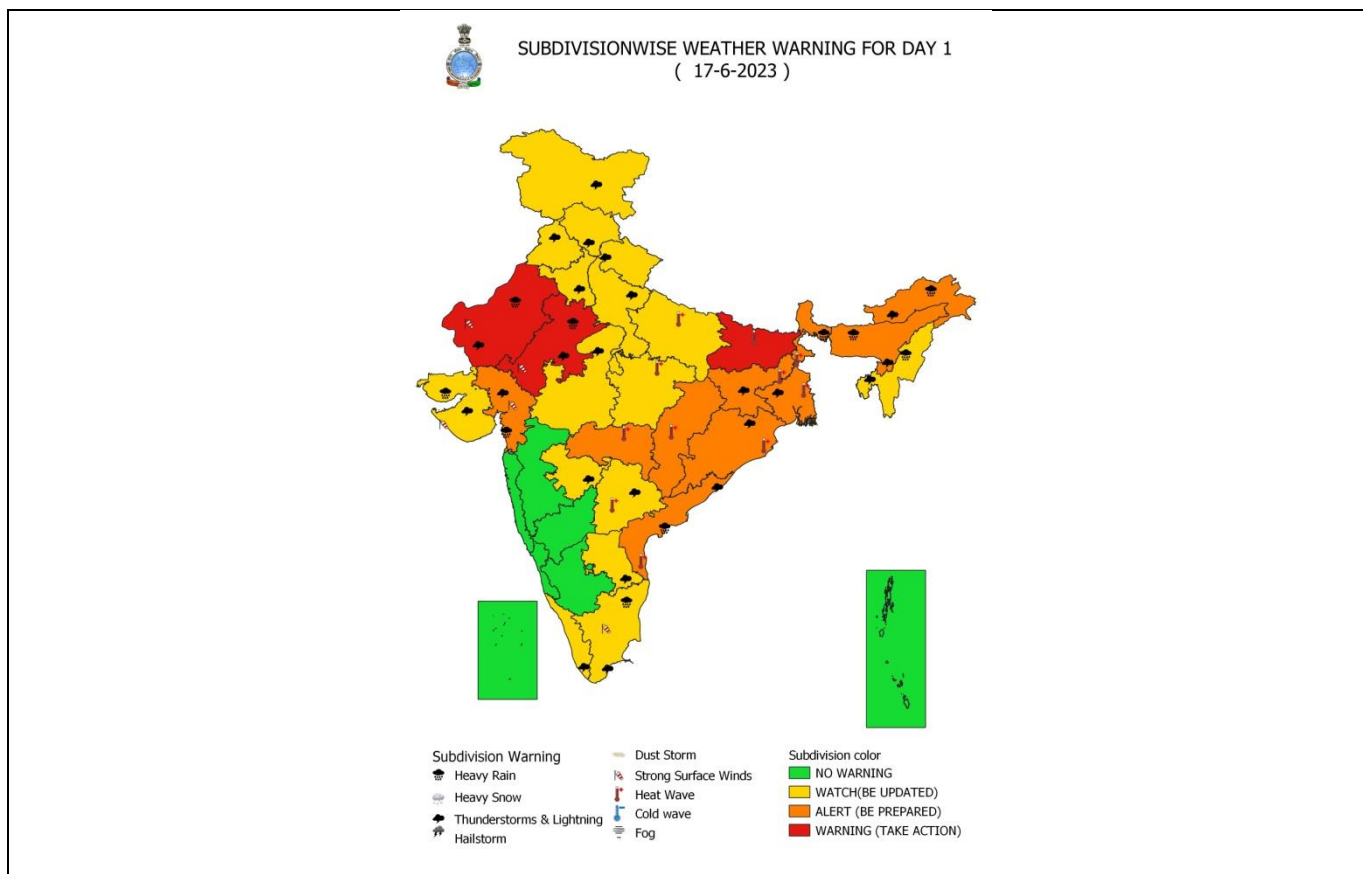
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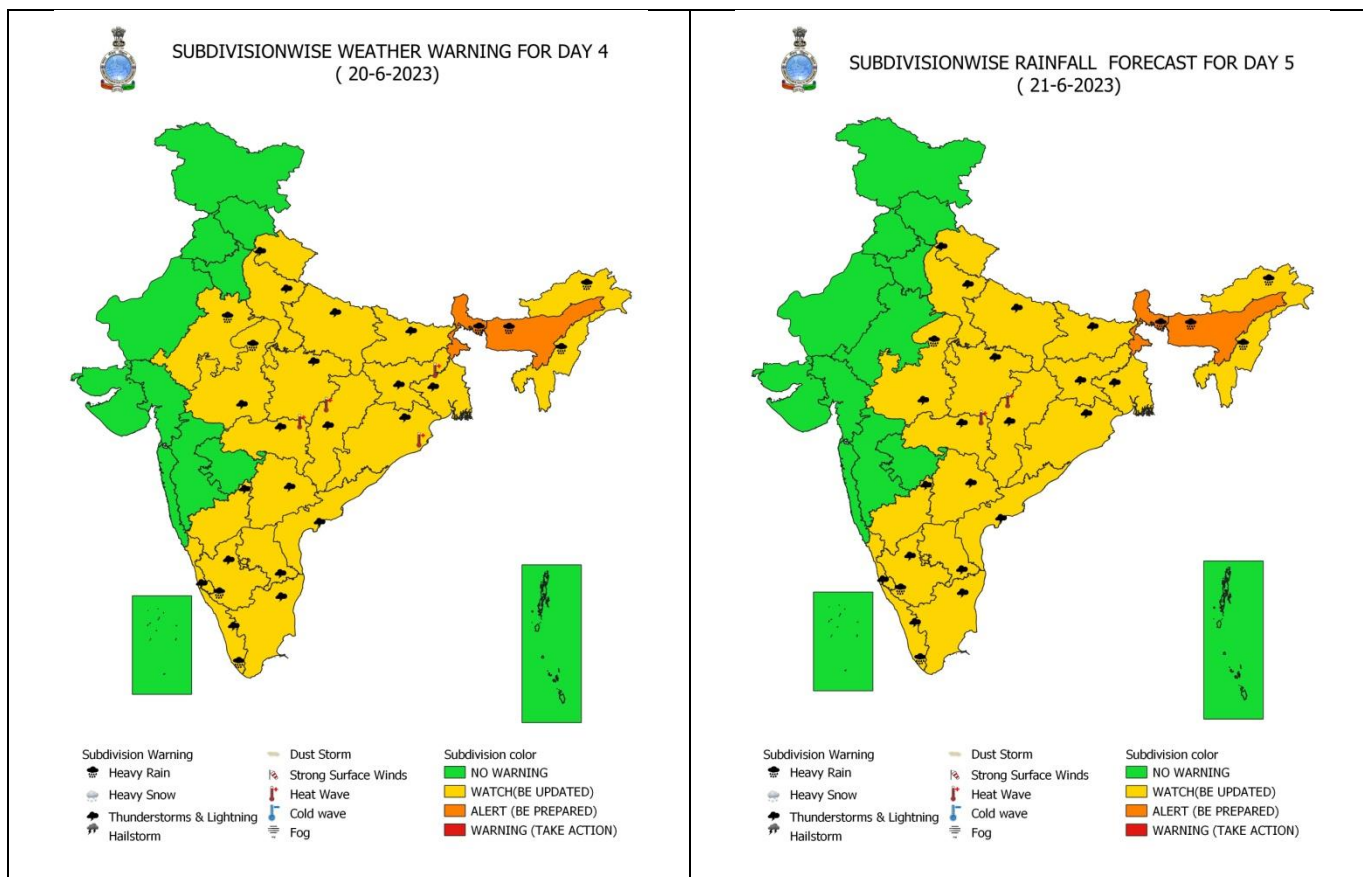
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Weather Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- ❖ **Rainfall/thundershowers observed:** at most places over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Konkan & Goa; at many places over Andaman & Nicobar Islands, Gujarat Region, East Rajasthan; Kerala & Mahe, Coastal Karnataka and at a few places over West Rajasthan and Gangetic West Bengal.
- ❖ **Rainfall observed:** Extremely heavy rainfall at isolated places over Saurashtra & Kutch, southeast Rajasthan, Meghalaya; Very heavy rainfall at isolated places over southwest Rajasthan, Assam, Arunachal Pradesh, Mizoram, Tripura, Sub-Himalayan West Bengal & Sikkim,; Heavy rainfall at isolated places over Gujarat region and Kerala.
- ❖ **Significant rainfall recorded (in cm):** **Arunachal Pradesh:** Itanagar (dist Papumpara) 7, **Assam & Meghalaya:** Nongstein (dist West Khasi Hills) 21, Cherrapunji (dist East Khasi Hills) 16, Cherrapunji(rkm) (dist East Khasi Hills) 14, B P Ghat (dist Karimganj) 12, Karimganj_aws (dist Karimganj) 12, Karimganj (dist Karimganj) 11,, **Mizoram & Tripura:** Kamalpur (dist Dhalai) 16, Sabroom (dist South Tripura) 8, Kanchanpur (dist North Tripura) 6, **Sub-Himalayan West Bengal & Sikkim:** Jalpaiguri-17, north Sikkim-10; **Saurashtra & Kutch:** Okha (dist Devbhoomi Dwarka) 23, Anjar (dist Kutch) 22, Mandvi(k) (dist Kutch) 22, Bhachau (dist Kutch) 21, Mundra (dist Kutch) 19, Rapar (dist Kutch) 19, Nakhatrana (dist Kutch) 17, Kandla New (dist Kutch) 17, Jamnagar (dist Jamnagar) 16, Gandhidham (dist Kutch) 15, Khambhalia (dist Devbhoomi Dwarka) 13, Bhuj (dist Kutch) 13, Kandla Airport (dist Kutch) 12, **Gujarat Region:** Vadgam (dist Banaskantha) 11, Dhanera (dist Banaskantha) 11, Dantiwada (dist Banaskantha) 10, Deodar (dist Banaskantha) 9, Radhanpur (dist Patan) 9, Vadali (dist Sabarkantha) 9, Harij (dist Patan) 9, **Rajasthan:** Mounntabu (dist Sirohi) 21, Reodar Sr (dist Sirohi) 7, Pindwara (dist Sirohi) 6, Sedwa Sr (dist Barmer) 14, Raniwada Sr (dist Jalore) 11, Sanchore (dist Jalore) 6, **Kerala:** Khozikode-7; **Goa:** Margao (dist South Goa) 5,







IMPACT & ACTION SUGGESTED due to Heat Wave Conditions:

❖ Yellow alert Areas:

- Moderate temperature, Heat is tolerable for general public but moderate health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Avoid heat exposure, Wear lightweight, light colour, loose, cotton clothes, Cover your head, use a cloth, hat or umbrella.

❖ Orange alert Areas:

- High temperature, Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work. High health concern for vulnerable people e.g. infants, elderly, people with chronic diseases.
- Drink sufficient water- even if not thirsty, Use ORS, homemade drinks like lassi, torani (rice water), lemon water, buttermilk, etc. to keep yourself hydrated.

Agromet advisories for Gujarat and Rajasthan:

- Drain out excess water from standing crops and vegetables
- 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.

IMPACT & ACTION SUGGESTED due to very heavy/extremely heavy rainfall over south Rajasthan on 17th; Meghalaya and Sub-Himalayan West Bengal & Sikkim during 17th-19th June.

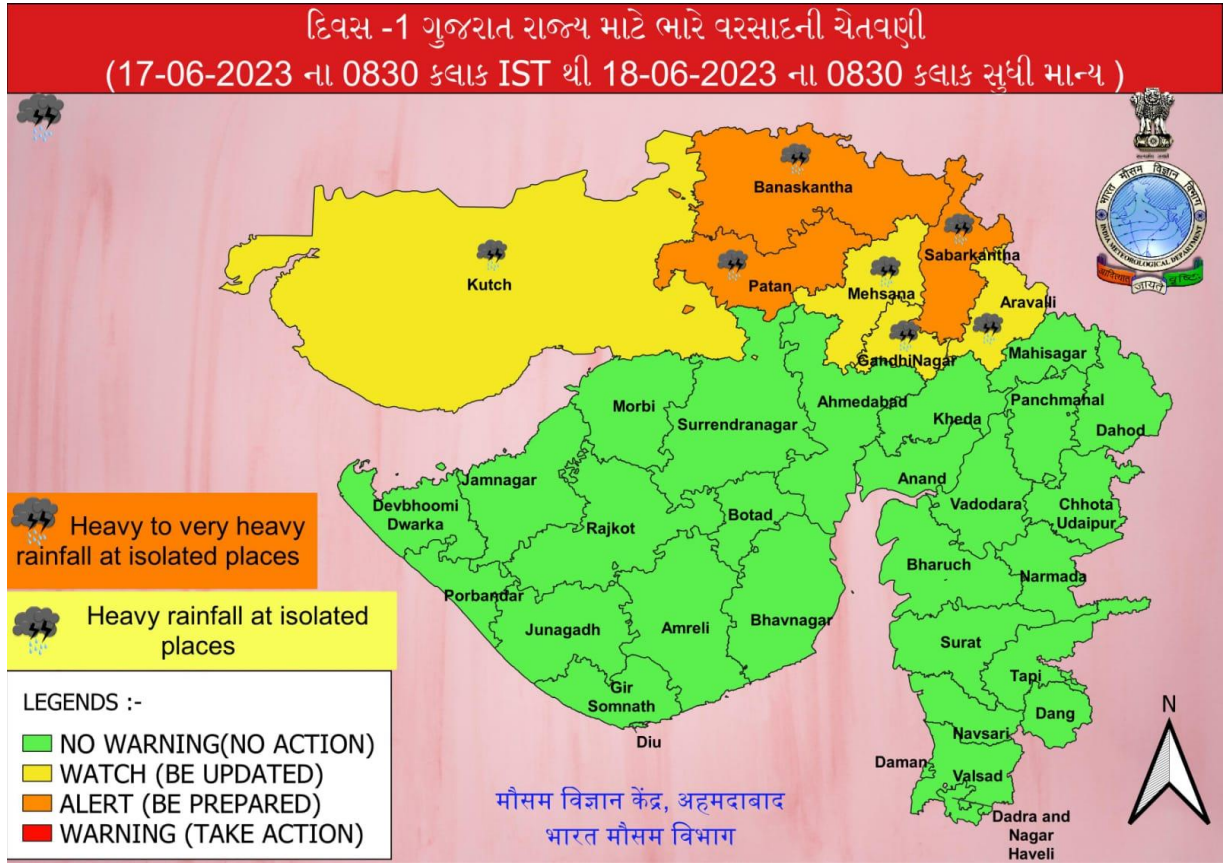
A. Impact Expected

- Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in major cities due to water logging in roads leading to increased travel time.
- Minor damage to kutchha roads.
- Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- Damage to horticulture and standing crops in some areas due to inundation.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

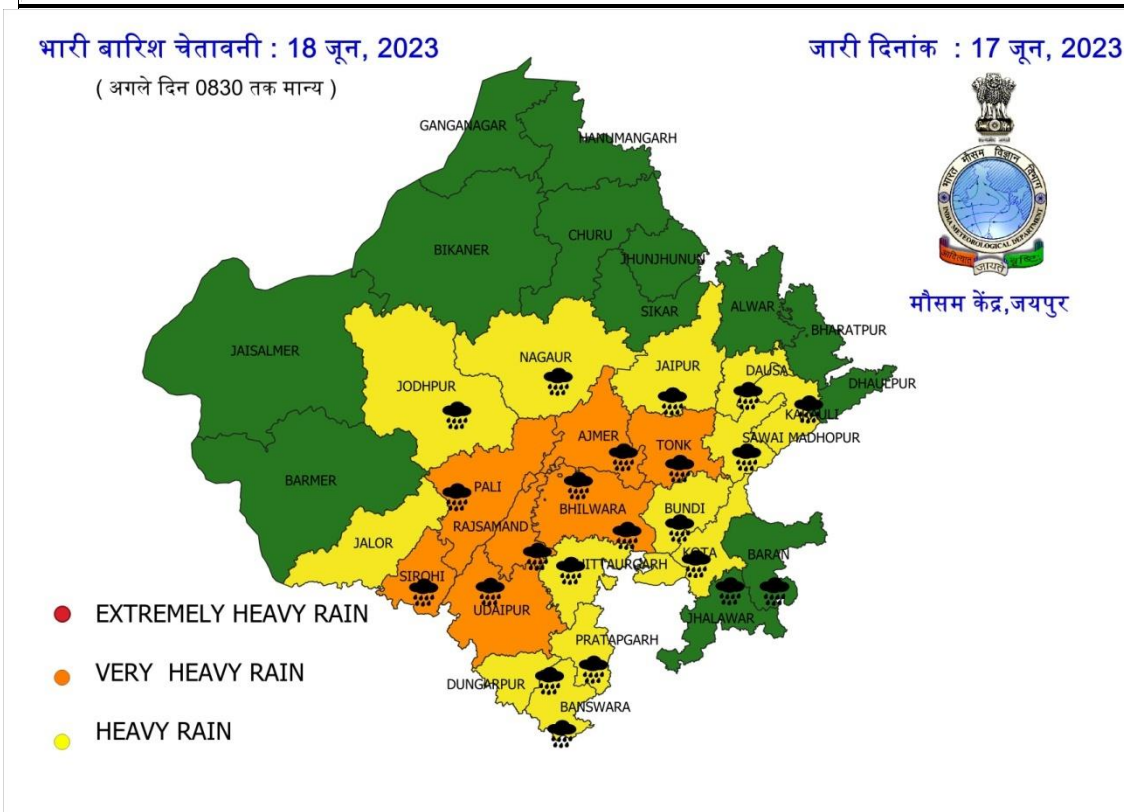
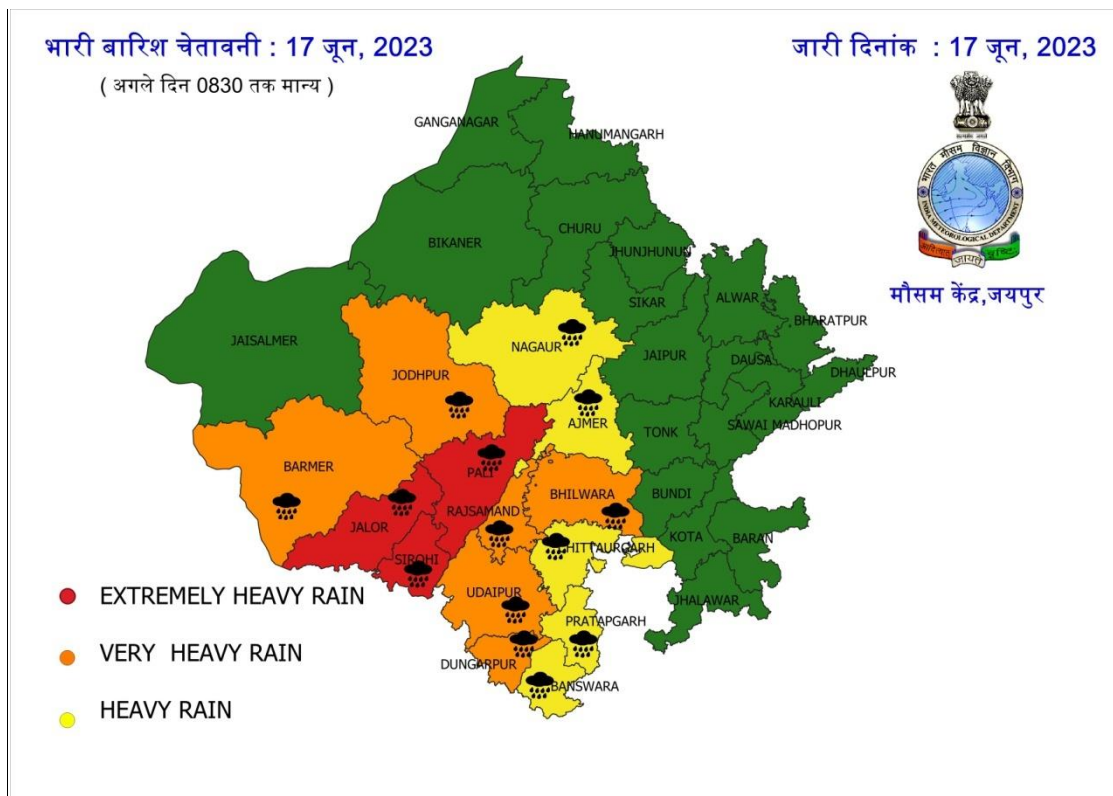
B. Action Suggested

- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

District-wise Heavy Rainfall Warning Maps for 17th June



District-wise Heavy Rainfall Warning Maps for 17th to 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 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