



Thursday 16 June 2022

EVENING

Time of Issue: 1630 hours IST

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features

Advance of Southwest Monsoon:

◆ Southwest Monsoon has further advanced into some more parts of North Arabian Sea, Gujarat State, entire Madhya Maharashtra and Marathwada, some parts of south Madhya Pradesh, most parts of Vidarbha, entire Telangana, some parts of south Chhattisgarh, and south Odisha, most parts of Coastal Andhra Pradesh, some more parts of Westcentral & northwest Bay of Bengal today, the 16th June, 2022.

◆ The Northern Limit of Monsoon (NLM) now passes through Lat. 22°N/ Long. 60°E, Lat. 22°N/ Long. 65°E, Porebandar, Bhavnagar, Khandwa, Gondia, Durg, Bhawanipatna, Kalingapatnam, Lat.22.0°N/ 89.5°E, Lat.25.0°N/89°E, Balurghat and Supaul, 26.50°N/86°E.

◆ Conditions are favorable for further advance of monsoon into some more parts of North Arabian Sea, Gujarat State, Madhya Pradesh, remaining parts of Vidarbha, Andhra Pradesh and Westcentral & northwest Bay of Bengal, some more parts of Chhattisgarh and Odisha, some parts of Gangetic West Bengal, Jharkhand, remaining parts of Sub-Himalayan West Bengal and some more parts of Bihar, some parts of east Uttar Pradesh during next 2-3 days.

Rainfall/thunderstorm Forecast & Warnings:

◆ **Under the influence of strong southwesterly winds from Bay of Bengal to northeast & adjoining east India in lower tropospheric levels:**

o Widespread thundershowers with isolated **heavy to very heavy rainfall** very likely over northeast India and adjoining Sub-Himalayan West Bengal & Sikkim during next 5 days. Isolated **extremely heavy rainfall** also likely over Assam & Meghalaya during 16th-18th June; over Arunachal Pradesh on 16th and over Sub-Himalayan West Bengal & Sikkim on 16th & 17th June, 2022.

o Isolated **heavy rainfall** likely over Jharkhand & Bihar during 16th-19th; Odisha on 16th & 17th June. Isolated **very heavy falls** also likely over Bihar during 16th-18th June.

o Isolated **heavy rainfall** likely over East Madhya Pradesh & Chhattisgarh during next 5 days and over Vidarbha on 18th & 19th June.

◆ **Under the influence of westerly winds along the west coast and a trough from Rayalaseema to Comorin area in lower tropospheric levels:**

o Isolated **heavy rainfall** very likely over Coastal Andhra Pradesh, Rayalaseema, Kerala & Mahe, coastal & South Interior Karnataka during next 5 days; Telangana during 16th-19th; Tamilnadu, Puducherry & Karaikal during 16th-18th; over south Konkan & Goa during 18th-20th and over south Madhya Maharashtra on 20th June, 2022.

◆ **Under the influence of Western Disturbances and lower level easterlies:**

o Fairly widespread to widespread rainfall with thunderstorm/lightning very likely over Western Himalayan region; scattered to fairly widespread rainfall over adjoining plains (Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh) and isolated rainfall over Rajasthan during next 5 days.

o Isolated **heavy rainfall** likely over Jammu division, Himachal Pradesh, Uttarakhand & Punjab on 17th June.

Main Weather Observations

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

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◆ **Rainfall/thundershower observed (from 0830 hours IST of yesterday to 0830 hours IST of today):** at most places over Himachal Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Konkan & Goa, Telangana, Coastal Karnataka, Kerala & Mahe and Lakshadweep; **at many places** over Jammu & Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Uttarakhand, East Madhya Pradesh, Jharkhand, Tamil Nadu, Puducherry & Karaikal and Andaman & Nicobar Islands; **at a few places** over Vidarbha, Gangetic West Bengal, Odisha, Saurashtra & Kutch, Marathwada and Coastal Andhra Pradesh & Yanam and **at isolated places** over Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Bihar, Gujarat Region, Madhya Maharashtra, Rayalaseema and Interior Karnataka.

◆ Isolated **extremely heavy rainfall** occurred over Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim; **heavy to very heavy rainfall** over Nagaland-Tripura, Uttarakhand and Telangana and **heavy rainfall** over Arunachal Pradesh, Gujarat state, Chhattisgarh, East Madhya Pradesh, Coastal Andhra Pradesh, Coastal Karnataka, Kerala and Tamilnadu.

◆ Yesterday, **heat wave conditions** prevailed in isolated pockets over Himachal Pradesh, Uttar Pradesh and Bihar.

◆ **Chief amount of Rainfall observed (from 0830 hours IST of yesterday to 0830 hours IST of today) (7 cm or more):** **Meghalaya:** Sohra (ARG)-70, Sohra (RKM)-68, Mawkyrwat-36, Khliehriat-28, Jowai (AWS) & Mawphlang-23, **Assam:** Kokrajhar & Gosaingaon-32, AIE NH XING-27, Hazuwa-26, Mushalpur & Dhemaji-25, Bijni-24, Goalpara & Nalbari-23, Beki-Mathanguri-22, Barpeta-19, Chamata-18, **Sub-Himalayan West Bengal & Sikkim:** Jalpaiguri: Chepan-23, Hasimara-22, Alipur Duar-21, Bharobhisha-20, Kumargram-17, Falakata-14, Buxaduar & Gajoldoba-13, Cooch Behar: Mathabhanga-14, Cooch Behar-12, Pundibari-8; Darjeeling: Champasari & Bagdogra-11; **Nagaland, Manipur, Mizoram & Tripura:** Tening-12, Amarapur-8; **Arunachal Pradesh:** Bhalukpong & Yupia-10, Roing-9, **Uttarakhand:** Tehri-12; **Telangana:** Mahabubabad-15, Mudhole-13, Mulakalapalle-12, Aswaraopeta-9, Parvathagiri, Velagatoor, Karimnagar-7 each; **Tamilnadu:** Ranipet: Kalavai-11, Kaveripakkam-9, Ramanathapuram: Paramakudi-10, **Coastal Andhra Pradesh:** West Godavari: Koyyalagudem-10, Kukunoor-8; **Kerala:** Ernakulam: Odakkali, Neeleswaram-7; **Coastal Karnataka:** Belthangadi-7; **Chhattisgarh:** Korba: Katghora-8; **East Madhya Pradesh:** Narayanganj & Tamia-7 each; **Saurashtra & Kutch:** Junagadh: Mangrol-8, Manavadar-7; **Gujarat Region:** Kheda: Mahemdavad-7.

◆ **Thunderstorm (from 0830 hours IST to 1430 hours IST of today) observed** at isolated places over Jammu & Kashmir, Himachal Pradesh, Punjab, East Madhya Pradesh, Vidarbha, Assam & Meghalaya, Tripura, Saurashtra & Kutch and Rayalaseema.

◆ **Maximum Temperature Departures (as on 15-06-2022):** Maximum temperatures were **markedly above normal (5.1°C or more)** at a few places over Uttarakhand; **appreciably above normal (3.1°C to 5.0°C)** at most places over Himachal Pradesh and Punjab; at many places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad and Uttar Pradesh; at a few places over Haryana, Chandigarh & Delhi, East Madhya Pradesh and Marathwada; at isolated places over Bihar and Tamilnadu, Puducherry & Karaikal; **above normal (1.6°C to 3.0°C)** at most places over Coastal & North Interior Karnataka; at many places over Konkan & Goa; at a few places over Gujarat Region, West Madhya Pradesh, Chhattisgarh, Telangana, Coastal Andhra Pradesh & Yanam and Andaman & Nicobar Islands; at isolated places over West Rajasthan, Vidarbha, Odisha and Kerala & Mahe. They were **markedly below normal (-5.1°C or less)** at many places over Assam & Meghalaya; at a few places over Arunachal Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at many places over Sub-Himalayan West Bengal & Sikkim; at a few places over Rayalaseema; at isolated places over Gangetic West Bengal and **near normal** over rest parts of the country. **Yesterday**, the highest maximum temperature of **46.5°C** was reported at Fatehgarh (**East Uttar Pradesh**).

◆ **Minimum Temperature Departures (as on 16-06-2022):** Minimum temperatures are **appreciably above normal (3.1°C to 5.0°C)** at isolated places over West Rajasthan; **above normal (1.6°C to 3.0°C)** at a few places over Bihar and Gangetic West Bengal; at isolated places over Jammu & Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra and Marathwada. They are **markedly below normal (-5.1°C or less)** at isolated places over East Madhya Pradesh; **appreciably below normal (-3.1°C to -5.0°C)** at isolated places over Tamilnadu, Puducherry & Karaikal and Lakshadweep; **below normal (-1.6°C to -3.0°C)** at a few places over Telangana; at isolated places over Himachal Pradesh, Arunachal Pradesh and Assam & Meghalaya and **near normal** over rest parts of the country. Today, the **lowest minimum** temperature of **20.8°C** is reported at Betul (**West Madhya Pradesh**) over the plains of the country.

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Meteorological Analysis (Based on 1430 hours IST)

- ◆ Southwest Monsoon has further advanced into some more parts of North Arabian Sea, Gujarat State, entire Madhya Maharashtra and Marathwada, some parts of south Madhya Pradesh, most parts of Vidarbha, entire Telangana, some parts of south Chhattisgarh, and south Odisha, most parts of Coastal Andhra Pradesh, some more parts of Westcentral & northwest Bay of Bengal today, the 16th June, 2022.
- ◆ The Northern Limit of Monsoon (NLM) now passes through Lat. 22°N/ Long. 60°E, Lat. 22°N/ Long. 65°E, Porebandar, Bhavnagar, Khandwa, Gondia, Durg, Bhawanipatna, Kalingapatnam, Lat.22.0°N/ 89.5°E, Lat.25.0°N/89°E, Balurghat and Supaul, 26.50°N/86°E.
- ◆ Conditions are favorable for further advance of monsoon into some more parts of North Arabian Sea, Gujarat State, Madhya Pradesh, remaining parts of Vidarbha, Andhra Pradesh and Westcentral & northwest Bay of Bengal, some more parts of Chhattisgarh and Odisha, some parts of Gangetic West Bengal, Jharkhand, remaining parts of Sub-Himalayan West Bengal and some more parts of Bihar, some parts of east Uttar Pradesh during next 2-3 days.
- ◆ The cyclonic circulation over southwest Rajasthan & neighbourhood at 3.1 km above mean sea level persists.
- ◆ The trough from cyclonic circulation over southwest Rajasthan & neighbourhood to Northwest Arabian Sea at 3.1 km above mean sea level persists.
- ◆ The trough at mean sea level from Haryana to Nagaland across Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim and Assam persists.
- ◆ The cyclonic circulation over Haryana & neighbourhood at 0.9 km above mean sea level persists.
- ◆ The cyclonic circulation over central Pakistan & neighbourhood at 1.5 km above mean sea level persists.
- ◆ The Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 68°E to the north of Lat. 28°N persists.
- ◆ The feeble Western Disturbance as a trough in middle tropospheric westerlies with its axis at 5.8 km above mean sea level roughly along Long. 80°E to the north of Lat. 30°N persists.
- ◆ The cyclonic circulation over southeast Bay of Bengal between 1.5 & 5.8 km above mean sea level tilting southwards with height persists.
- ◆ The trough from Rayalaseema to Comorin area at 0.9 km above mean sea level persists.
- ◆ The cyclonic circulation over north Tamil Nadu & neighbourhood at 3.1 km above mean sea level persists.

Weather Forecast for next 5 days * upto 0830 hours IST of 21st June, 2022

- ◆ Meteorological sub-division wise detailed 5 days precipitation forecast is given in Table-1.
- ◆ No significant change in maximum temperatures very likely over most parts of the country during next 5 days.

Weather Outlook for subsequent 2 days during 21st June-23rd June, 2022

- ◆ Widespread light/moderate rainfall with isolated heavy to very heavy falls likely to continue over Sub-Himalayan West Bengal & Sikkim, Northeast India.
- ◆ Scattered to fairly widespread rainfall likely over peninsular India, central & east India, Western Himalayan Region & adjoining plains of northwest India and Islands.
- ◆ Isolated to Scattered rainfall likely over rest parts of the country.

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Weather Warning during next 5 days *

16 June (Day 1): ♦ **Heavy to very heavy rainfall at a few places with extremely heavy falls** at isolated places very likely over Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya, Arunachal Pradesh; **heavy to very heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Bihar; **heavy rainfall** at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, East Rajasthan, Punjab, Haryana, Chandigarh & Delhi, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Marathwada, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Nagaland, Manipur, Mizoram, Tripura, Assam & Meghalaya, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep.

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

17 June (Day 2): ♦ **Heavy to very heavy rainfall at a few places with extremely heavy falls** at isolated places very likely over Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya, **heavy to very heavy rainfall** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Bihar and **heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Jharkhand, Odisha, East Madhya Pradesh, Chhattisgarh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Gujarat state, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off Kerala, Karnataka coasts, south east Arabian Sea, Lakshadweep area, Comorin area and Gulf of Mannar. **Strong winds** of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea. Fishermen are advised not to venture into these areas.

18 June (Day 3): ♦ **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya; **heavy to very heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Bihar, Kerala & Mahe and **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Jharkhand, East Madhya Pradesh, Chhattisgarh, south Konkan & Goa, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.

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

19 June (Day 4): ♦ **Heavy to very heavy rainfall** at isolated places likely over Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Kerala & Mahe; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Bihar, Jharkhand, south Konkan & Goa, East Madhya Pradesh, Chhattisgarh, Telangana and Coastal & South Interior Karnataka.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places likely over West Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Kerala & Mahe and Lakshadweep.

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

20 June (Day 5): ♦ **Heavy to very heavy rainfall** at isolated places likely over south Konkan & Goa and **heavy rainfall** at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, East Madhya Pradesh, Chhattisgarh, south Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal & South Interior Karnataka, Kerala & Mahe and Lakshadweep.

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

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 (EVENING)
16-June-2022

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

% Station Reporting Rainfall

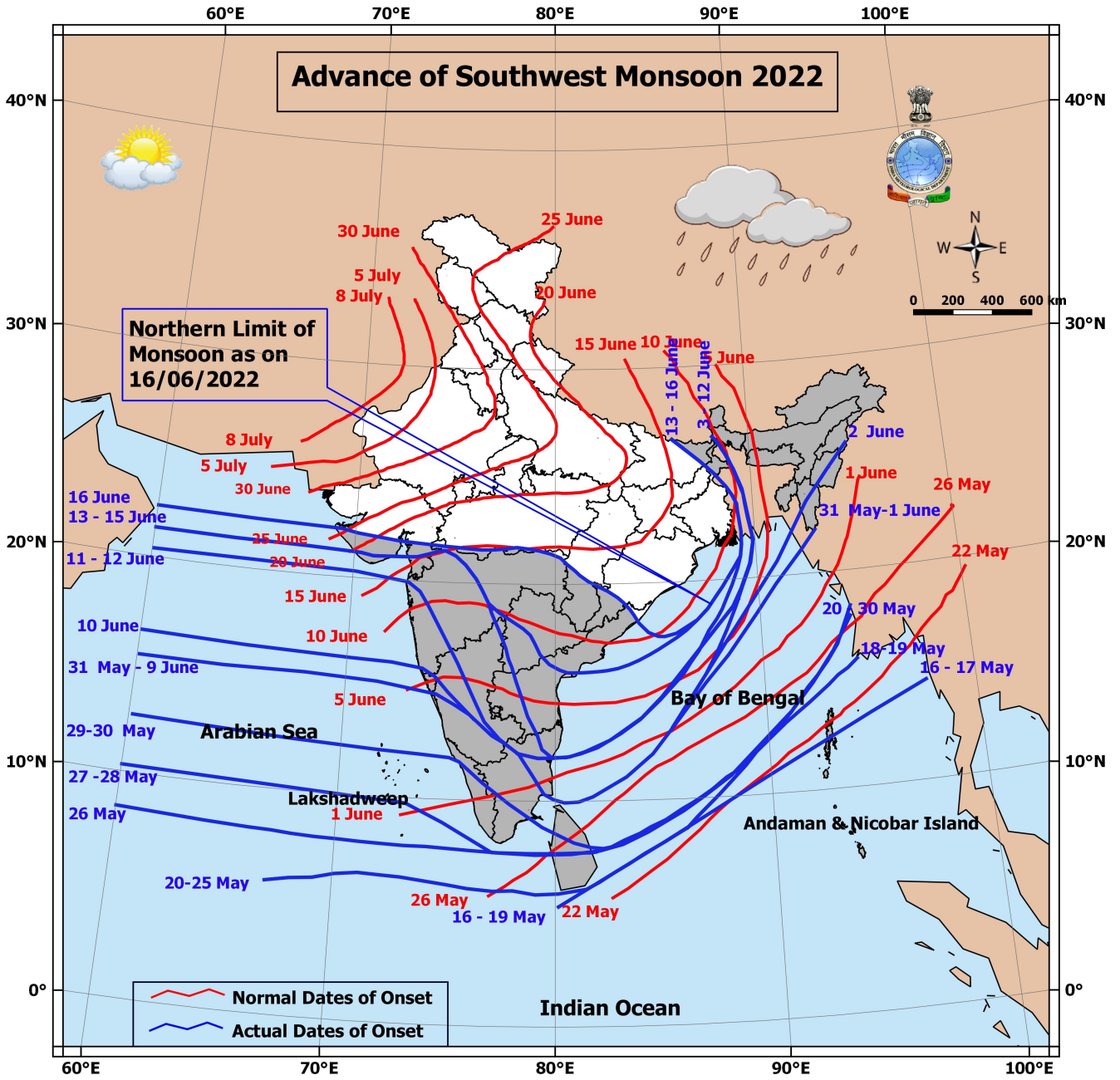
% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespread (FWS/ Many Places)	1-25	Isolated (ISOL)
No Rain	Dry		

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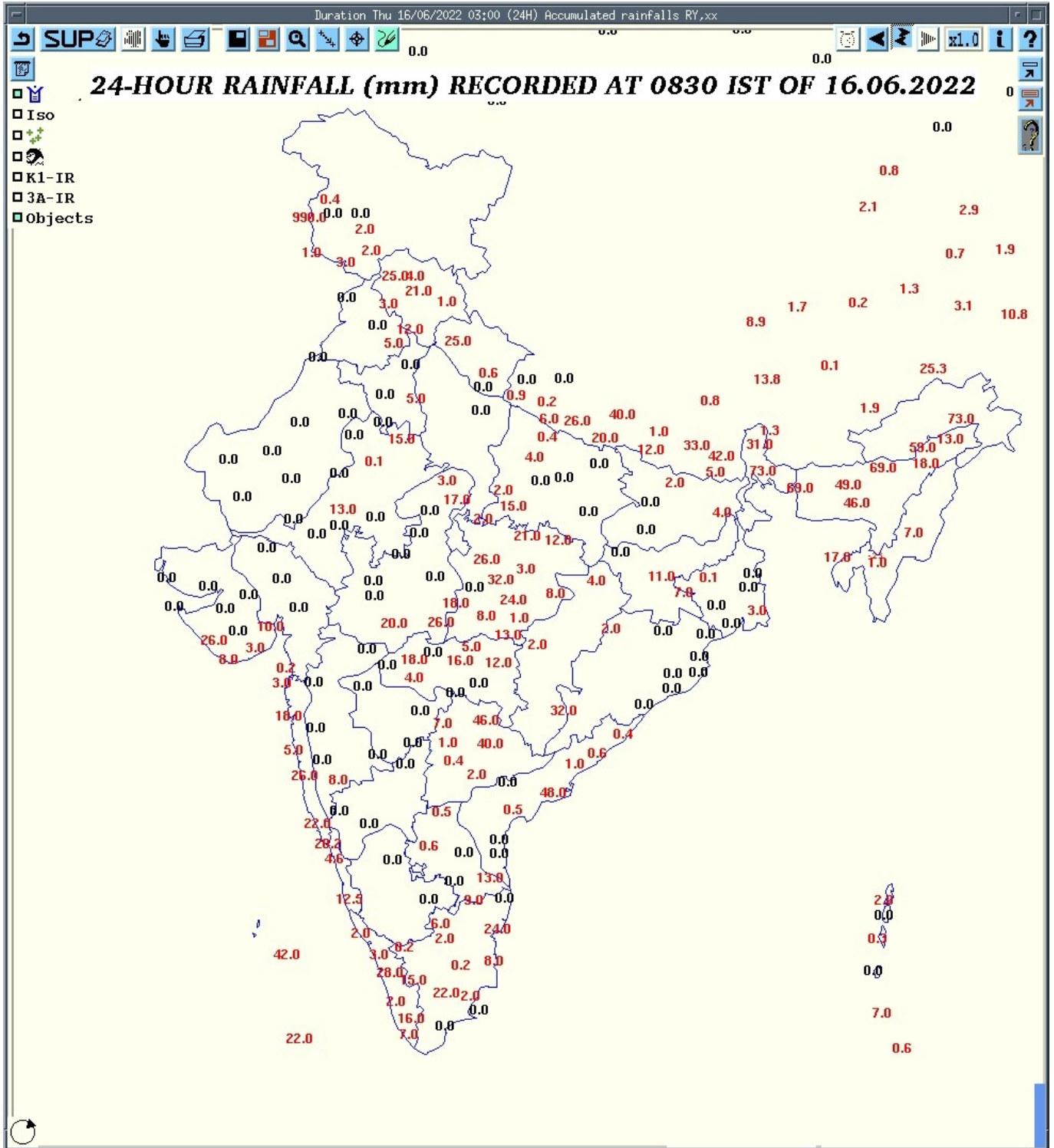
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 (As per the Met Act 1975)



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



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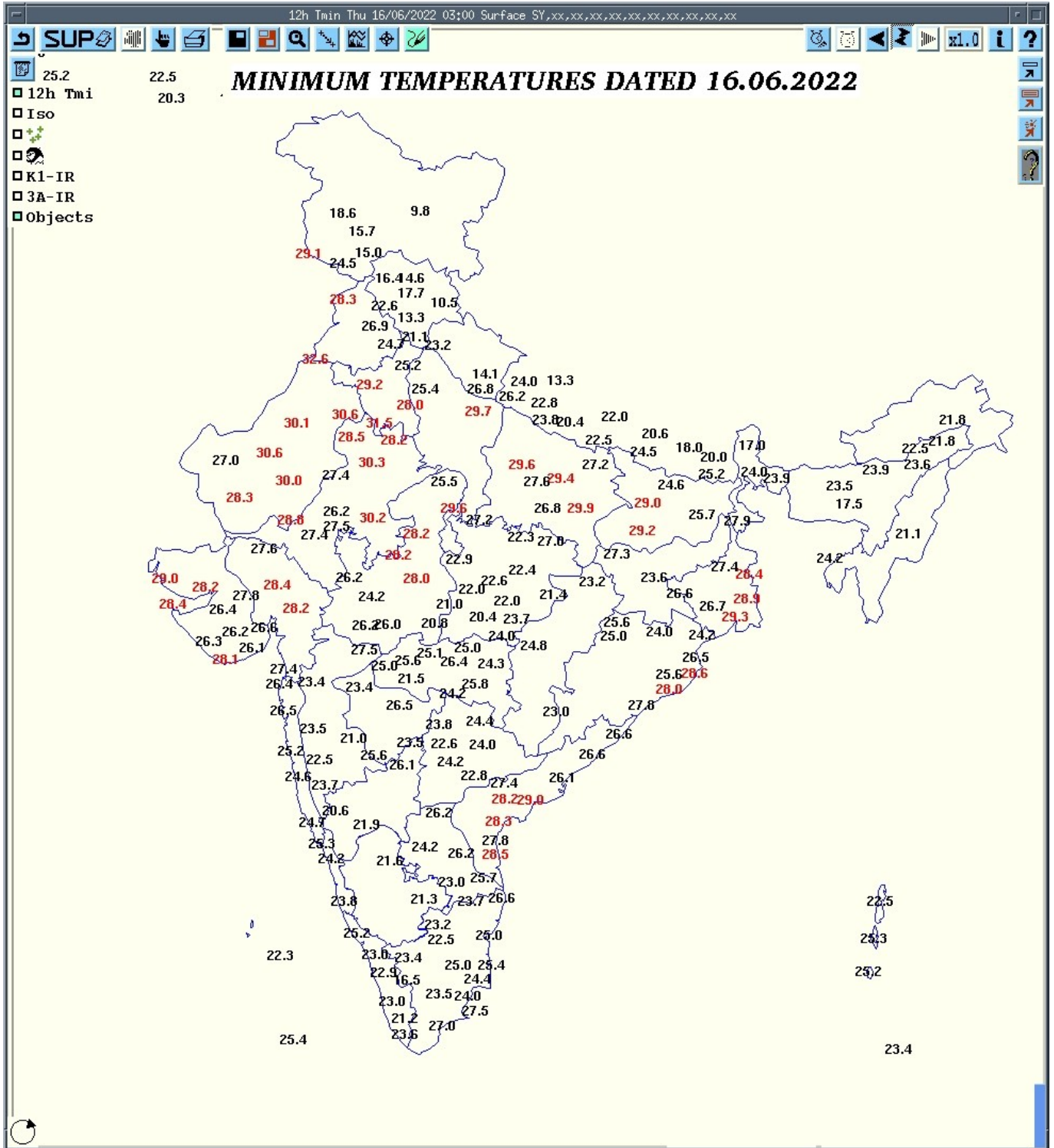
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Fig. 3: Minimum Temperature during past 24 hours



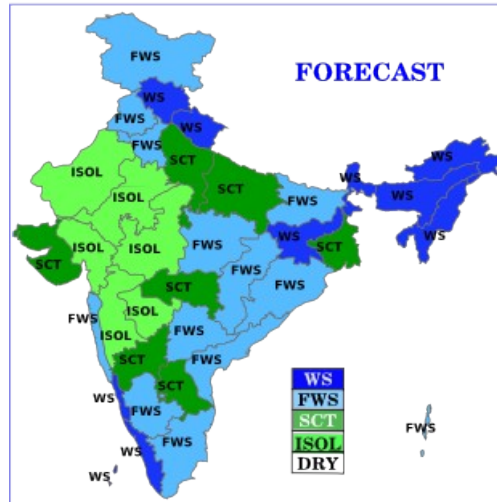
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Thursday 16 June 2022



16 June (Day 1): ♦ **Heavy to very heavy rainfall at a few places with extremely heavy falls** at isolated places very likely over Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya, Arunachal Pradesh; **heavy to very heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Bihar; **heavy rainfall** at isolated places over East Madhya Pradesh, Chhattisgarh, Jharkhand, Odisha, Gujarat state, Coastal Andhra Pradesh & Yanam, Telangana, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand; **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, East Rajasthan, Punjab, Haryana, Chandigarh & Delhi, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Marathwada, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Nagaland, Manipur, Mizoram, Tripura, Assam & Meghalaya, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep.

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

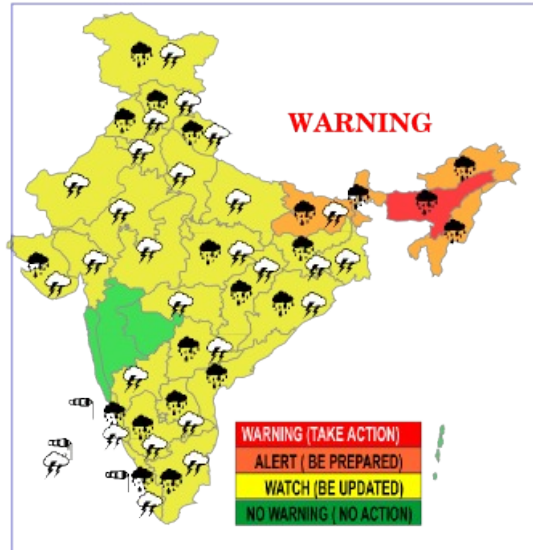
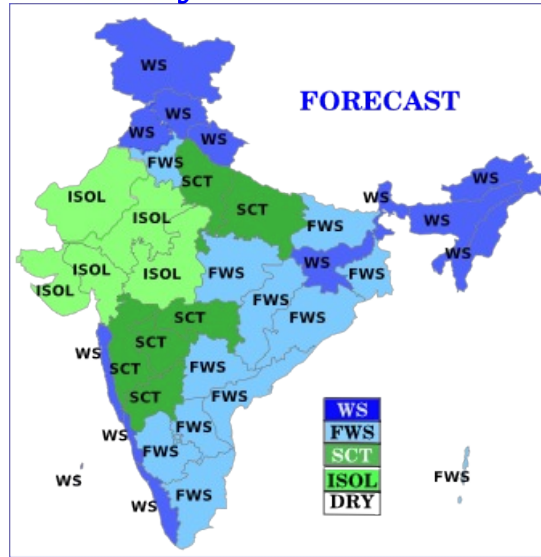
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(Copies to the Meteorologist (GPO))

Friday 17 June 2022



17 June (Day 2): ♦ **Heavy to very heavy rainfall at a few places with extremely heavy falls** at isolated places very likely over Sub-Himalayan West Bengal & Sikkim; **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya, **heavy to very heavy rainfall** at isolated places over Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Bihar and **heavy rainfall** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Jharkhand, Odisha, East Madhya Pradesh, Chhattisgarh, Saurashtra & Kutch, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Tamilnadu, Puducherry & Karaikal and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gangetic West Bengal, Bihar, Gujarat state, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.

♦ **Squally weather** (wind speed 40-50 kmph gusting to 60 kmph) very likely over along and off Kerala, Karnataka coasts, south east Arabian Sea, Lakshadweep area, Comorin area and Gulf of Mannar. **Strong winds** of 40-50 kmph gusting to 60 kmph likely over south west Arabian Sea and adjoining west central Arabian Sea. Fishermen are advised not to venture into these areas.

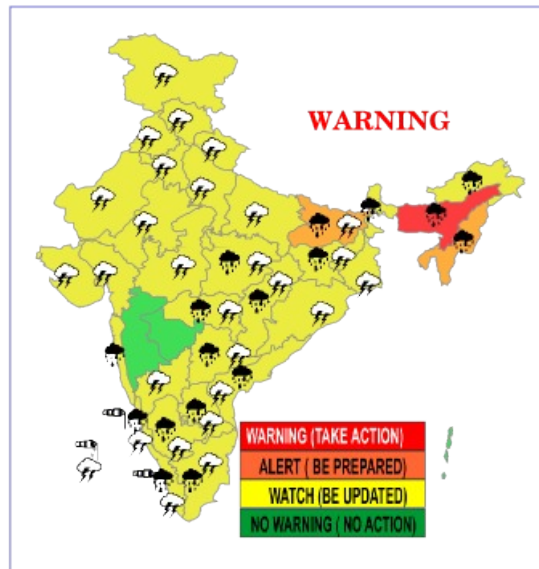
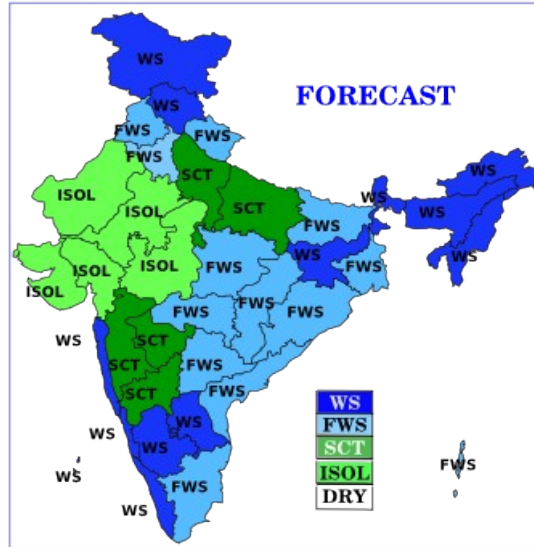
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Saturday 18 June 2022



18 June (Day 3): ♦ **Heavy to very heavy rainfall with extremely heavy falls** at isolated places very likely over Assam & Meghalaya; **heavy to very heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Bihar, Kerala & Mahe and **heavy rainfall** at isolated places over Sub-Himalayan West Bengal & Sikkim, Jharkhand, East Madhya Pradesh, Chhattisgarh, south Konkan & Goa, Arunachal Pradesh, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka and Tamilnadu, Puducherry & Karaikal.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places very likely over Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttar Pradesh, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, Karnataka, Tamilnadu, Puducherry & Karaikal, Kerala & Mahe and Lakshadweep.

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

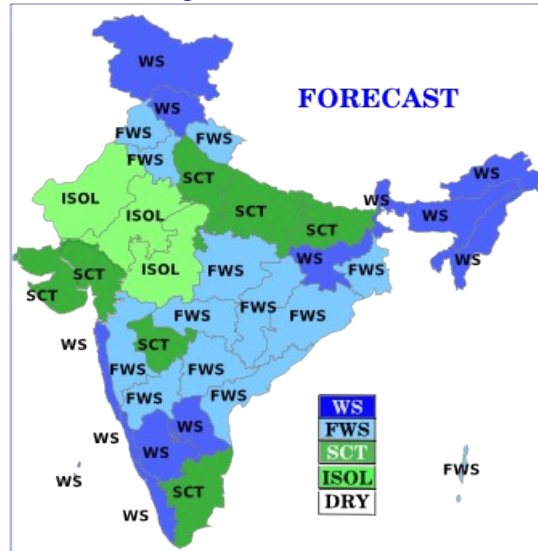
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(Circle as the National flag 1971)

Sunday 19 June 2022



19 June (Day 4): ♦ **Heavy to very heavy rainfall** at isolated places likely over Assam & Meghalaya, Coastal Andhra Pradesh & Yanam, Kerala & Mahe; **heavy rainfall** at isolated places over Nagaland, Manipur, Mizoram, Tripura, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Bihar, Jharkhand, south Konkan & Goa, East Madhya Pradesh, Chhattisgarh, Telangana and Coastal & South Interior Karnataka.

♦ **Thunderstorm accompanied with lightning/gusty winds (speed 40-50 kmph)** at isolated places likely over West Rajasthan and **with lightning** at isolated places over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, East Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal & South Interior Karnataka, Kerala & Mahe and Lakshadweep.

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

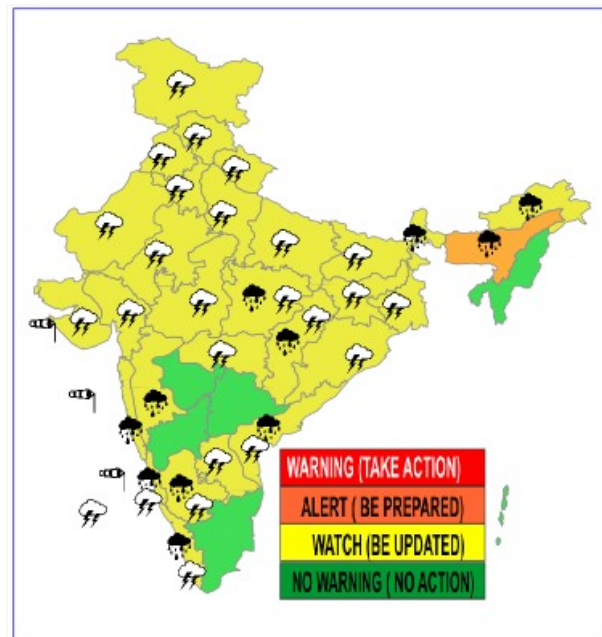
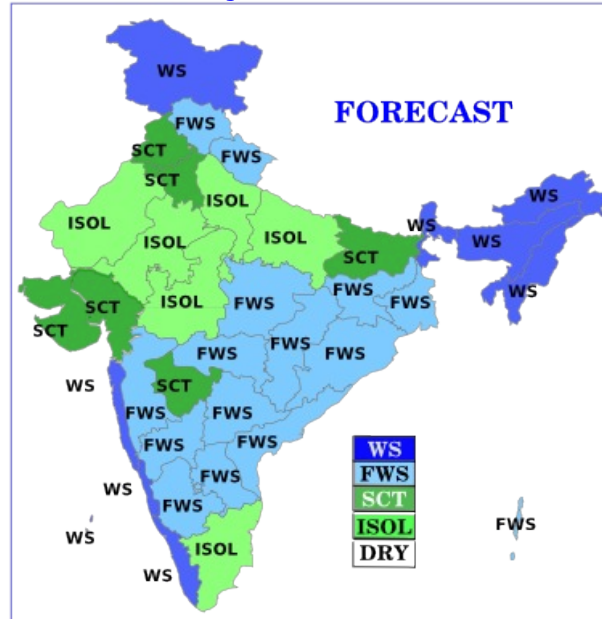
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Monday 20 June 2022



20 June (Day 5): ♦ Heavy to very heavy rainfall at isolated places likely over south Konkan & Goa and **heavy rainfall** at isolated places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, Assam & Meghalaya, East Madhya Pradesh, Chhattisgarh, south Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Coastal & South Interior Karnataka and Kerala & Mahe.

♦ **Thunderstorm accompanied with lightning** at isolated places likely over Jammu, Kashmir, Ladakh, Gilgit, Baltistan & Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat state, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Coastal Andhra Pradesh & Yanam, Rayalaseema, Coastal & South Interior Karnataka, Kerala & Mahe and Lakshadweep.

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

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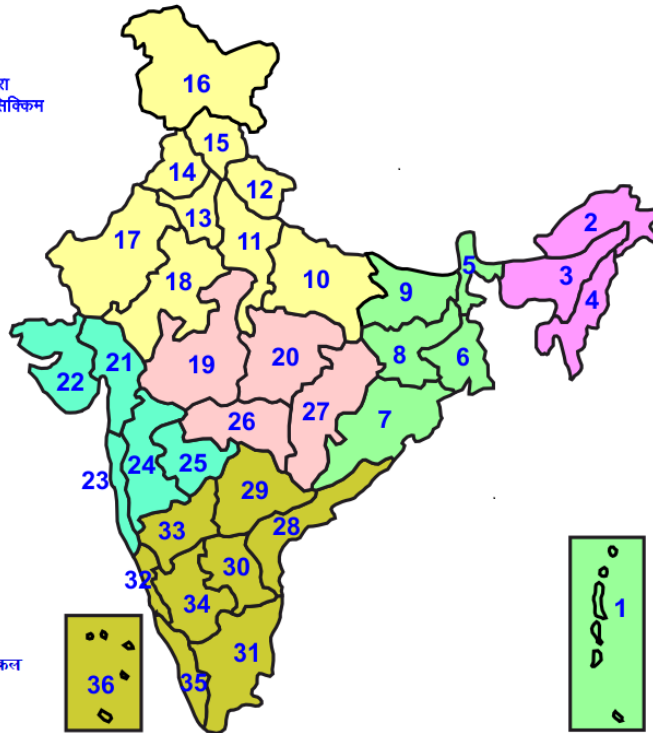
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LEGENDS

- 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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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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