



**India Meteorological Department
(Ministry of Earth Sciences)**

NATIONAL BULLETIN NO. 23 (LAND/02/2024)

TIME OF ISSUE: 1530 HOURS IST

DATED:29.08.2024

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Sub: (a) Deep Depression over Saurashtra & Kachchh and (b) Low Pressure Area over central and adjoining North Bay of Bengal

(a) Deep Depression over Saurashtra & Kachchh

The deep depression over Saurashtra & Kachchh moved slowly westwards with a speed of 3 kmph during past 6 hours and lay centered at 1130 hours IST of today, the 29th August, 2024 over the same region near latitude 23.7°N and longitude 69.3 °E, 70 km northwest of Bhuj (Gujarat), 60 km northeast of Naliya (Gujarat) and 250 km east-southeast of Karachi (Pakistan).

It is likely to move west-southwestwards, emerge into northeast Arabian Sea off Kachchh and adjoining Saurashtra & Pakistan coasts and intensify into a Cyclonic Storm on 30th August. Thereafter, it would continue to move nearly west-southwestwards over northeast Arabian Sea away from Indian coast during subsequent 2 days.

Warnings:

(i) Rainfall Warning:

Gujarat State:

Saurashtra & Kachchh: Light to moderate rainfall at most places with heavy to extremely heavy rainfall at isolated places on 29th, heavy to very heavy rainfall at isolated places on 30th August and heavy rainfall at isolated places over coastal districts on 31st August.

(ii) Wind warning:

- Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely over the districts of South Gujarat Region and Saurashtra & Kutch on 29th & 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 29th to 31st August.
- Gale wind speed reaching 65-75 kmph gusting to 85 kmph is likely to prevail over northeast Arabian Sea off Gujarat and Pakistan coasts from 30th August till 1st September.
- 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 31st August till 2nd September.
- Strong wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail along and off north Maharashtra coasts during 29th to 31st August.

(iii) Sea condition:

- Squally weather with Rough to very Rough sea conditions is very likely to prevail along & off Gujarat & adjoining Pakistan and 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 and Pakistan coasts during 29th to 31st August.
- 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.

(iv) Fishermen warning:

- Fishermen are advised not venture into
 - Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat & adjoining Pakistan and north Maharashtra Coasts till 31st August.
 - Northwest & adjoining westcentral Arabian Sea and along & off Pakistan and southeast Iran coasts from 31st August till 2nd September.

(v) Advisory for offshore/onshore Exploration and Production (E & P) Operators:

- The small ships and offshore -onshore E & P operators, shipping and port authorities along & off Gujarat & north Maharashtra Coasts and Northeast & adjoining Eastcentral Arabian Sea are advised to keep watch on developing weather and take necessary actions till 30th August.

(b) Low Pressure Area over central and adjoining North Bay of Bengal

The low pressure area formed over central and adjoining north Bay of Bengal persisted over the same region at 1130 hours IST of today, the 29th August, 2024.

It is likely to move west-northwestwards and become more marked over westcentral and adjoining northwest Bay of Bengal by 30th August. 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 2 days.

Warnings:

(i) Rainfall Warning:

Odisha: Light to moderate rainfall at most places with heavy to very heavy rainfall at isolated places during 29th to 31st and extremely heavy rainfall at isolated places on 30th August. Light to moderate rainfall at most places with isolated heavy rainfall on 1st September.

Coastal Andhra Pradesh: Light to moderate rainfall at most places with heavy rainfall at isolated places during 29th August to 1st September and heavy to very heavy rainfall at isolated places on 30th and 31st August.

(ii) Wind warning:

- Squally weather with wind speed reaching 30-40 kmph gusting to 50 kmph is likely to prevail over Westcentral and adjoining Northwest Bay of Bengal during 30th becoming 45-55 kmph gusting to 65 kmph 31st August.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph is likely to prevail along & off North Andhra Pradesh & south Odisha coasts on 31 August.

(iii) Sea condition:

- Rough sea condition is very likely to prevail over Westcentral and adjoining Northwest Bay of Bengal till 31st August.
- Rough sea condition is very likely to prevail along & off North Andhra Pradesh & south Odisha coasts on 31 August.

(iv) Fishermen warning:

- Fishermen are advised not venture into
 - Westcentral & adjoining northwest Bay of Bengal from 29th till 31st August and along & off south Odisha and north Andhra Pradesh Coasts on 31st August.

(v) Advisory for offshore/onshore Exploration and Production (E & P) Operators:

- The small ships and offshore -onshore E & P operators, shipping and port authorities along & off Gujarat & north Maharashtra Coasts and Northeast & adjoining Eastcentral Arabian Sea are advised to keep watch on developing weather and take necessary actions till 30th August.

❖ 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 venture into
 - Northeast & adjoining Eastcentral Arabian Sea and along & off Gujarat & adjoining Pakistan and north Maharashtra Coasts till 31st August.
 - Northwest & adjoining westcentral Arabian Sea and along & off Pakistan and southeast Iran coasts from 31st August till 2nd September.
 - Westcentral & adjoining northwest Bay of Bengal from 29th till 31st August and along & off south Odisha and north Andhra Pradesh Coasts on 31st 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 Gujarat, Odisha and Andhra Pradesh due to both systems

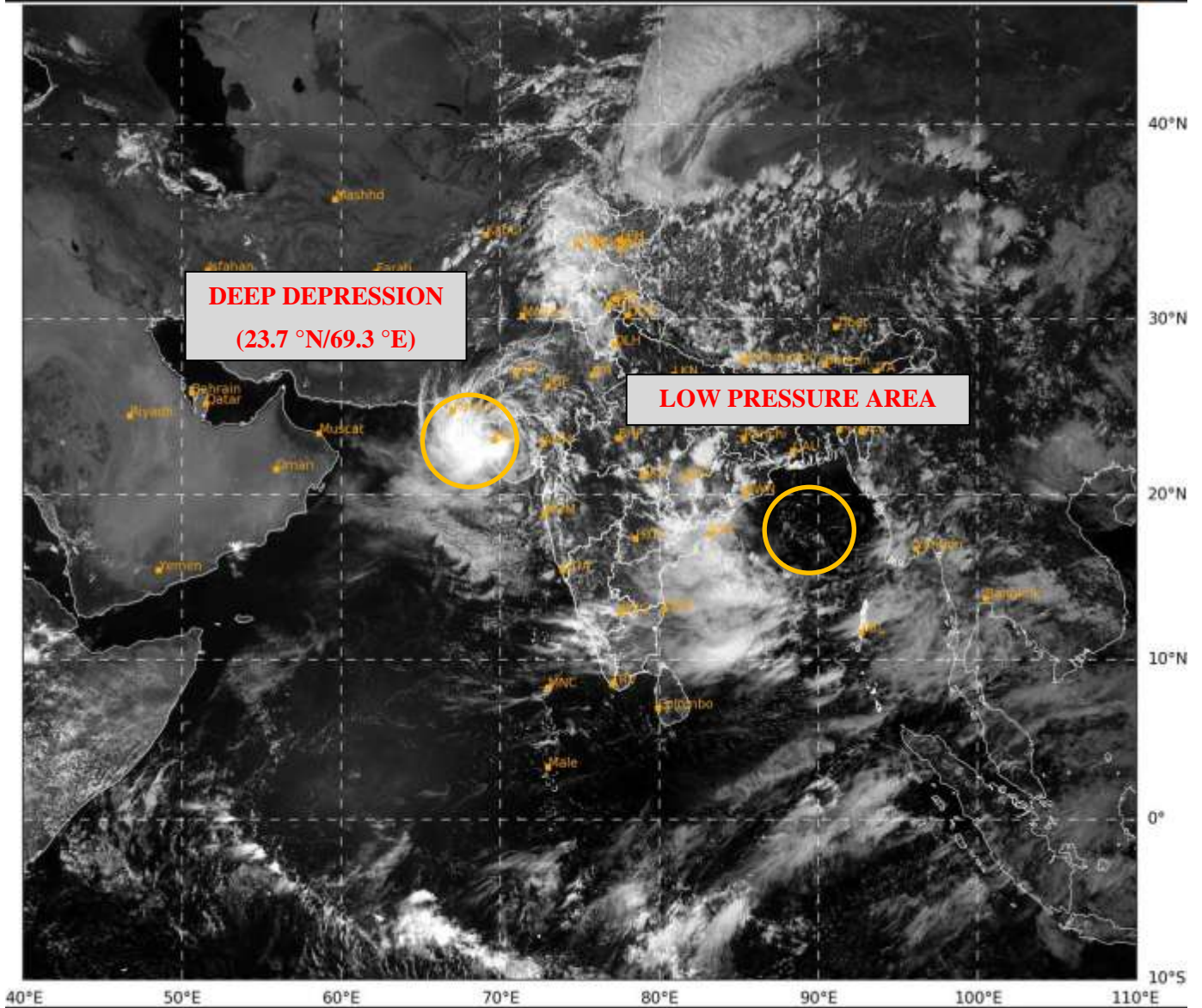
- Make provision for draining out excess water from crop fields to avoid water stagnation in Gujarat State, Odisha and Andhra Pradesh.
- Provide mechanical support to horticultural crops and staking to vegetables.

Significant Rainfall (in cm) recorded during 0830 hours IST of 28th August to 0830 hours IST of 29th August is given in Annexure -I

Next bulletin will be issued at 2030 hours IST of the 29th August, 2024.

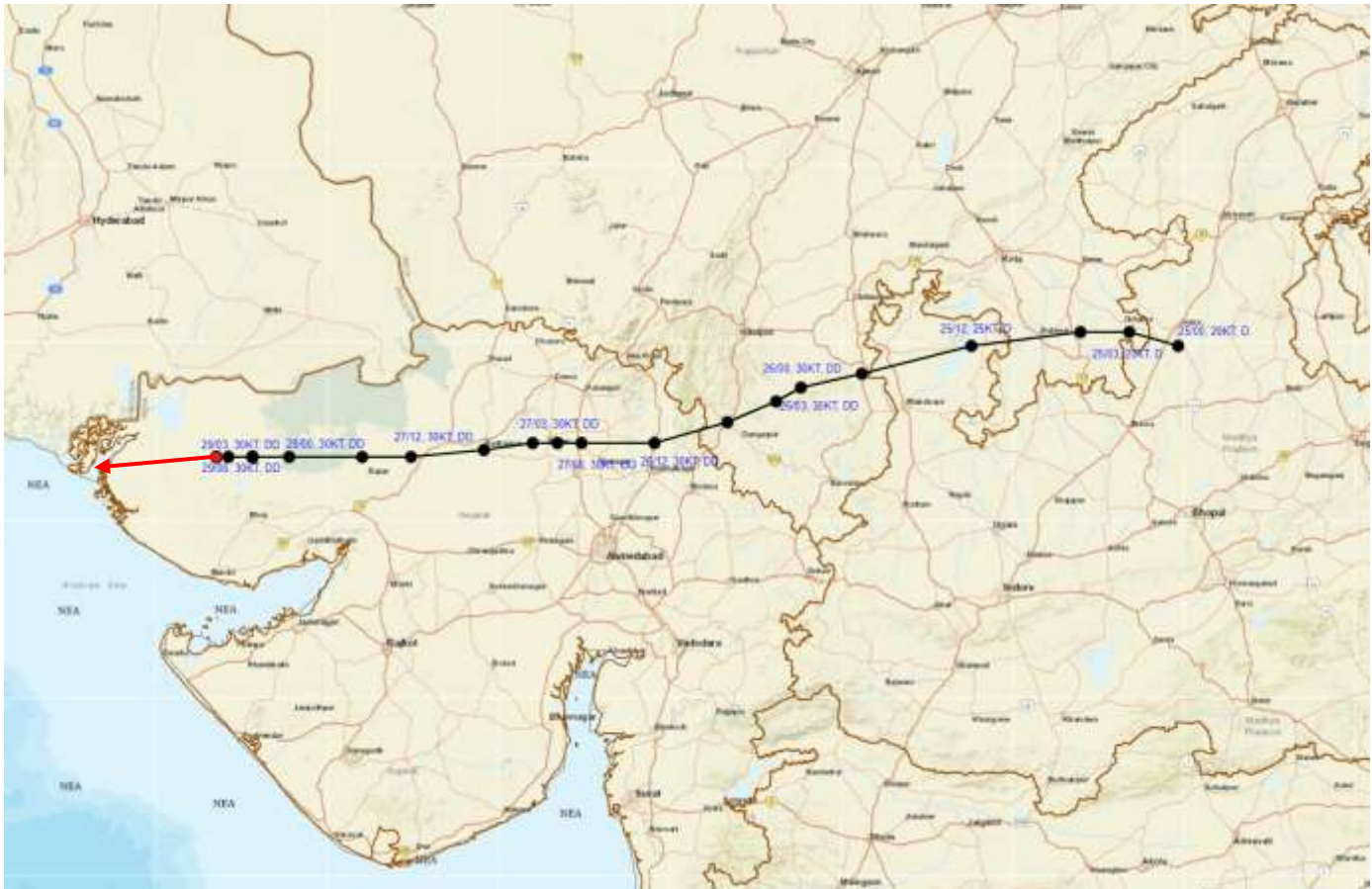
(Dr. Ananda Kumar Das)
Scientist-F, Cyclone Warning Division,
IMD, New Delhi

Copy to: ACWC Kolkata/ACWC Mumbai/RMC Mumbai/CWC Ahmedabad/MC Jaipur/RMC, Nagpur/MC, Bhopal//CWC Bhubaneswar/MC, Goa/MC, Ranchi











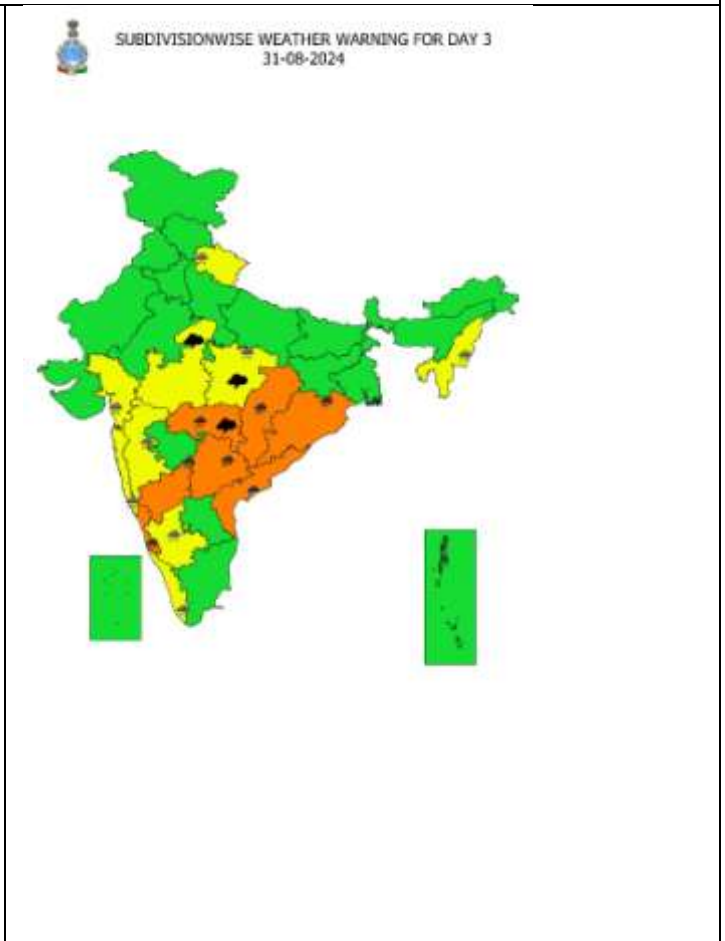
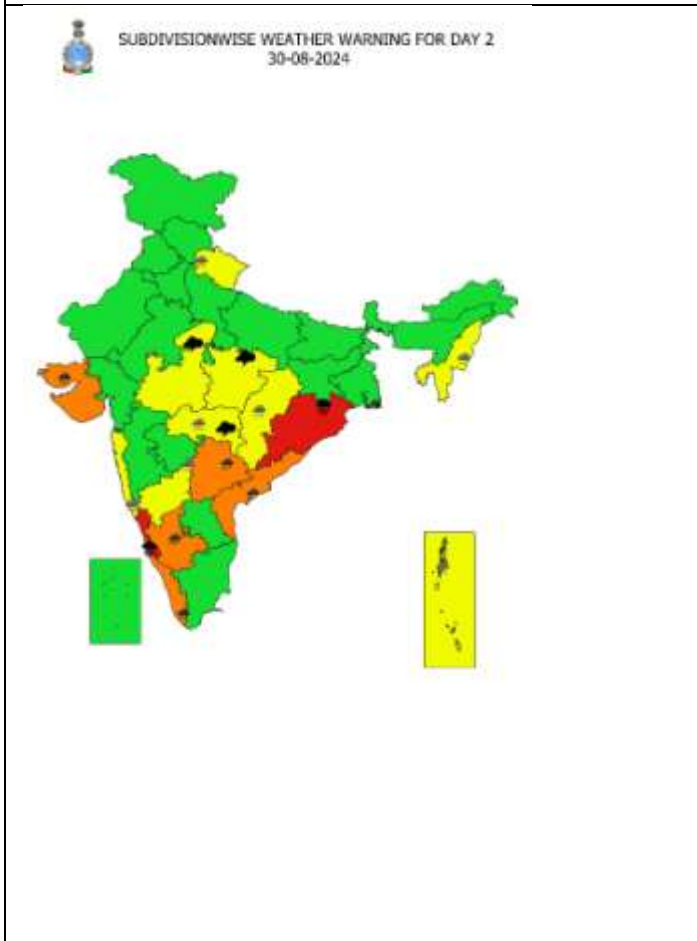
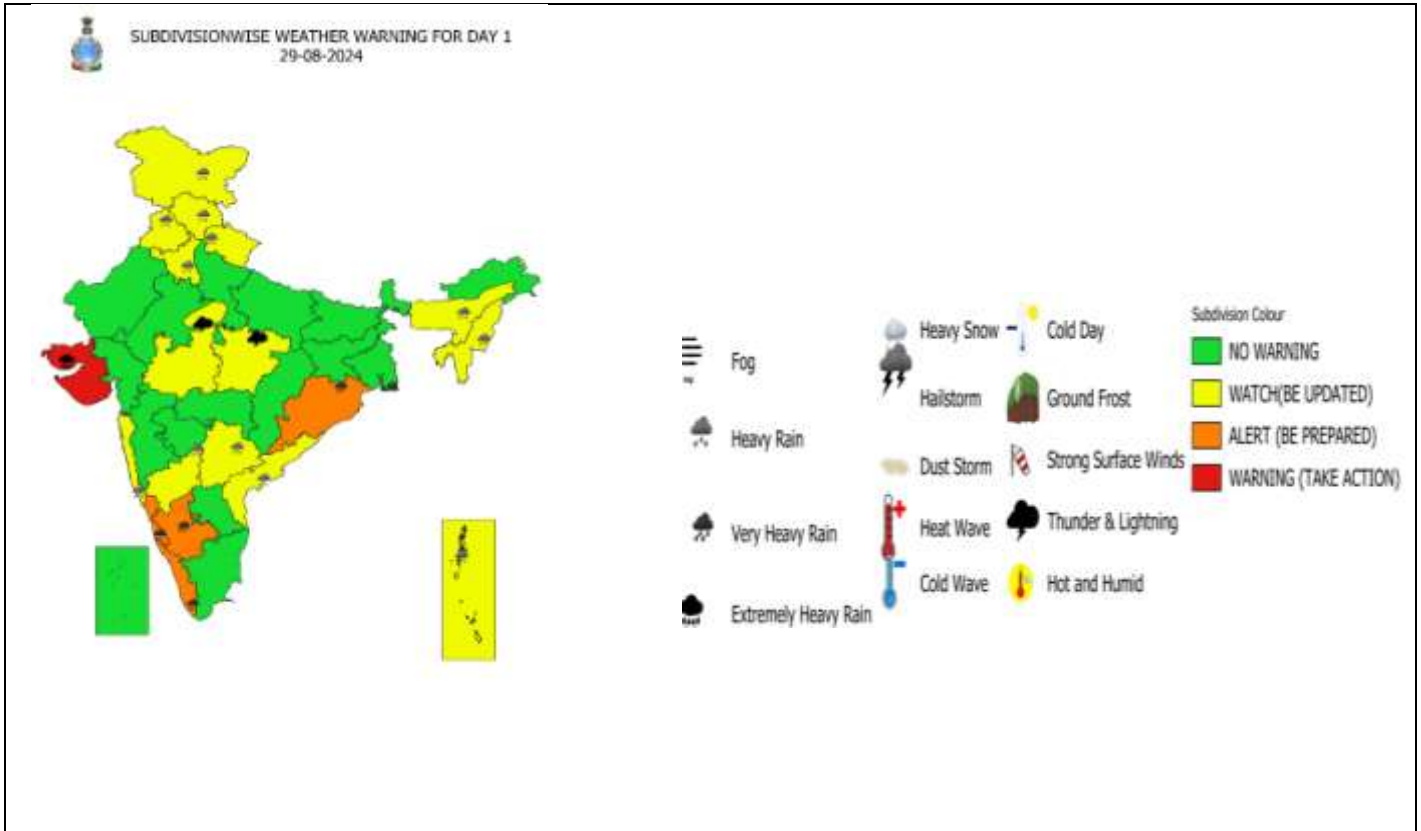
OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER SAURASHTRA & KACHCHH BASED ON 0600 UTC (1130 IST) OF 29TH AUGUST, 2024.

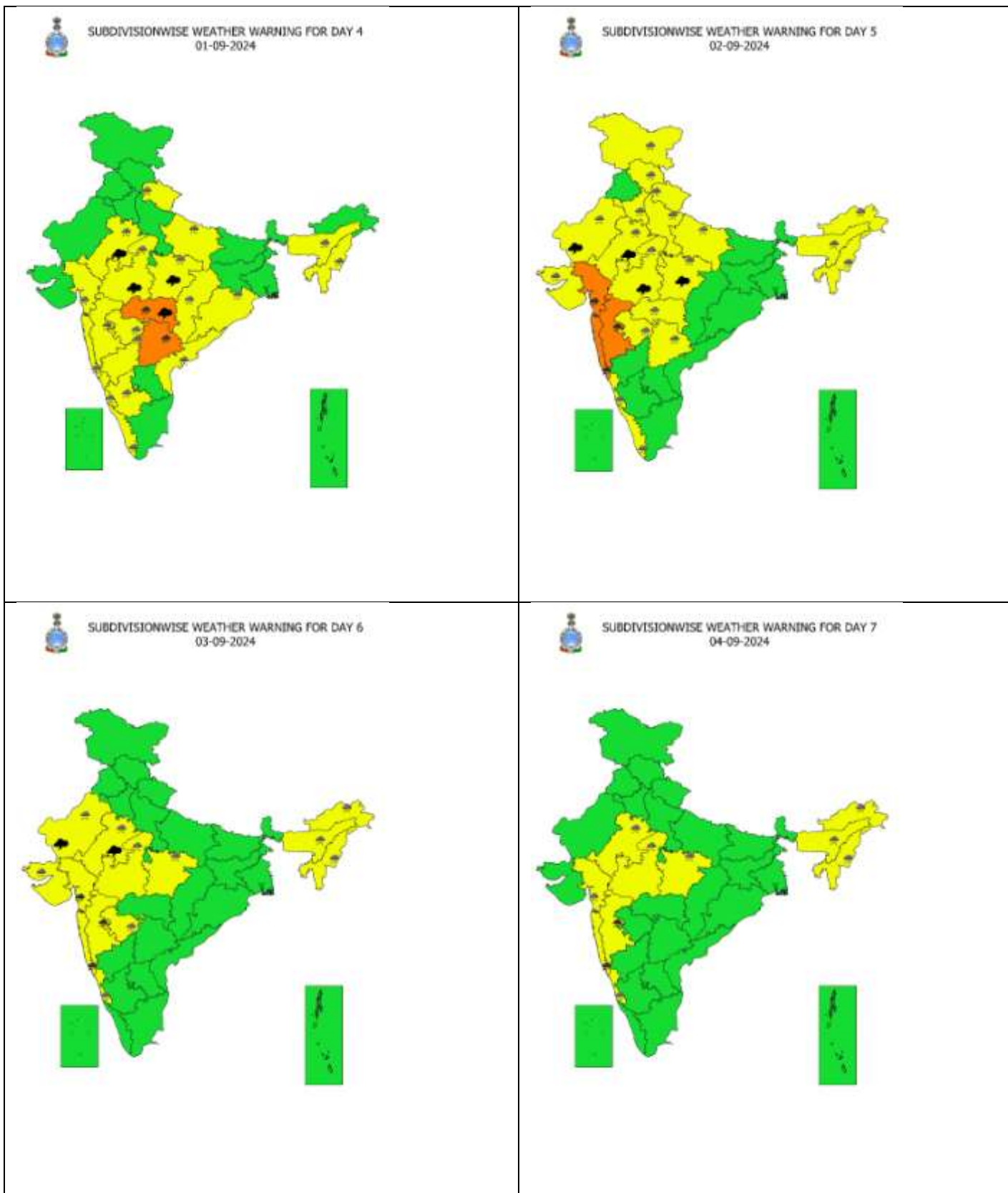


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

-  LESS THAN 34 KT
-  34-47 KT
-  \geq 48 KT
-  OBSERVED TRACK
-  FORECAST TRACK
-  CONE OF UNCERTAINTY

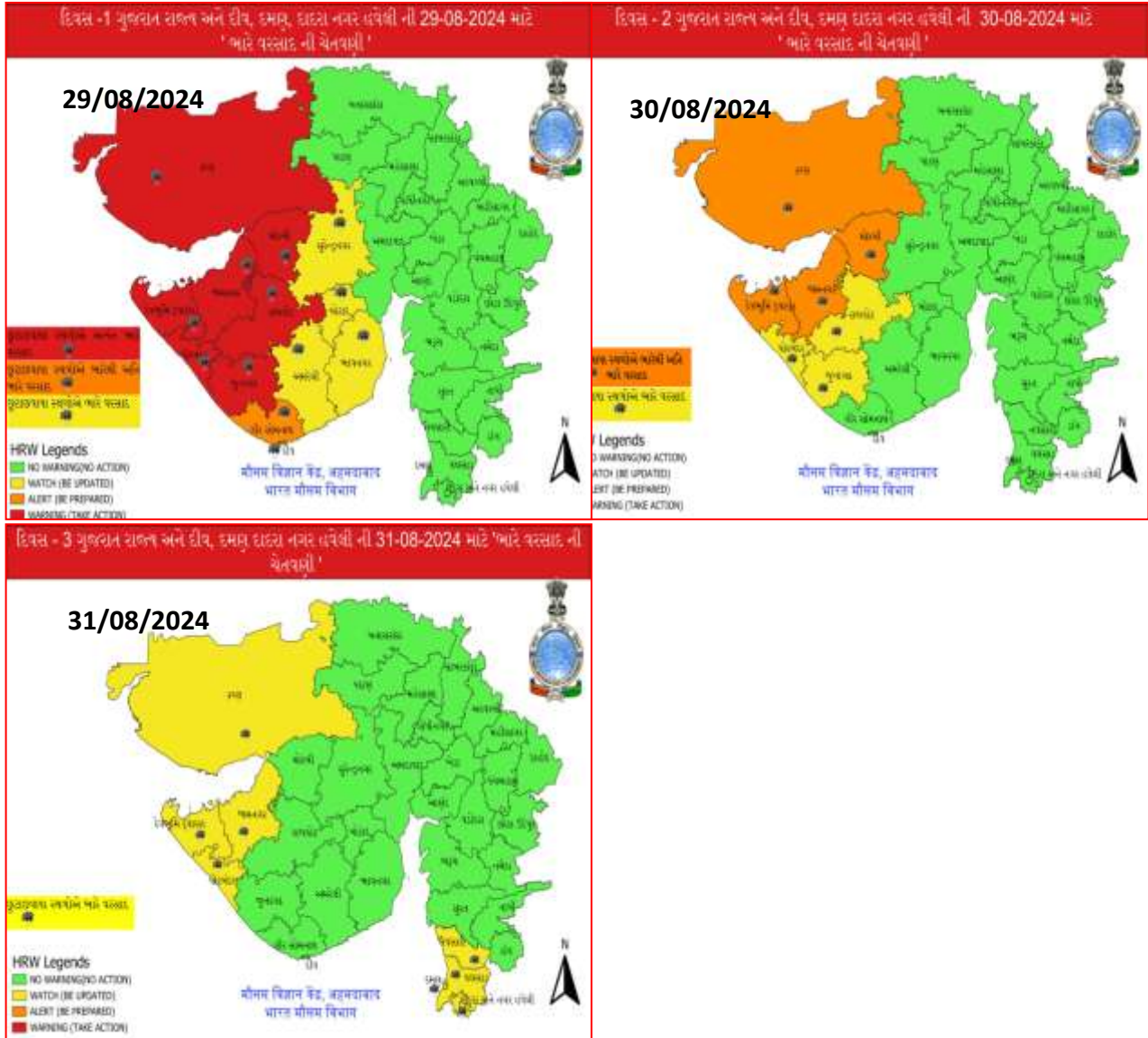
Weather Warning Graphics



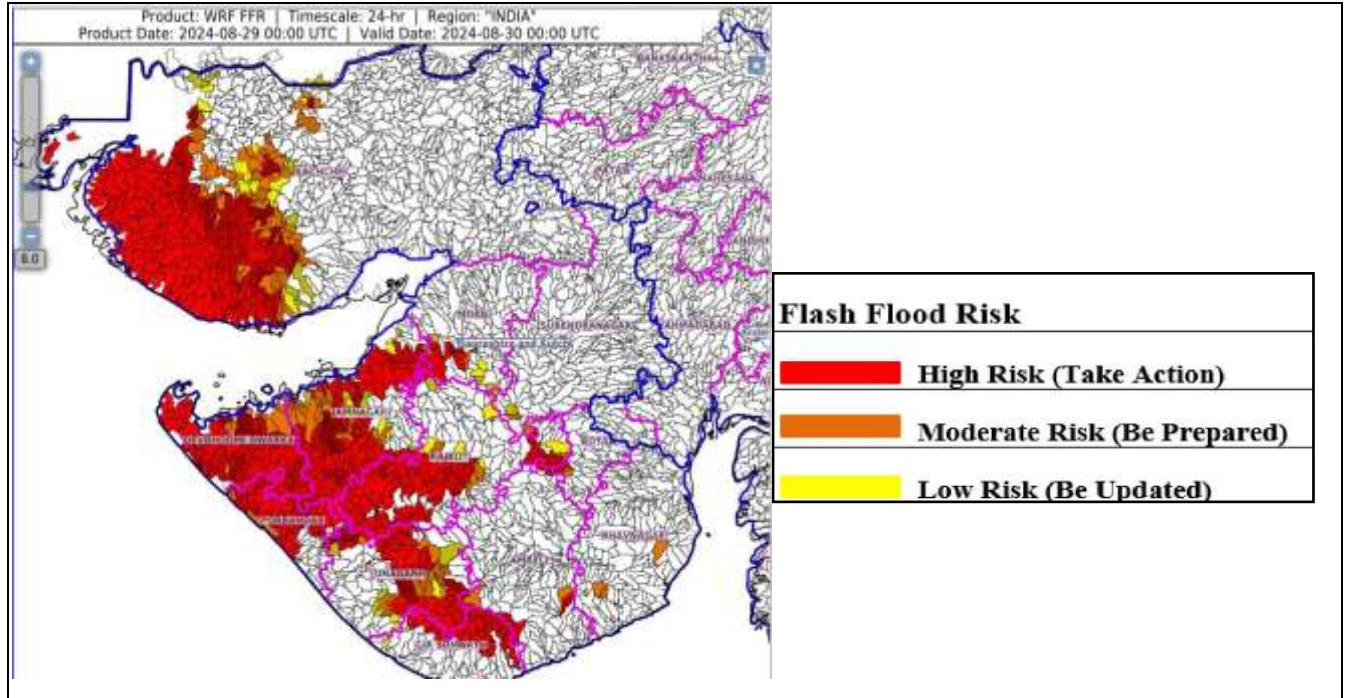


- Action may be taken based on **ORANGE AND RED** COLOUR warnings.
- Vulnerable regions likely urban and hilly areas action may be initiated for heavy rainfall warning.
- As the lead period increases forecast accuracy decreases.

District wise Warning Graphics Gujarat



Flash Flood Guidance



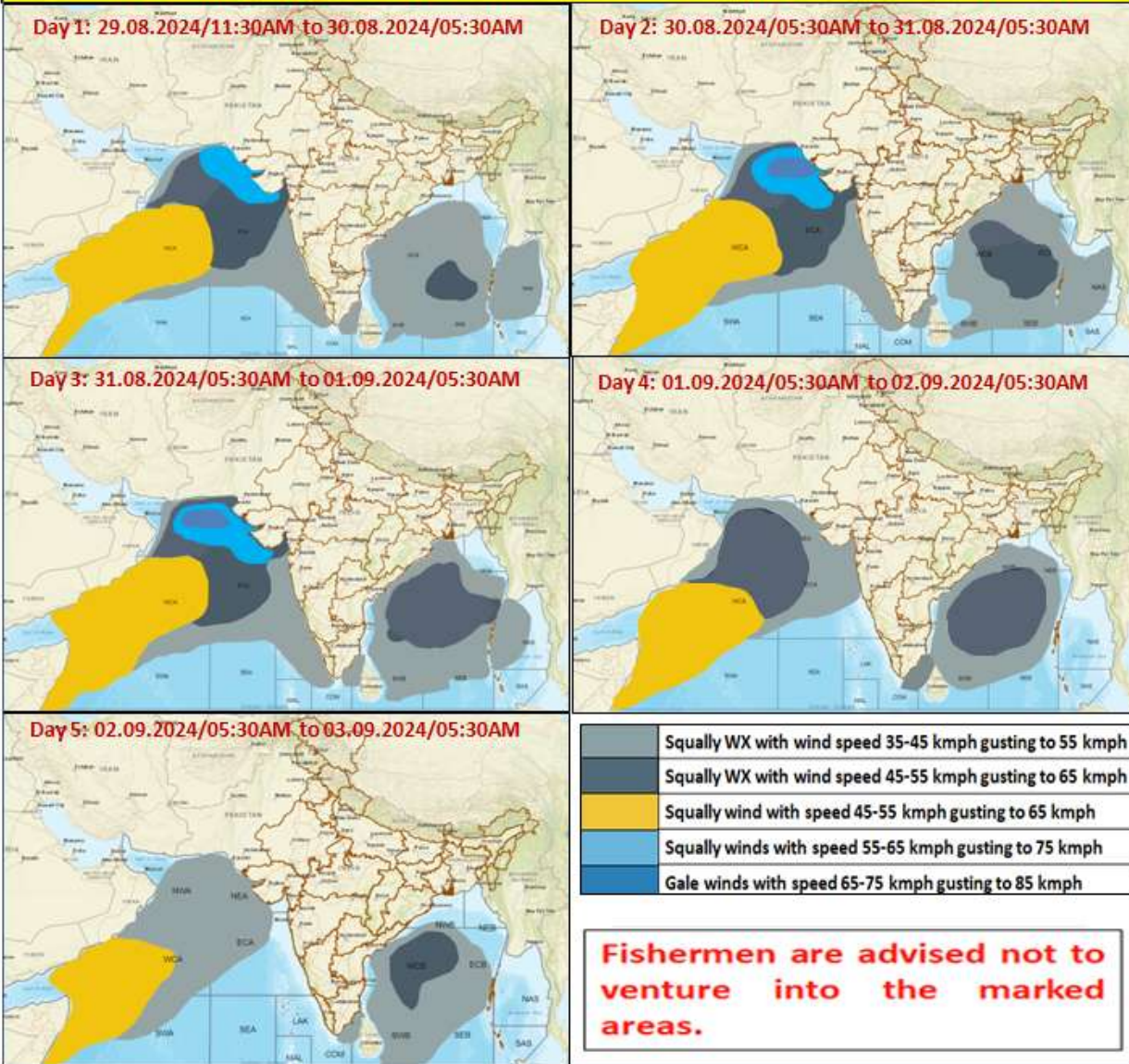
24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 30-08-2024 :

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

Saurashtra & Kutch - Amreli, Bhavnagar, Botad, Devbhoomi Dwarka, Gir Somnath, Jamnagar, Junagarh, Porbandar, Rajkot, Surendranagar, Morbi 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.

Fishermen Warning Graphics



ANNEXURE –I

Significant Rainfall recorded during past 24 hours till 0830 hours IST of today 29.08.2024 (in cm):

- **Odisha:** Birmaharajpur (Sonepur) 10, Jeypore (Koraput) 10, Nandapur (Koraput) 8, Tangarpali (Sundargarh) 8, Hirakud (Sambalpur) 7,
- **Gujarat Region:** Umerpada (Surat) 7,
- **Saurashtra & Kutch:** Naliya (Kutch) 30, Bhanvad (Devbhoomi Dwarka) 29, Abdasa (Kutch) 27, Kalyanpur (Devbhoomi Dwarka) 26, Dwarka (Devbhoomi Dwarka) 23, Lakhpatt (Kutch) 23, Khambhalia (Devbhoomi Dwarka) 23, Jamjodhpur (Jamnagar) 22, Nakhatrana (Kutch) 20, Mandvi(k) (Kutch) 18, Kalavad (Jamnagar) 17, Lalpur (Jamnagar) 17, Kandla Airport (Kutch) 16, Dhoraji (Rajkot) 15, Lodhika (Rajkot) 15, Kutiana (Porbandar) 13, Jamkandorna (Rajkot) 13, Anjar (Kutch) 12, Ranavav (Porbandar) 12, Jamnagar (Jamnagar) 11, Jetpur (Rajkot) 10, Mundra (Kutch) 10, Bhuj (Kutch) 9, Porbandar (Porbandar) 9, Rajkot (Rajkot) 9, Manavadar (Junagadh) 9, Upleta (Rajkot) 9, Gondal (Rajkot) 9, Vanthali (Junagadh) 8, Wankaner (Morbi) 8, Jamnagar(Jamnagar) 8, Gandhidham (Kutch) 7, Kandla New (Kutch) 7, Bhesan (Junagadh) 7, Kotdasangani (Rajkot) 7, Jodia (Jamnagar) 7,
- **Madhya Maharashtra:** Igatpuri (Nashik) 8,