



Government of India
Ministry of Earth Sciences
India Meteorological Department



Press Release

Date: 30th August, 2024

Time of Issue: 1315 hours IST

Subject: (i) Deep Depression over Kachchh coast and adjoining areas of Pakistan & Northeast Arabian Sea likely to intensify into a Cyclonic Storm over northeast Arabian Sea, today.
(ii) The Well-Marked Low-pressure area over Central & adjoining northwest Bay of Bengal likely to cause very heavy rainfall over Odisha, Coastal Andhra Pradesh, Chhattisgarh, Vidarbha and Telangana during next 2-3 days.

Realised weather during past 24 hours till 0830 hours IST of today (Annexure I)

Heavy to very heavy rainfall with isolated extremely heavy falls at a few places over Saurashtra & Kutch
Heavy to very heavy rainfall at isolated places Jammu-Kashmir, Punjab, Kerala & Mahe; **Heavy rainfall** at isolated places over Uttarakhand, Haryana, Chhattisgarh, Vidarbha, Odisha, Tamil Nadu, Coastal Andhra Pradesh & Yanam, Telangana, Coastal Karnataka.

Weather Systems:

(a) Deep Depression over Kachchh coast and adjoining areas of Pakistan & Northeast Arabian Sea

The deep depression over Kutch and adjoining areas of Saurashtra, Northeast Arabian Sea & Pakistan moved westwards with a speed of 5 kmph during past 6 hours and lay centered at 0830 hours IST of 30th August, 2024 over Kachchh coast and adjoining areas of Pakistan & Northeast Arabian Sea near latitude 23.5°N and longitude 68.2°E, 160 km west of Bhuj (Gujarat), 70 km west-northwest of Naliya (Gujarat) and 190 km east-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 06 hours. Thereafter, it would continue to move nearly west-northwestwards over northeast Arabian Sea away from Indian coast during subsequent 2 days.

(b) The low-pressure area over westcentral & adjoining northwest Bay of Bengal off north Andhra Pradesh & South Odisha moved west-northwestwards, became a **well-marked Low-pressure area** over the same region at 0830 hours IST of 30th August, 2024. It is likely to move west-northwestwards towards north Andhra Pradesh and adjoining south Odisha coasts, intensify into a depression over westcentral & adjoining northwest Bay of Bengal during next 36 hours.

(c) Monsoon trough at mean sea level lies to the south of its normal position

Forecast & Warnings (upto 7 days):

❖ **West & Central India (For District wise very heavy rainfall warning maps of Gujarat State for today Annexure II)**

- ✓ 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; Vidarbha on 01st & 02nd September; Chhattisgarh on 31st August & 01st September; East Madhya Pradesh on 02nd September; Gujarat Region during 02nd -04th September; West Madhya Pradesh on 03rd September; Madhya Maharashtra during 03rd - 05th September.

- ✓ Isolated **Heavy rainfall** very likely over Central India and Madhya Maharashtra during next 7 days; Konkan & Goa, Gujarat Region during 01st – 05th September; Marathwada during 01st – 03rd September; Saurashtra & Kutch 02nd – 04th September.

❖ **East & Northeast India**

- ✓ Fairly widespread to widespread light/moderate rainfall very likely over Nagaland, Manipur, Mizoram & Tripura, Andaman & Nicobar Islands, Odisha and Scattered to Fairly widespread light/moderate rainfall very likely over Assam & Meghalaya, Arunachal Pradesh, West Bengal & Sikkim, Bihar and Jharkhand during the week.
- ✓ Isolated **very heavy rainfall** also very likely over Odisha on 30th & 31st August.
- ✓ Isolated **heavy rainfall** very likely over Andaman & Nicobar Islands on 30th; Odisha during 30th August – 01st September; Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura during 30th August- 03rd September; Sub-Himalayan West Bengal & Sikkim on 31st; Arunachal Pradesh during 31st August-03rd 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 **very heavy rainfall** also very likely over Kerala & Mahe, South Interior Karnataka on 30th; Coastal Andhra Pradesh & Yanam, Coastal Karnataka on 30th & 31st; Telangana during 31st August – 02nd September.
- ✓ Isolated **heavy rainfall** very likely over Kerala & Mahe, Coastal Karnataka during next 7 days; Tamil Nadu, Puducherry & Karaikal, Lakshadweep on 30th; Rayalaseema, Interior Karnataka on 30th & 31st; Coastal Andhra Pradesh & Yanam, Telangana during 30th August- 03rd 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 **heavy rainfall** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad on 30th August & 02nd & 03rd September; Himachal Pradesh, Punjab, Haryana on 02nd September; Uttarakhand during 02nd – 04th September; Uttar Pradesh during 01st-03rd September; East Rajasthan during 01st – 05th September; West Rajasthan on 04th September.

For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forecast_bulletin.php

For District wise warnings refer: <https://mausam.imd.gov.in/responsive/districtWiseWarningGIS.php>

(i) **Wind warning:**

- ✓ Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely over the interior districts of South Gujarat Region and Saurashtra & Kutch on the 30th August.
- ✓ Squally wind speed reaching 55-65 kmph gusting to 75 kmph is very likely to prevail along & off Gujarat coasts & adjoining Pakistan coasts and over northeast & adjoining eastcentral Arabian Sea during 30th to 31st August.
- ✓ Gale wind speed reaching 60-70 kmph gusting to 80 kmph is likely to prevail over northeast Arabian Sea off Gujarat and Pakistan coasts from noon of 30th August. It is likely to increase becoming 70-80 kmph gusting to 90 kmph from night of 30th August till 1st September morning and decrease gradually thereafter.
- ✓ Gale wind speed reaching 65-75 kmph gusting to 85 kmph is likely to prevail over northwest and

adjoining westcentral Arabian Sea off Pakistan and southeast Iran coasts from morning of 31st August till 1st September, morning. Thereafter, the winds would gradually decrease gradually becoming squally wind speed reaching 50-60 kmph gusting to 70 kmph by evening of 1st September and 40-50 kmph gusting to 60 kmph by morning of 2nd September.

- ✓ Strong wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail along and off north Maharashtra coasts during 30th to 31st August.

(ii) Sea condition:

- ✓ Squally weather with Rough to very Rough sea conditions is very likely to prevail along & off Gujarat & adjoining north Maharashtra Coasts till 31st August.
- ✓ Very rough to high sea condition is likely to prevail over northeast & adjoining eastcentral and Arabian Sea off Gujarat coast and along & off Pakistan coasts during 30th August to 1st September.
- ✓ Very rough to high Sea condition is likely to prevail over northwest and adjoining westcentral Arabian Sea off Pakistan and southeast Iran coasts from 31st August till 2nd September.

(iii) Fishermen warning:

Fishermen are advised not venture into

- ✓ Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat & adjoining north Maharashtra Coasts till 31st August.
- ✓ Northeast & adjoining eastcentral Arabian Sea off Gujarat coast and along & off Pakistan coasts during 30th August to 1st September.
- ✓ Northwest & adjoining westcentral Arabian Sea and along & off Pakistan and southeast Iran coasts from 31st August till 2nd September.

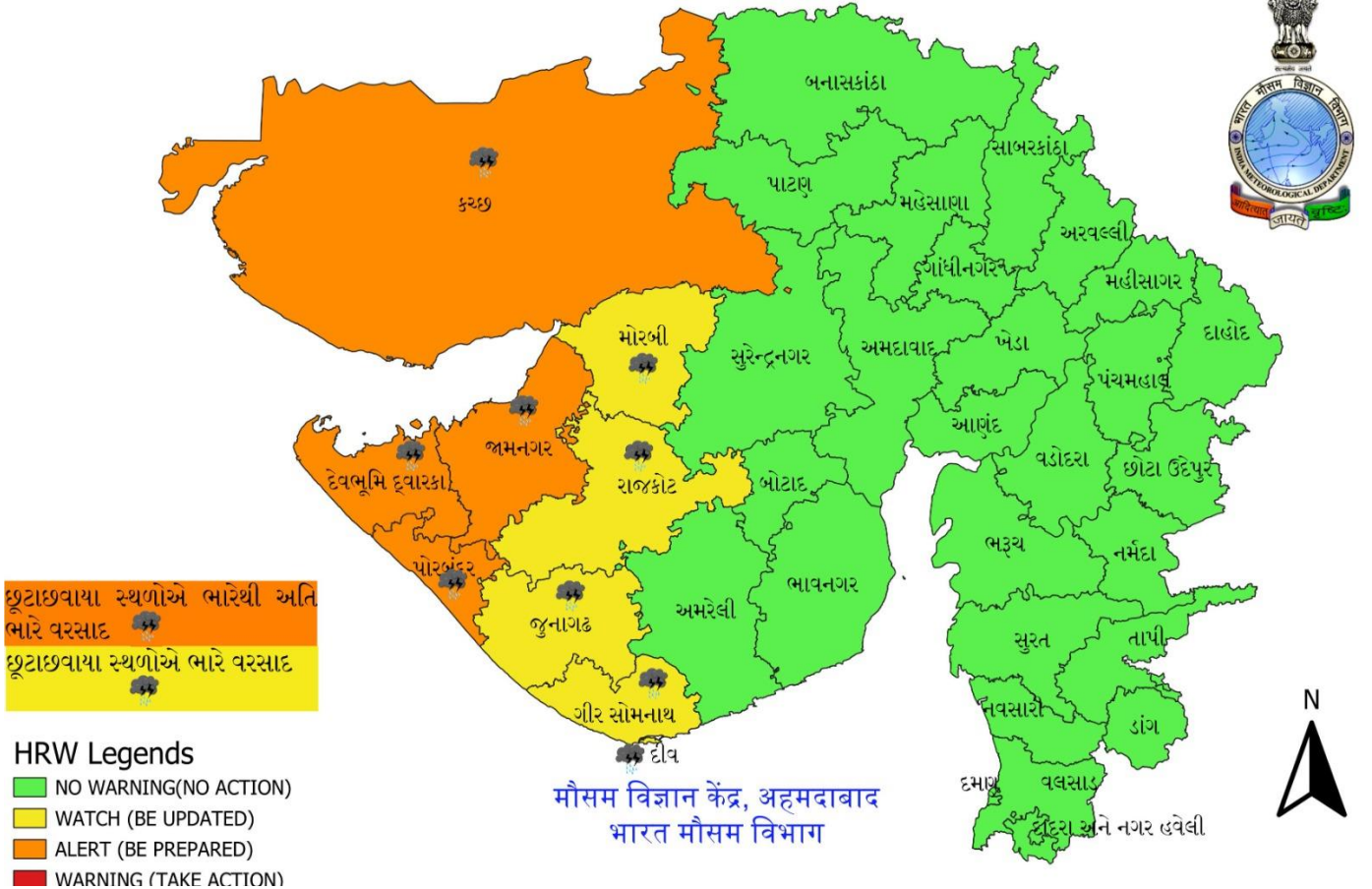
For more details, kindly refer to National bulletin on: <https://rsmcnewdelhi.imd.gov.in/>

Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 30.08.2024 (in cm):

- ❖ **Saurashtra & Kutch:** Mandvi(k) (dist Kutch) 33, Mundra (dist Kutch) 22, Okha (dist Devbhoomi Dwarka) 17, Abdasa (dist Kutch) 16, Naliya (dist Kutch) 16, Dwarka (dist Devbhoomi Dwarka) 8, Anjar (dist Kutch) 8, Gandhidham (dist Kutch) 7,
- ❖ **Punjab:** Taran Taran (dist Tarn Taran) 15, Patti (dist Tarn Taran) 8,
- ❖ **Kerala:** Kalamassery (dist Ernakulam) 13, Kodungallur (dist Thrissur) 12, Vadakara (dist Kozhikode) 12, Thodupuzha (dist Idukki) 10, Mancompu (dist Alappuzha) 10, Vaikom (dist Kottayam) 10, Choondy (dist Ernakulam) 10, Peermade To (dist Idukki) 9, Irinjalakuda (dist Thrissur) 9, Vadakara (dist Kozhikode) 9, Chalakudi (dist Thrissur) 9, Piravam (dist Ernakulam) 9, Kochi C.i.a.l. (dist Ernakulam) 9, Mavelikara (dist Aluzha) 9, Thodupuzha (dist Idukki) 9, Enamakal (dist Thrissur) 8, Peringalkuthu (dist Thrissur) 8, Haripad (dist Aluzha) 8, Aryankavu (dist Kollam) 7, Quilandi (dist Kozhikode) 7, Vellanikkara (dist Thrissur) 7, Alwaye (dist Ernakulam) 7, Karipur . (dist Malpuram) 7, Sengulam Dam (dist Idukki) 7, Udumbannoor (dist Idukki) 7, Aluva (dist Ernakulam) 7, Tellichery (dist Cannur) 7, Anakayam (dist Malpuram) 7, Athirpalli (dist Thrissur) 7, Mahe (dist Mahe) 7, Munnar (dist Idukki) 7, Vaikkom (dist Kottayam) 7,
- ❖ **Tamilnadu:** Chinnakalar (dist Coimbatore) 10, Valparai PTO (dist Coimbatore), Upasi TRF AWS (dist Coimbatore), Cincona (dist Coimbatore) 9 each, Valparai PAP (dist Coimbatore), Valparai Taluk Office (dist Coimbatore), Sholayar (dist Coimbatore) 7 each,
- ❖ **Haryana:** Uchana (dist Jind) 10, Narwana (dist Jind) 9, Tohana (dist Fatehabad) 7,
- ❖ **Odisha:** Jharbandh (Bargarh) 10, Saintala (Bolangir) 8, Belpada (Bolangir) 7, Paikmal (Bargarh) 7, Turekela (Bolangir) 7,
- ❖ **Uttarakhand:** Loharkhet (Bageshwar) 9,
- ❖ **Coastal Andhra Pradesh:** Kalingapatnam (dist Srikakulam) 8,
- ❖ **Chhattisgarh:** Sukma (dist Sukma) 8,
- ❖ **Himachal Pradesh:** Naina Davi (dist Bilaspur) 7,
- ❖ **Jammu-Kashmir:** Udampur(iaf) (dist Udampur) 7,
- ❖ **Vidarbha:** Ghatanji (dist Yeotmal) 7, Narkhed Arg (dist Nagpur) 6, Digras (dist Yeotmal) 6,
- ❖ **Bihar:** Gobindpur (dist Nawada) 6, Kishanganj (dist Kishanganj) 6,
- ❖ **Coastal Karnataka:** Dharmasthala (dist Dakshina Kannada) 6,

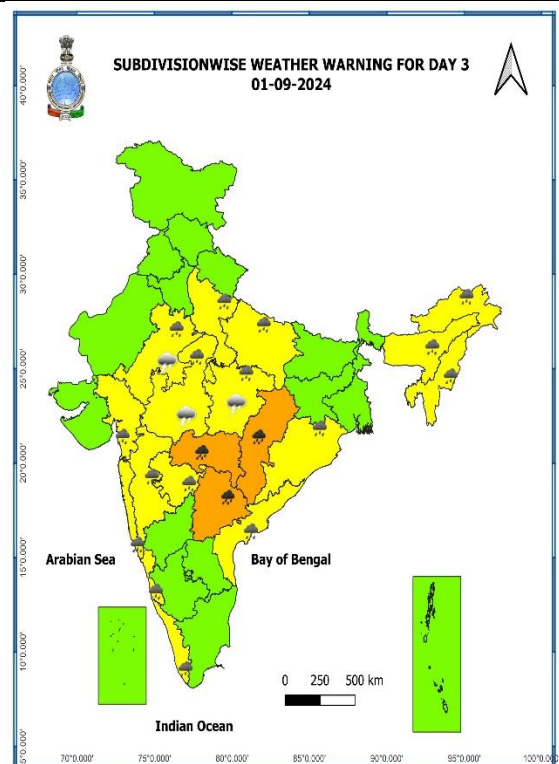
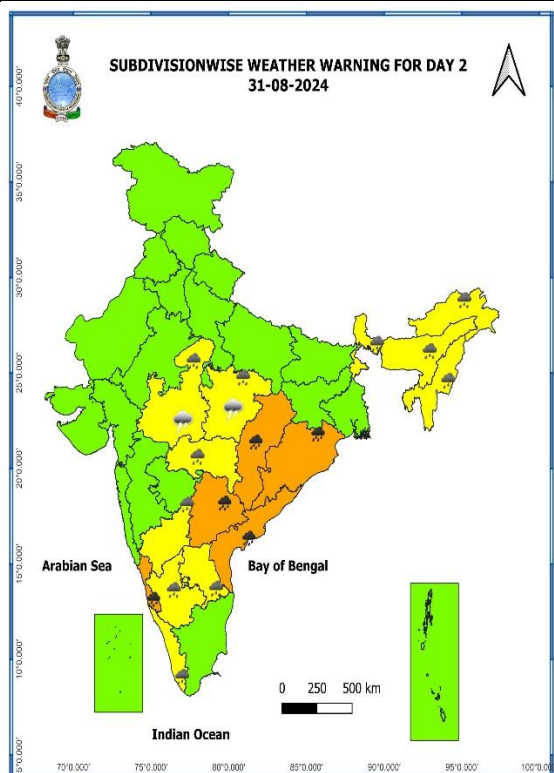
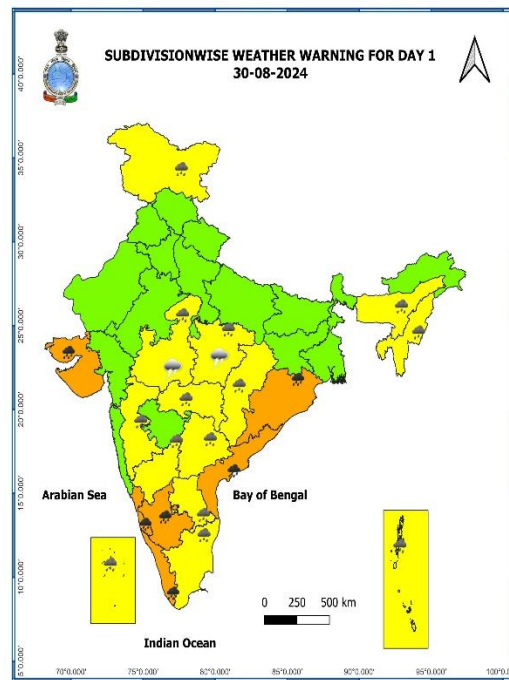
District wise Warning Graphics

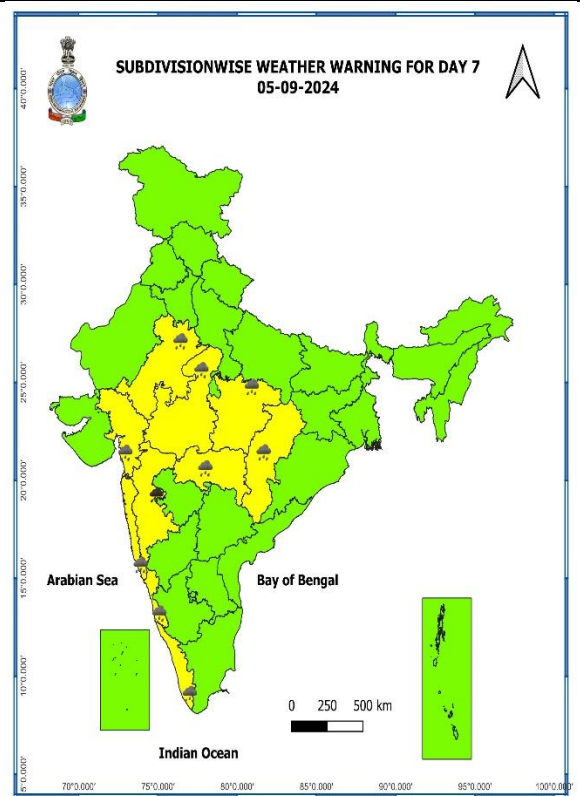
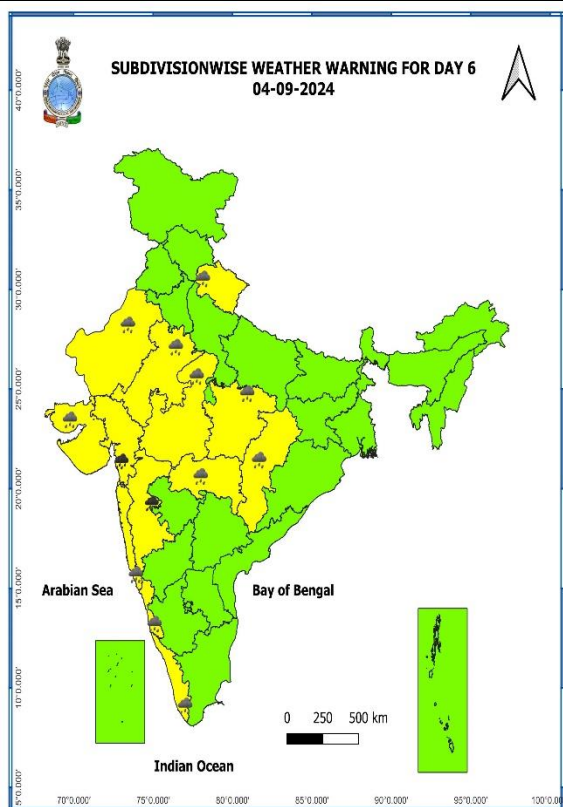
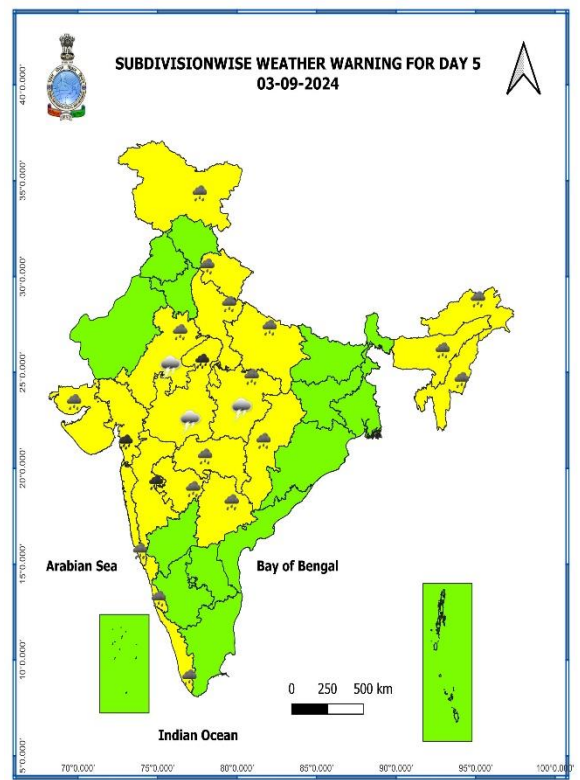
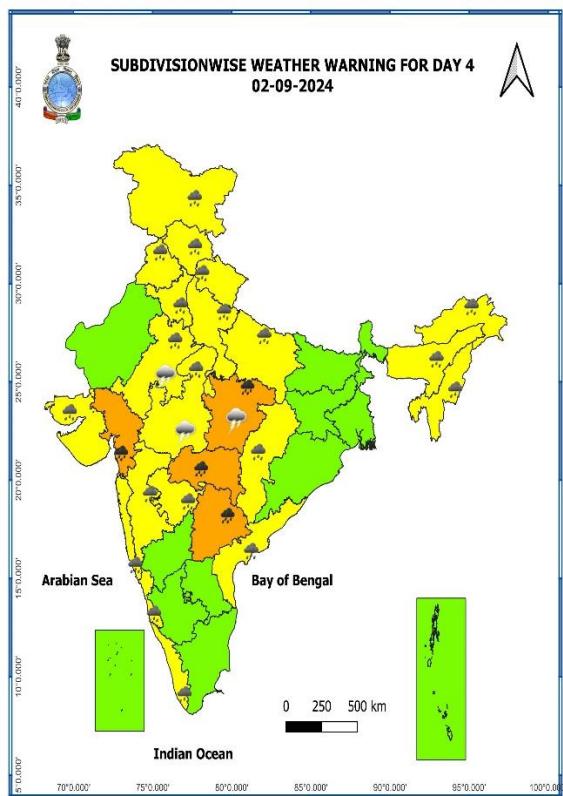
દિવસ -1 ગુજરાત રાજ્ય અને દીવ, દમણ, દાદરા નગર હવેલી ની 30-08-2024 માટે
' ભારે વરસાદ ની ચેતવણી '



7 Days Rainfall Forecast								
S. No.	Subdivision	30-Aug	31-Aug	01-Sep	02-Sep	03-Sep	04-Sep	05-Sep
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	ANDAMAN & NICOBAR ISLANDS	WS	WS	WS	WS	WS	WS	WS
2	ARUNACHAL PRADESH	SCT	SCT	SCT	FWS	FWS	FWS	SCT
3	ASSAM & MEGHALAYA	SCT	FWS	FWS	FWS	FWS	SCT	SCT
4	NAGALAND, MANIPUR, MIZORAM & TRIPURA	FWS	FWS	FWS	FWS	FWS	FWS	FWS
5	SUB-HIMALAYAN WEST BENGAL & SIKKIM	SCT	FWS	FWS	FWS	FWS	FWS	FWS
6	GANGETIC WEST BENGAL	SCT	SCT	SCT	SCT	SCT	SCT	FWS
7	ODISHA	WS	WS	WS	FWS	SCT	SCT	SCT
8	JHARKHAND	ISOL	SCT	SCT	SCT	SCT	SCT	FWS
9	BIHAR	SCT	SCT	SCT	SCT	SCT	SCT	SCT
10	EAST UTTAR PRADESH	ISOL	ISOL	SCT	FWS	ISOL	SCT	FWS
11	WEST UTTAR PRADESH	ISOL	ISOL	ISOL	ISOL	SCT	SCT	ISOL
12	UTTARAKHAND	SCT	SCT	SCT	FWS	FWS	FWS	SCT
13	HARYANA CHANDIGARH & DELHI	ISOL	ISOL	ISOL	SCT	SCT	ISOL	ISOL
14	PUNJAB	SCT	ISOL	ISOL	SCT	SCT	ISOL	ISOL
15	HIMACHAL PRADESH	SCT	SCT	SCT	FWS	FWS	SCT	SCT
16	JAMMU & KASHMIR AND LADAKH	WS	FWS	ISOL	ISOL	FWS	FWS	SCT
17	WEST RAJASTHAN	ISOL	ISOL	ISOL	ISOL	SCT	SCT	ISOL
18	EAST RAJASTHAN	SCT	SCT	SCT	FWS	FWS	FWS	FWS
19	WEST MADHYA PRADESH	FWS	FWS	WS	WS	WS	WS	WS
20	EAST MADHYA PRADESH	FWS	FWS	WS	WS	WS	WS	WS
21	GUJARAT REGION	WS	WS	WS	WS	WS	WS	WS
22	SAURASHTRA & KUTCH	WS	WS	FWS	FWS	FWS	FWS	FWS
23	KONKAN & GOA	WS	WS	WS	WS	WS	WS	WS
24	MADHYA MAHARASHTRA	SCT	SCT	FWS	FWS	WS	WS	WS
25	MARATHAWADA	SCT	SCT	FWS	WS	FWS	FWS	SCT
26	VIDARBHA	WS	WS	WS	WS	WS	FWS	FWS
27	CHHATTISGARH	WS	WS	WS	WS	WS	FWS	FWS
28	COASTAL ANDHRA PRADESH & YANAM	WS	WS	WS	FWS	SCT	SCT	ISOL
29	TELANGANA	WS	WS	WS	WS	WS	SCT	ISOL
30	RAYALASEEMA	WS	FWS	FWS	SCT	ISOL	ISOL	ISOL
31	TAMILNADU PUDUCHERRY & KARAIKAL	SCT	ISOL	ISOL	ISOL	ISOL	ISOL	ISOL
32	COASTAL KARNATAKA	WS	WS	WS	WS	WS	WS	WS
33	NORTH INTERIOR KARNATAKA	FWS	FWS	FWS	SCT	SCT	SCT	SCT
34	SOUTH INTERIOR KARNATAKA	FWS	FWS	SCT	SCT	SCT	SCT	SCT
35	KERALA & MAHE	WS	WS	WS	WS	WS	FWS	FWS
36	LAKSHADWEEP	WS	WS	WS	FWS	FWS	SCT	SCT

- As the lead period increases forecast accuracy decreases.





- 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

- ✓ **Very heavy rainfall** at isolated over Kerala & Mahe, South Interior Karnataka, Saurashtra & Kutch on 30th; Coastal Andhra Pradesh & Yanam, Coastal Karnataka, Odisha on 30th & 31st; Telangana during 31st August – 02nd September; Vidarbha on 01st & 02nd September; Chhattisgarh on 31st August & 01st September; East Madhya Pradesh on 02nd September; Gujarat Region during 02nd - 04th September; West Madhya Pradesh on 03rd September; Madhya Maharashtra during 03rd – 05th September.
- ✓ **Low to Moderate flash flood risk** likely over few watersheds & neighbourhoods of Saurashtra & Kutch on 30th & 31st August. **(ANNEXURE V)**

Impact Expected

- ✓ Localized Flooding of roads, water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- ✓ Occasional reduction in visibility due to heavy rainfall.
- ✓ Reduction of visibility over sea area due to sea spray induced by strong wind and 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 to venture into Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat & adjoining Pakistan and north Maharashtra Coasts till 30th August.
- ✓ Judicious regulation of offshore/onshore Operations
- ✓ Judicious regulation of surface transports including railways and roadways.
- ✓ 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, ghat regions of Madhya Maharashtra, Jammu & Kashmir, Uttarakhand, Punjab, Odisha, Chhattisgarh, Kerala, Karnataka Coastal Andhra Pradesh and Telangana.
- Make provision for draining out excess water from standing crop fields and fruit orchards to avoid water stagnation in North Eastern States, Madhya Pradesh 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.

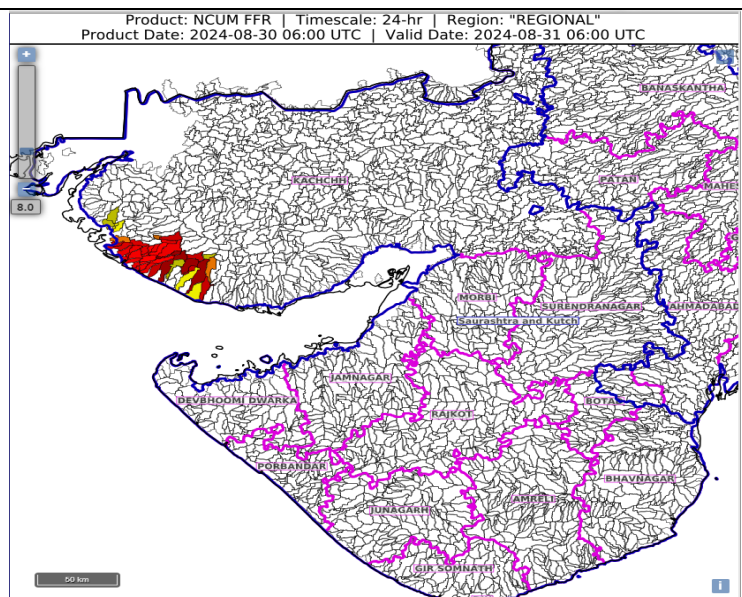
Flash Flood Guidance:

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 31-08-2024 :

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

Saurashtra & Kutch - Kachchh district.

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

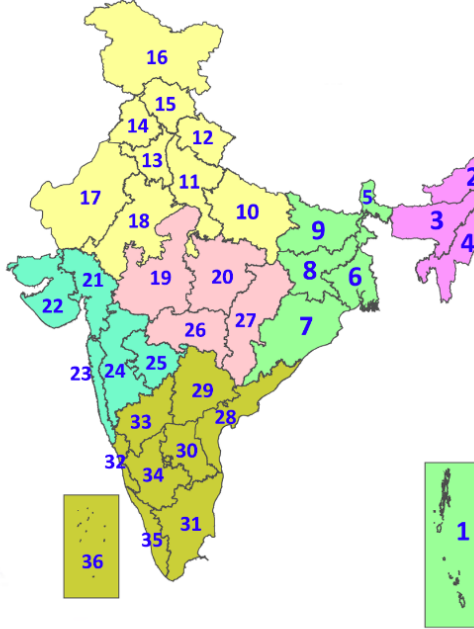


Legends & abbreviations:

- ❖ **Heavy Rain:**64.5-115.5mm; **Very Heavy Rain:**115.6-204.4mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ **Obsy:** Observatory; **AWS:** Automatic Weather Station; **ARG:** Automatic Rain Gauge; **dist:** District; **NH:** National Highway; **KVK:** Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO:** Part Time Office, **Aero:** Aerodrome, **IAF:** Indian Air Force.
- ❖ **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - **Central India:** West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - **Northeast India:** Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - **West India:** Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathawada.

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

* 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.

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(Service to the Nation since 1875)

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)

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