



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

**Press Release
Date: 19th June, 2023
Time of Issue: 1400 hours IST**

- Subject: i) Heat Wave conditions over East India & adjoining areas likely to abate gradually from tomorrow onwards.**
- ii) Well Marked Low Pressure Area (Remnant of Cyclonic Storm ‘Biparjoy’) over central parts of Northeast Rajasthan.**
- iii) Conditions are favorable for further advance of Southwest Monsoon over some more parts of south Peninsular India, some parts of Odisha, some more parts of Gangetic West Bengal, Jharkhand, Bihar and East Uttar Pradesh during next 2-3 days.**
- iv) Very heavy to extremely heavy falls over Northeast India and Sub-Himalayan West Bengal & Sikkim very likely to continue during next 2 days and decrease gradually thereafter.**

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

Advance of Southwest Monsoon

- ❖ The Southwest monsoon has further advanced into some more parts of Karnataka, Andhra Pradesh, Westcentral & Northwest Bay of Bengal; some parts of Gangetic West Bengal and Jharkhand; some more parts of Bihar and remaining parts of Sub-Himalayan West Bengal & Sikkim today, the 19th June.
- ❖ The Northern Limit of Monsoon (NLM) now passes 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, Raichur, Kavali, Lat. 18°N/ Long. 85°E, Lat. 20.5°N/Long. 87.5°E, Canning, Sriniketan, Dumka, Lat. 26.5°N/ Long. 87°E and Lat. 28°N/ Long. 86°E.
- ❖ Conditions are favourable for further advance of Southwest Monsoon over some more parts of south Peninsular India, some parts of Odisha, some more parts of Gangetic West Bengal, Jharkhand, Bihar and East Uttar Pradesh during next 2-3 days.

Significant Weather features, Forecast and Warning during next 5 days: (Annexure II)

(A) Depression (Remnant of Cyclonic Storm ‘Biparjoy’) over central parts of South Rajasthan

Yesterday’s depression over central parts of South Rajasthan & neighbourhood weakened into a Well marked Low Pressure Area over central parts of Northeast Rajasthan & neighbourhood at 0830 hours IST of today, 19 June 2023. It is very likely to move east-northeastwards and weaken during next 24 hours. Under its influence:

Heavy Rainfall Warning:

- Light to moderate rainfall at most places with isolated heavy to extremely heavy rainfall is very likely over **East Rajasthan** on 19th June, isolated heavy to very heavy rainfall on 20th June and isolated heavy rainfall on 21st June.
- Light to moderate rainfall at most places is likely with isolated heavy to very heavy rainfall over **Northwest Madhya Pradesh** on 19th, 20th and 21st with extremely heavy rainfall at isolated places on 20th June.
- Light to moderate rainfall at most places is likely with isolated heavy rainfall over adjoining areas of **Northeast Madhya Pradesh** on 20th June.

- Light to moderate rainfall at most places is likely with isolated heavy rainfall over of **Southwest Uttar Pradesh** on 20th and 21st June.

Wind warning:

Strong wind speed reaching 25-35 kmph gusting to 45 kmph is very likely over **East Rajasthan and adjoining areas of Northwest Madhya Pradesh** on 19th June.

(B) Weather Forecast and Warning for rest parts of the country:

Northeast & adjoining East India:

- ❖ Light/moderate rainfall at most places with isolated **Heavy to Very Heavy falls** very likely to continue over Northeast India and Sub-Himalayan West Bengal & Sikkim during next 5 days. Isolated **extremely heavy rainfall** also likely over Sub-Himalayan West Bengal & Sikkim during 19th-21st and Assam & Meghalaya on 19th & 20th June.
- ❖ Light isolated to scattered rainfall with thunderstorm & lightning very likely over Gangetic West Bengal, Bihar, Jharkhand & Odisha during next 24 hours and fairly widespread rainfall thereafter.
- ❖ Isolated **heavy rainfall** also likely over Bihar, Jharkhand on 21st & 22nd; Gangetic West Bengal on 19th, 21st & 22nd and Odisha during 21st-23rd June.

Northwest & adjoining Central India:

- ❖ Light/moderate scattered to fairly widespread rainfall with thunderstorm & lightning over Himachal Pradesh, Uttarakhand and isolated to scattered rainfall over plains of Northwest India during next 5 days. Isolated **heavy rainfall** very likely over Uttarakhand on 22nd & 23rd 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 on 19th & 20th; Kerala and Rayalaseema on 19th, Coastal Andhra Pradesh 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 Odisha, west Bihar, Jharkhand, Chhattisgarh, East Uttar Pradesh and 40-42°C over parts of East Madhya Pradesh and Coastal Andhra Pradesh & Yanam.
- ❖ **Heat Wave to Severe Heat Wave conditions** prevailed in many parts of interior Odisha, Jharkhand & Chhattisgarh and in some parts of south Bihar. Heat Wave conditions prevailed in many parts of north Coastal Andhra Pradesh & Telangana; in some parts of Vidarbha and in isolated pockets over East Madhya Pradesh, East Uttar Pradesh & Gangetic West Bengal.
- ❖ **Heat Wave/Severe Heat Wave conditions** have been prevailing over Odisha, Jharkhand, Telangana & north Coastal Andhra Pradesh for last 9-12 days and over East Uttar Pradesh, East Madhya Pradesh, Bihar, Gangetic West Bengal, Chhattisgarh & Vidarbha for last 6-8 days.
- ❖ Fall by 3-5°C in maximum temperatures very likely over Madhya Pradesh and East India during next 5 days.
- ❖ **Heat Wave/Severe heat wave** conditions very likely to continue in some/isolated pockets over East Uttar Pradesh, Bihar, Jharkhand, Odisha, Vidarbha, Chhattisgarh, Telangana during next 2 days and abatement of heat wave conditions thereafter.

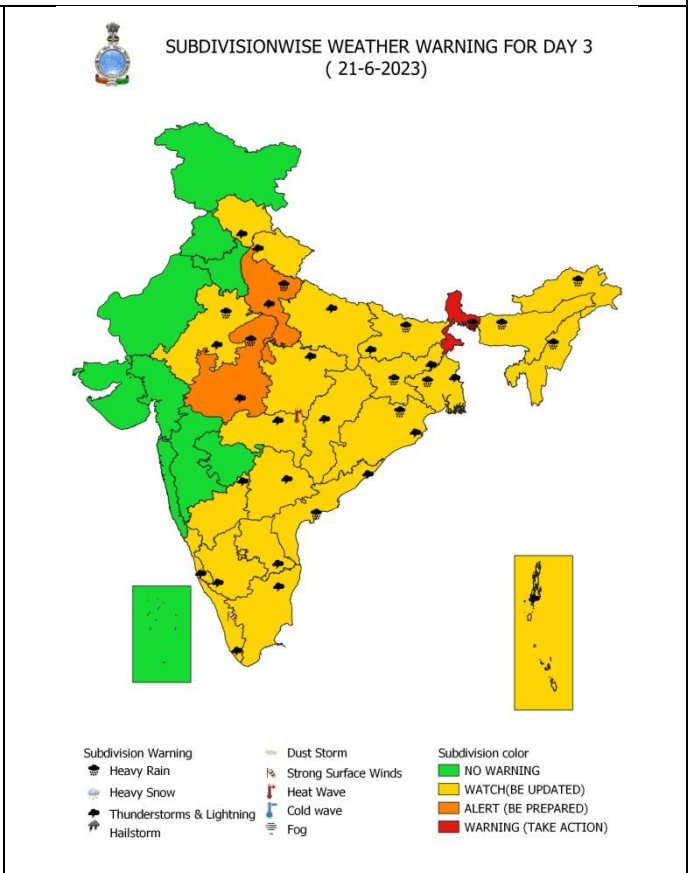
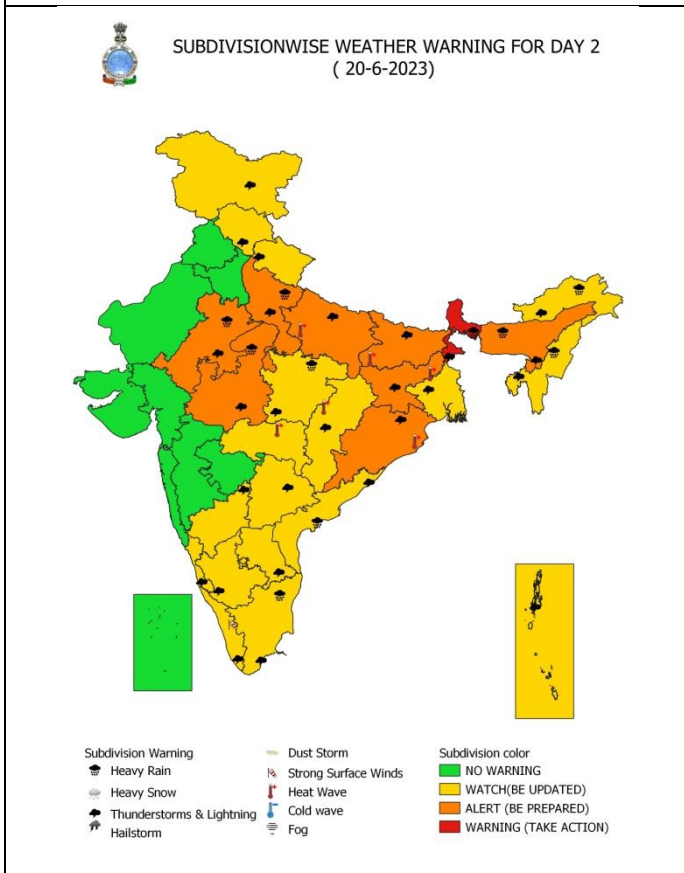
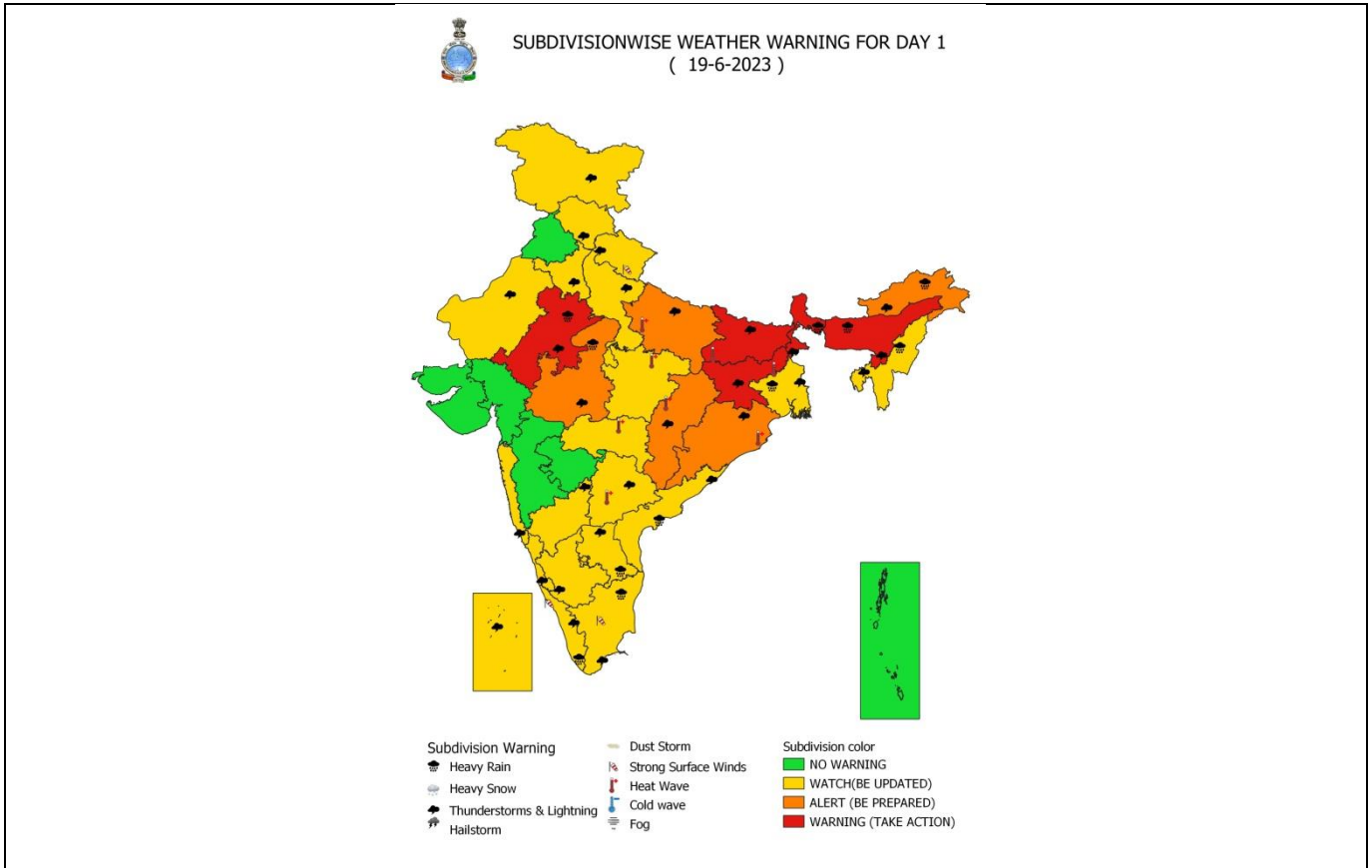
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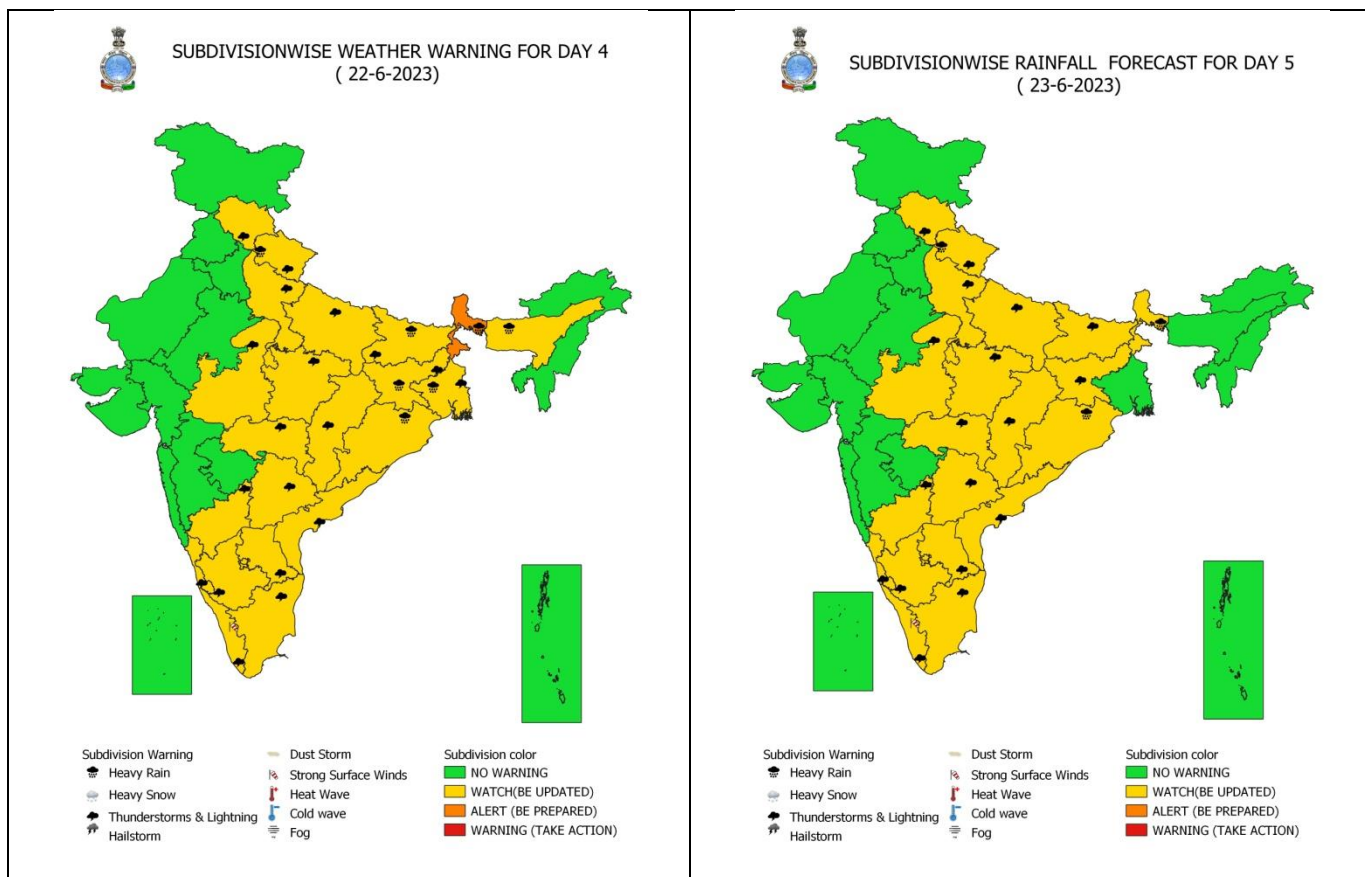
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Weather Observations: (from 0830 hours IST of yesterday to 0830 hours IST of today):

- ❖ **Rainfall/thundershowers observed:** at most places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Sub-Himalayan West Bengal & Sikkim, East Rajasthan, Coastal Karnataka; at many places over Arunachal Pradesh, Andaman & Nicobar Islands, Gangetic West Bengal, West Rajasthan, Odisha, Himachal Pradesh, Kerala & Mahe at a few places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, Jharkhand, Punjab, Haryana, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka and Coastal Andhra Pradesh & Yanam.
- ❖ **Heavy Rainfall observed:** Extremely heavy rainfall at isolated places over Rajasthan, Assam & Meghalaya, Sub-Himalayan West Bengal & Sikkim; Very heavy rainfall at isolated places over Gujarat Region, Tamil Nadu; Heavy rainfall at isolated places over Tripura, West Madhya Pradesh, Marathawada, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh and Kerala.
- ❖ **Significant rainfall recorded (in cm):** **Rajasthan:** Sheoganj (dist Sirohi) 35, Desuri (dist Pali) 38, Nagarfort Sr (dist Tonk) 31, Sumerpur Sr (dist Pali) 28, Deogarh (dist Rajsamand) 27, Kumbhalgarh Sr (dist Rajsamand) 25, Amet (dist Rajsamand) 24, Erinpura/jawai Dam (dist Pali) 24, Rajsamand (dist Rajsamand) 22, Bali (dist Pali) 19, Ahore Sr (dist Jalore) 17, Ajmer Tehsil Sr (dist Ajmer) 16, Reodar Sr (dist Sirohi) 15, Srinagar Sr (dist Ajmer) 15, Pushkar Sr (dist Ajmer) 15, Deoli (dist Tonk) 15, **Gujarat Region:** Danta (dist Banaskantha) 13, Amirgadh (dist Banaskantha) 9, Khedbrahma (dist Sabarkantha) 8, Vijaynagar (dist Sabarkantha) 7, **Arunachal Pradesh:** Bhalukpong (dist West Kameng) 7, **Assam & Meghalaya:** Cherrapunji (dist East Khasi Hills) 23, Gossaigaon (dist Kokrajhar) 23, Kokrajhar (dist Kokrajhar) 22, Cherrapunji(rkm) (dist East Khasi Hills) 20, Bijni Arg (dist Chirang) 20, Aie Nh Xing (dist Bongaigaon) 20, Bahalpur (dist Dhubri) 19, Manash Nh Xing (dist Barpeta) 17, Barpeta Arg (dist Barpeta) 17, **Tripura:** Arundhutinagar (dist West Tripura) 11, A D Nagar_aws (dist West Tripura) 11, Lembuchhera (dist West Tripura) 9, **Sub-Himalayan West Bengal & Sikkim:** Jalpaiguri-21, Darjeeling-18; **Tamil Nadu:** Chennai Airport (dist Chennai) 16, Taramani ARG (dist Chennai), Alandur (dist Chennai) 14 each, Chembarambakkam ARG (dist Tiruvallur) 13, Chembarabakkam (dist Tiruvallur) 11, Anna University (dist Chennai) 10, **Coastal Andhra Pradesh:** Garugubilli (dist Parvathipuram Manyam) 7, **Kerala:** Thrissur-7; **Marathawada:** Patoda (dist Beed) 8; **West Madhya Pradesh:** Ratlam-aws (dist Ratlam) 7, **Odisha:** Banpur (dist Khurda) 10, Gania (dist Nayagarh) 8, Bissem-cuttack (dist Rayagada) 7, R.udaigiri (dist Gajapati) 7.





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 rainfall, thunderstorms/gusty winds and heatwave likely over various parts of the country

- Drain out excess water from crop fields to avoid water stagnation in Gujarat, Rajasthan, West Bengal, Sikkim, Kerala, Tamil Nadu, Andhra Pradesh, West Madhya Pradesh and North Eastern States.
- Provide mechanical support to horticultural crops and staking to vegetables.
- Apply light and frequent irrigation to standing crops in Odisha, Bihar, Jharkhand, East Uttar Pradesh, East Madhya Pradesh, Vidarbha, Chhattisgarh and Telangana.

IMPACT & ACTION SUGGESTED due to extremely heavy rainfall over Sub-Himalayan West Bengal & Sikkim during 19th-21st June and over Assam & Meghalaya on 19th & 20th June.

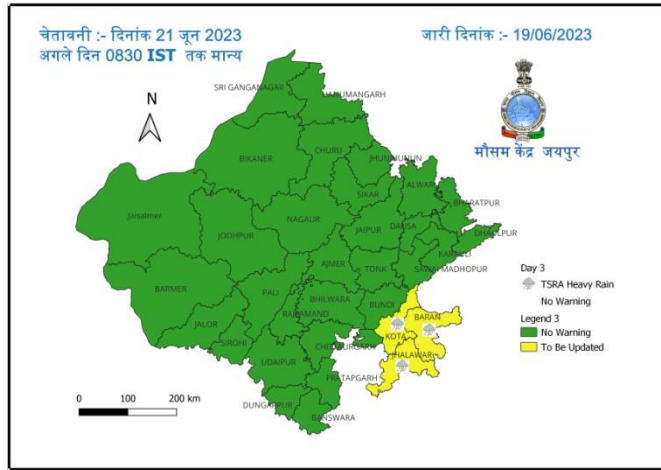
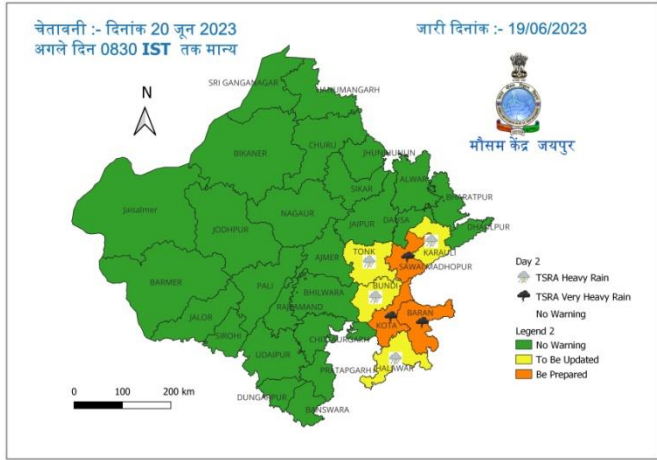
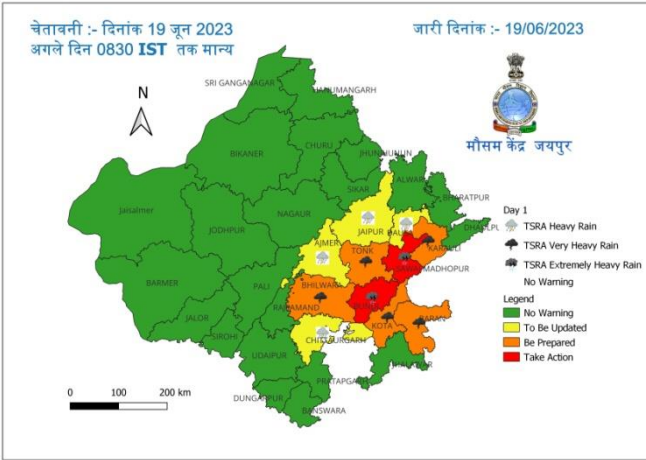
A. Impact Expected

- 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.

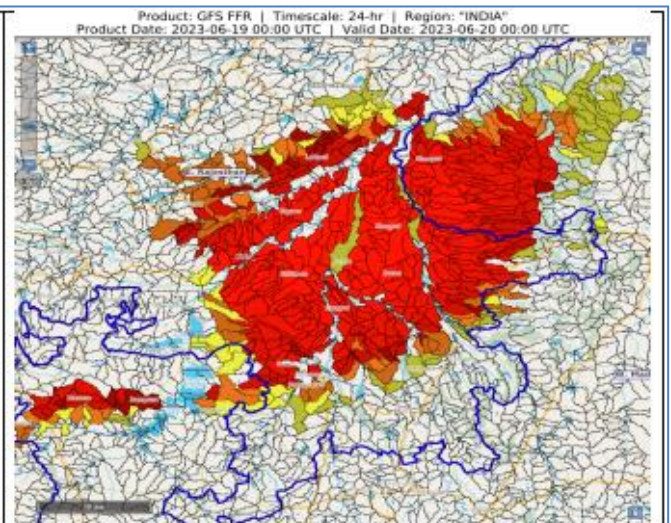
District-wise Heavy Rainfall Warning Maps for 19th – 21st June for Rajasthan



24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 20-06-2023 :

Moderate flash flood risk likely over few watersheds & neighbourhoods of **East Rajasthan** and **West Rajasthan** Met Sub-divisions during next 24 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as shown in map due to expected rainfall occurrence in next 24 hours.



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	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