Government of India
Ministry of Earth Sciences
India Meteorological Department

Press Release
Date: 18th May, 2024
Time of Issue: 1515 hours IST

Special Message: 3

Subject: Heavy to very heavy rainfall very likely to continue over south Peninsular India till 23rd with extremely heavy falls during 19-21 May, 2024.

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

- ***Heavy to very heavy rainfall*** *observed at isolated places over Tamil Nadu;* ***Heavy rainfall*** *at isolated places over Coastal & South Interior Karnataka, Coastal Andhra Pradesh, Rayalaseema and Kerala.*

Weather Systems and Forecast & Warnings: (Annexure II)

- A cyclonic circulation lies over south interior Tamil Nadu & neighbourhood in low and mid tropospheric levels. A trough runs from south Chhattisgarh to South Interior Karnataka and another trough runs from Marathwada to cyclonic circulation over south interior Tamil Nadu in lower tropospheric levels. Under their influence:
  - Fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (40-50 kmph)** likely over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Lakshadweep, south Karnataka and Isolated to scattered light/moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** over Coastal Andhra Pradesh & Yanam, Telangana and Rayalaseema during next 7 days.
  - ***Isolated heavy rainfall very likely over Coastal Karnataka during 19th-22nd, South Interior Karnataka during 21st-22nd, Coastal Andhra Pradesh, Rayalaseema on 18th and Lakshadweep during 18th-21st May, 2024.***
  - ***Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe on 18th & 22nd and South Interior Karnataka during 18th-20thMay, 2024.***
  - ***Isolated extremely heavy rainfall also very likely over Tamil Nadu and Kerala during 19th-21st May, 2024.***

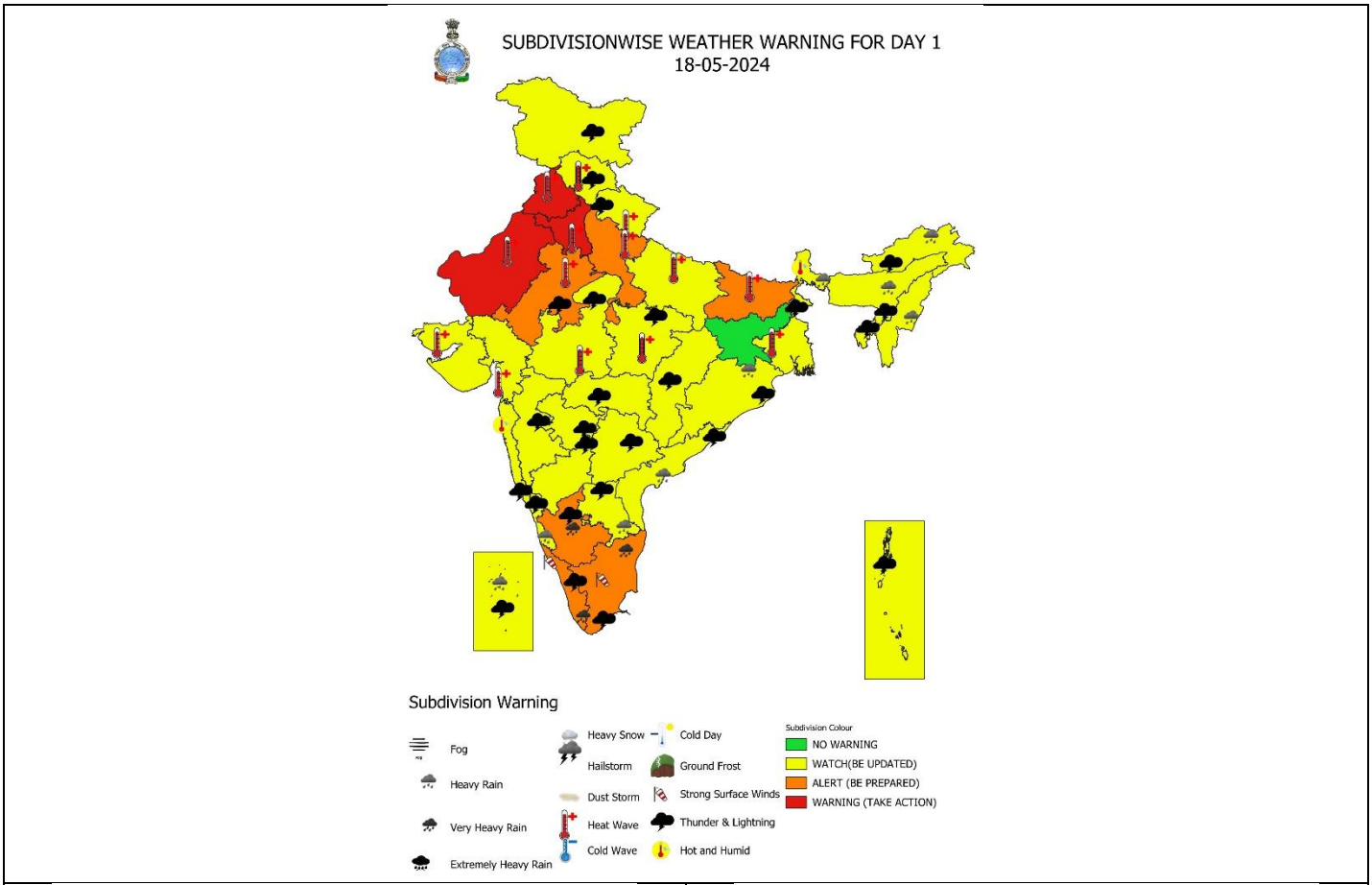
For more details, kindly refer: https://mausam.imd.gov.in/responsive/all_india_forcast_bulletin.php

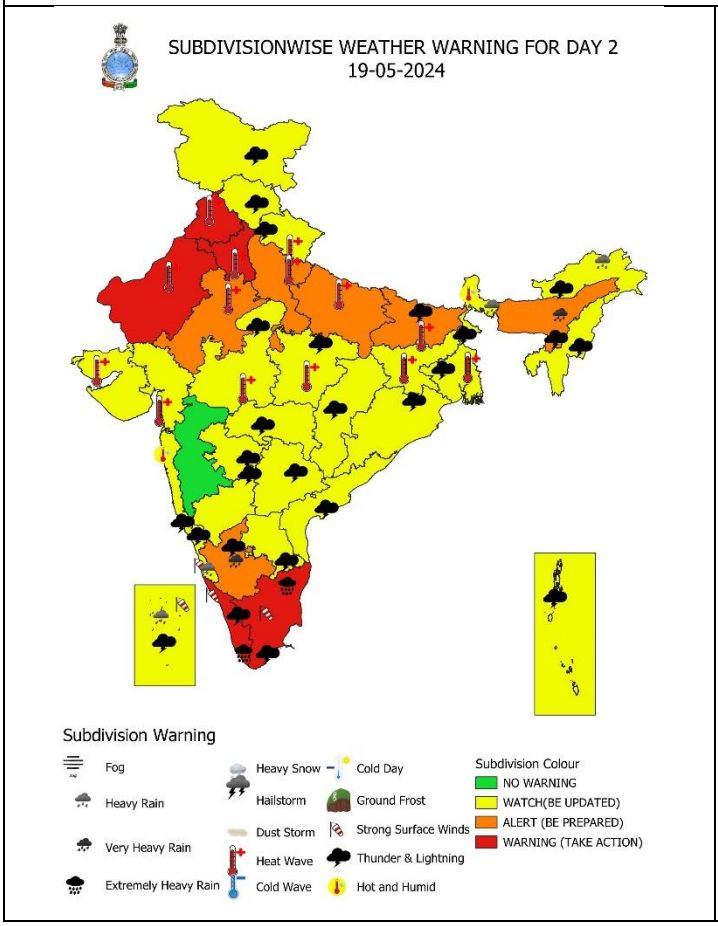
ANNEXURE I

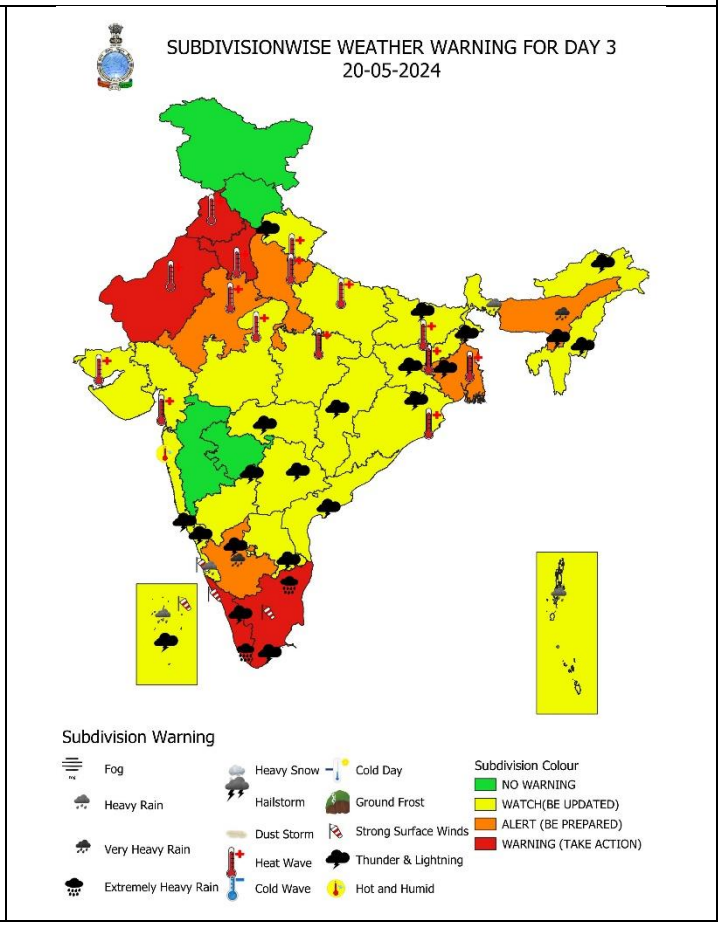
Realised Rainfall during past 24 hours till 0830 hours IST of today:

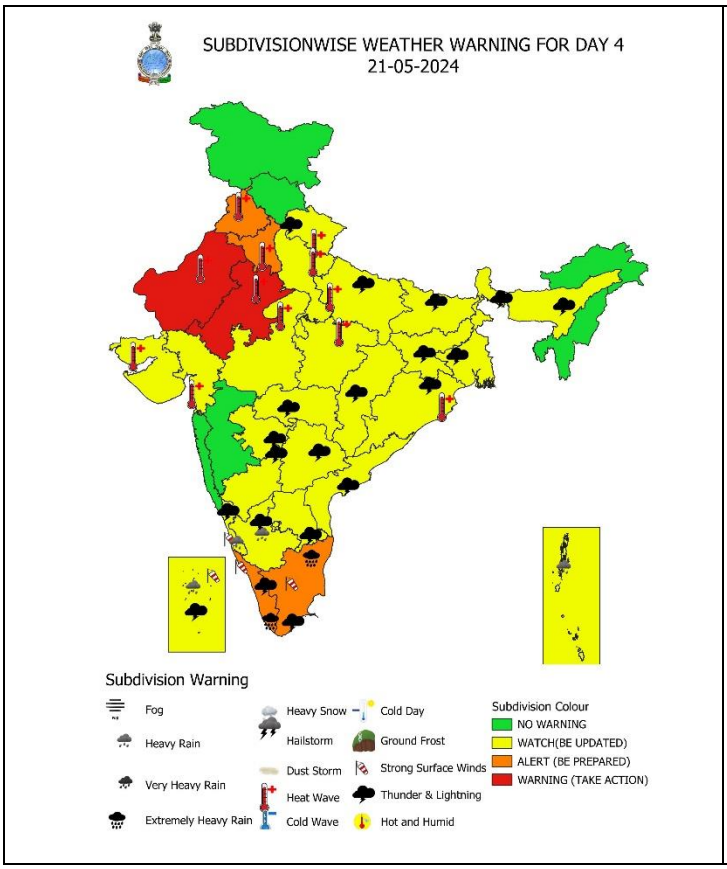
Significant amount of rainfall (in cm):

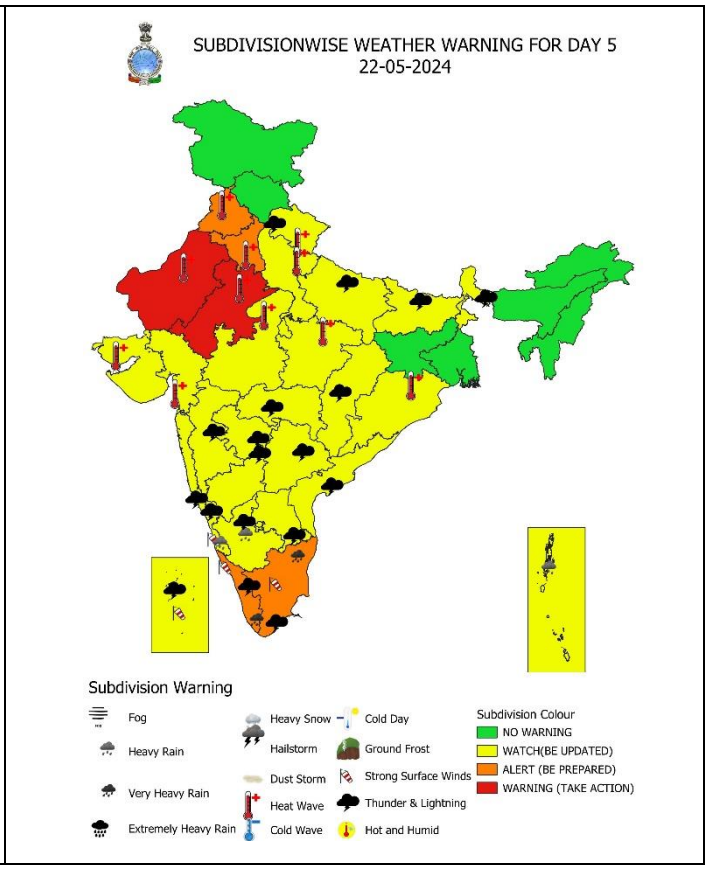
- **Tamil Nadu:** Coonoor (dist The Nilgiris), Pillur Dam Mettupalayam (dist Coimbatore) 17 each, Coonoor PTO (dist The Nilgiris) 14, Usilampatti (dist Madurai), Manjalar (dist Theni) 9 each, Sivagiri (dist Tenkasi), Kil Kotagiri Estate (dist The Nilgiris), Burliar (dist The Nilgiris), Madathukulam (dist Tiruppur) 8 each, Alakarai Estate (dist The Nilgiris), Taluk Office Pandalur (dist The Nilgiris), Mylaudy (dist Kanniyakumari) 7 each,
- **Kerala & Mahe:** Enadimangalam Aws (dist Pathanamthitta) 11, Mankara Aws (dist Palakkad) 10, Sengulam Dam Aws (dist Idukki) 9, Ottapalam Aws (dist Palakkad) 8, Neryamangalam Arg (dist Ernakulam) 7, Anakayam Arg (dist Malappuram) 7, Perinthalamanna (dist Malappuram) 7,
- **South Interior Karnataka:** Gubbi (dist Tumakuru) 11, Begur (dist Chamarajanagar) 9, Sravanabelagola (dist Hassan) 7, C R Patna (dist Hassan) 7,
- **Rayalaseema:** Gurramkonda (dist Annamayya District) 8, Tanakal (dist Sri Sathyasai District) 5, Palamaner (dist Chittoor) 5, Venkatagiri (dist Tirupati) 5,
- **Coastal Karnataka:** Yellapur (dist Uttara Kannada) 7, Mangaluru (dist Dakshina Kannada) 2.
- **Coastal Andhra Pradesh & Yanam:** Bapatla (dist Bapatla) 7, Karamchedu (dist Bapatla) 2, Avanigada (dist Krishna) 1,
- **Telangana:** Kollapur (dist Nagarkurnool) 6, Sirpur (t) (dist Kumaram Bheem) 5, Venkatapur (dist Mulugu) 5, Alampur (dist Jogulamba Gadwal) 5,


SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
18-05-2024
Subdivision Warning
Fog
Heavy Rain
Very Heavy Rain
Extremely Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Strong Surface Winds
Thunder & Lightning
Hot and Humid
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTION)

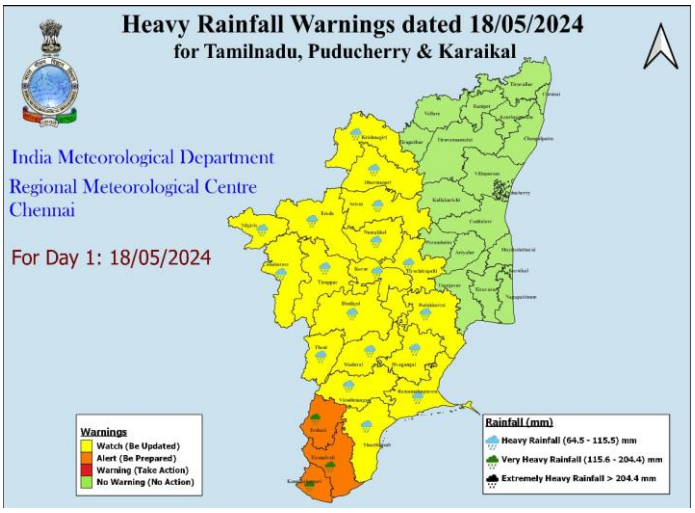

SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
19-05-2024
Subdivision Warning
Fog
Heavy Rain
Very Heavy Rain
Extremely Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Strong Surface Winds
Thunder & Lightning
Hot and Humid
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTION)

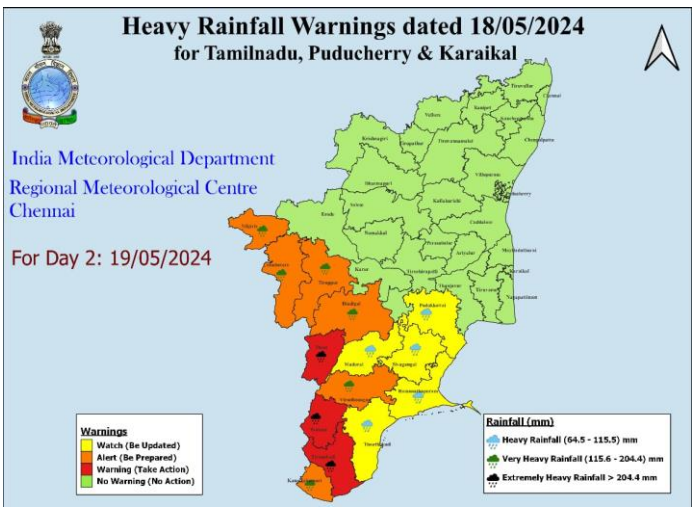

SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
20-05-2024
Subdivision Warning
Fog
Heavy Rain
Very Heavy Rain
Extremely Heavy Rain
Heavy Snow
Hailstorm
Dust Storm
Heat Wave
Cold Wave
Cold Day
Ground Frost
Strong Surface Winds
Thunder & Lightning
Hot and Humid
Subdivision Colour
NO WARNING
WATCH(BE UPDATED)
ALERT (BE PREPARED)
WARNING (TAKE ACTION)

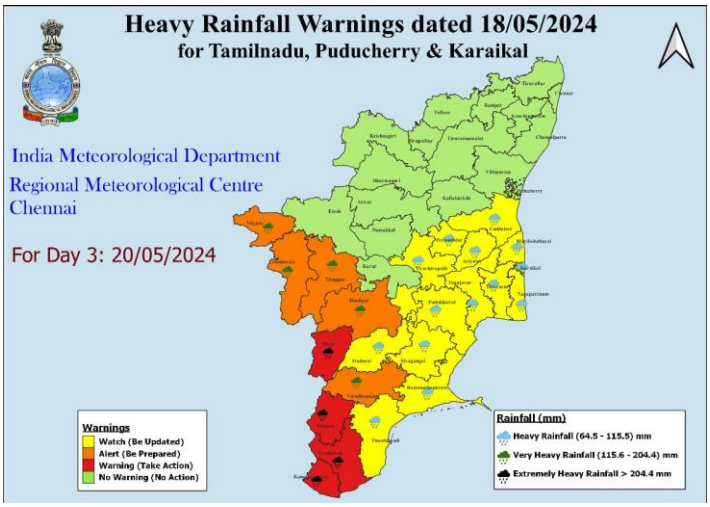


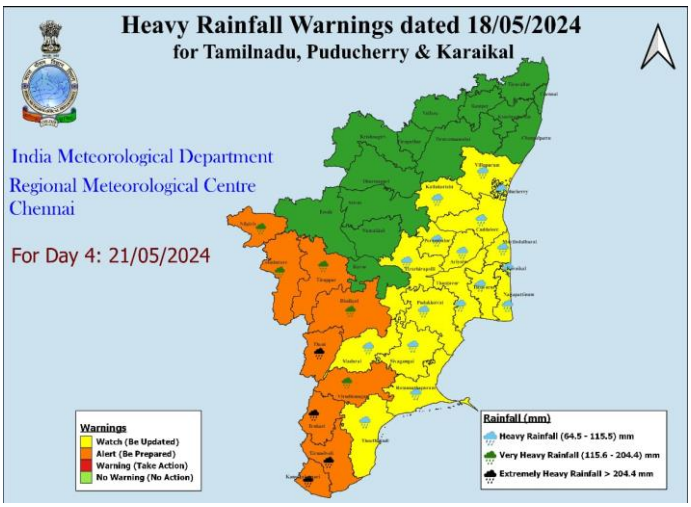


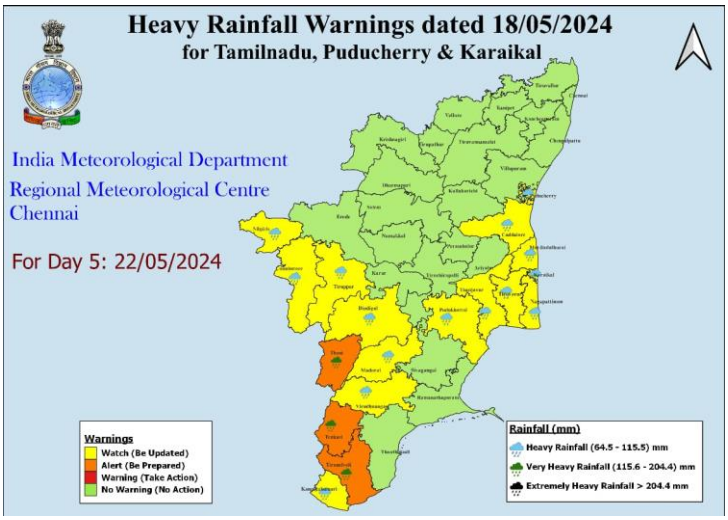
District wise Rainfall and warning Forecast for Tamil Nadu, Puducherry & Karaikal during next 5 days:



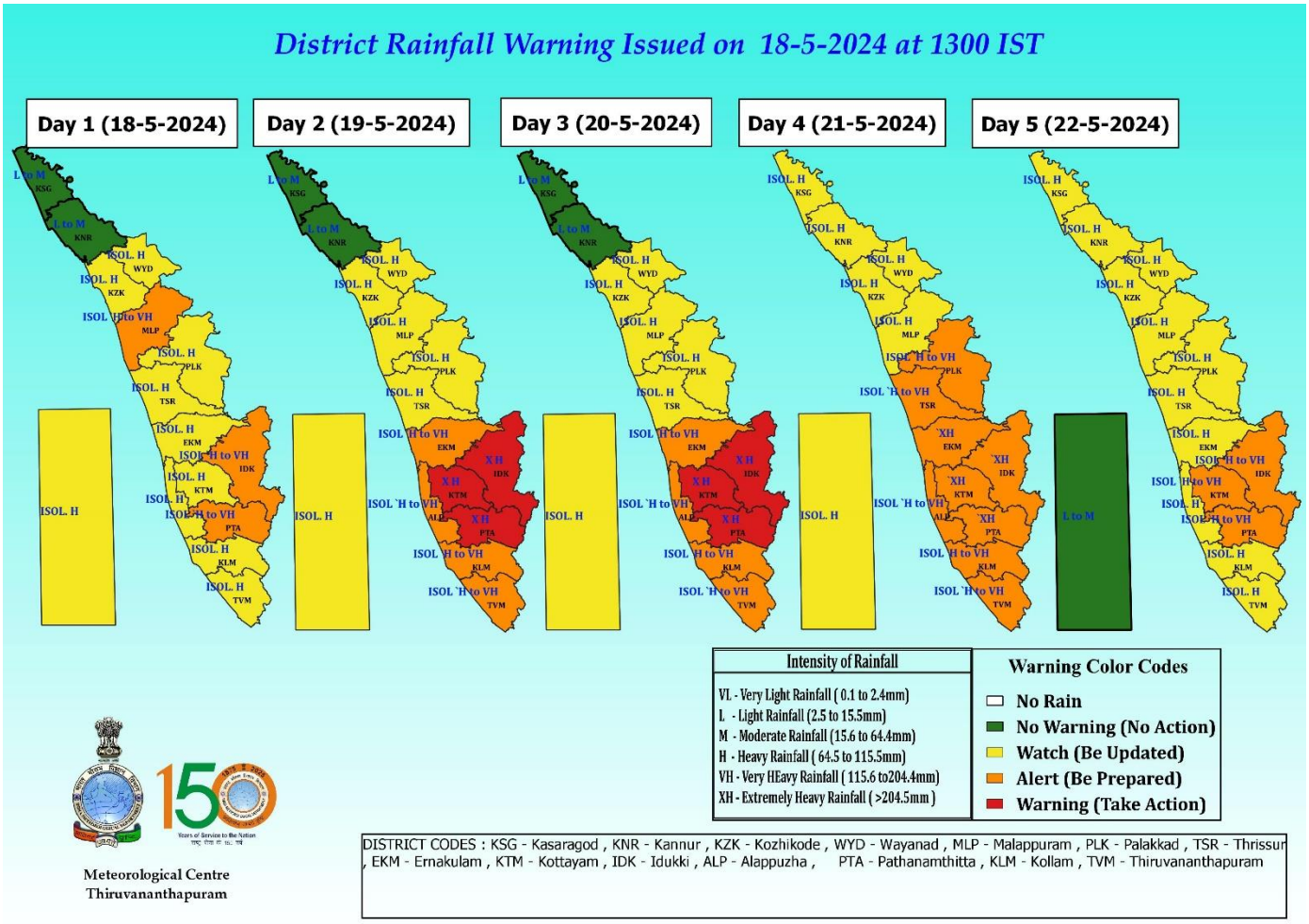



Heavy Rainfall Warnings dated 18/05/2024
for Tamilnadu, Puducherry & Karaikal
India Meteorological Department
Regional Meteorological Centre
Chennai
For Day 3: 20/05/2024
Warnings
Watch (Be Updated)
Alert (Be Prepared)
Warning (Take Action)
No Warning (No Action)
Rainfall (mm)
Heavy Rainfall (64.5 - 115.5) mm
Very Heavy Rainfall (115.6 - 204.4) mm
Extremely Heavy Rainfall > 204.4 mm


Heavy Rainfall Warnings dated 18/05/2024
for Tamilnadu, Puducherry & Karaikal
India Meteorological Department
Regional Meteorological Centre
Chennai
For Day 4: 21/05/2024
Warnings
Watch (Be Updated)
Alert (Be Prepared)
Warning (Take Action)
No Warning (No Action)
Rainfall (mm)
Heavy Rainfall (64.5 - 115.5) mm
Very Heavy Rainfall (115.6 - 204.4) mm
Extremely Heavy Rainfall > 204.4 mm


Heavy Rainfall Warnings dated 18/05/2024
for Tamilnadu, Puducherry & Karaikal
India Meteorological Department
Regional Meteorological Centre
Chennai
For Day 5: 22/05/2024
Warnings
Watch (Be Updated)
Alert (Be Prepared)
Warning (Take Action)
No Warning (No Action)
Rainfall (mm)
Heavy Rainfall (64.5 - 115.5) mm
Very Heavy Rainfall (115.6 - 204.4) mm
Extremely Heavy Rainfall > 204.4 mm

District wise Rainfall and warning Forecast for Kerala during next 5 days:



IMPACT & ACTION SUGGESTED due to very heavy rainfall/extremely falls over Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe during 18th-22nd; South Interior Karnataka during 18th-20th May 2024.

A. 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.
- 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
- 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)

B. Action Suggested

- 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, Gusty winds and Heat Wave likely over various parts of the country

- Make provision for draining out excess water from crop fields to avoid water stagnation in Arunachal Pradesh, Assam & Meghalaya, Tripura, Sub Himalayan West Bengal & Sikkim, South Odisha, Andaman; Nicobar Islands, Tamil Nadu, Kerala, Lakshadweep, Coastal Karnataka, South Interior Karnataka and Andhra Pradesh.
- Apply light and frequent irrigation to standing crops to avoid heat stress; provide mulching to conserve soil moisture and minimise evaporation in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Uttar Pradesh, Rajasthan, Gangetic West Bengal, Jharkhand, Bihar, Gujarat and North Madhya Pradesh.
- Provide mechanical support to horticultural crops; staking to vegetables to prevent damage from gusty winds.

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; **dist:** District: **NH:** National Highway; **KVK**: Krishi Vigyan Kendra; **DVC:** Damodar Valley Corporation; **PTO**: Part Time Office.
- **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.
  - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and 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 Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

Probabilistic Forecast

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

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 ≥40º C for plains and ≥30º C for hilly regions

(a) Based on Departure from normal

Heat Wave: Maximum Temperature Departure from normal 4.5º C to 6.4º C.
Severe Heat Wave: Maximum Temperature Departure from normal ≥6.5º C

(b). Based on Actual maximum temperature

Heat Wave: When actual maximum temperature ≥45ºC.
Severe Heat Wave: When actual maximum temperature ≥47ºC

(c). Criteria for heat wave for coastal stations

When maximum temperature departure is >4.5ºC from normal. Heat Wave may be described provided maximum temperature ≥37ºC

Warm Night

When maximum temperature remains 40ºC

Warm Night: When minimum temperature departure 4.5 ºC to 6.4 ºC.
Severe Warm Night: When minimum temperature departure >6.4 ºC.

Cold Wave

When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions.

(a). Based on departure

Cold Wave: Minimum Temperature Departure from normal -4.5 ºC to -6.4 ºC.
Severe Cold Wave: Minimum Temperature Departure from normal ≤ -6.5 ºC

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

Cold Wave : When Minimum Temperature is ≤ 4.0 ºC
Severe Cold Wave: When Minimum Temperature is ≤ 2.0 ºC

(c) For Coastal Stations

When Minimum Temperature departure is ≤-4.5 °C & actual Minimum Temperature is ≤ 15 °C

Cold Day

When minimum temperature of a station ≤10°C for plains and ≤0°C for hilly regions

Based on departure

Cold Day: Maximum Temperature Departure from normal -4.5 ºC to -6.4 ºC.
Severe Cold Day: Maximum Temperature Departure from normal ≤ -6.5 ºC

Fog

Phenomenon of small droplets suspended in air and the horizontal visibility < 1km

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 ≤4°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)