



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

Press Release: Dated: 3rd Oct, 2024

Subject: Current Weather Status and Extended range Forecast for next two weeks (3-16 Oct, 2024)

1. Salient Observed Features for week ending 2nd Oct, 2024

- **Large excess rainfall activity** over East Uttar Pradesh and Bihar along with Nepal during 26-28 September leading to massive flooding in different rivers and loss of lives in Nepal.
- **Extremely Heavy Rainfall** observed over Bihar during 27th to 28th September; East Uttar Pradesh during 27th to 29th September; Sub-Himalayan West Bengal & Sikkim on 28th September; Gujarat Region & Chhattisgarh on 27th September; Konkan & Goa and Uttarakhand on 26th September. This was mainly due to north-northwest-ward movement of the cyclonic circulation from Vidarbha to southwest Uttar Pradesh & neighbourhood across northwest Madhya Pradesh during 26-28 Sept which was vertically extended upto 5.8 km above mean sea level tilting southwestwards with height, during the period. **Very Heavy Rainfall** was recorded over Sub-Himalayan West Bengal & Sikkim during 26th to 28th September; Saurashtra & Kutch during 27th to 29th September; Gujarat Region on 26th ,28th & 30th September; Madhya Maharashtra on 26th & 28th September; Assam & Meghalaya on 26th Sept & 2nd October; Himachal Pradesh, Odisha and Tamil Nadu, Puducherry & Karaikal on 26th September; Konkan & Goa, West Madhya Pradesh and Marathwada on 28th September; South Interior Karnataka on 30th September; Bihar on 29th September and West Madhya Pradesh on 27th September.
- **During the week, Southwest Monsoon** further withdrawn from the entire Jammu & Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab and Haryana-

Chandigarh-Delhi, remaining parts of West Rajasthan, some parts of West Uttar Pradesh, West Madhya Pradesh and East Rajasthan on 2nd October (Refer Fig 1).

- **Temperature Scenario:** The highest maximum temperature of **43.3°C** had been recorded at **Pokharan (West Rajasthan)** on **26th September 2024** and the lowest minimum temperature of **17.0°C** had been recorded at **Deesa (Gujarat Region)** on **02nd October 2024** over the plains of the country during the week.
- **Analysis of weekly overall rainfall distribution during the week ending on 2nd Oct and Postmonsoon Season's Rainfall Scenario (01st -2nd Oct, 2024):** The country as a whole, the weekly cumulative All India Rainfall (for 26th Sept-2nd Oct 2024) in % departure from its long period average (LPA) is 60%. All India Seasonal cumulative rainfall % departure during this year's monsoon Season's Rainfall (01st June to 30th Sep 2024) is +8%. 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		
	26.09.2024 TO 02.10.2024			01.06.2024 TO 30.09.2024		
	Actual	Normal	% Dep	Actual	Normal	% Dep
East & northeast India	86.1	51.3	+68%	1178.7	1367.3	-14%
Northwest India	24.3	8.7	+179%	628.6	587.6	+7%
Central India	52.9	24.5	+116%	1168.5	978.0	+19%
South Peninsula	22.0	40.9	-46%	815.5	716.2	+14%
Country as a whole	43.3	27.1	+60%	934.8	868.6	+8%

2. Large scale features

- Currently, neutral El Nino-Southern Oscillation (ENSO) conditions are observed over the equatorial Pacific Ocean with below average sea surface temperatures in the east equatorial Pacific Ocean. The probability forecast indicates a higher chance of development of La Niña conditions during Post-Monsoon season, 2024.
- Above-average sea surface temperatures (SSTs) are currently seen across most of the Indian Ocean. Currently, neutral Indian Ocean Dipole (IOD) conditions prevail over the Indian Ocean. The latest MMCFS forecast indicates that the neutral IOD conditions are likely

to continue during post-monsoon season, 2024. Presently, neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. The climate models forecast indicates that these neutral IOD conditions are likely to continue until the end of the monsoon season.

- The Madden Julian Oscillation (MJO) index is currently in Phase 2 with an amplitude nearly 1. It is likely to continue to move in phase 3 during first half of week 1 with amplitude < 1. Thereafter, it is likely to propagate across phase 4 with amplitude remaining < 1 and enter into Phase 5 by end of the week 2.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (03 to 09 October, 2024) and Week 2 (10 to 16 October, 2024)

Weather systems & associated Precipitation during Week 1 (03 to 09 October, 2024)

Withdrawal of Southwest Monsoon:

- ✓ On 2nd October, the Southwest Monsoon has further withdrawn from entire Jammu & Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh, Uttarakhand, Punjab and Haryana-Chandigarh-Delhi; remaining parts of West Rajasthan; some parts of West Uttar Pradesh, West Madhya Pradesh and East Rajasthan.
- ✓ The line of withdrawal of Southwest Monsoon passes through 30.8°N/81.2°E, Lakhimpur Kheri, Shivpuri, Kota, Udaipur, Deesa, Surendranagar, Junagarh and 21°N/70°E.
- ✓ **Southwest Monsoon is likely to withdraw further from remaining parts of northwest India and many parts of central India during week 1.**

Weather Systems:

- ✓ An upper air circulation lies over southeast Bangladesh & neighbourhood extending upto middle tropospheric levels. Under its influence, a Low Pressure Area is likely to form over North Bay of Bengal & neighbourhood around 04th October, 2024.
- ✓ A cyclonic circulation lies over Lakshadweep area in lower tropospheric levels.

Forecast & Warnings during next one week:

East & Northeast India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Northeast region during the week; Widespread light to moderate rainfall very likely over Sub-Himalayan West Bengal & Sikkim during next 2 days & Scattered to Fairly widespread light to moderate rainfall during the next subsequent 5 days; Scattered to Fairly widespread light to moderate rainfall very likely Gangetic West Bengal; Isolated to Scattered light to moderate rainfall over the remaining region during the week.
- ✓ **Isolated heavy to very Heavy rainfall** very likely over Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura on 03rd & 04thOctober.
- ✓ **Isolated heavy rainfall** very likely over Northeast India during next 7 days; Sub-Himalayan West Bengal & Sikkim during 03rd -05th; Gangetic West Bengal on 04thOctober.

South Peninsular India

- ✓ Fairly widespread to widespread light to moderate rainfall very likely over Kerala & Mahe, Lakshadweep, South Interior Karnataka; Scattered to Fairly widespread light to moderate rainfall very likely over Tamil Nadu, Puducherry & Karaikal, Coastal Karnataka, North Interior Karnataka; Isolated to Scattered light to moderate rainfall very likely over Rayalaseema, Telangana, Coastal Andhra Pradesh & Yanam during the week.
- ✓ **Isolated heavy rainfall** very likely over Kerala & Mahe during the next 7 days; South Interior Karnataka, Tamil Nadu, Puducherry & Karaikal during 03rd – 08th; Rayalaseema during 03rd -05th; North Interior Karnataka on 03rdOctober.

Northwest, West & Central India:

- ✓ No significant rainfall likely over these regions during next one week.
- ❖ **Overall, rainfall is likely to be normal to above normal over most parts of East & northeast India and South Peninsular India; below normal over northwest & Central India during the week.**

Rainfall for week 2 (10 to 16 October, 2024):

- ❖ Scattered to fairly widespread rainfall likely over most parts of Central, East & Northeast and South Peninsular India during the week.
- ❖ Isolated heavy to very rainfall is also likely over many parts of east & northeast India (Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim), isolated heavy rainfall over rest parts of East India (Gangetic West Bengal, Odisha, Jharkhand, and Bihar) during many days of the week. Isolated heavy rainfall also likely over Tamilnadu and Kerala during many days of the week.
- ❖ Overall, rainfall is likely to be above normal over most parts of Central, East & Northeast India and South Peninsular India; below normal over Northwest India during the week.
- ❖ **Withdrawal will continue during week 2 and will be complete towards end of week 2.**
- ❖ **With the withdrawal of southwest monsoon, Northeast Monsoon will set in around 15th October**

Forecast of Maximum Temperature during next 2-weeks

- ❖ **No Significant change in maximum temperature over north and central India during Week 1 and Significant fall in maximum temperature likely over the above region from Week 2.**

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

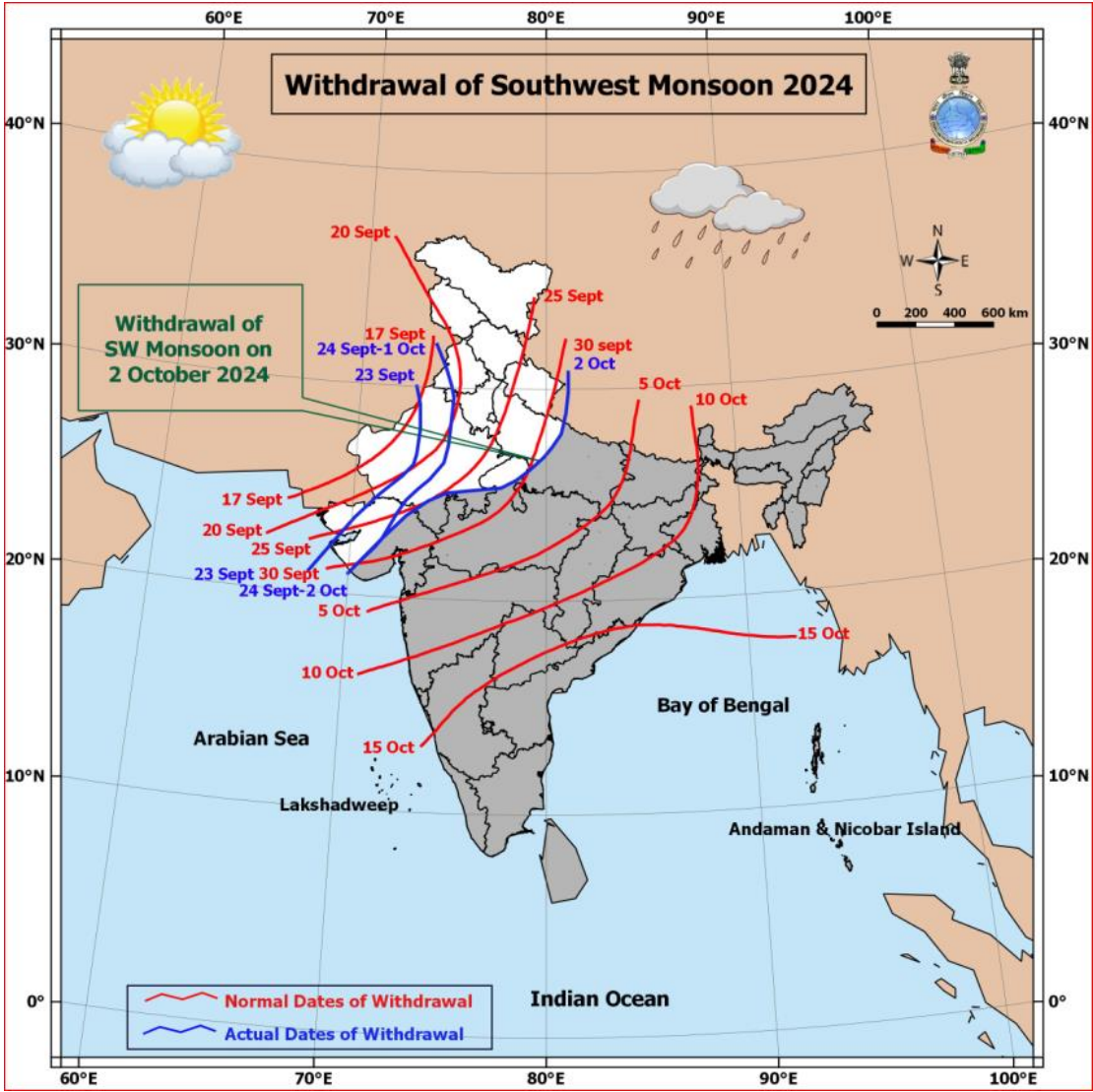


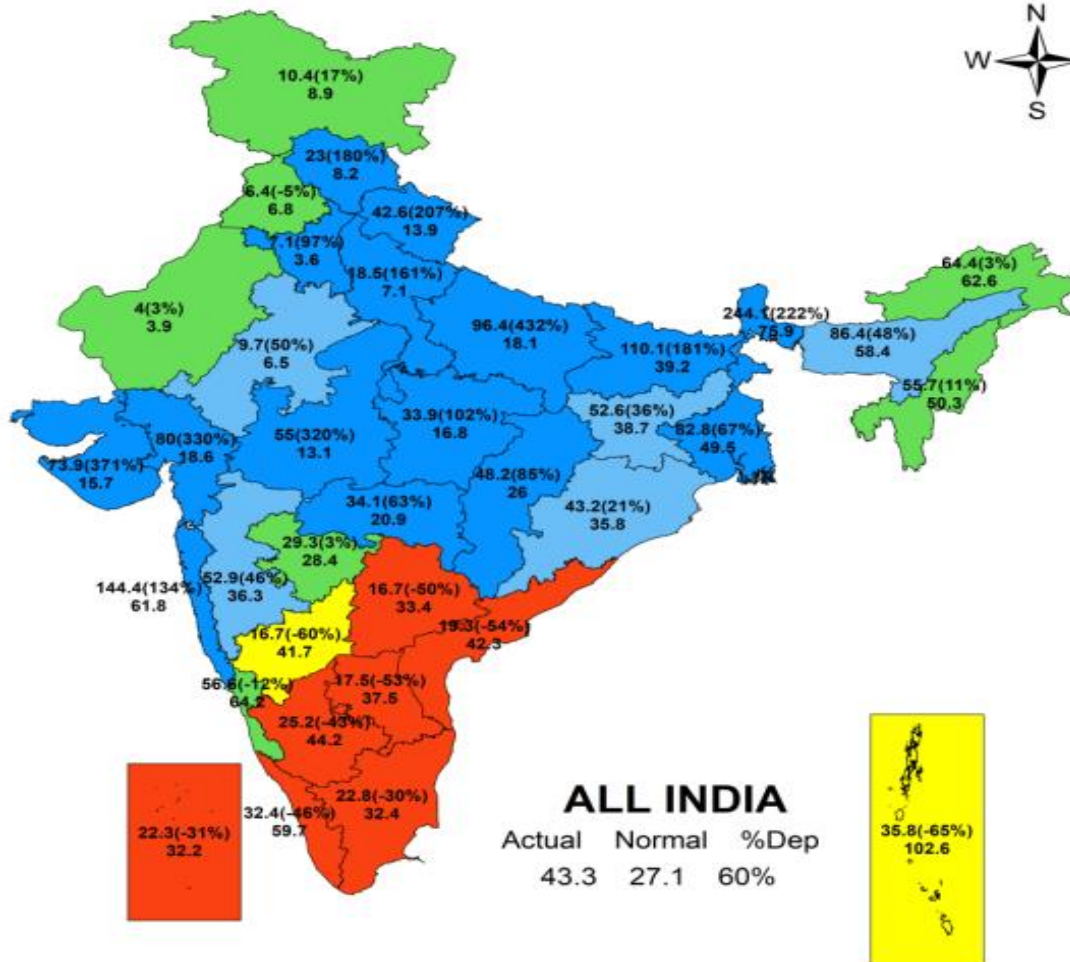
Fig. 1: Withdrawal Map of Southwest Monsoon 2024

Annexure I



SUBDIVISION RAINFALL MAP

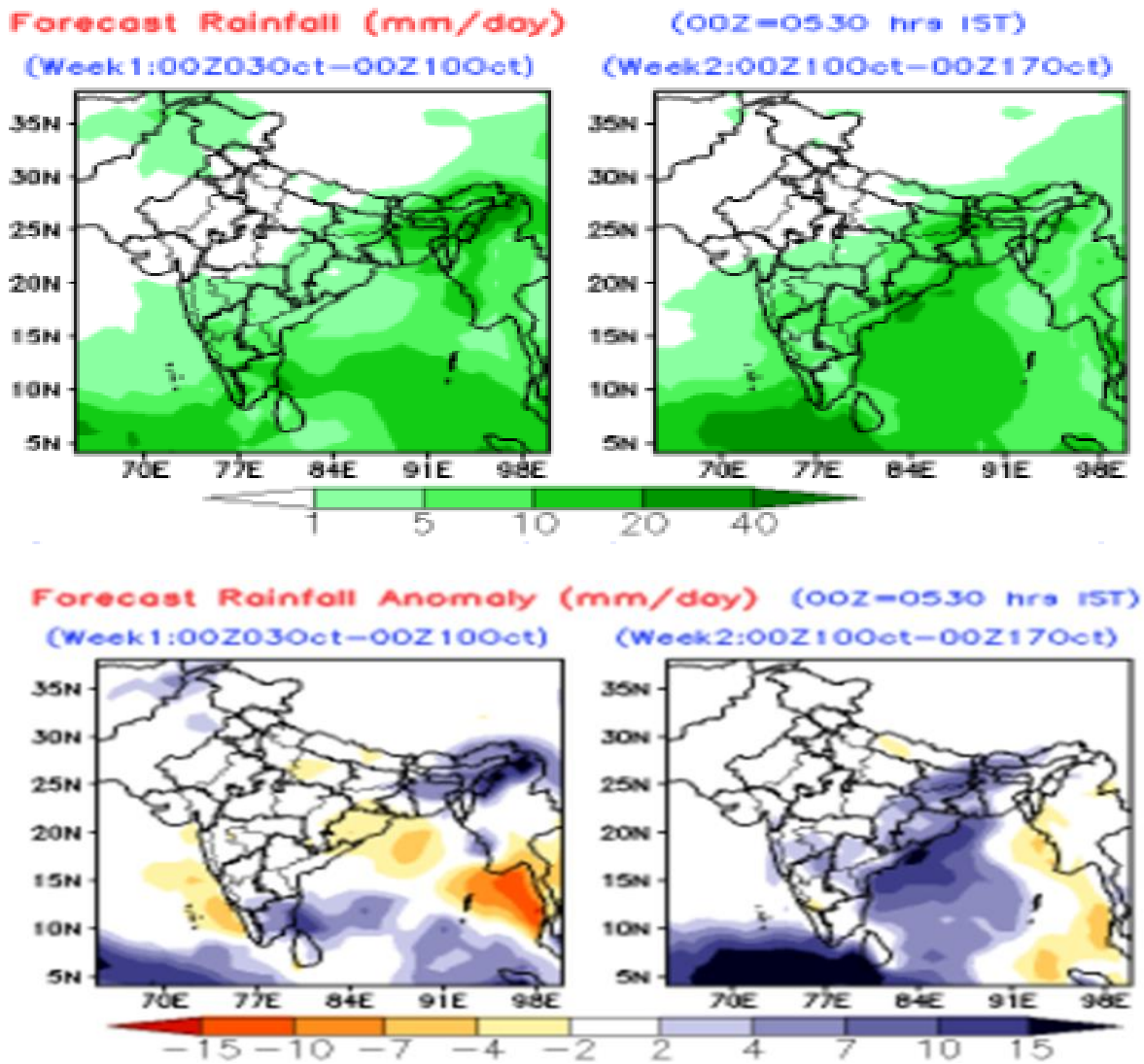
Week: 26-09-2024 to 02-10-2024



Weekly rainfall over India during 26 September-02 October 2024.



Seasonal rainfall over India during 01 June-30 Sep 2024.



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