



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

Press Release: Dated: 18th July, 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (18 to 31 July, 2024)

1. Salient Observed Features for week ending 17 July, 2024

- **Active to Vigorous monsoon conditions** prevailed during the week over most parts of west coast of India during most dates in the week while over south Peninsular India and west central India, it prevailed during 2nd half of the week.
- **It was mainly due to following synoptic and winds features:** 1) During the period of 11-13 July, Monsoon trough was north of the normal position while during 14-17 July, it shifted south of the normal position and also extended in the lower tropospheric levels during 15-17 July. 2) A low-pressure area has formed over the Northwest & adjoining Westcentral Bay of Bengal off the south Odisha coast on the 15th July; lay over south Chhattisgarh & adjoining Vidarbha and southwest Madhya Pradesh on the 16th July. 3) East-west shear line was also re-developed on 15 July and persisted at middle tropospheric levels tilting southwards with height till end week. 4) The off-shore trough was active along south Gujarat-north Kerala coasts at mean sea level and persisted during the week, i.e., 11th to 17th July.
- **Isolated Heavy to very heavy rainfall with isolated extremely heavy rainfall occurred over** Konkan & Goa during 11th to 16th July; Madhya Maharashtra during 13th to 15th July; Coastal Karnataka during 13th to 16th; South Interior Karnataka during 13th to 17th July; Tamil Nadu during 13th to 17th July; Kerala & Mahe during 13th to 17th July; Gujarat Region during 12th to 16th July; Saurashtra & Kutch on 17th July; Chhattisgarh during 13th to 17th

July; East Madhya Pradesh on 14th July; West Madhya Pradesh on 13th& 16th July; East Rajasthan on 17th July; Uttarakhand on 11th& 15th July; East Uttar Pradesh on 12th& 13th July; Bihar during 12th to 15th July; Odisha on 14th& 16th July; Sub-Himalayan West Bengal & Sikkim during 12th to 14th July; Assam & Meghalaya during 11th, 12th & 15th to 17th July; Arunachal Pradesh on 13th July; Vidarbha on 15th July; Telangana during 15th to 17th July; Coastal Andhra Pradesh & Yanam on 13th July.

- **Temperature Scenario:** The highest maximum temperature of **43.5°C** had been recorded at **Jaisalmer (West Rajasthan)** on **16th & 17th July 2024** and the lowest minimum temperature of **17.5°C** had been recorded at **Dehri (Bihar)** on **12th July 2024** over the plains of the country during the week.

♦ **Analysis of weekly overall rainfall distribution during the week ending on 17th July 2024 and monsoon Season’s Rainfall Scenario (01 June-17 July, 2024):** The country as a whole, the weekly cumulative All India Rainfall (04.07.2024 to 17.07.2024) in % departure from its long period average (LPA) is -12%. All India Seasonal cumulative rainfall % departure during this year’s monsoon Season’s Rainfall (01 June to 17 July 2024) is -2%. 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 Annexure I & II respectively.

Table 1: Rainfall status (Week and season)

| Region | WEEK | | | SEASON | | |
|------------------------|--------------------------|-------------|-------------|--------------------------|--------------|------------|
| | 11.07.2024 TO 17.07.2024 | | | 01.06.2024 TO 17.07.2024 | | |
| | Actual | Normal | % Dep | Actual | Normal | % Dep |
| East & northeast India | 68.6 | 98.1 | -30% | 523.5 | 567.7 | -8% |
| Northwest India | 24.8 | 52.4 | -53% | 163.6 | 184.4 | -11% |
| Central India | 75.2 | 72.4 | +4% | 326.1 | 337.5 | -3% |
| South Peninsula | 71.9 | 47.9 | +50% | 316.7 | 270.1 | +17% |
| Country as a whole | 58.0 | 65.6 | -12% | 305.8 | 313.9 | -3% |

2. Large scale features

✓ Currently El Nino-Southern Oscillation (ENSO) neutral conditions are observed over the equatorial Pacific. The sea surface temperatures (SSTs) are above average in the

equatorial western and central Pacific Ocean, and below-average over the eastern equatorial Pacific Ocean. The latest Monsoon Mission Climate Forecast System (MMCFS) indicates that the La Nina conditions are likely to develop during second half of the monsoon season.

✓ At present, neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The latest climate model forecasts indicates neutral IOD conditions are likely to continue during the monsoon season. The Madden Julian Oscillation (MJO) index is currently located in phase 5 with amplitude more than 1 and likely to remain in same phase for next 2 more days and enter into phase 6 with weaker magnitude during remaining part of week 1. During week 2 the MJO will remain initially in phase 7 and subsequently in phase 8. Thus, MJO phase and amplitude is favourable for enhancement of convective activity over the north Bay of Bengal (BoB) during first half of week 1.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (18 to 24 July, 2024) and Week 2 (25 to 31 July, 2024)

Weather systems & associated Precipitation during Week 1 (18 to 24 July, 2024)

Weather Systems

✓ Update on Low pressure system based on observations of 1730 hrs IST today(issued at 2010 hrs IST of today): The low-pressure area over central and adjoining North Bay of Bengal has become well marked and now lies over the same area. Associated cyclonic circulation extends upto mid-tropospheric levels tilting southwestwards with height. It is likely to move northwestwards and concentrate into a depression over northwest and adjoining westcentral Bay of Bengal during next 24-hours. Thereafter it is likely to move northwestwards & cross Odisha coast during subsequent 24 hours.

✓ The Monsoon trough is active and south of its normal position. It is likely to be south of its normal position during next 3-4 days.

✓ A shear zone runs in lower & middle tropospheric levels roughly along 20°N tilting southwards with height.

✓ The off-shore trough runs along south Gujarat-north Kerala coasts at mean sea level.

✓ A cyclonic circulation lies over Kutch & adjoining Northeast Arabian Sea in lower tropospheric levels.

Forecast & Warnings till 22 July 2024

❖ West, Central, East and South Peninsular India

✓ Fairly widespread to widespread light to moderate rainfall accompanied with thunderstorm & lightning very likely over the region during next 5 days.

✓ **Isolated extremely heavy rainfall very likely over Konkan & Goa, Madhya Maharashtra, Telangana during 18th-20th; South Interior Karnataka, Coastal Karnataka, Gujarat State, Coastal Andhra Pradesh & Yanam on 18th & 19th; Tamil Nadu on 18th; Vidarbha, south Chhattisgarh on 19th & 20th and south Odisha on 19th July.**

✓ **Heavy to very heavy rainfall very likely at isolated/some places over Konkan & Goa, Madhya Maharashtra, Gujarat State, Coastal & South Interior Karnataka during next 5 days; Coastal Andhra Pradesh & Yanam during 18th-20th; Tamil Nadu on 18th & 19th July and Telangana during 18th-21st July.**

✓ **Isolated very heavy rainfall likely over Vidarbha, Chhattisgarh on 18th; Odisha on 18th & 20th; Marathwada on 20th; West Madhya Pradesh during 20th-22nd; East Madhya Pradesh on 21st & 22nd July.**

✓ **Isolated Heavy rainfall very likely over Madhya Pradesh, Vidarbha, Chhattisgarh, Odisha and North Interior Karnataka during next 5 days; Rayalaseema on 19th, Gangetic West Bengal during 20th-22nd and Jharkhand on 21st & 22nd July.**

❖ Northwest India

✓ Scattered to fairly widespread light to moderate rainfall **accompanied with thunderstorm & lightning** very likely over Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, East Rajasthan, Haryana-Chandigarh-Delhi; isolated to scattered rainfall likely over Punjab, Uttar Pradesh and West Rajasthan during next 5 days.

✓ **Isolated heavy rainfall very likely over Himachal Pradesh, Uttarakhand, East Rajasthan during next 5 days; Punjab on 18th; West Rajasthan on 20th & 21st; Haryana-Chandigarh on 18th, 19th and 21st & 22nd; Uttar Pradesh on 21st & 22nd July.**

✓ **Isolated very heavy rainfall also likely over Himachal Pradesh on 21st and Uttarakhand on 21st & 22nd July.**

❖ **Northeast India**

✓ Fairly widespread to widespread light to moderate rainfall **accompanied with thunderstorm, lightning** very likely over Andaman & Nicobar Islands, Sub-Himalayan West Bengal & Sikkim and Northeast India during next 5 days.

✓ **Heavy rainfall** very likely at isolated places over Nagaland, Manipur, Mizoram & Tripura, Arunachal Pradesh, Assam & Meghalaya during 20th-22nd July.

✓ **Forecast of rainfall for 23 and 24 July 2024:** Rainfall likely to increase over northern parts of India and adjoining central India due to likely shift of the monsoon trough towards north of its normal position. West coast, Gujarat state and Rajasthan also likely to experience active monsoon conditions during the same period.

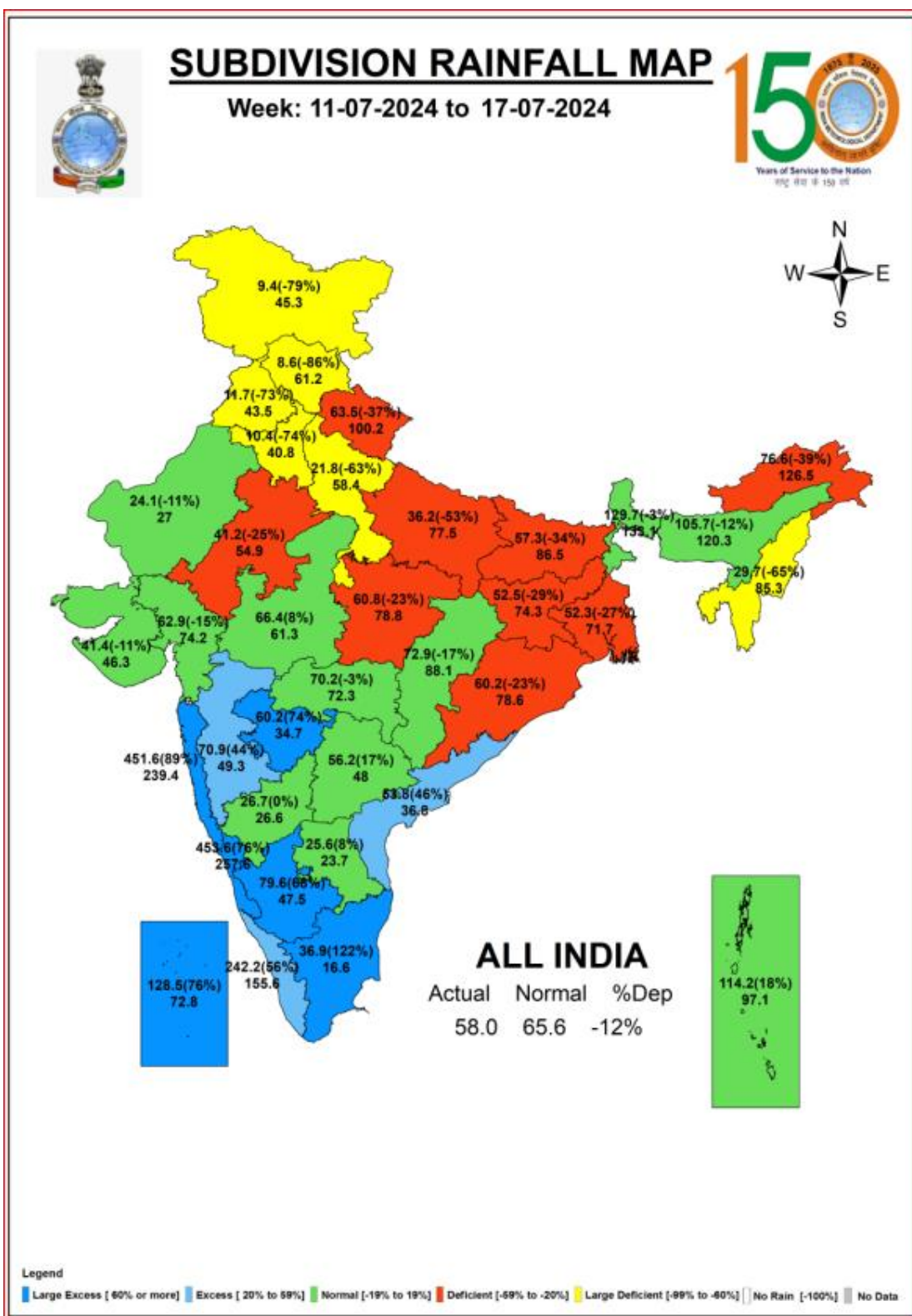
Rainfall for week 2 (25 to 31 July, 2024):

❖ Monsoon trough is likely to remain be north of the normal position during 1st of the week and gradually shift towards south of its normal position during 2nd of the week. Off-shore trough along west coast is likely to prevail during the week.

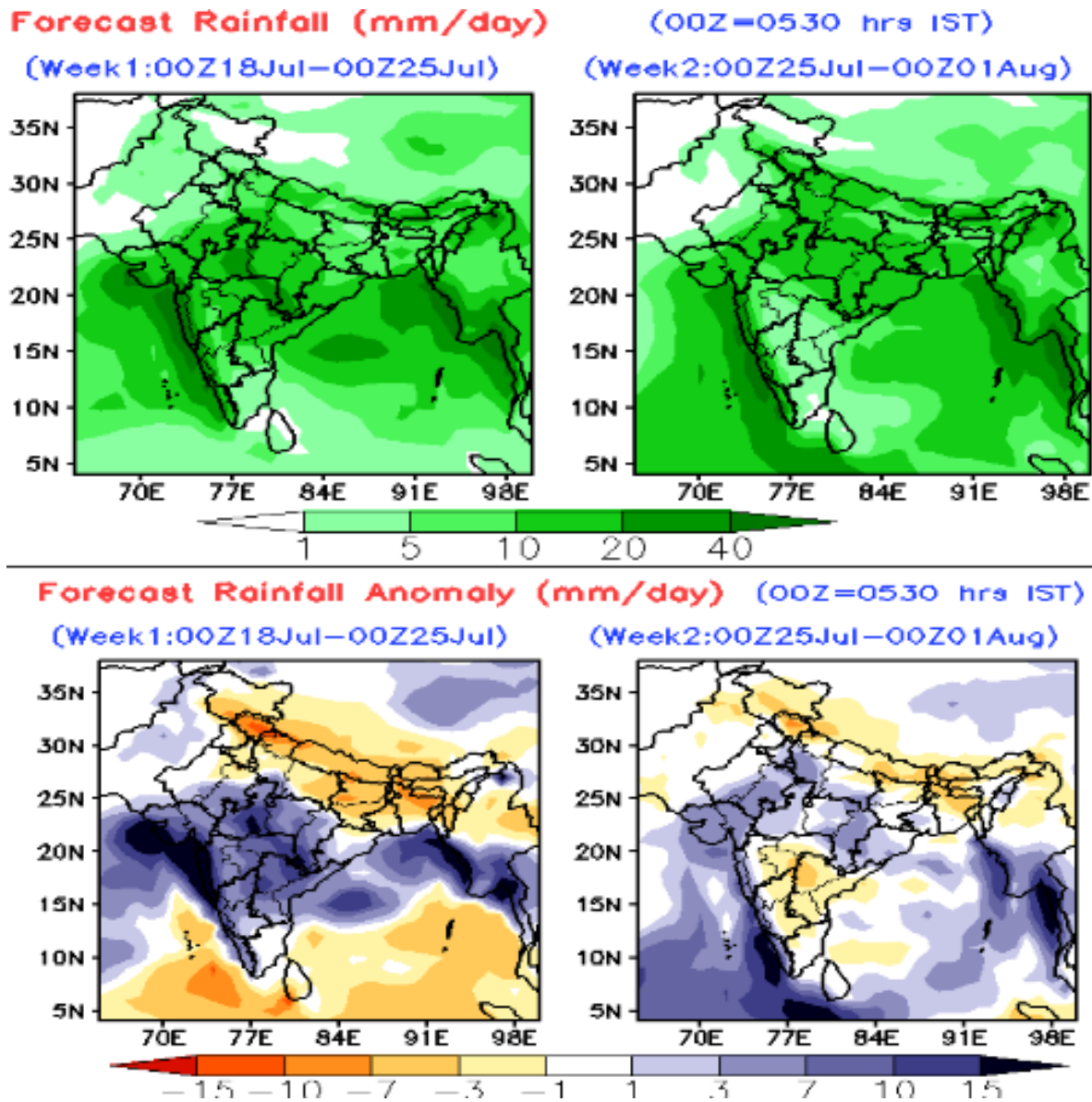
❖ Due to above favourable meteorological features, Fairly widespread to widespread light to moderate rainfall likely to continue over northern parts of India and adjoining central India. West coast, Gujarat state and Rajasthan likely to experience active monsoon conditions during the week.

❖ Overall, rainfall is likely to be above normal over most parts of the central India; normal to above normal over plains of northwest India and along the west coast of India and normal over rest parts of India, except over parts of Peninsular India, northeastern states and Western Himalayan Region, where, it is likely to be normal to below normal.

Legends: Heavy Rain: 64.5 to 115.5 mm **Very Heavy Rain:** 115.6 to 204.4 mm, **Extremely Heavy Rain**> 204.4 mm







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