



Wednesday 29 June 2022

MORNING

Time of Issue: 0800 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Advance of Southwest Monsoon:

□ Conditions are favourable for further advance of Southwest Monsoon into remaining parts of Bihar, some more parts of Uttar Pradesh and some parts of Uttarakhand, Himachal Pradesh and Jammu & Kashmir today, the 29th July.

□ Conditions would continue to become favourable for further advance of Southwest Monsoon into remaining parts of Arabian Sea & Gujarat; some parts of Rajasthan; remaining parts of Madhya Pradesh, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir; some parts of Punjab, Haryana-Chandigarh and Delhi during next 48 hours (between 30th June & 01st July).

Rainfall/thunderstorm Forecast & Warnings:

□ An east-west trough runs from northwest Rajasthan to westcentral Bay of Bengal off south Odisha coast. It is very likely to strengthen gradually during next 2-3 days. Due to this trough and moist winds from Bay of Bengal and Arabian Sea over northern parts of the country in lower tropospheric levels:

o **Isolated extremely heavy rainfall likely over Uttarakhand on 30th and heavy to very heavy rainfall likely over Himachal Pradesh on 29th & 30th; Uttarakhand on 28th & 29th; West Uttar Pradesh on 30th; East Uttar Pradesh during 29th-30th and East Rajasthan on 30th June & 01st July, 2022.**

o **Moderate thunderstorm/lightning and isolated heavy rainfall** very likely over Madhya Pradesh on 29th; Chhattisgarh and Vidarbha during 29th-30th. **Isolated heavy to very heavy rainfall also likely over West Madhya Pradesh during 30th June-02nd July; East Madhya Pradesh on 30th June & 01st July, 2022.**

o Isolated **heavy rainfall** likely over Odisha during 29th June-03rd July; Jharkhand on 29th & 30th; Bihar on 30th; Gangetic West Bengal on 29th June. **Isolated extremely heavy rainfall likely over Bihar on 29th June. Isolated heavy to very heavy rainfall likely over Sub-Himalayan West Bengal & Sikkim on 29th June, 2022.**

□ Under the influence of the off-shore trough at mean sea level from north Maharashtra coast to north Kerala coast and the shear zone across north peninsular India roughly along 19°N in middle tropospheric levels:

o **Thunderstorm/lightning** with isolated heavy to very heavy rainfall very likely over Konkan & Goa, Coastal Karnataka and Kerala & Mahe during next 5 days; **Isolated heavy rainfall over Gujarat Region during 30th June-02nd July; South Interior Karnataka, Coastal Andhra Pradesh, Tamil Nadu and Telangana during next 2 days.**

□ Under the influence of southerly/southwesterly winds in lower levels from Bay of Bengal to Northeast & adjoining East India:

o Fairly widespread to widespread rainfall with isolated **heavy rainfall & thunderstorm/lightning** very likely over Northeast India during next 5 days. **Isolated extremely heavy rainfall likely over Assam & Meghalaya on 29th June, 2022.**

Main Weather Observations

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(Circle as the National office 1877)



- ◆ **Rainfall/thundershower observed (from 0830 hours IST to 1730 hours IST of yesterday):** at most places over Arunachal Pradesh, Lakshadweep and Kerala & Mahe; at many places over Bihar, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, Konkan & Goa and Marathwada; at a few places over West Uttar Pradesh, Nagaland, Manipur, Mizoram & Tripura, East Madhya Pradesh, Madhya Maharashtra, Coastal & North Interior Karnataka, Telangana, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands; at isolated places over Uttarakhand, Gangetic West Bengal, Gujarat State, East Rajasthan, West Madhya Pradesh, Tamilnadu, Puducherry & Karaikal, Chhattisgarh, Odisha and East Uttar Pradesh.
- ◆ **Yesterday, Very heavy rainfall** occurred at isolated places over Sub-Himalayan West Bengal & Sikkim.
- ◆ **Thunderstorm observed (from 0830 hours IST of yesterday to 0530 hours IST of today):** at isolated places over Himachal Pradesh, Uttarakhand, Sub-Himalayan West Bengal & Sikkim, East Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, Marathwada, Telangana, Coastal Andhra Pradesh & Yanam and Odisha.
- ◆ **Yesterday, Heat Wave** observed in isolated pockets over West Rajasthan.
- ◆ **Chief amount of Rainfall observed (from 0830 hours IST to 1730 hours IST of yesterday)(2 cm or more):** Sub-Himalayan West Bengal & Sikkim:- Baghdogra-13, Jaipaguri and Kalimpong-3, Gangtok-2; Arunachal Pradesh: Pasighat-7, Itanagar-2; Bihar: Supaul-6, Purnea-2; East Uttar Pradesh: Varanasi, Babatpur (Varanasi)-5 each; Assam & Meghalaya: Dibrugarh-4, Pet Jorhat-3, Golaghat-2; Konkan & Goa: Matheran-3; Madhya Maharashtra: Ahmadnagar-3; Coastal Karnataka: Mangalore-2; Kerala & Mahe: Kottayam and Punalur-2 each; Andaman & Nicobar Islands: Maya Bandar-2; West Madhya Pradesh: Guna-2, East Madhya Pradesh: Khajuraho-2.
- ◆ **Maximum Temperature Departures (as on 28-06-2022):** Maximum temperatures were appreciably above normal (3.0°C to 5.0°C) at most places over West Rajasthan and Haryana, Chandigarh & Delhi; at a few places over East Uttar Pradesh; at isolated places over East Rajasthan; above normal (1.6°C to 3.0°C) at most places over East Madhya Pradesh and Jharkhand; at many places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Andaman & Nicobar Islands; at a few places over West Madhya Pradesh, Gangetic West Bengal, Odisha, Coastal Karnataka and Kerala & Mahe; at isolated places over Saurashtra & Kutch, Vidarbha, Tamilnadu, Puducherry & Karaikal and Madhya Maharashtra. They were markedly below normal (-5.1°C or more) at a few places over Coastal Andhra Pradesh & Yanam; appreciably below normal (-3.0°C to -5.0°C) at most places over Arunachal Pradesh; at many places over Bihar and at a few places over Assam & Meghalaya, Telangana and Rayalaseema; below normal (-1.6°C to -3.0°C) at most places over Sub-Himalayan West Bengal & Sikkim; at a few places over Konkan & Goa and at isolated places over Tamilnadu, Puducherry & Karaikal and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 45.7°C was reported at Ganganagar (West Rajasthan).
- ◆ **Minimum Temperature Departures (as on 28-06-2022):** Minimum temperatures were appreciably above normal (3.1°C to 5.0°C) at most places over Punjab and Haryana, Chandigarh & Delhi; at a few places over Himachal Pradesh; at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and East Madhya Pradesh; above normal (1.6°C to 3.0°C) at most places over Uttar Pradesh and Rajasthan; at a few places over Uttarakhand, West Madhya Pradesh and Odisha; at isolated places over Bihar. They were appreciably below normal (-3.1°C to -5.0°C) at a few places over Coastal Andhra Pradesh & Yanam; below normal (-1.6°C to -3.0°C) at a few places over Coastal Karnataka, Tamil Nadu, Puducherry & Karaikal and Lakshadweep and near normal over rest parts of the country. Yesterday, the lowest minimum temperature of 20.8°C was reported at Khargone (West Madhya Pradesh) over the plains of the country.

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Meteorological Analysis (Based on 0530 hours IST)

- ◆ The Northern Limit of Monsoon (NLM) continues to pass through Lat. 24°N/ Long. 60°E, Lat. 24°N/ Long. 65°E, Dessa, Ratlam, Shivpuri, Rewa, Churk, 27.0°N/84°E.
- ◆ Conditions are favourable for further advance of Southwest Monsoon into remaining parts of Bihar, some more parts of Uttar Pradesh and some parts of Uttarakhand, Himachal Pradesh and Jammu & Kashmir today, the 29th June.
- ◆ Conditions would continue to become favourable for further advance of Southwest Monsoon into remaining parts of Arabian Sea & Gujarat; some parts of Rajasthan; remaining parts of Madhya Pradesh, Uttar Pradesh, Uttarakhand, Himachal Pradesh and Jammu & Kashmir; some parts of Punjab, Haryana-Chandigarh and Delhi during next 48 hours (between 30th June & 01st July).
- ◆ The cyclonic circulation over Westcentral Arabian Sea between 1.5 km & 5.8 km above mean sea level persists.
- ◆ The off-shore trough at mean sea level from north Maharashtra coast to north Kerala coast persists.
- ◆ The east-west trough from northwest Rajasthan to westcentral Bay of Bengal off south Odisha coast across Northeast Rajasthan, north Madhya Pradesh and Chhattisgarh extending upto 0.9 km above mean sea level persists.
- ◆ The shear zone across north peninsular India roughly along 19°N between 3.1 & 7.6 km above mean sea level persists.

Weather Forecast for next 5 days * upto 0830 hours IST of 04th July, 2022

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ Fall in maximum temperatures by 4-6°C likely over most parts of Northwest India during next 3-4 days.
- ◆ No significant change in maximum temperatures very likely over rest parts of the country during next 5 days.

Weather Outlook for subsequent 2 days during 04th July-06th July, 2022

- ◆ Widespread light/moderate rainfall likely to continue over many parts of West coast, East, Central & Northeast India, Sub-Himalayan West Bengal & Sikkim and Islands.
- ◆ Scattered to fairly widespread rainfall likely over many parts of peninsular India.
- ◆ Isolated rainfall likely to prevail over Western Himalayan Region.
- ◆ Dry weather over rest parts of the country.

Weather Warning during next 5 days *

29 June (Day 1): ♦ Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely Bihar and Assam & Meghalaya; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and **heavy rainfall** at isolated places over West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Telangana, Tamilnadu, Puducherry & Karaikal and South Interior Karnataka.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, south west Bay of Bengal along and off southern Sri Lanka coast. Fishermen are advised not to venture into these seas.

30 June (Day 2): ♦ Heavy to very heavy rainfall with extremely heavy falls at isolated places very likely Uttarakhand; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and **heavy rainfall** at isolated places over Haryana, Chandigarh & Delhi, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Interior Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Marathwada, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, coastal Tamil Nadu, south west Bay of Bengal along and off Sri Lanka coast. Fishermen are advised not to venture into these seas.

01 July (Day 3): ♦ Heavy to very heavy rainfall at isolated places very likely East Rajasthan, Madhya Pradesh and Konkan & Goa and **heavy rainfall** at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal & South Interior Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

02 July (Day 4): ♦ Heavy to very heavy rainfall at isolated places very likely West Madhya Pradesh and Konkan & Goa and **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

03 July (Day 5): ♦ Heavy to very heavy rainfall at isolated places very likely Konkan & Goa and **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

Kindly download MAUSAM APP for location specific forecast & warning, MEGHDOOT APP for Agromet advisory and DAMINI APP for Lightning Warning & visit state MC/RMC websites for district wise warning.

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Table-1
5 Day Rainfall Forecast (MORNING)
29-June-2022

Met-Sub-Division	29-Jun Today	30Jun Thu	01Jul Fri	02Jul Sat	03Jul Sun
1. Andaman & Nicobar Islands	FWS	FWS	FWS	WS	WS
2. Arunachal Pradesh	WS	WS	FWS	WS	WS
3. Assam & Meghalaya	WS	WS	WS	WS	WS
4. N. M. M. & T.	FWS	WS	WS	WS	WS
5. S.H. West Bengal & Sikkim	WS	WS	WS	WS	WS
6. Gangetic West Bengal	FWS	FWS	WS	FWS	FWS
7. Odisha	FWS	FWS	FWS	FWS	FWS
8. Jharkhand	WS	WS	WS	WS	WS
9. Bihar	FWS	FWS	SCT	SCT	SCT
10. East Uttar Pradesh	WS	WS	FWS	SCT	SCT
11. West Uttar Pradesh	FWS	WS	FWS	SCT	ISOL
12. Uttarakhand	WS	WS	WS	WS	WS
13. Haryana, Chd & Delhi	FWS	WS	FWS	SCT	ISOL
14. Punjab	SCT	WS	SCT	SCT	ISOL
15. Himachal Pradesh	FWS	WS	WS	FWS	FWS
16. J & K and Ladakh	ISOL	SCT	FWS	SCT	SCT
17. West Rajsthan	ISOL	ISOL	SCT	SCT	ISOL
18. East Rajasthan	SCT	WS	WS	FWS	SCT
19. West Madhya Pradesh	FWS	WS	WS	WS	SCT
20. East Madhya Pradesh	WS	WS	WS	FWS	FWS
21. Gujarat Region	ISOL	SCT	SCT	SCT	SCT
22. Saurashtra & Kutch	ISOL	SCT	SCT	SCT	SCT
23. Konkan & Goa	WS	WS	WS	WS	WS
24. Madhya Maharashtra	SCT	FWS	FWS	FWS	FWS
25. Marathawada	FWS	FWS	FWS	FWS	FWS
26. Vidharbha	FWS	FWS	FWS	SCT	SCT
27. Chhattisgarh	WS	WS	WS	FWS	FWS
28. Coastal A. P. & Yanam	WS	FWS	FWS	SCT	SCT
29. Telangana	SCT	SCT	SCT	SCT	SCT
30. Rayalaseema	FWS	SCT	SCT	ISOL	ISOL
31. T.N.,Puducherry & Karaikal	SCT	SCT	SCT	ISOL	ISOL
32. Coastal Karnataka	WS	WS	WS	WS	WS
33. North Interior Karnataka	SCT	SCT	SCT	SCT	SCT
34. South Interior Karnataka	SCT	FWS	FWS	SCT	SCT
35. Kerala & Mahe	WS	WS	WS	FWS	FWS
36. Lakshadweep	WS	WS	WS	WS	WS

% Station Reporting Rainfall

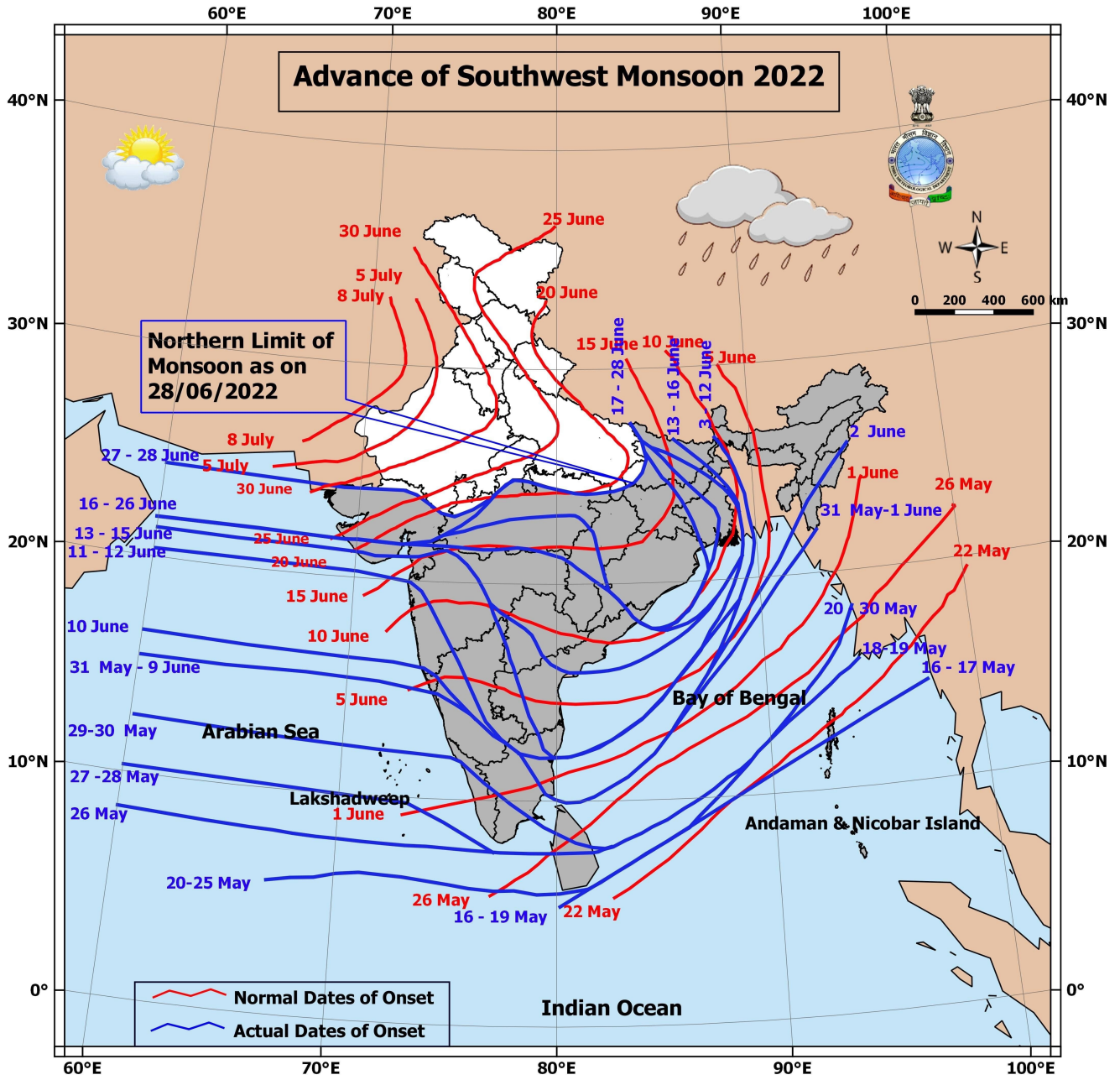
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

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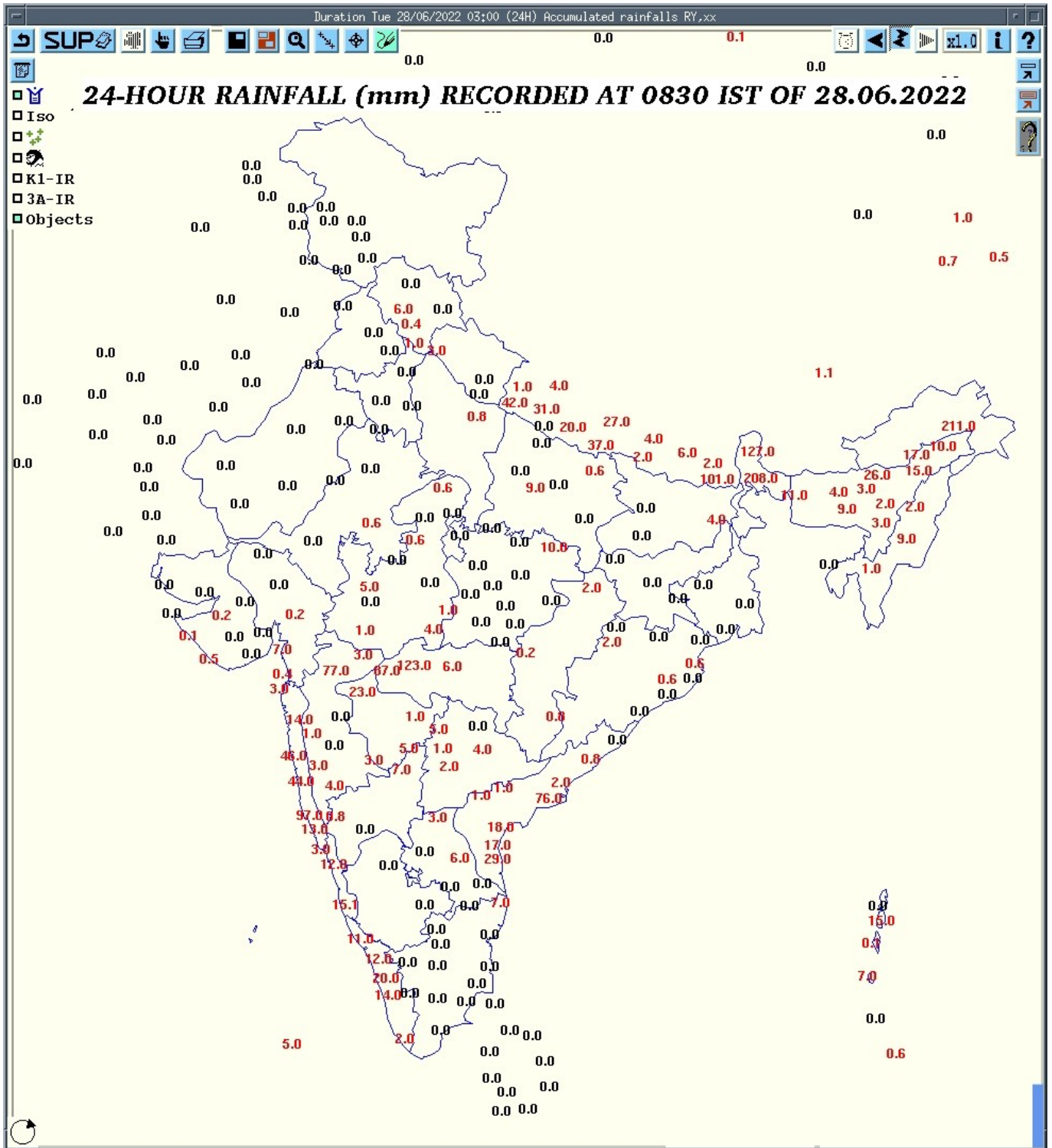
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Fig. 1: Accumulated Rainfall (mm) during past 24 hours



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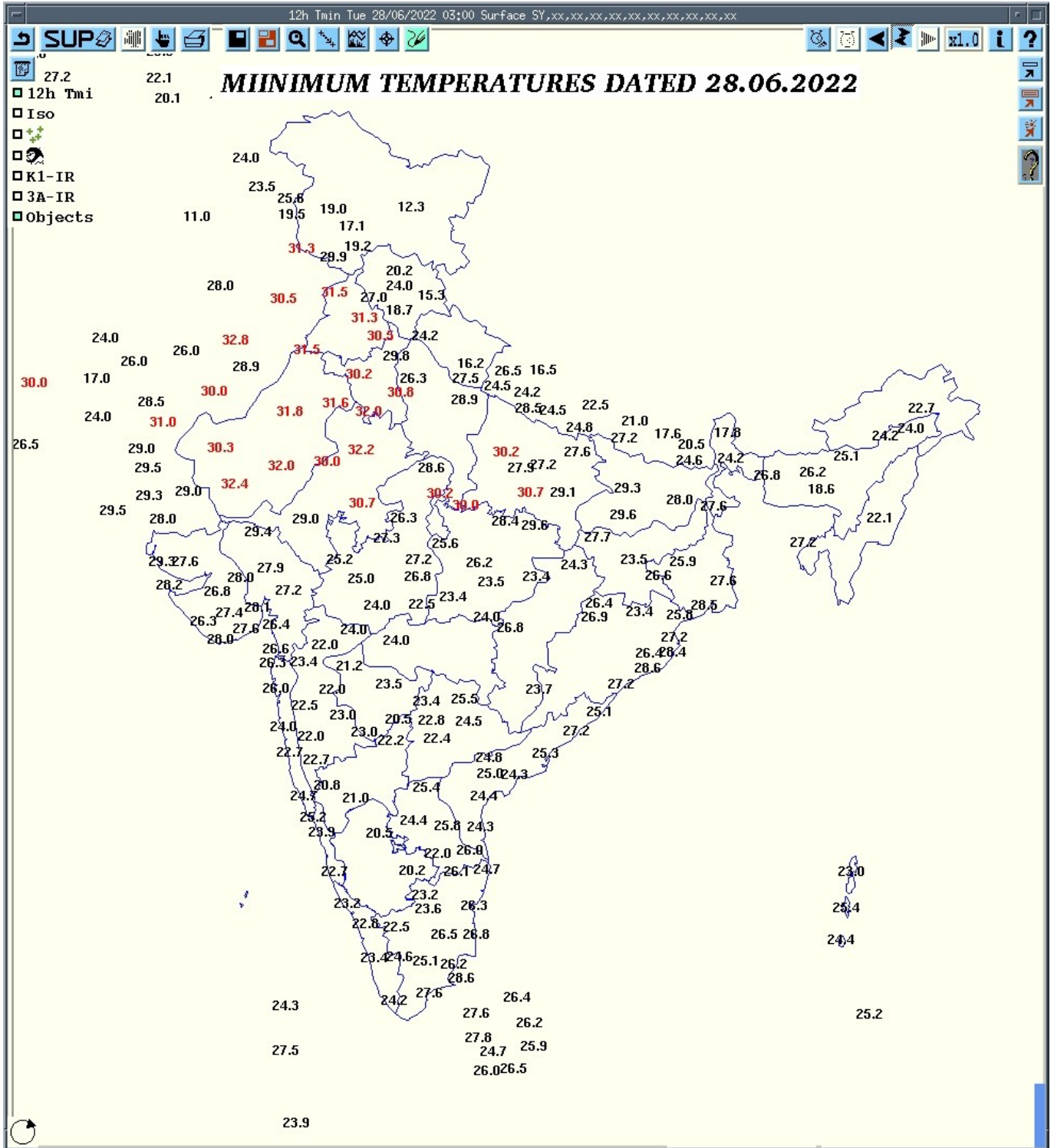
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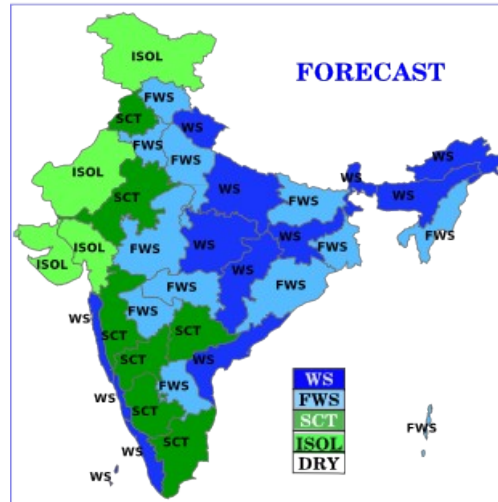


Fig. 3: Minimum Temperature during past 24 hours



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Wednesday 29 June 2022



29 June (Day 1): ♦ **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely Bihar and Assam & Meghalaya; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and **heavy rainfall** at isolated places over West Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Jharkhand, Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, Coastal Andhra Pradesh, Telangana, Tamilnadu, Puducherry & Karaikal and South Interior Karnataka.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Bihar, Jharkhand, West Bengal & Sikkim, Odisha, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, south west Bay of Bengal along and off southern Sri Lanka coast. Fishermen are advised not to venture into these seas.

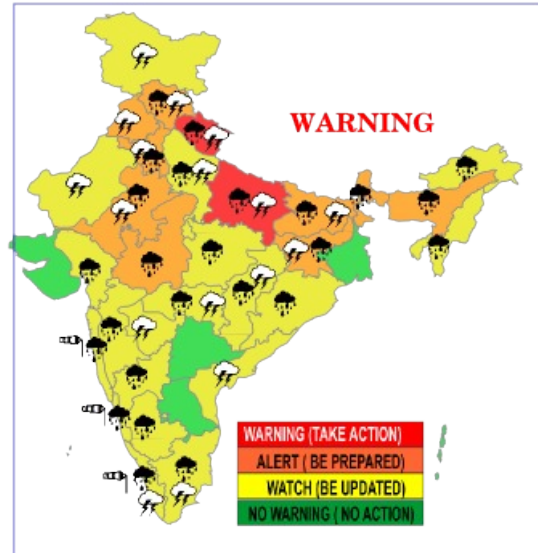
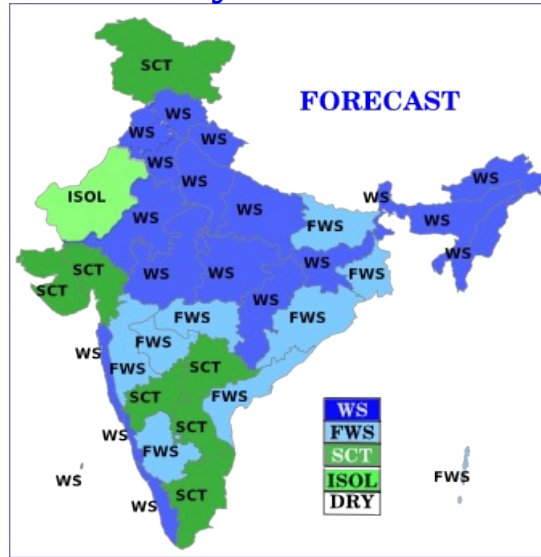
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Thursday 30 June 2022



30 June (Day 2): ♦ **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely Uttarakhand; **heavy to very heavy rainfall** at isolated places over Himachal Pradesh, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Assam & Meghalaya, Konkan & Goa, Coastal Karnataka and Kerala & Mahe and **heavy rainfall** at isolated places over Haryana, Chandigarh & Delhi, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim, Odisha, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Madhya Maharashtra, Interior Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Bihar, Jharkhand, Marathwada, Coastal Andhra Pradesh & Yanam, Kerala & Mahe and Tamilnadu, Puducherry & Karaikal.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka and Kerala coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea, Comorin area, Gulf of Mannar, coastal Tamil Nadu, south west Bay of Bengal along and off Sri Lanka coast. Fishermen are advised not to venture into these seas.

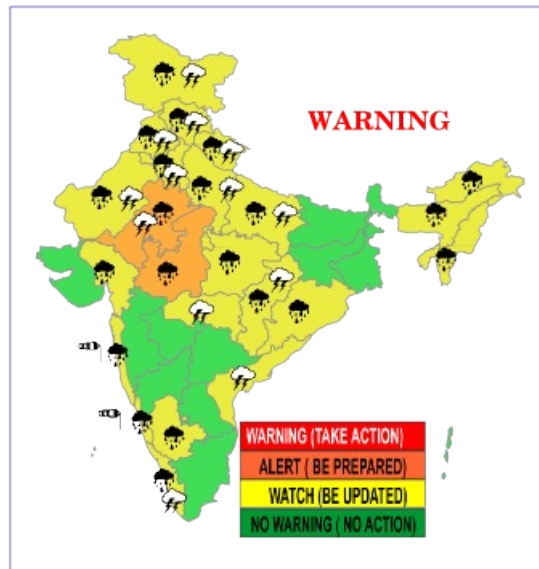
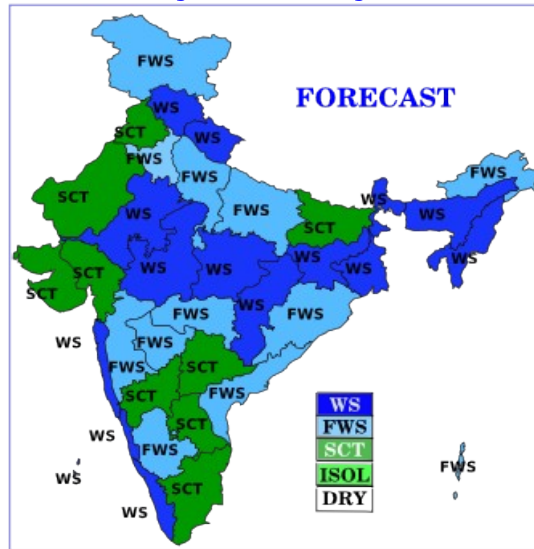
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Friday 01 July 2022



01 July (Day 3): ♦ **Heavy to very heavy rainfall** at isolated places very likely East Rajasthan, Madhya Pradesh and Konkan & Goa and **heavy rainfall** at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, West Rajasthan, Chhattisgarh, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal & South Interior Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off south Maharashtra, Goa, Karnataka coasts. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

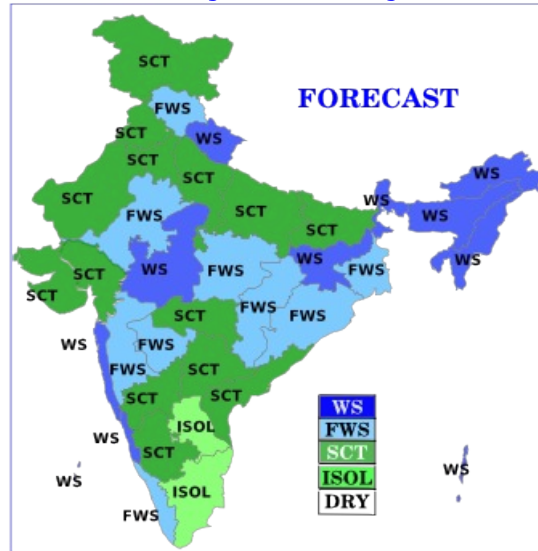
* Red color warning does not mean "Red Alert" Red color warning means "Take Action".

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(Circle as the National flag 1971)

Saturday 02 July 2022



02 July (Day 4): ♦ **Heavy to very heavy rainfall** at isolated places very likely West Madhya Pradesh and Konkan & Goa and **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Coastal Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

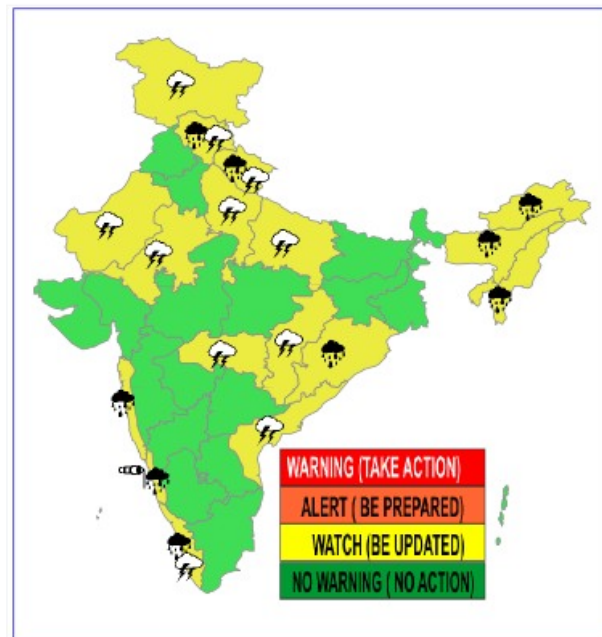
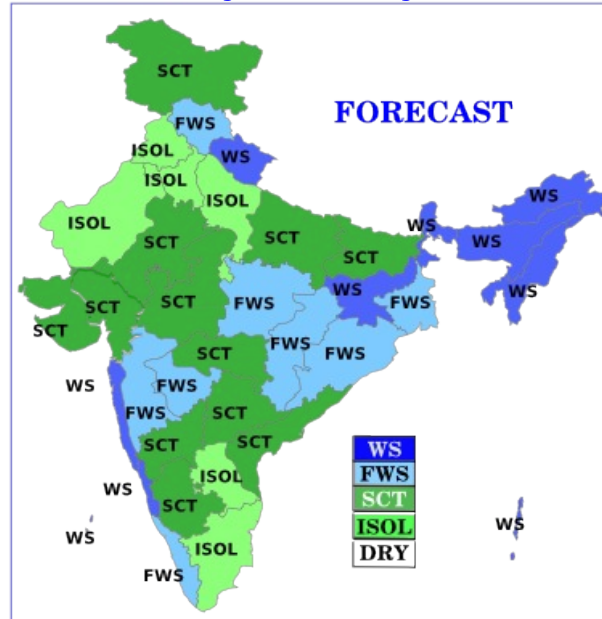
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(Circle as the National flag)

Sunday 03 July 2022



03 July (Day 5): ♦ **Heavy to very heavy rainfall** at isolated places very likely Konkan & Goa and **heavy rainfall** at isolated places over Himachal Pradesh, Uttarakhand, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Coastal Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places very likely over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Uttar Pradesh, Rajasthan, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh & Yanam and Kerala & Mahe.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off coastal Karnataka. Strong winds of 50-60 kmph gusting to 70 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea, 40-50 kmph gusting to 60 kmph likely over east central and adjoining west central Arabian Sea. Fishermen are advised not to venture into these seas.

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(Copies to the Media upto 1070)

LEGENDS

- 1 अंडमान और निकोबार द्वीप समूह
- 2 अरुणाचल प्रदेश
- 3 असम और मेघालय
- 4 नागालैंड मनीपुर मीजोरम और त्रिपुरा
- 5 उप हिमालय पश्चिम बंगाल एवं सिक्किम
- 6 पश्चिम गंगोय बंगाल
- 7 ओडिशा
- 8 झारखंड
- 9 बिहार
- 10 पूर्वी उत्तर प्रदेश
- 11 पश्चिम उत्तर प्रदेश
- 12 उत्तराखंड
- 13 हरियाणा चंडिगढ़ एवं दिल्ली
- 14 पंजाब
- 15 हिमाचल प्रदेश
- 16 जम्मू एवं कश्मीर एवं लद्दाख
- 17 पश्चिम राजस्थान
- 18 पूर्वी राजस्थान
- 19 पश्चिम मध्य प्रदेश
- 20 पूर्वी मध्य प्रदेश
- 21 गुजरात क्षेत्र
- 22 सौराष्ट्र एवं कच्छ
- 23 कोंकण एवं गोवा
- 24 मध्य महाराष्ट्र
- 25 मराठावाडा
- 26 विदर्भ
- 27 छत्तीसगढ़
- 28 तटीय आंध्र प्रदेश एवं यनम
- 29 तेलंगाना
- 30 रायलसीमा
- 31 तमिलनाडु, पुदुचेरी एवं कराईकल
- 32 तटिय कर्नाटक
- 33 आंतरिक उत्तरी कर्नाटक
- 34 आंतरिक दक्षिणी कर्नाटक
- 35 केरल एवं माहे
- 36 लक्षद्वीप



1. Andaman & Nicobar Islands
2. Arunachal Pradesh
3. Assam & Meghalaya
4. Nagaland, Manipur, Mizoram & Tripura
5. Sub-Himalayan West Bengal & Sikkim
6. Gangetic West Bengal
7. Orissa
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chd & Delhi
14. Punjab
15. Himachal Pradesh
16. Jammu & Kashmir and Ladakh
17. West Rajasthan
18. East Rajasthan
19. West Madhya Pradesh
20. East Madhya Pradesh
21. Gujarat
22. Saurashtra
23. Konkan & Goa
24. Madhya Maharashtra
25. Marathawada
26. Vidharbha
27. Chhattisgarh
28. Coastal Andhra Pradesh & Yanam
29. Telangana
30. Rayalaseema
31. Tamilnadu, Puducherry & Karaikal
32. Coastal Karnataka
33. North Interior Karnataka
34. South Interior Karnataka
35. Kerala & Mahe
36. 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)

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

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



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

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(Copies of the Manual are 1077)

LEGENDS

WARNING

WARNING (TAKE ACTION)
ALERT (BE PREPARED)
WATCH (BE UPDATED)
NO WARNING (NO ACTION)

Probabilistic Forecast

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



Rain/ Snow *

Heavy: 64.5 to 115.5 mm/cm *
Very Heavy: 115.6 to 204.4 mm/cm *
Extremely Heavy: > 204.4 mm/cm *



Heat Wave

When maximum temperature of a station reaches $\geq 40^{\circ}\text{C}$ for plains and $\geq 30^{\circ}\text{C}$ for hilly regions

(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5°C to 6.4°C .

Severe Heat Wave: Maximum Temperature Departure from normal $\geq 6.5^{\circ}\text{C}$

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature $\geq 45^{\circ}\text{C}$.

Severe Heat Wave: When actual maximum temperature $\geq 47^{\circ}\text{C}$

(c) Criteria for heat wave for coastal stations

When maximum temperature departure is $> 4.5^{\circ}\text{C}$ from normal. Heat Wave may be described provided maximum temperature $\geq 37^{\circ}\text{C}$



Warm Night

When maximum temperature remains 40°C

Warm Night: When minimum temperature departure 4.5°C to 6.4°C .

Severe Warm Night: When minimum temperature departure $> 6.4^{\circ}\text{C}$.



Cold Wave

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Wave: Minimum Temperature Departure from normal $\geq -6.5^{\circ}\text{C}$

(b) Based on actual Minimum Temperature (for Plains only)

Cold Wave : When Minimum Temperature is $\leq 4.0^{\circ}\text{C}$

Severe Cold Wave: When Minimum Temperature is $\leq 2.0^{\circ}\text{C}$

(c) For Coastal Stations

When Minimum Temperature departure is $\leq -4.5^{\circ}\text{C}$ or actual Minimum Temperature is $\leq 15^{\circ}\text{C}$



Cold Day

When minimum temperature of a station $\leq 10^{\circ}\text{C}$ for plains and $\leq 0^{\circ}\text{C}$ for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5°C to -6.4°C .

Severe Cold Day: Maximum Temperature Departure from normal $\leq -6.5^{\circ}\text{C}$



Fog

Phenomenon of small droplets suspended in air and the horizontal visibility $< 1\text{km}$

Moderate Fog: When the visibility between 500-200 metres

Dense Fog: when the visibility between 50- 200 metres

Very Dense Fog: when the visibility < 50 metres



Thunderstorm

Sudden electrical discharges manifested by a flash of light (Lightning) and a sharp rumbling sound (thunder)



Dust/Sand Storm

An ensemble of particles of dust or sand energetically lifted to great heights by a strong and turbulent wind.



Frost

Ice deposits on ground

Air temperature $\leq 4^{\circ}\text{C}$ (over Plains)



Squall

A strong wind that rises suddenly, lasts for atleast 1 minute.

Moderate: Wind speed 52-61 kmph

Severe: Wind speed 62-87 kmph

Very Severe: Wind speed > 87 kmph



Sea State

Effect of various waves in the sea over specific area

Rough to very rough: Wind speed 41-62 kmph (22-33 knots) & Wave height 2.5-6 metre

High to very high: Wind speed 63-117 kmph (34-63 knots) & Wave height 6-14 metre

Phenomenal: Wind speed > 117 kmph (> 63 knots) & Wave height > 14 metre



Cyclone

Cyclonic Storm: Wind speed 62-87 kmph (34-47 knots)

Severe Cyclonic Storm: Wind speed 88-117 kmph (48-63 knots)

Very Severe Cyclonic Storm: Wind speed 118-165 kmph (64 - 89 knots)

Extremely Severe Cyclonic Storm: Wind speed 166-220 kmph (90 -119 knots)

Super Cyclone Storm: Wind speed > 220 kmph (> 119 knots)

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(Created by the Meteorology Dept)