

Friday, August 30, 2024
Time of Issue: 0900 hours IST
(MORNING)

ALL INDIA WEATHER SUMMARY AND FORECAST BULLETIN

Significant Weather Features:

Weather Systems:

- ❖ The **deep depression** over Kachchh and adjoining areas of Saurashtra, Northeast Arabian Sea & Pakistan moved west-southwestwards with a speed of 10 kmph during past 6 hours and lay centered at 0530 hours IST of 30th August, 2024 over Kachchh coast and adjoining areas of Pakistan & Northeast Arabian Sea near latitude 23.5°N and longitude 68.4°E, 145km west-northwest of Bhuj (Gujarat), 50 km west-northeast of Naliya (Gujarat) and 200 km southeast of Karachi (Pakistan). It is likely to move nearly westwards, emerge into northeast Arabian Sea off Kachchh and adjoining Pakistan coasts and intensify into a Cyclonic Storm during next 12 hours. Thereafter, it would continue to move nearly west-northwestwards over northeast Arabian Sea away from Indian coast during subsequent 2 days.
- ❖ The low pressure area over central and adjoining north Bay of Bengal moved west-northwestwards and lay over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh & South Odisha coasts at 0530 hours IST of 30th August, 2024. It is likely to move west-northwestwards and become more marked over the same region during next 12 hours. Thereafter, while moving towards north Andhra Pradesh and adjoining south Odisha coasts, it is likely to intensify into a depression over westcentral and adjoining northwest Bay of Bengal during subsequent 36 hours.
- ❖ Monsoon trough at mean sea level lies to the south of its normal position.

Forecast & Warnings (upto 7 days):

❖ West & Central India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over West & Central India during the week.
- ✓ Isolated **very heavy rainfall** also very likely over Saurashtra & Kutch on 30th August; Chhattisgarh on 31st August; Vidarbha on 31st August & 01st September; Gujarat Region on 02nd & 03rd September; ghat areas of Madhya Maharashtra and Konkan & Goa during 02nd-05th September.
- ✓ Isolated **Heavy rainfall** very likely over Konkan & Goa during 30th August- 01st September; Chhattisgarh on 30th August & 01st September; Vidarbha on 30th August & 02nd September; East Madhya Pradesh during 31st August-05th September; Madhya Maharashtra on 31st August & 01st September; Gujarat Region on 31st August, 01st, 04th & 05th September; West Madhya Pradesh during 01st-05th September; Marathwada during 01st-03rd September; Saurashtra & Kutch on 02nd & 03rd September.

❖ East & Northeast India

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Odisha and Scattered to Fairly widespread light/moderate rainfall very likely over Arunachal Pradesh, West Bengal & Sikkim, Bihar and Jharkhand during the week.
- ✓ Isolated **extremely heavy rainfall also very likely** over Odisha on 30th August.
- ✓ Isolated **very heavy rainfall** also very likely over Odisha on 31st August.
- ✓ Isolated **heavy rainfall** very likely over Assam & Meghalaya during 01st-05th September; Nagaland, Manipur, Mizoram & Tripura during next 7 days; Arunachal Pradesh during 02nd-05th September; Andaman & Nicobar Islands on 30th August; Odisha on 01st September.

❖ South Peninsular India:

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Coastal Karnataka, Coastal Andhra Pradesh & Yanam, Lakshadweep, Kerala & Mahe; Scattered to Fairly widespread light/moderate rainfall very likely Telangana and Interior Karnataka; isolated to scattered rainfall over Rayalaseema and Tamil Nadu, Puducherry & Karaikal during the week.
- ✓ Isolated **extremely heavy rainfall also very likely** over Coastal Karnataka on 30th August.
- ✓ Isolated **very heavy rainfall** also very likely over Kerala & Mahe and South Interior Karnataka on 30th August; Coastal & North Interior Karnataka on 31st August; Coastal Andhra Pradesh & Yanam on 30th & 31st August; Telangana during 30th August-01st September.
- ✓ Isolated **heavy rainfall** very likely over North Interior Karnataka on 30th August & 01st September; Coastal Andhra Pradesh & Yanam on 01st September; Telangana on 02nd September; Kerala & Mahe during 31st August-02nd September; South Interior Karnataka on 31st August & 01st September; Coastal Karnataka during 01st-05th September.

❖ Northwest India

- ✓ Scattered to Fairly widespread light/moderate rainfall very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan; isolated to scattered rainfall over Uttar Pradesh, Haryana-Chandigarh-Delhi, Punjab, West Rajasthan during the week.
- ✓ Isolated **very heavy rainfall** also very likely over East Rajasthan on 02nd September.
- ✓ Isolated **heavy rainfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana-Chandigarh-Delhi and West Uttar Pradesh on 02nd September; Uttarakhand during 30th August-02nd September; East Uttar Pradesh on 01st & 02nd September; West Rajasthan on 02nd & 03rd September; East Rajasthan on 01st, 03rd, 04th & 05th

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

Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.

For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599

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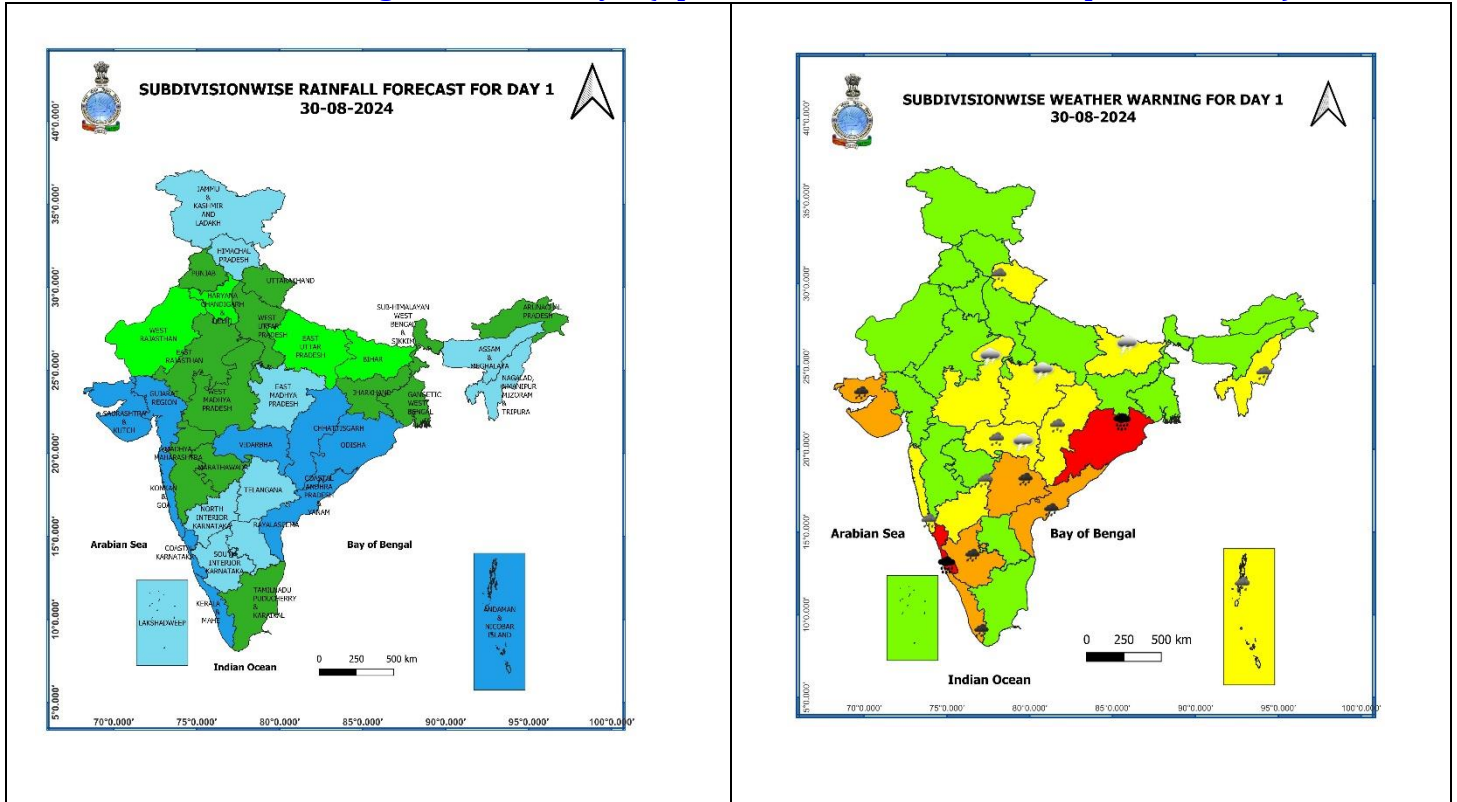
Main Weather Observations:

- ❖ **Rainfall distribution** (from 0830 hours IST to 1730 hours IST of yesterday): **at many places** over Coastal Karnataka, Kerala & Mahe, Assam & Meghalaya; **at a few places** over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Uttarakhand, Punjab, Haryana-Chandigarh-Delhi, Gujarat state, Madhya Maharashtra, Telangana, Coastal Andhra Pradesh & Yanam, Odisha, Chhattisgarh, Bihar, Sub-Himalayan West Bengal & Sikkim; **at isolated places** over Himachal Pradesh, Konkan & Goa, Tamil Nadu, Puducherry & Karaikal, South Interior Karnataka, Gangetic West Bengal, Jharkhand, Madhya Pradesh, Uttar Pradesh, East Rajasthan.
- ❖ **Heavy rainfall recorded** (from 0830 hours IST to 1730 hours IST of yesterday): **Heavy rainfall** at isolated places over Saurashtra & Kutch.
- ❖ **Significant amount of rainfall** (from 0830 hours IST to 1730 hours IST of yesterday) (in cm): **Saurashtra & Kutch:** Naliya 11, Dwarka 5, New Kandla 4, Jamnagar 3, Bhuj 2; **Coastal Andhra Pradesh & Yanam:** Kalingapatnam 5; **Jammu- Kashmir:** Udampur 5, Gulmarg 2; **Bihar:** Purnea 4, Supaul 2; **Odisha:** Koraput 4, Malkangiri 4, Phulbani 4, Nabarnapur 3, Titlagarh 3, Bolangir 2; **East Madhya Pradesh:** Sagar 3; **South Interior Karnataka:** Bangalore 3; **Telangana:** Hakimpeth 3; **Kerala & Mahe:** Karipur 3, Kochin 3; **West Madhya Pradesh:** Pachmarhi 2, Betul 2; **Konkan & Goa:** Ratnagiri 2; **Gangetic West Bengal:** Diamond Harbour 2; **Vidarbha:** Gadchiroli 2, **Chhattisgarh:** Ambikapur 2, **Punjab:** Halwara 2, Adampur 2.
- ❖ **Minimum Temperature Departures (as on 29-08-2024):** Minimum temperatures were **above normal (1.6°C to 3.0°C)** at a few places over Kerala & Mahe, Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh; at isolated places over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, East Uttar Pradesh, Himachal Pradesh, Saurashtra & Kutch, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Assam & Meghalaya, Telangana, Rayalaseema, Coastal Andhra Pradesh & Yanam and Tamil Nadu, Puducherry & Karaikal. These were **below normal (-1.6°C to -3.0°C)** at isolated places over Haryana-Chandigarh-Delhi and West Uttar Pradesh and **near normal** over rest parts of the country. Yesterday, **the lowest minimum temperature** of 18.4°C was reported at **Bulsar (Gujarat Region)** over the plains of the country. (Fig.4)
- ❖ **Maximum Temperature Departures (as on 29-08-2024):** Maximum temperatures were **appreciably above normal (3.1°C to 5.0°C)** at isolated places over East Madhya Pradesh, West Bengal & Sikkim, Assam & Meghalaya; **above normal (1.6°C to 3.0°C)** at a few places over East Uttar Pradesh, West Madhya Pradesh, Jharkhand, Bihar, Madhya Maharashtra, Konkan & Goa, Marathwada, Vidarbha; at isolated places over Kerala & Mahe, Telangana, Tamil Nadu, Puducherry & Karaikal, Nagaland, Manipur, Mizoram & Tripura. These were **markedly below normal (-5.1°C or less)** at isolated places over Punjab, Haryana-Chandigarh-Delhi, Saurashtra & Kutch, Odisha and Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad; **appreciably above normal (-3.1°C to -5.0°C)** at isolated places over West Rajasthan, Coastal Andhra Pradesh & Yanam, Gujarat Region; **below normal (-1.6°C to -3.0°C)** at isolated places over East Rajasthan, Andaman & Nicobar Islands and **near normal** over rest parts of the country. Yesterday, **the highest Maximum Temperature** of 38.2°C was reported at **Madurai (Tamil Nadu)** over the country. (Fig. 2)

Meteorological Analysis (Based on 0530 hours IST)

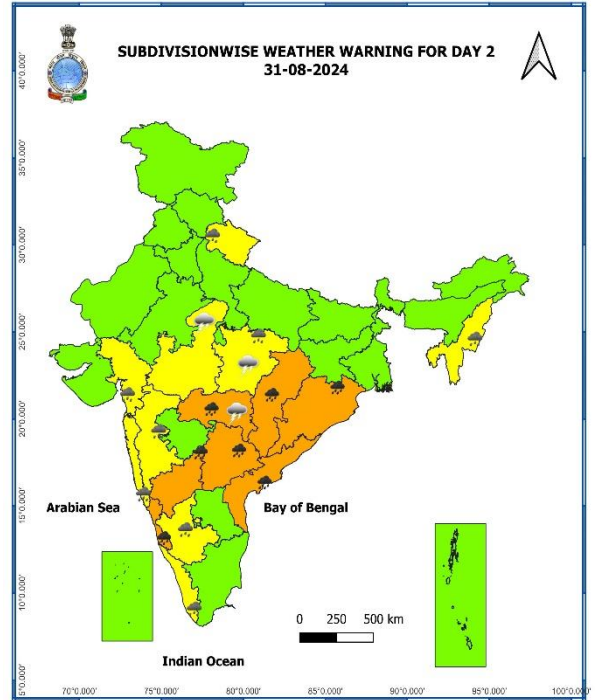
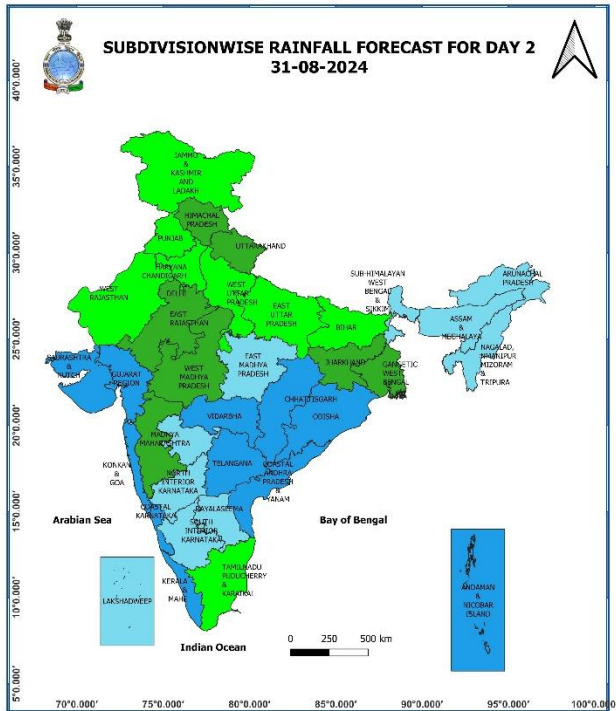
- ❖ The **deep depression** over Kachchh and adjoining areas of Saurashtra, Northeast Arabian Sea & Pakistan moved west-southwestwards with a speed of 10 kmph during past 6 hours and lay centered at 0530 hours IST of 30th August, 2024 over Kachchh coast and adjoining areas of Pakistan & Northeast Arabian Sea near latitude 23.5°N and longitude 68.4°E, 145km west-northwest of Bhuj (Gujarat), 50 km west-northeast of Naliya (Gujarat) and 200 km southeast of Karachi (Pakistan). It is likely to move nearly westwards, emerge into northeast Arabian Sea off Kachchh and adjoining Pakistan coasts and intensify into a Cyclonic Storm during next 12 hours. Thereafter, it would continue to move nearly west-northwestwards over northeast Arabian Sea away from Indian coast during subsequent 2 days.
- ❖ The **low pressure** area over central and adjoining north Bay of Bengal moved west-northwestwards and lay over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh & South Odisha coasts at 0530 hours IST of 30th August, 2024. It is likely to move west-northwestwards and become more marked over the same region during next 12 hours. Thereafter, while moving towards north Andhra Pradesh and adjoining south Odisha coasts, it is likely to intensify into a depression over westcentral and adjoining northwest Bay of Bengal during subsequent 36 hours.
- ❖ The **Monsoon trough** at mean sea level now passes through centre of deep depression over Kutch and adjoining areas of Saurashtra, Ujjain, Mandla, Bilaspur, Chandbali and thence southeastwards to low pressure area over west-northwestwards and lay over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh & South Odisha.
- ❖ The **offshore trough** at mean sea level runs from south Gujarat to north Kerala coasts 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. 67°E to the north of Lat. 30°N persists.

Weather Forecast & Warnings for next 7 days (Upto 0830 hours IST of 06th September, 2024)



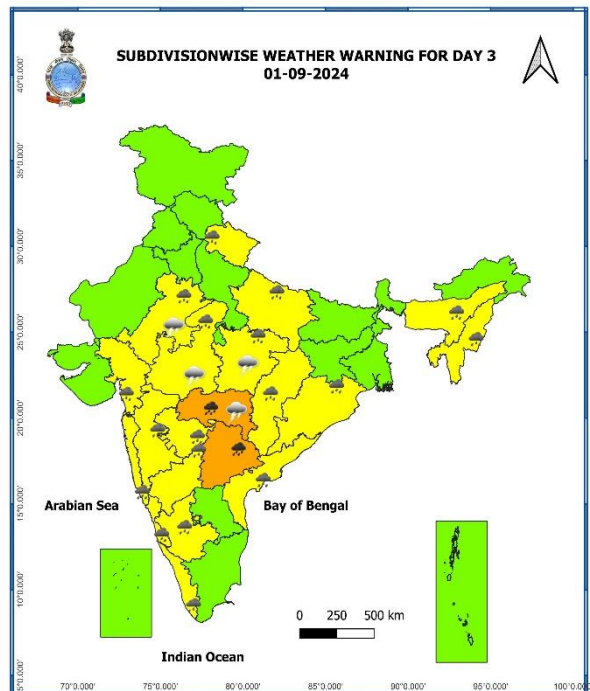
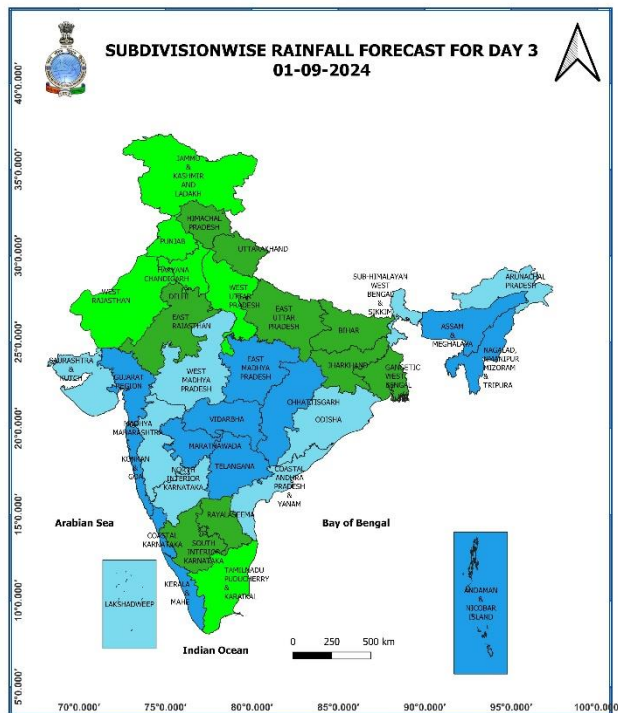
30 August (Day 1):

- ❖ **Heavy to very heavy rainfall with extremely heavy falls (> 20 cm)** very likely at isolated places over Odisha and Coastal Karnataka; **Heavy to very heavy rainfall (≥ 12 cm)** at isolated places over Saurashtra & Kutch, Kerala & Mahe, Coastal Andhra Pradesh & Yanam, Telangana and South Interior Karnataka; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Nagaland, Manipur, Mizoram & Tripura, Goa, and North Interior Karnataka.
- ❖ **Thunderstorm accompanied with lighting** very likely at isolated places over Bihar, Rajasthan, Madhya Pradesh and Vidarbha.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** is very likely to prevail over north, central Arabian sea and northern parts of south Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa, Karnataka, Kerala coasts, Lakshadweep area, over gulf of Mannar, and off Sri Lanka coast; many parts of south Bay of Bengal, most parts of central Bay of Bengal, and southern parts of northwest and adjoining northeast Bay of Bengal, along and off north Andhra Pradesh, Odisha, west Bengal coasts, north Andaman sea. **Squally weather with winds speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Gujarat coast, northeast Arabian sea, many parts of northwest, eastcentral Arabian sea, adjoining westcentral Arabian sea, some parts of eastcentral and west central Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over most parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, Oman coasts. **Squally winds with speed reaching 55 kmph to 65 kmph gusting to 75 kmph** likely to prevail along and off Gujarat coast and adjoining Pakistan coast and adjoining northeast and eastcentral Arabian sea. **Gale winds with speed reaching 65 kmph to 75 kmph gusting to 85 kmph** likely to prevail over northeast Arabian sea, off Gujarat coast. Fishermen are advised not to venture into these areas.



31 August (Day 2):

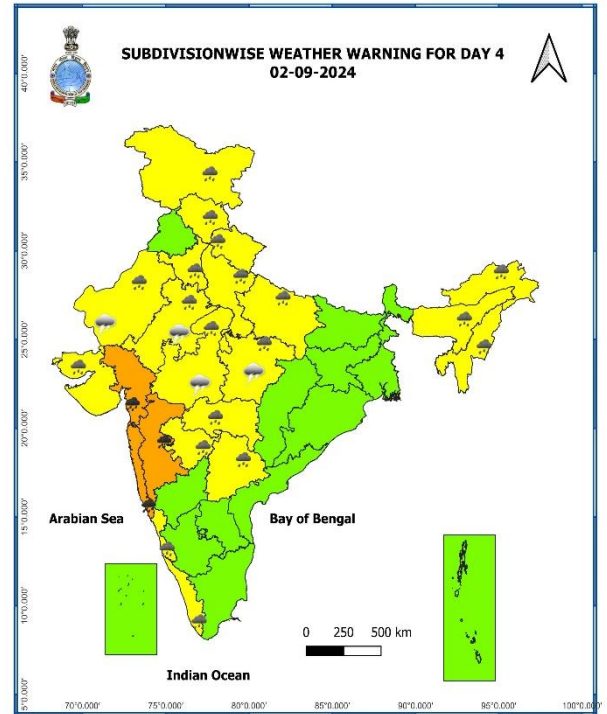
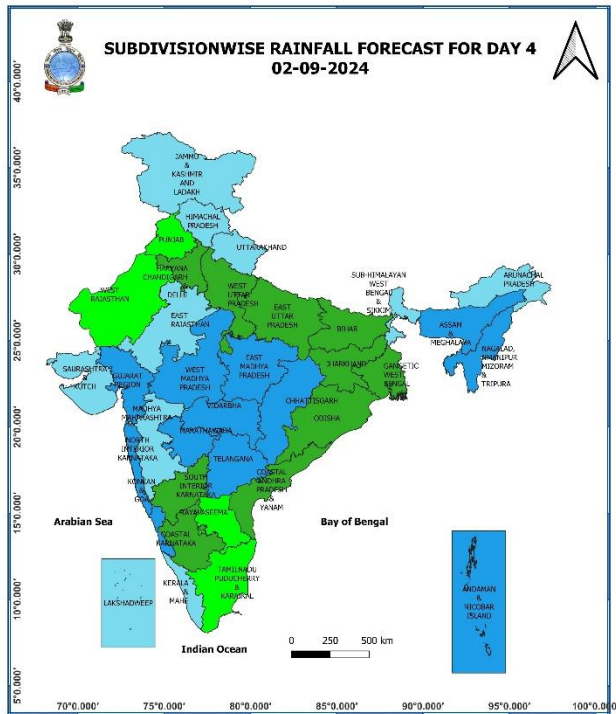
- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** very likely at isolated places over Vidarbha, Chhattisgarh, Odisha, Coastal Andhra Pradesh & Yanam, Telangana and Coastal & North Interior Karnataka; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, East Madhya Pradesh, Mizoram, Goa, Madhya Maharashtra, Gujarat Region, Kerala & Mahe, and South Interior Karnataka.
- ❖ **Thunderstorm accompanied with lighting** very likely at isolated places over Rajasthan, Madhya Pradesh and Vidarbha.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** is very likely to prevail over north, central Arabian sea and northern parts of south Arabian sea, along and off Gujarat, Maharashtra, Konkan, goa, Karnataka, Kerala coasts, Lakshadweep area, over gulf of Mannar, and off Sri Lanka coast; many parts of south Bay of Bengal, most parts of central Bay of Bengal, and southern parts of northwest and adjoining northeast Bay of Bengal, along and off north Andhra Pradesh, Odisha, west Bengal coasts, north Andaman sea. **Squally weather with winds speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail along and off Gujarat coast, northeast Arabian sea, many parts of northwest, eastcentral Arabian sea, adjoining westcentral Arabian sea, many parts of central and adjoining parts of northwest Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over most parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, Oman coasts. **Squally winds with speed reaching 55 kmph to 65 kmph gusting to 75 kmph** likely to prevail along and off Gujarat coast and adjoining Pakistan coast and adjoining northeast and eastcentral Arabian sea. **Gale winds with speed reaching 65 kmph to 75 kmph gusting to 85 kmph** likely to prevail over central parts of north Arabian sea. Fishermen are advised not to venture into these areas.



01 September (Day 3):

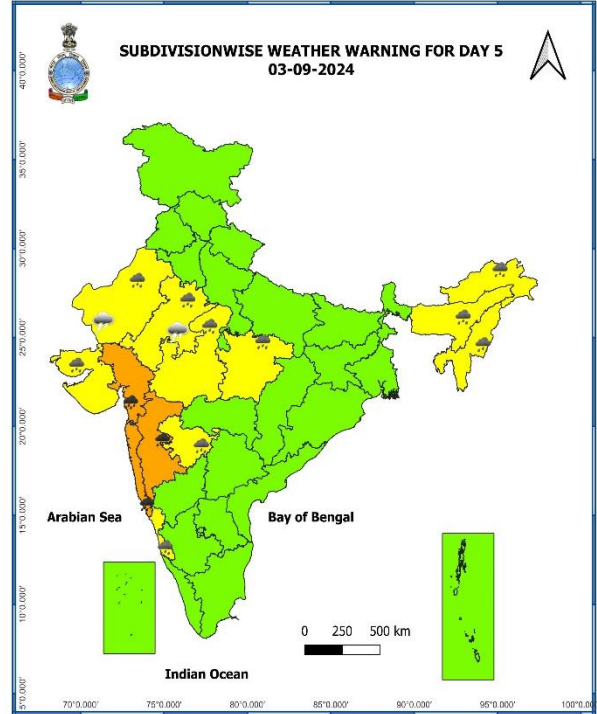
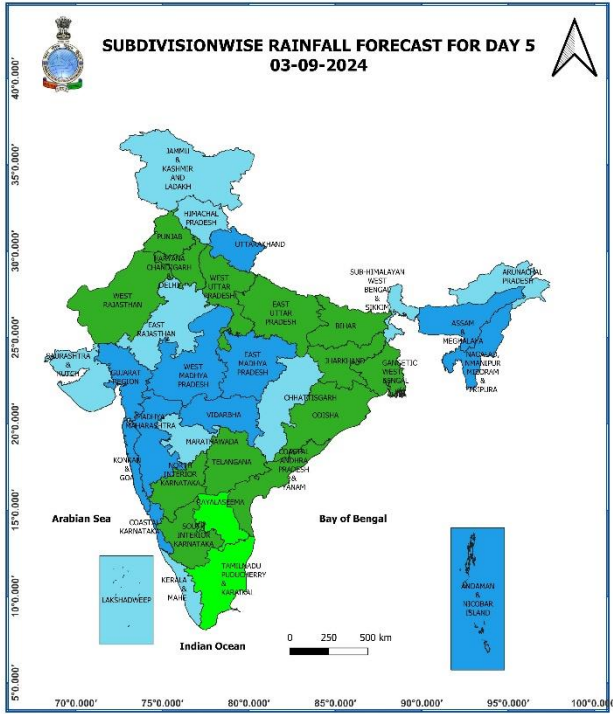
- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** very likely at isolated places over Vidarbha and Telangana; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, East Uttar Pradesh, East Rajasthan, Madhya Pradesh, Chhattisgarh, Odisha, Assam & Meghalaya, Mizoram, Goa, Madhya Maharashtra, Marathwada, Gujarat Region, Kerala & Mahe, Coastal Andhra Pradesh & Yanam and Karnataka.
- ❖ **Thunderstorm accompanied with lighting** very likely at isolated places over Rajasthan, Madhya Pradesh and Vidarbha.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** is very likely to prevail over north, central Arabian sea, along and off Gujarat, Maharashtra coasts, over gulf of Mannar, and off Sri Lanka coast; most parts of central Bay of Bengal, northern parts of south Bay of Bengal and southern parts of northwest and adjoining northeast Bay of Bengal, along and off north Andhra Pradesh and Odisha coasts. **Squally weather with winds speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over most parts of westcentral Arabian sea, adjoining parts of east central Arabian sea, many parts of northwest and adjoining northeast Arabian sea, many parts of central Bay of Bengal and adjoining areas. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over most parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, south Oman coasts. Fishermen are advised not to venture into these areas.

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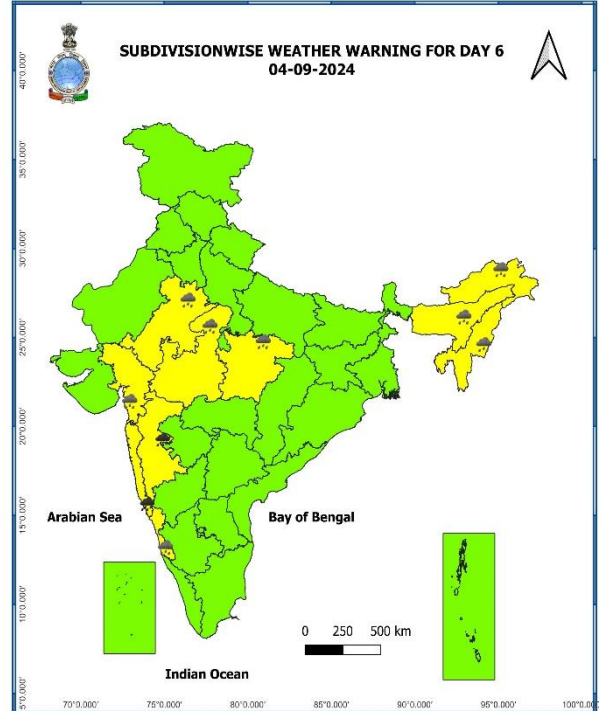
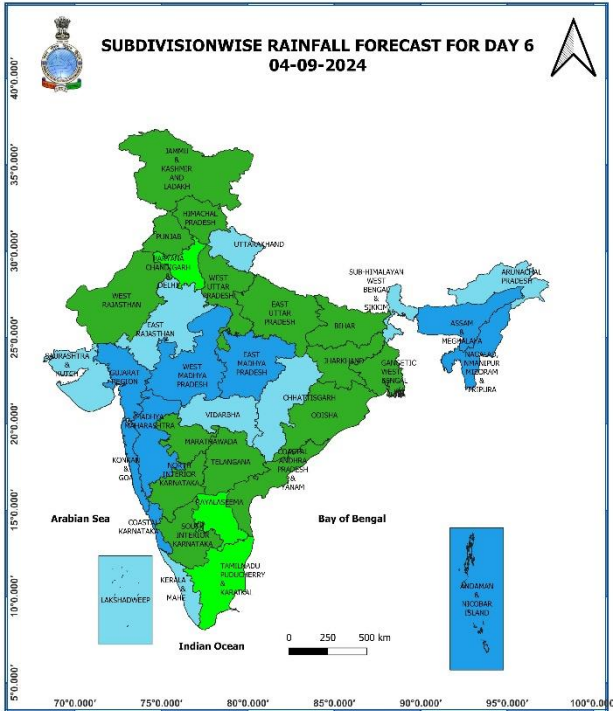
02 September (Day 4):

- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over East Rajasthan, Goa, ghat areas of Madhya Maharashtra, and Gujarat Region; **Heavy rainfall (≥ 7 cm)** at isolated places over Uttarakhand, Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Haryana-Chandigarh-Delhi, Uttar Pradesh, Rajasthan, Madhya Pradesh, Vidarbha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Marathwada, Saurashtra & Kutch, Kerala & Mahe, Telangana and Coastal Karnataka.
- ❖ **Thunderstorm accompanied with lighting** likely at isolated places over Rajasthan and Madhya Pradesh.
- ❖ **Squally weather with wind speed reaching 35 kmph to 45 kmph gusting to 55 kmph** is likely to prevail over north, central Arabian sea, along and off Gujarat coast, over gulf of Mannar, and off Sri Lanka coast; most parts of southwest Bay of Bengal and adjoining parts of southeast Bay of Bengal, most parts of central Bay of Bengal. **Squally weather with winds speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over many parts of westcentral Bay of Bengal. **Squally winds with speed reaching 45 kmph to 55 kmph gusting to 65 kmph** likely to prevail over most parts of westcentral, western parts of southwest Arabian sea, along and off Somalia, Yemen, south Oman coasts. Fishermen are advised not to venture into these areas.



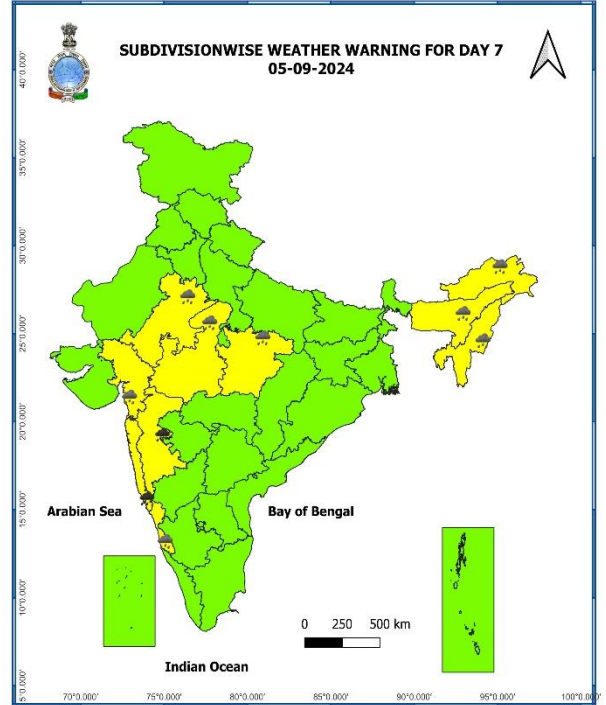
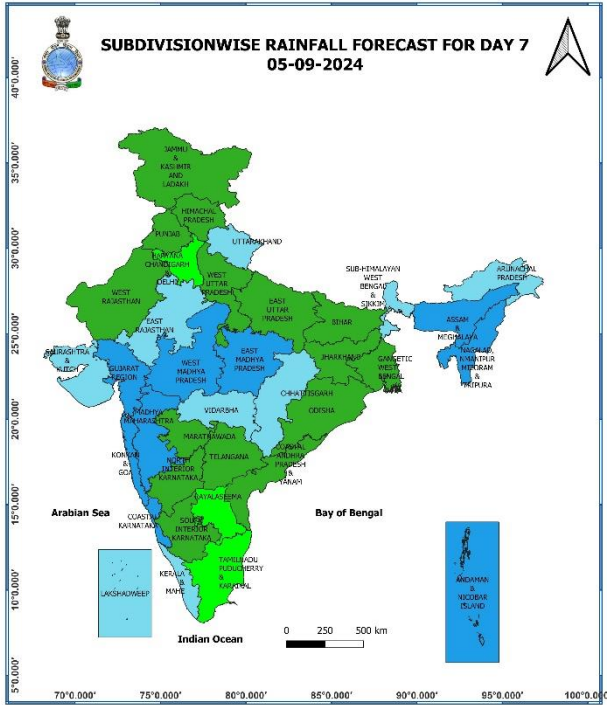
03 September (Day 5):

❖ **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over ghat areas of Madhya Maharashtra, Gujarat Region and Goa; **Heavy rainfall (≥ 7 cm)** at isolated places over Rajasthan, Madhya Pradesh, Arunachal Pradesh, Assam & Meghalaya Nagaland, Manipur, Mizoram & Tripura, Marathwada, Saurashtra & Kutch, Telangana and Coastal Karnataka.



04 September (Day 6):

❖ **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over ghat areas of Madhya Maharashtra and Goa; **Heavy rainfall (≥ 7 cm)** at isolated places over East Rajasthan, Madhya Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Telangana and Coastal Karnataka.



05 September (Day 7):

- ❖ **Heavy to very heavy rainfall (≥ 12 cm)** likely at isolated places over ghat areas of Madhya Maharashtra and Goa; **Heavy rainfall (≥ 7 cm)** at isolated places over East Rajasthan, Madhya Pradesh, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Gujarat Region, Telangana and Coastal Karnataka.

Weather Outlook for subsequent 3 days (During 06th September– 08th September, 2024)

- ❖ Fairly widespread to widespread rainfall likely over most parts of the country except Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, West Rajasthan, Punjab, Haryana-Chandigarh-Delhi and Tamil Nadu, Puducherry & Karaikal where isolated to scattered rainfall likely.

- Action may be taken based on **ORANGE AND RED COLOUR** warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

Impact due to

- **Isolated extremely heavy rainfall** also very likely over Odisha & Coastal Karnataka on 30th August.
- **Very heavy rainfall** at isolated over Odisha, Coastal Karnataka, Chhattisgarh, North Interior Karnataka on 31st August; Kerala & Mahe, South Interior Karnataka, Saurashtra & Kutch on 30th August; Vidarbha on 31st August & 01st September; Gujarat Region on 02nd & 03rd September; ghat areas of Madhya Maharashtra and Konkan & Goa during 02nd-05th September; Coastal Andhra Pradesh & Yanam on 30th & 31st August; Telangana during 30th August-01st September; East Rajasthan on 02nd September.
- **Low to Moderate flash flood risk** likely over Saurashtra & Kutch and **Low flash flood risk** likely over Himachal Pradesh, Uttarakhand and Jammu-Kashmir-Ladakh on 30th & 31st August. **(ANNEXURE I)**
 - ✓ 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 kutcha roads.
 - ✓ Possibilities of damage to vulnerable structure.
 - ✓ Localized Landslides/Mudslides/landslips/mud slips/land sinks/mud sinks.
 - ✓ 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)

Action Suggested

- ✓ Fishermen are advised not venture into Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat & adjoining Pakistan and north Maharashtra Coasts till 30th August.
- ✓ Fishermen are advised not to venture into North Bay of Bengal and along & off North Odisha, West Bengal, Bangladesh coasts on 26th August.
- ✓ Judicious regulation of offshore/onshore Operations.
- ✓ 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.

Agromet advisories for Heavy Rainfall likely over various parts of the country

- ✓ Drain out excess water from field crops and horticultural crops in Gujarat, Konkan & Goa, ghat regions of Madhya Maharashtra, Mizoram, Uttarakhand, Andaman & Nicobar Islands, Odisha, Kerala and Karnataka.
- ✓ Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in Coastal Andhra Pradesh, Telangana, Chhattisgarh and Vidarbha.
- ✓ Drain out excess water from pigeon pea, soybean, cotton and sesame crop fields in **Saurashtra & Kutch**; from rice, castor, cotton, pearl millet, groundnut, sesame and maize fields in **Gujarat**; from maize, groundnut, ragi, vegetables, niger and banana in South **Odisha**.
- ✓ Due to prolonged heavy rainfall, transplanted *Aman* rice and vegetable crops in low-lying areas of **Tripura** are submerged, with young rice seedlings unlikely to recover. It is recommended to procure short-duration rice varieties for re-sowing after the cessation of rains, or alternatively, prepare in advance for winter vegetable cultivation.
- ✓ Provide mechanical support to horticultural crops & staking to vegetables.

Flash Flood Guidance:

ANNEXURE I

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 31-08-2024:

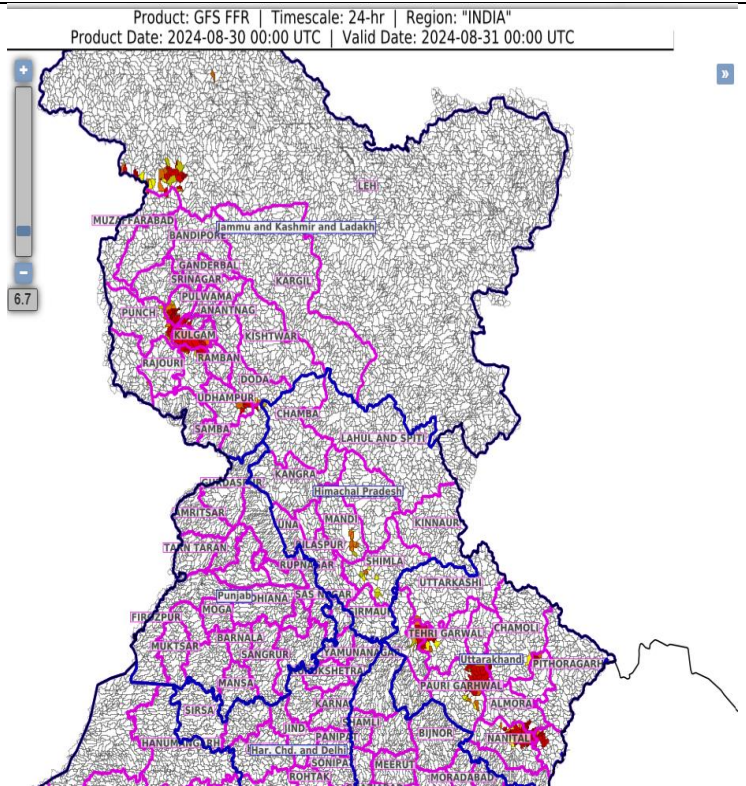
Low flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Himachal Pradesh - Mandi, Shimla and Sirmaur districts.

Jammu & Kashmir & Ladakh - Badgam, Doda, Kathua, Kulgam, Punch, Shopian, Udhampur and Leh and Ladakh districts.

Uttarakhand - Almora, Bageshwar, Chamoli, Champawat, Dehradun, Nanital, Pauri Garhwal and Tehri Garwal districts.

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.

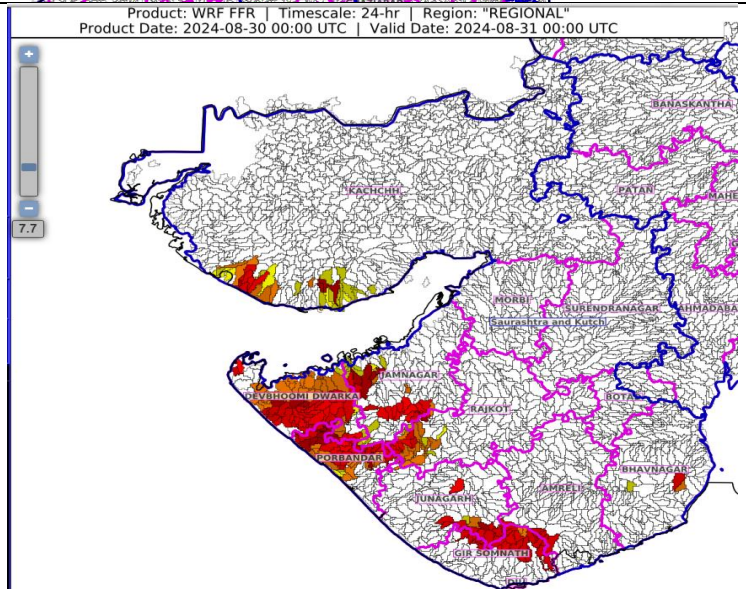


24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 31-08-2024:

Low to Moderate flash flood risk likely over few watersheds & neighbourhoods of following Met Sub-divisions during next 24 hours.

Saurashtra & Kutch - Amreli, Bhavnagar, Devbhoomi Dwarka, Gir Somnath, Jamnagar, Junagarh, Porbandar, Rajkot and Kachchh districts.

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.



* Red colour warning does not mean "Red Alert", Red colour warning means "Take Action".
Forecast and Warning for any day is valid from 0830 hours IST of day till 0830 hours IST of next day.
For more details, kindly visit <https://mausam.imd.gov.in> or contact: 011-2434-4599
(Service to the Nation since 1875)

Fig. 1: Maximum Temperatures

Fig. 2: Departure of Maximum Temperatures

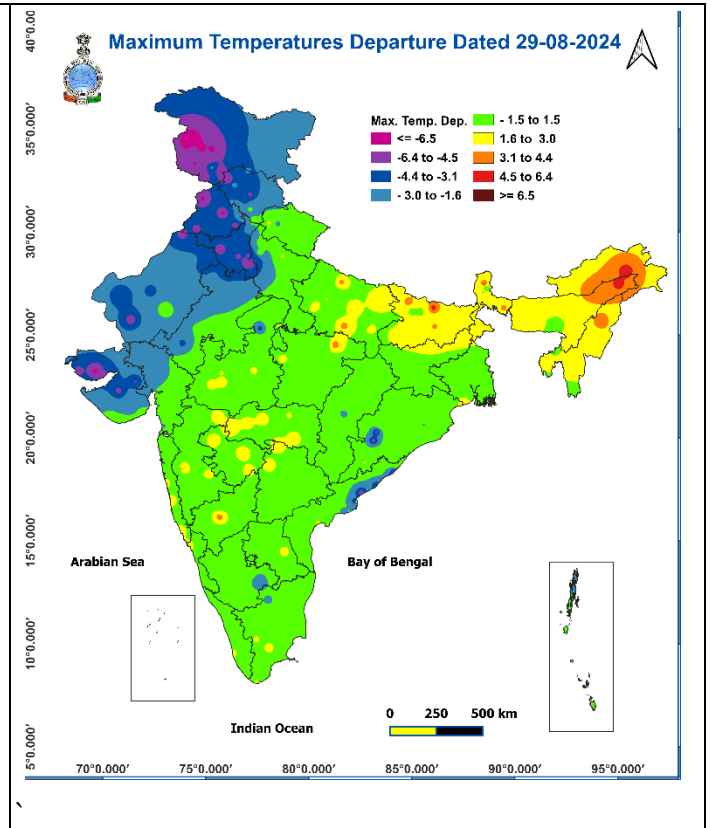
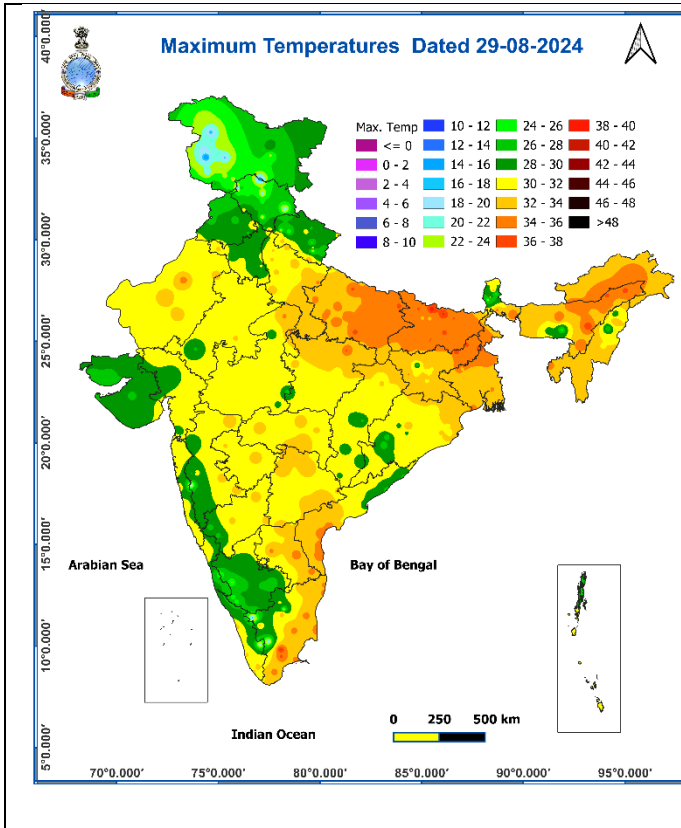


Fig. 3: Minimum Temperatures

Fig. 4: Departure of Minimum Temperatures

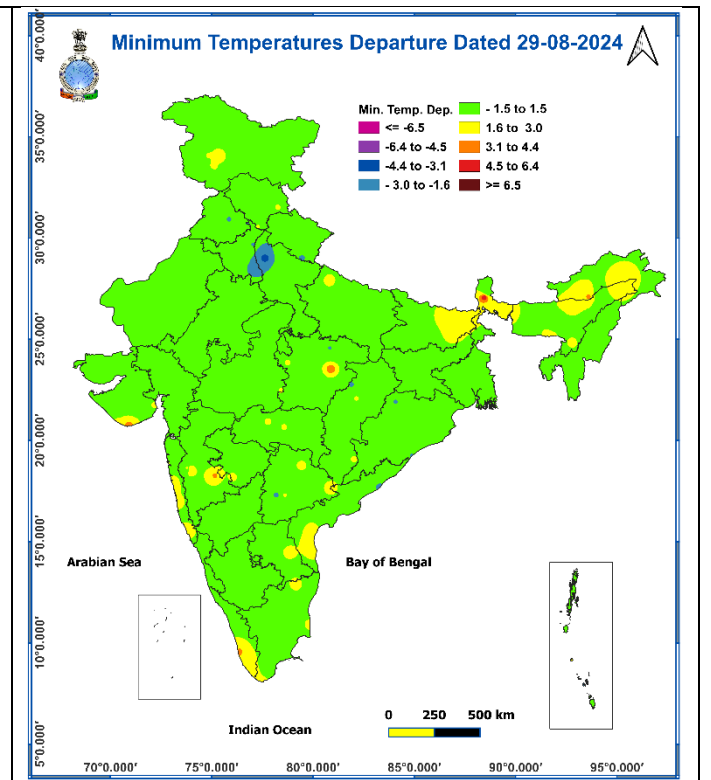
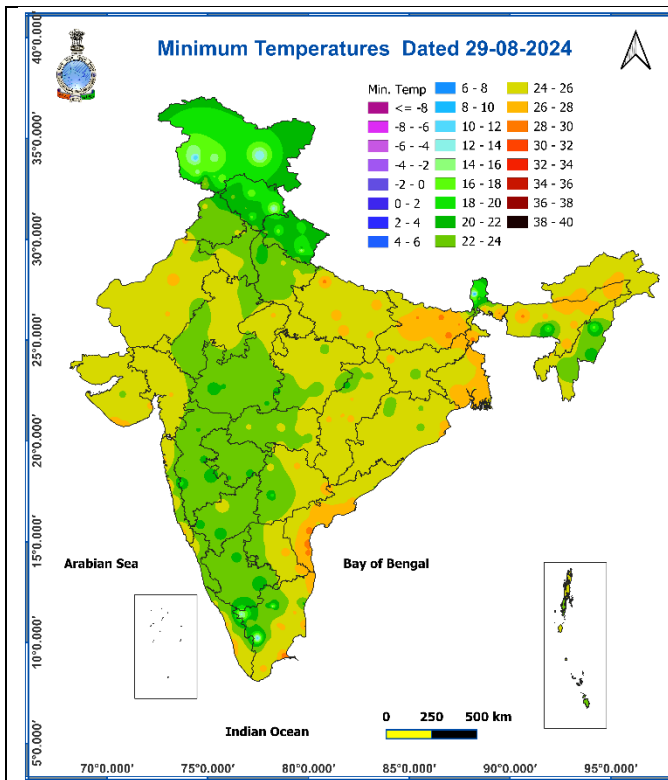
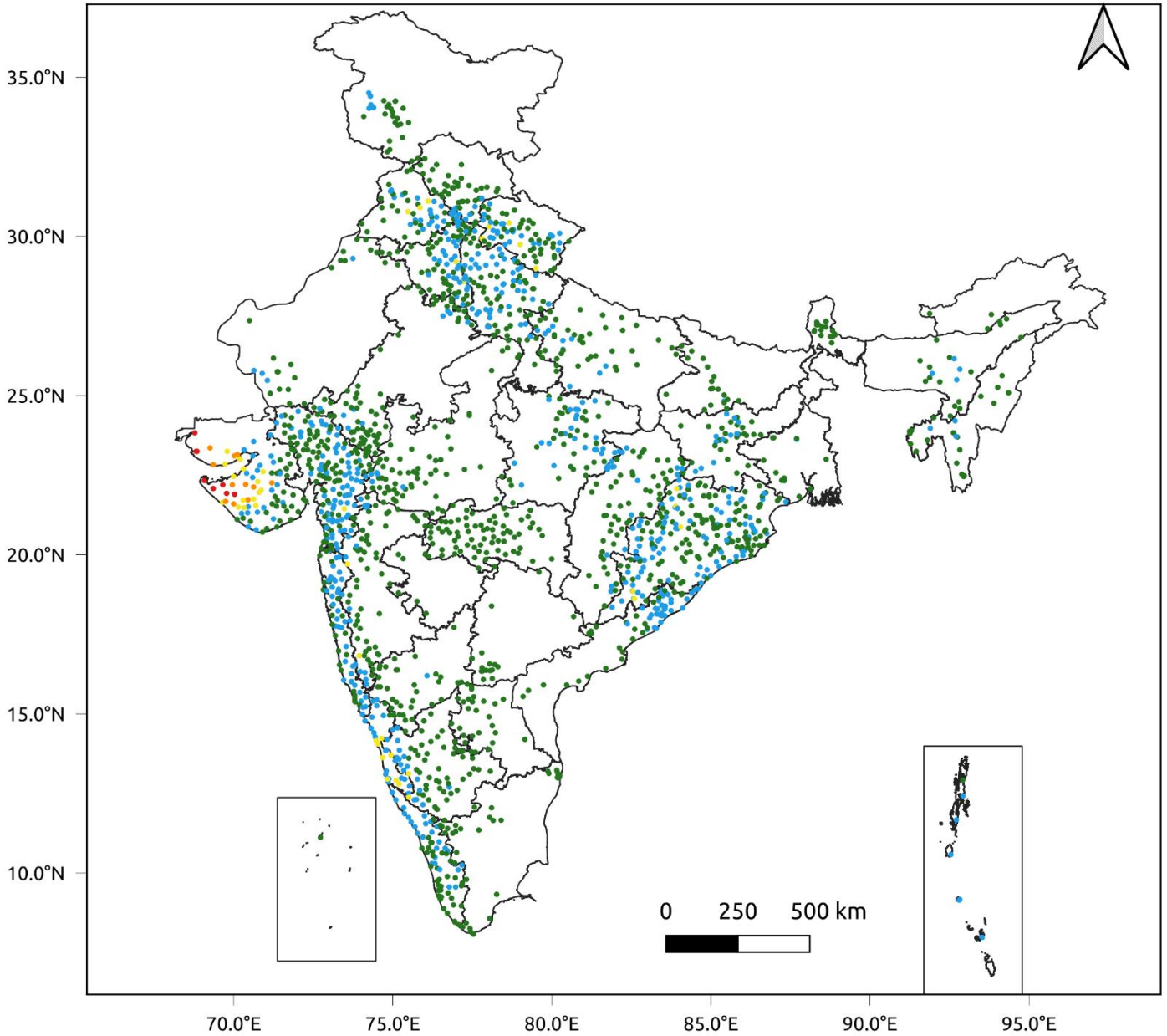


Fig. 5: Accumulated Rainfall (mm) during past 24 hours
kg

24 Hr cumulative rainfall recorded over different stations during 0830 IST of 28-8-2024 to 0830 IST of 29-8-2024

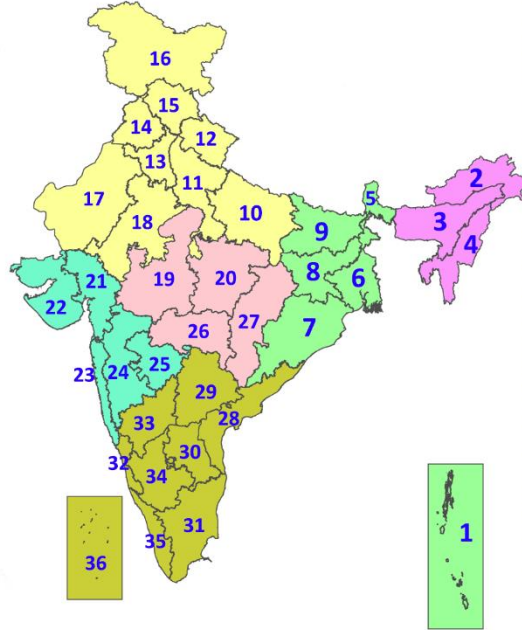


Legends

- Very Light to Light Rainfall (0.1 - 15.5 mm)
- Moderate Rainfall (15.6 - 64.4 mm)
- Heavy Rainfall (64.5 - 115.5 mm)
- Very Heavy Rainfall (115.6 - 204.4 mm)
- Extremely Heavy Rainfall (>=204.5 mm)

LEGENDS

1. अंडमान और निकोबार द्वीपसमूह
2. अरुणाचल प्रदेश
3. असम और मेघालय
4. नागालैंड, मणिपुर, मिजोरम और त्रिपुरा
5. उप-हिमालयी पश्चिम बंगाल और सिक्किम
6. गंगीय पश्चिम बंगाल
7. ओडिशा
8. झारखंड
9. बिहार
10. पूर्वी उत्तर प्रदेश
11. पश्चिम उत्तर प्रदेश
12. उत्तराखंड
13. हरियाणा, चंडीगढ़ और दिल्ली
14. पंजाब
15. हिमाचल प्रदेश
16. जम्मू और कश्मीर और लद्दाख
17. पश्चिम राजस्थान
18. पूर्वी राजस्थान
19. पश्चिम मध्य प्रदेश
20. पूर्वी मध्य प्रदेश
21. गुजरात
22. सौराष्ट्र
23. कोंकण और गोवा
24. मध्य महाराष्ट्र
25. मराठवाड़ा
26. विदर्भ
27. छत्तीसगढ़
28. तटीय आंध्र प्रदेश और यनम
29. तेलंगाना
30. रायलसीमा
31. तमिलनाडु, पुडुचेरी और कराईकल
32. तटीय कर्नाटक
33. आंतरिक उत्तरी कर्नाटक
34. आंतरिक दक्षिणी कर्नाटक
35. केरल और 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. Odisha
8. Jharkhand
9. Bihar
10. East Uttar Pradesh
11. West Uttar Pradesh
12. Uttarakhand
13. Haryana, Chandigarh & 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. Marathwada
26. Vidarbha
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)

- | | | |
|----------------------|----------------------|--------------|
| Fog | Heavy Snow | Cold Wave |
| Heavy Rain | Dust Storm | Cold Day |
| Very Heavy Rain | Heat Wave | Ground Frost |
| Extremely Heavy Rain | Warm Night | |
| Thunder & Lightning | Hot Day | |
| Hailstorm | Hot & Humid | |
| Dust Raising Winds | Strong Surface Winds | |

COLOUR CODED WARNING

No Warning (No Action)
Watch (Be Aware)
Alert (Be Prepared To Take Action)
Warning (Take Action)

Probabilistic Forecast

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

DEFINITION/CRITERIA

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 $\leq -6.5^\circ\text{C}$

(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 $\leq -4.5^\circ\text{C}$ & 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 Strom: Wind speed > 220 kmph (> 119 knots)