



**Government of India  
Earth System Science Organization  
Ministry of Earth Sciences  
India Meteorological Department**

**Press Release: Dated: 23 May, 2024**

**Subject: Current Weather Status and Extended range Forecast for next two weeks (23 May -5 June 2024)**

**1. Salient Observed Features for week ending 22 May 2024**

- **Heat wave to severe heat wave conditions prevailed during 17-22 May over northwest and adjoining central India and Gujarat state:** Most parts of northwest and adjoining central India and Gujarat state experienced persistent spell of Heat wave to severe heat wave conditions during 17-22 May with day maximum temperature observed at the range of 44-48degC across plains of these areas. Most parts of NCR Delhi also experienced similar heat wave conditions during 17-20 May.
- **Extreme southern parts of India covering Kerala and Tamil Nadu experienced almost a week long wet spell with heavy to very heavy rainfall spell observed in most dates during the week. This spell of heavy rainfall was mainly due to:** 1) Formation and persistence of a cyclonic circulation at lower and middle tropospheric levels over Kerala & neighbourhood during 20-22 May. 2) Very slow Movement of cyclonic circulation from southwest Bay of Bengal & adjoining south Sri Lanka towards south coastal Tamil Nadu & neighbourhood during 16-21 May.
- **Advance of Southwest Monsoon 2024:** Southwest Monsoon has advanced into some parts of Maldives & Comorin area, South Bay of Bengal, Nicobar Islands and South Andaman Sea today, the 19th May, 2024. The Northern Limit of Monsoon passes through 5°N/75°E, 6°N/80°E, 7°N/85°E, Nancowry and 10°N/100°E on 19<sup>th</sup> May. It has further advanced into some parts of South Arabian Sea, some more parts of Maldives, Comorin area, South Bay of Bengal, Andaman & Nicobar Islands and Andaman Sea today on 22nd May, 2024. The Northern Limit of Monsoon passes through 05°N/60°E, 06°N/70°E, 6.5°N/75°E, 7.5°N/80°E, 10°N/85°E, Mayabandar and 16°N/100°E on 22 May (refer page 7 for map of advance of monsoon 2024).
- **Formation of Season's 1<sup>st</sup> low pressure system: A Low Pressure Area formed over Southwest**

adjoining Westcentral Bay of Bengal off north Tamil Nadu-south Andhra Pradesh coasts with associated cyclonic circulation extended upto 7.6 km above mean sea level on 22<sup>nd</sup> May.

- **Heavy to very heavy rainfall observed** at isolated places over Kerala and Tamil Nadu during 16<sup>th</sup>-22<sup>st</sup> May. **Heavy rainfall also observed** at isolated places over Gangetic West Bengal on 21<sup>st</sup> May; Sub-Himalayan West Bengal & Sikkim during 19<sup>th</sup> - 20<sup>th</sup> May ; Arunachal Pradesh on 18<sup>th</sup> May; Jharkhand on 22<sup>nd</sup> May; Sikkim on 16<sup>th</sup> May; Odisha on 16<sup>th</sup> & 21<sup>st</sup> May; Assam during 16<sup>th</sup>-19<sup>th</sup> May; Meghalaya on 16<sup>th</sup> & 19<sup>th</sup> May; Goa on 17<sup>th</sup> & 20<sup>th</sup> May; Coastal Karnataka on 17<sup>th</sup> - 20<sup>th</sup> May; South Interior Karnataka during 17<sup>th</sup>-21<sup>st</sup> May; Coastal Andhra Pradesh on 18<sup>th</sup> - 19<sup>th</sup> May ; Rayalaseema on 19<sup>th</sup> & 20<sup>th</sup> May, Telangana on 20<sup>th</sup> May and Lakshadweep during 20<sup>th</sup>-22<sup>nd</sup> May.
- **Temperature Scenario:** The highest maximum temperature of **48.0°C** had been recorded at Barmer (West Rajasthan) on 22<sup>n</sup> May 2024 and the lowest minimum temperature of **14.0°C** had been recorded at Dehri (Bihar) on 21<sup>st</sup> May 2024 over the plains of the country during the week.
- **Analysis of Weekly overall Rainfall distribution during the week ending on 23 May 2024 and Summer Season's Rainfall Scenario (1 March- 22 May 2024):** It shows for the country as a whole, the weekly cumulative All India Rainfall in % departure from its long period average (LPA) till week ending on 22 May was +18%. All India Seasonal cumulative rainfall % departure during this year's **Summer Season's** during **1 March to 22 May 2024** is -8% and over northwest India, it is -10%. Details of the rainfall distribution over the four broad geographical regions of India are given in Table 1 and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

**Table 1: Rainfall status (Week and season)**

Region	WEEK			SEASON		
	16.05.2024 TO 22.05.2024			01.03.2024 TO 22.05.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	22.3	44.0	-49%	208.6	308.2	-32%
NORTH-WEST INDIA	1.4	7.6	-81%	93.9	104.1	-10%
CENTRAL INDIA	6.4	4.1	+56%	51.9	28.9	+80%
SOUTH PENINSULA	52.8	16.3	+224%	107.7	97.3	+11%

Country as a whole	16.5	14.0	18%	100.7	110.0	-8%
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## 2. Large scale features

Madden Julian Oscillation (MJO) index is currently in Phase 4 with amplitude more than 1. It will continue in same phase 4 with increasing amplitude during week 1. During week 2, it would enter in phase 2 with a decreasing trend in amplitude, but remaining more than 1 throughout the week. Thus MJO, phase and amplitude are highly favourable for enhancement of convective activity and cyclogenesis over the Bay of Bengal (BoB) during the entire forecast period.

## 3. Forecast for next two week

### [Weather systems & associated Precipitation during Week 1 \(23 to 29 May, 2024\) and Week 2 \(30 May to 05 June, 2024\)](#)

### [Weather systems & associated Precipitation during Week 1 \(23 to 29 May, 2024\)](#)

#### **Weather Systems and Forecast & Warnings:**

- ❖ The Northern Limit of Monsoon continues to passthrough 05°N/60°E,06°N/70°E, 6.5°N/75°E, 7.5°N/80°E, 10°N/85°E, Maya Bandar and 16°N/100°E.
- ❖ **Conditions are favorable for further advance of Southwest Monsoon over some more parts of south Bay of Bengal, remaining parts of Andaman & Nicobar Islands, Andaman Sea and some parts of eastcentral Bay of Bengal during next 2 days.**
- ❖ **Conditions likely to continue to become favourable for further advance of Southwest Monsoon over some more parts of south, central and North Bay of Bengal and some parts of northeast India during remaining period of the week**
- **Ongoing rainfall activities over extremely southern Peninsular India like to reduce during next 2-days.** However, fairly widespread to widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds(30-40 kmph)** likely over Kerala & Mahe, Lakshadweep, Coastal & South Interior Karnataka and isolated to scattered light/moderate rainfall accompanied with **thunderstorm, lightning& gusty winds(30-40 kmph)** over Coastal Andhra Pradesh & Yanam, Rayalaseema, Telangana, North Interior Karnataka and Tamil Nadu, Puducherry & Karaikal during the week.
- ✓ **Isolated heavy rainfall very likely over Coastal & South Interior Karnataka on 23<sup>rd</sup>; Lakshadweep on 23<sup>rd</sup> & 24<sup>th</sup>; Tamil Nadu, Puducherry & Karaikal on 24<sup>th</sup>; Coastal Andhra Pradesh & Yanam and Kerala on 25<sup>th</sup> May, 2024.**
- ✓ **Isolated heavy to very heavy rainfall very likely over Tamil Nadu, Puducherry & Karaikal on 23<sup>rd</sup> and Kerala & Mahe on 24<sup>th</sup> May, 2024.**
- ✓ **Isolated extremely heavy rainfall very likely over Kerala & Mahe on 23<sup>rd</sup> May, 2024.**

- Widespread light to moderate rainfall very likely over Andaman & Nicobar Islands during the week with **isolated heavy rainfall very likely over Andaman & Nicobar Islands during 23<sup>rd</sup>-25<sup>th</sup> May, 2024.**
- Isolated light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Konkan & Goa and Madhya Maharashtra during most days of the week.
- ❖ A cyclonic circulation lies over west Bihar and a trough runs from southeast Rajasthan to Jharkhand in lower tropospheric levels. Under their influence:
  - Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Gangetic West Bengal and isolated to scattered light to moderate rainfall over Odisha, Bihar and Jharkhand during the week.
  - Scattered to fairly widespread light to moderate rainfall accompanied with **thunderstorm, lightning & gusty winds (30-40 kmph)** very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Manipur, Mizoram and Tripura during the week.
  - **Isolated heavy rainfall very likely over Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura on 26<sup>th</sup> & 27<sup>th</sup> with isolated very heavy rainfall on 27<sup>th</sup> May, 2024.**
- **A well-marked low pressure area lies over westcentral & adjoining south Bay of Bengal in the morning (0830 hours IST) of today, the 23<sup>rd</sup> May, 2024. It is very likely to continue to move northeastwards and concentrate into a Depression over central parts of Bay of Bengal by morning of 24<sup>th</sup> May, 2024. Thereafter, it is very likely to continue to move northeastwards, intensify further into a cyclonic storm over eastcentral Bay of Bengal by 25<sup>th</sup> May morning. Subsequently, it would move nearly northwards and reach near Bangladesh and adjoining West Bengal coasts by 26<sup>th</sup> May evening as a severe cyclonic storm.**
- **Heavy Rainfall Warning:**
  - a) Light to moderate rainfall at most places with heavy to very heavy rainfall at isolated places is likely over coastal districts of West Bengal and adjoining districts of North Odisha on 26<sup>th</sup> and 27<sup>th</sup> May.
  - b) Light to moderate rainfall at most places with heavy to very heavy rainfall at isolated places is likely over Mizoram, Tripura and South Manipur on 26<sup>th</sup> and 27<sup>th</sup> May.
- Wind Warning:**
  - ❖ Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over central and adjoining South Bay of Bengal on 23<sup>rd</sup> May. It would become 50-60 kmph gusting to 70 kmph over central Bay of Bengal on 24<sup>th</sup> May.
  - ❖ It would extend to adjoining areas of North Bay of Bengal with gale wind speed reaching 60-70 kmph gusting to 80 kmph from 25<sup>th</sup> May morning. It would further increase becoming 100-

110 kmph gusting to 120 kmph over north Bay of Bengal and 70-80 kmph gusting to 90 kmph over adjoining central Bay of Bengal from 26<sup>th</sup> morning for subsequent 24 hours.

- ❖ Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off Bangladesh, West Bengal and adjoining North Odisha coasts from 25<sup>th</sup> May evening.
- ❖ Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over Andaman Islands and North Andaman Sea on 23<sup>rd</sup> and 24<sup>th</sup> May.

**Sea condition:**

Sea condition is likely to be:

- ❖ Rough to very rough over central and adjoining south Bay of Bengal from 23<sup>rd</sup> May and over North Bay of Bengal from 24<sup>th</sup> May evening. It would become high over central Bay of Bengal from 25<sup>th</sup> May morning and High to Very High over North Bay of Bengal from 25<sup>th</sup> evening till 27<sup>th</sup> May morning.
- ❖ Rough to very rough along & off Bangladesh, West Bengal and adjoining North Odisha coasts from 25<sup>th</sup> May evening and high along & off Bangladesh and West Bengal coasts from 26<sup>th</sup> noon onwards till 27<sup>th</sup> May morning.
- ❖ Rough to very rough over Andaman Islands and North Andaman Sea on 23<sup>rd</sup> and 24<sup>th</sup> May.

**Fishermen Warning:**

Fishermen are advised not to venture into south Bay of Bengal till 24<sup>th</sup> May, central Bay of Bengal till 26<sup>th</sup> May and North Bay of Bengal from 24<sup>th</sup> May onwards till morning of 27<sup>th</sup> May. Fishermen out at sea are advised to return to the coast.

**Rainfall for week 2 (30 May to 05 June, 2024):**

- ✓ Due to trough/Cyclonic Circulation over east & northeast India and wind flow from Bay of Bengal to east & northeast India, fairly widespread to widespread rainfall with isolated heavy falls likely over the region during many days of the week.
- ✓ Under the influence of trough/Cyclonic Circulation over Peninsular India, Scattered to widespread rainfall with isolated heavy falls likely over south Peninsular India during many days of the week.
- ✓ **Rainfall activity over Kerala likely to increase towards the end of week 1 and beginning of week 2 leading to likely onset of Monsoon over Kerala around 31<sup>st</sup> May with ±4 days.**
- ✓ Overall, rainfall activity is likely to be above normal over east & northeast India, near normal over central & south Peninsular India and below normal over northwest India.

**Maximum temperatures for Week 1 (23 to 29 May, 2024) and Week 2 (30 May to 05 June, 2024)**

**Maximum temperatures for Week 1 (23 to 29 May, 2024):**

- ❖ **Areas having maximum temperatures greater than 40°C:** Yesterday, maximum temperatures were in the range of 44-47°C in many places over Rajasthan; in some places over Haryana, Madhya Pradesh & Gujarat state; in isolated pockets over West Uttar

Pradesh; in the range of 40- 44°C in many places over Punjab, Odisha & interior Maharashtra; in some parts of East Uttar Pradesh & Chhattisgarh; in isolated pockets of Telangana. These were above normal by 2-4°C over many parts of Punjab and Saurashtra & Kutch; in some places over Haryana; in isolated pockets of Uttar Pradesh, Rajasthan and Gujarat Region.

- ❖ No significant change in maximum temperatures very likely over many parts of West India during 1<sup>st</sup> half of the week and fall by about 2-3°C thereafter.
- ❖ No significant change in maximum temperatures very likely over rest parts of the country.

#### **Heat Wave, Warm Night and Hot & Humid weather warning during the week:**

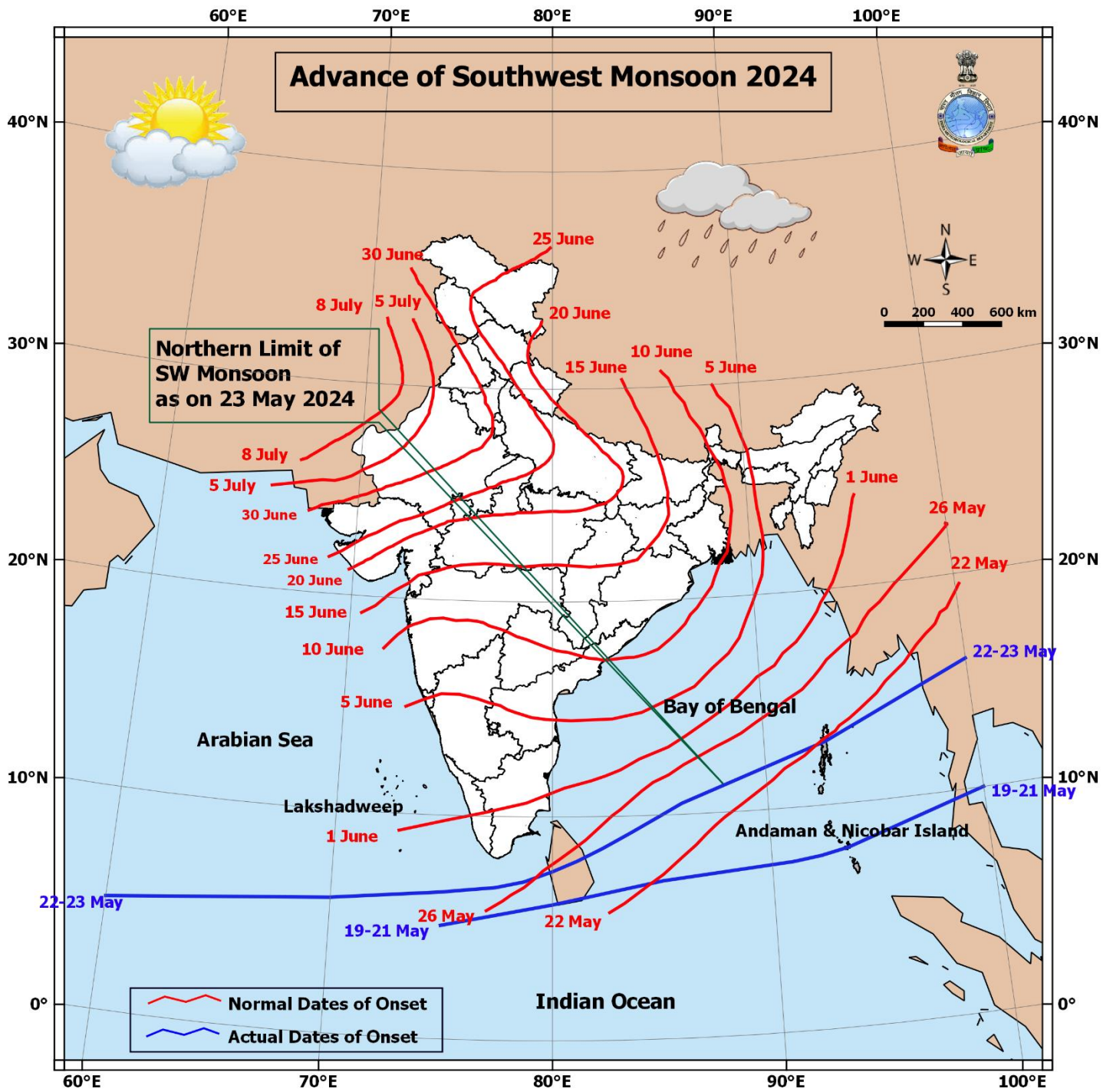
- ❖ **Heat wave conditions** very likely in isolated pockets of Jammu division, Himachal Pradesh, Madhya Pradesh and Vidarbha during 23<sup>rd</sup>-27<sup>th</sup>; Gujarat state during 23<sup>rd</sup>-26<sup>th</sup>; West Uttar Pradesh and Madhya Maharashtra during 23<sup>rd</sup>-25<sup>th</sup>; Punjab on 23<sup>rd</sup>; East Uttar Pradesh during 25<sup>th</sup>-27<sup>th</sup> May, 2024.
- ❖ **Heat wave to severe heat wave conditions very likely in many/most parts of Rajasthan; in some/many parts of Punjab, Haryana-Chandigarh during the week; West Uttar Pradesh during 2<sup>nd</sup> half of the week.**
- ❖ **Hot and humid weather** very likely to prevail over Assam during 1<sup>st</sup> half of the week and Konkan & Goa on 23<sup>rd</sup> & 24<sup>th</sup> May, 2024.
- ❖ **Warm night conditions** very likely to prevail over West Rajasthan during most days of the week and Punjab, Haryana-Chandigarh-Delhi & West Uttar Pradesh during 1<sup>st</sup> half of the week.

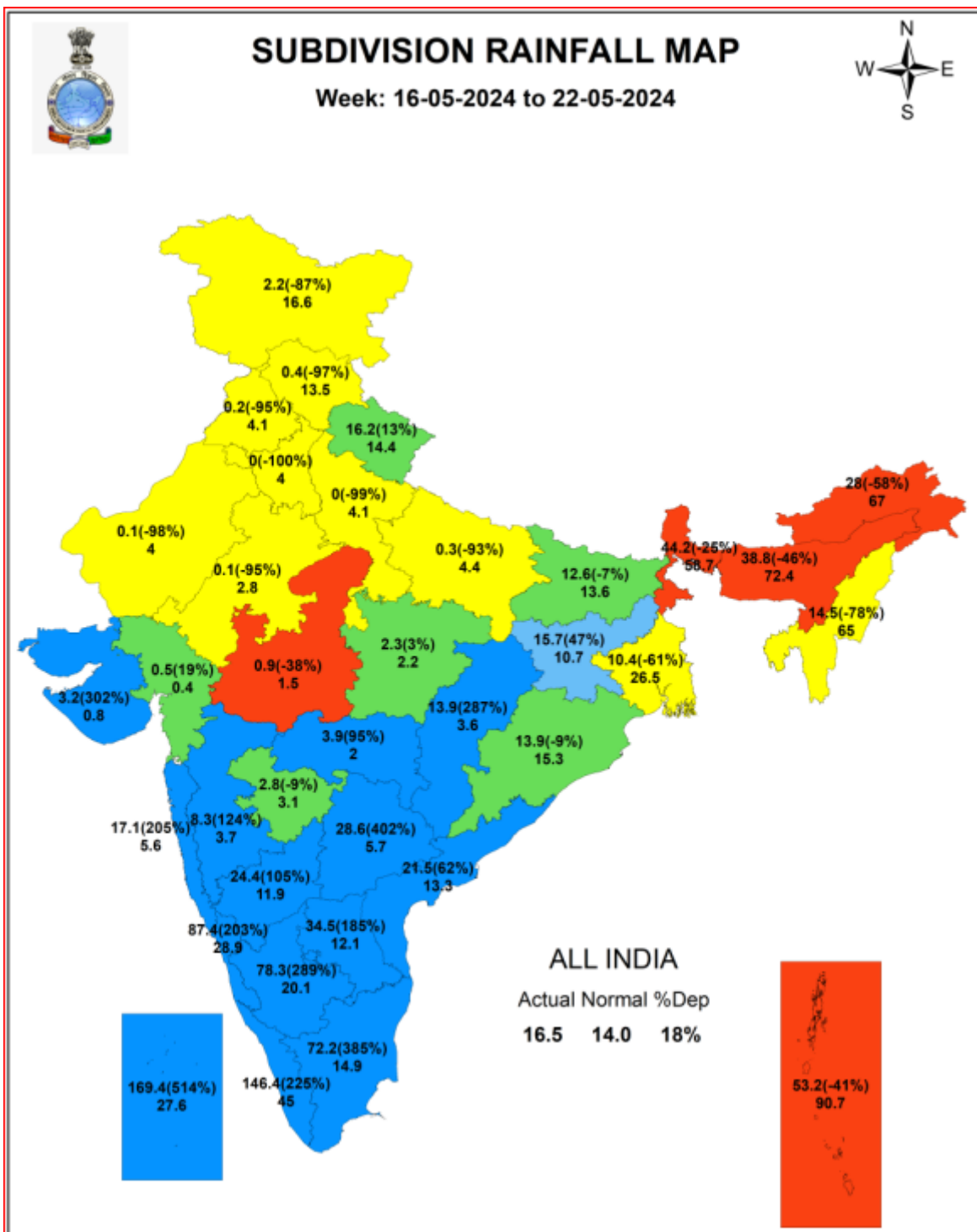
#### **Maximum temperatures for Week 2 (30 May to 05 June, 2024):**

- Maximum temperatures are likely to be between 43-45°C over many parts of the northwest India during the week. These are very likely to be above normal by 2-3°C over most parts of northwest & east India and near normal or slightly below normal over rest parts of the country.
- **There is Moderate probability of heat wave to severe heat wave over some to many pockets of Rajasthan; isolated to some pockets over Punjab, Haryana & Uttar Pradesh, north Madhya Pradesh and heat wave at isolated pockets over Gujarat and Bihar during many days of the week.**
- **There is low probability of heat wave at isolated pockets Jharkhand and Odisha during some days of the week.**

For detailed Heat wave outlook please visit (<https://internal.imd.gov.in/pages/heatwave.php>)







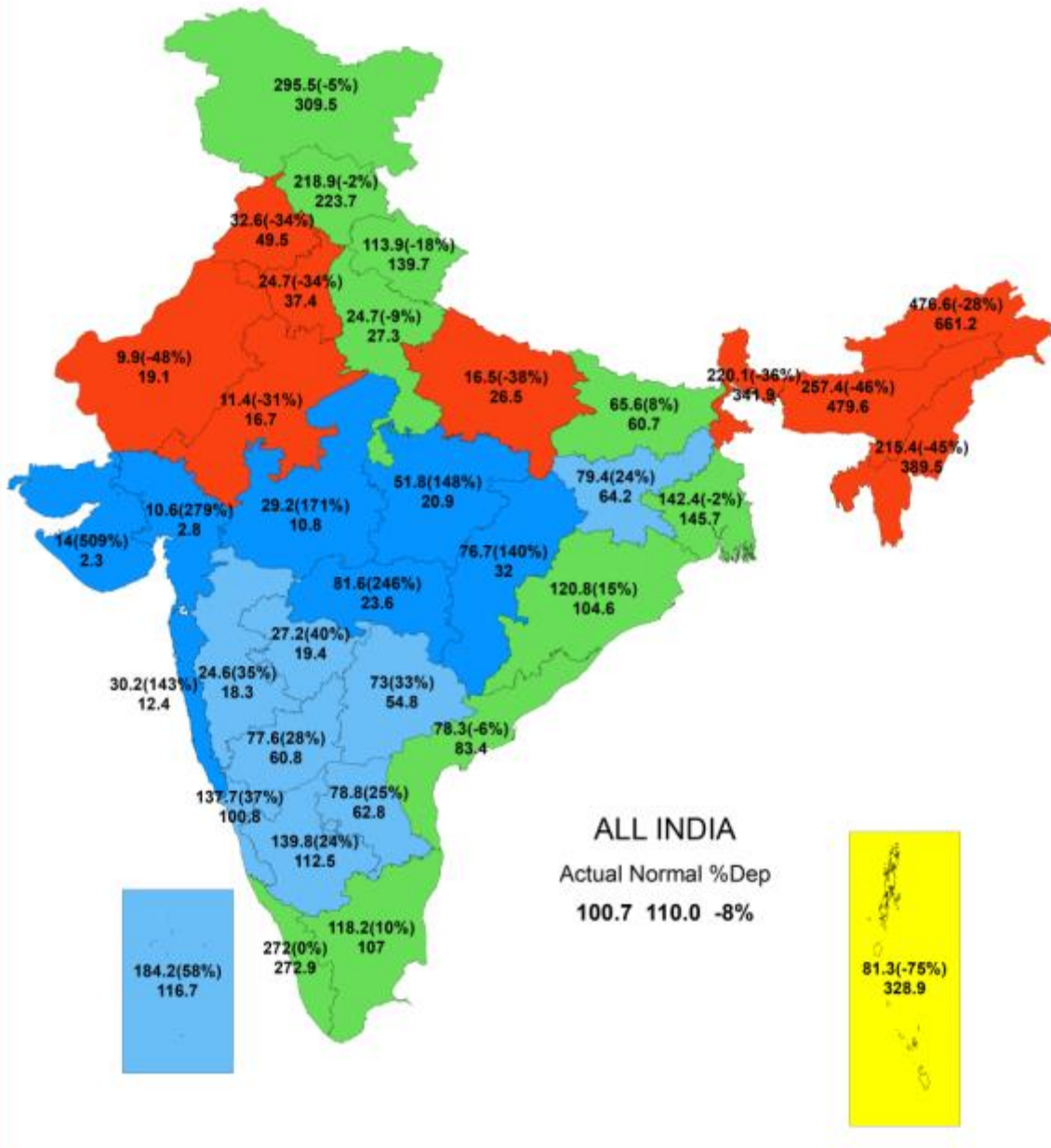
;Annex II





# SUBDIVISION RAINFALL MAP

Period: 01-03-2024 to 22-05-2024

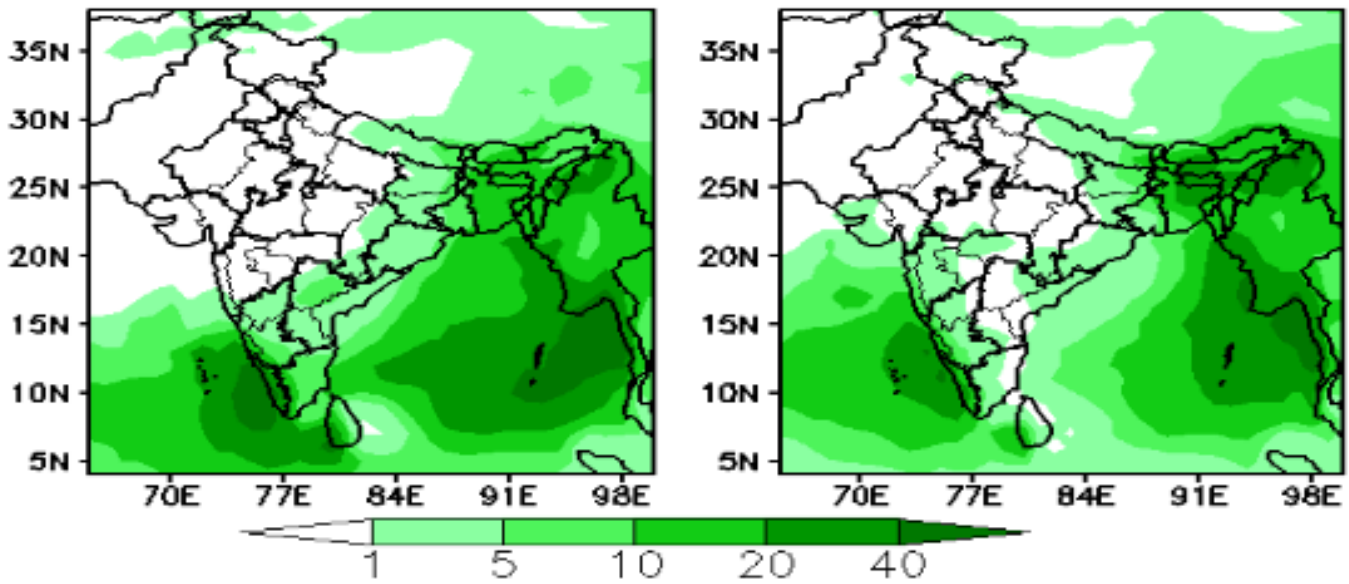


**Forecast Rainfall (mm/day)**

(00Z=0530 hrs IST)

(Week1:00Z23May-00Z30May)

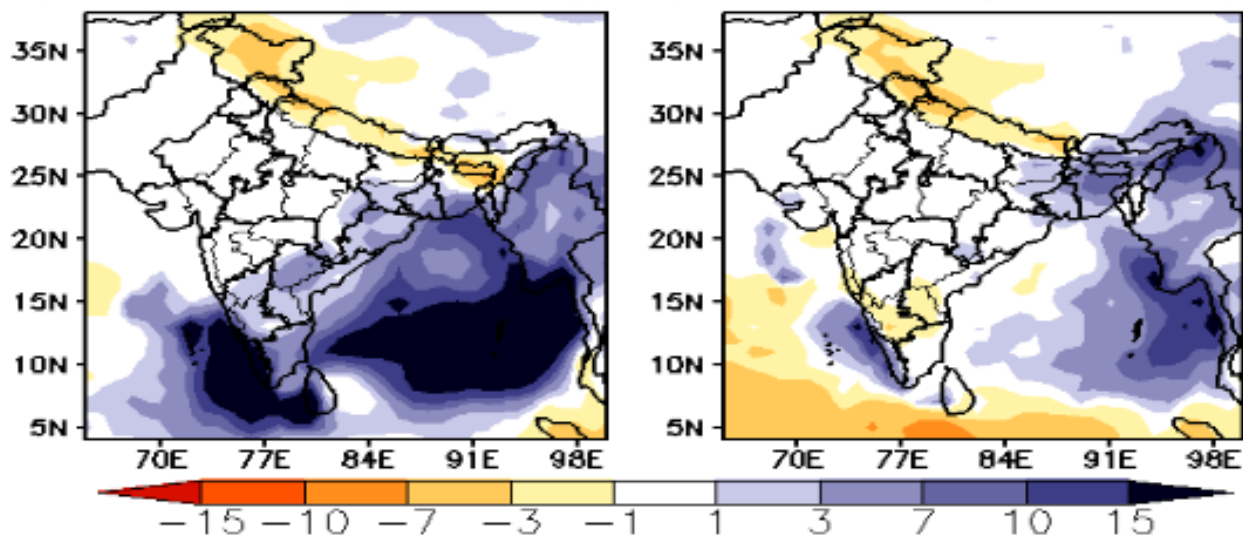
(Week2:00Z30May-00Z06Jun)



**Forecast Rainfall Anomaly (mm/day)** (00Z=0530 hrs IST)

(Week1:00Z23May-00Z30May)

(Week2:00Z30May-00Z06Jun)



Extended range forecast of weekly distribution of rainfall in mm per day (top panel) and anomalies (lower panels) from IMD MME