USDA United States Department of Agriculture
Foreign Agricultural Service

GAIN Global Agricultural Information Network

Voluntary Report – Voluntary - Public Distribution **Date:** June 25, 2026

Report Number: IN2026-0038

Report Name: Monsoon Advances Amid Emerging El Nino Concerns

Country: India

Post: Mumbai

Report Category: Cotton and Products, Agricultural Situation, Grain and Feed, Oilseeds and Products, Sugar

Prepared By: Dhruv Sood

Approved By: Nicole Podesta

Report Highlights:

India's 2026 kharif season has begun under mixed conditions. The southwest monsoon reached Kerala on June 4 and continues to advance across the country. Reservoir levels remain above the 10-year average, supporting crop prospects. However, the Indian Meteorological Department (IMD) forecasts seasonal rainfall at 90 percent of the long-period average (LPA), with an 84 percent probability of below-normal or deficient rainfall as El Niño conditions develop. As of June 15, cumulative rainfall was 32 percent below normal, while kharif sowing lagged last year's pace by 3 percent. Severe April–May heatwaves increased crop water demand and heat stress risks, particularly in northern and central India. Monsoon performance over the next 3-4 weeks will be critical for crop establishment and production prospects.

DISCLAIMER: The information contained in this report was retrieved from the Ministry of Earth Sciences/Indian Meteorological Department's (IMD) website https://mausam.imd.gov.in/. The U.S. Consulate General Mumbai – Foreign Agricultural Service (FAS) Office of Agricultural Affairs (OAA), USDA and/or the U.S. government make no claim of accuracy or authenticity. The Government of India has not officially endorsed this report.

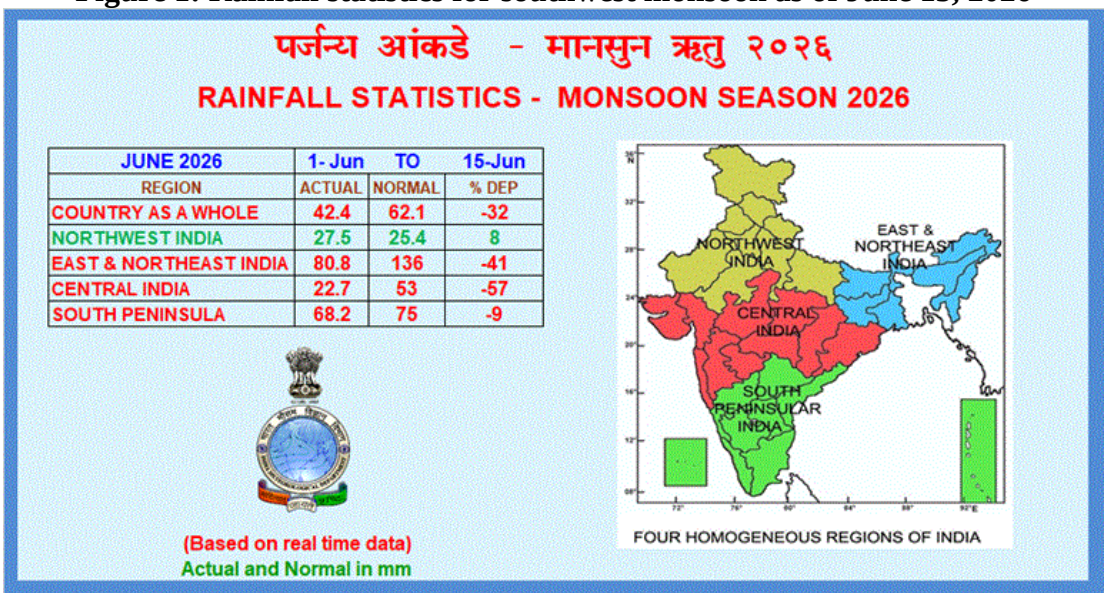
Southwest Monsoon 2026 Onset and Early Season Outlook

The southwest monsoon reached Kerala on June 4, about 3 days later than the normal onset date, and has since advanced into Karnataka, Tamil Nadu, Goa, and the northeast, with conditions favorable for further progression into central and western India in the coming week. Onset rains over Kerala were strong, with some locations receiving over 250 mm within days of arrival.

On May 29, IMD had published the long-range forecast (LRF) for the southwest monsoon season (June–September), projecting below-normal rainfall at 90 percent of the LPA, or the 50-year average. Rainfall over the Monsoon Core Zone (MCZ), which encompasses most of the country's rainfed agricultural areas, is likely to be below normal (below 94 percent of LPA), with an 84 percent probability of below normal or deficit seasonal rainfall. Below-normal rainfall is expected across most of the country, except in parts of northwest and northeast India, eastern portions of the south peninsula, and isolated pockets in east India, where normal to above-normal rainfall is likely. IMD places a 43 percent probability on below-normal rainfall, specifically within the MCZ.

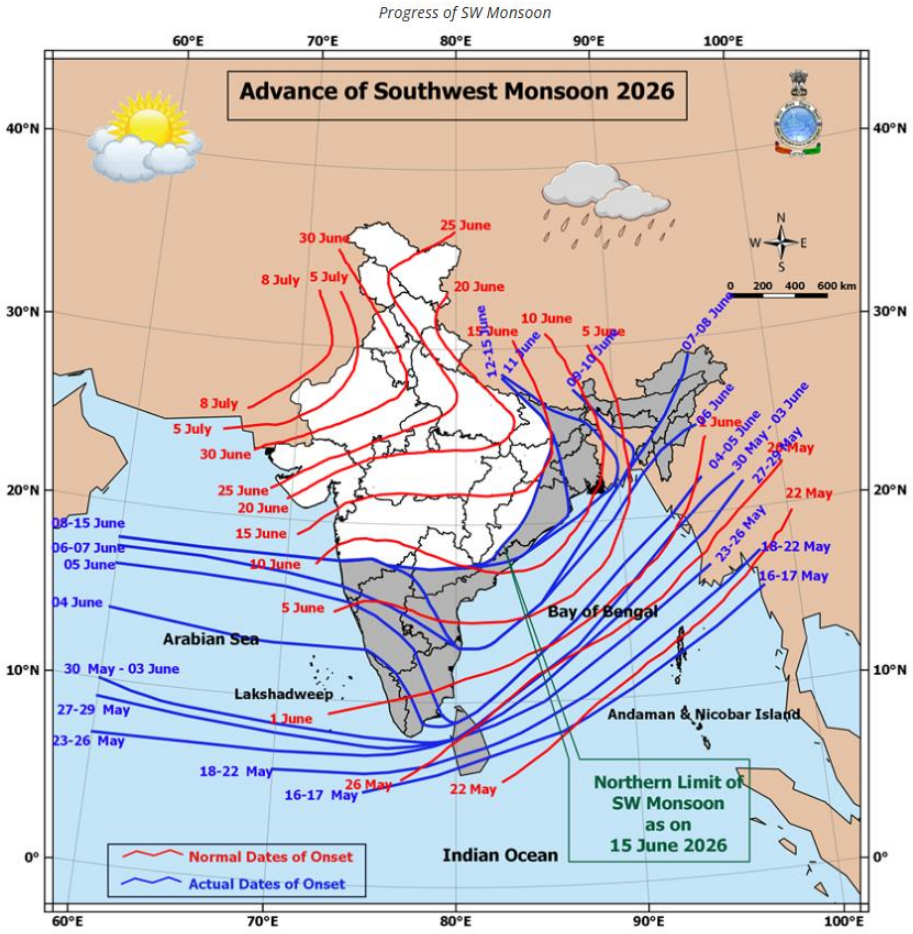
For June 2026, IMD forecasts national rainfall to be below normal and below 92 percent of the LPA, against a June baseline of 165.4 mm (1971–2020 average). Early-season data bears this out: cumulative rainfall from June 1–9 ran 24 percent below normal, with the northwest region 91 percent below normal and central India 49 percent below normal. The southern peninsula was the lone bright spot, recording rainfall 4 percent above normal, buoyed by strong onset rains.

Figure 1: Rainfall statistics for southwest monsoon as of June 15, 2026



Source: Indian Meteorological Department, Ministry of Earth Sciences

Figure 2. Advance of southwest monsoon as on June 15, 2026



Source: Indian Meteorological Department, Ministry of Earth Sciences

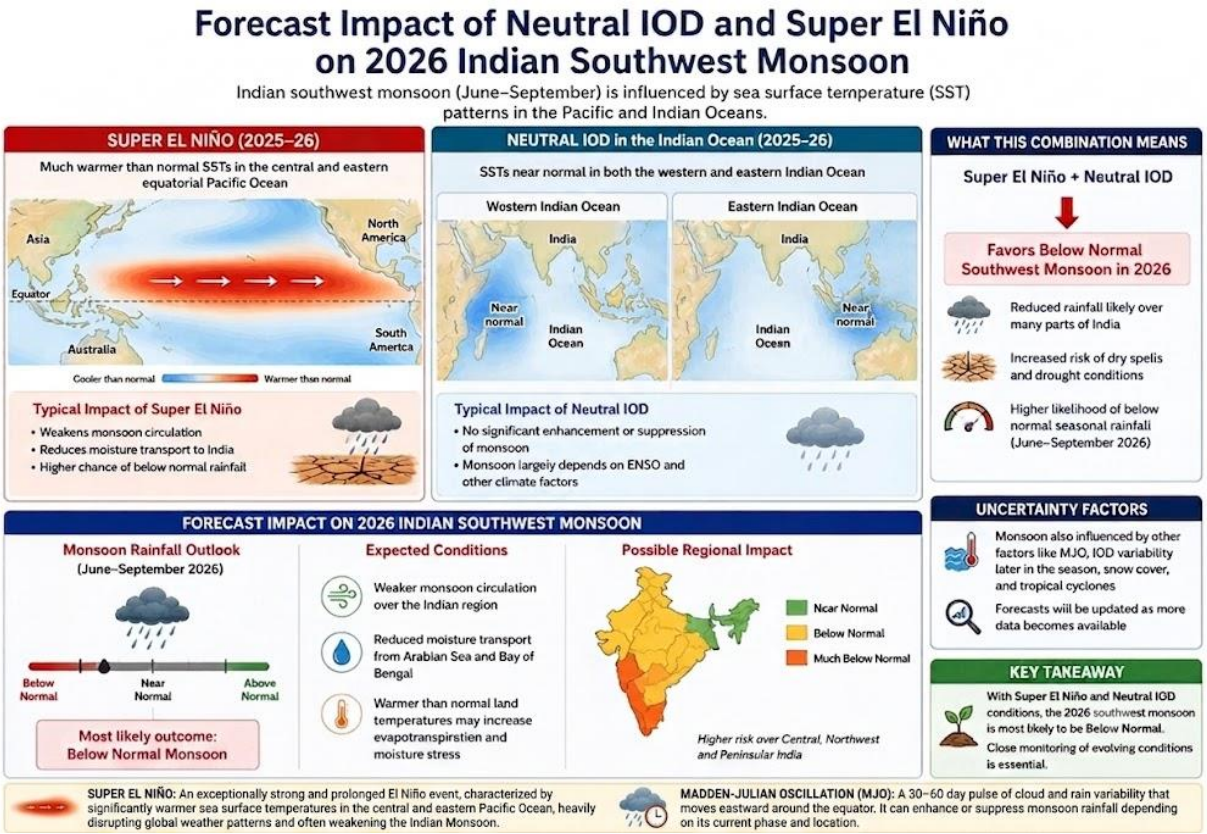
Growing El Niño Concerns

India is currently transitioning from El Niño-Southern Oscillation (ENSO) neutral conditions toward El Niño. ENSO is a naturally occurring climate pattern driven by periodic warming and cooling of surface waters in the central and eastern tropical Pacific Ocean, and it cycles through 3 phases: El Niño (warm phase), La Niña (cool phase), and neutral. IMD's latest assessment indicates El Niño is likely to develop during the southwest monsoon season and exert greater influence from July through September. This is significant because India's southwest monsoon, which delivers roughly 70 percent of the country's annual rainfall, is highly sensitive to ENSO conditions. In response, IMD has reduced its seasonal monsoon forecast to 90 percent of the LPA, categorizing 2026 as a below-normal monsoon year.

El Niño typically weakens the southwest monsoon by disrupting atmospheric circulation over the Indian Ocean and Pacific, with reduced rainfall disproportionately affecting rainfed kharif crops, including rice, pulses, oilseeds, maize, cotton, and sugarcane. Heat stress and lower soil moisture further reduce crop productivity and increase irrigation demand. The Government of India has identified nearly 200 districts as highly vulnerable to El Niño-related agricultural impacts and has prepared contingency plans accordingly. Historically, severe droughts in India, including those of 2002, 2009, and 2015, have coincided with active El Niño episodes, though not every El Niño event produces catastrophic outcomes.

A counterbalancing factor that meteorologists closely monitor is the Indian Ocean Dipole (IOD), sometimes called the "Indian El Niño," which measures sea surface temperature differences between the western and eastern Indian Ocean. A positive IOD warms western waters near Africa, boosting moisture and rainfall over India and partially offsetting El Niño's drying effects. A negative IOD has the opposite effect, pulling rain clouds away and worsening drought conditions. As of June 2026, the IOD is neutral, meaning it will exert no significant moderating influence on the monsoon. Without a positive IOD to counteract El Niño, India's southwest monsoon is expected to face the full drying effects of El Niño, reinforcing the forecast for below-normal rainfall this season.

Figure 3. El Niño/Southern Oscillation (ENSO) and IOD impact on Southwest Monsoon (schematic)



Source: FAS Analysis

Heatwave Conditions and Seasonal Temperature Outlook

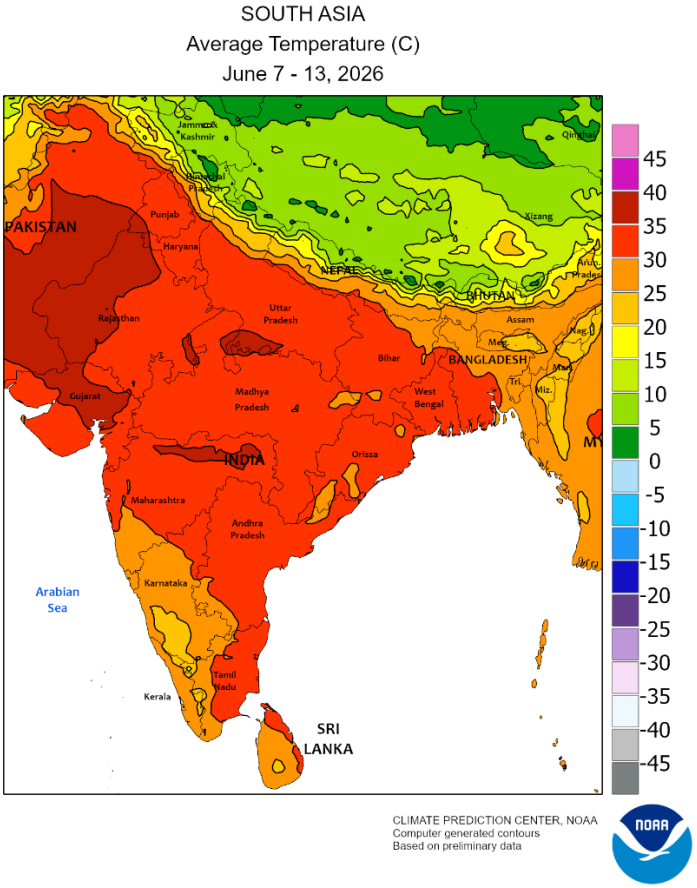
India experienced severe heatwave conditions in April and May, with temperatures exceeding 113 degrees Fahrenheit across northwest, central, and parts of eastern India, and peak episodes approaching 116–118 degrees Fahrenheit in some locations. The heat drove record electricity demand and heightened concerns about crop stress, irrigation requirements, and food inflation, with vegetable prices already reflecting heat-related supply disruptions.

The arrival of the southwest monsoon in Kerala has brought relief to southern India, but above-normal temperatures persist across northwestern and central regions, with readings of 104-111 degrees

Fahrenheit continuing in parts of Rajasthan, Haryana, Delhi, Uttar Pradesh, Vidarbha, and Madhya Pradesh. Unusually warm nights this season have compounded daytime heat stress by limiting crop recovery and increasing irrigation demand. IMD forecasts above-normal minimum temperatures across much of the country during June.

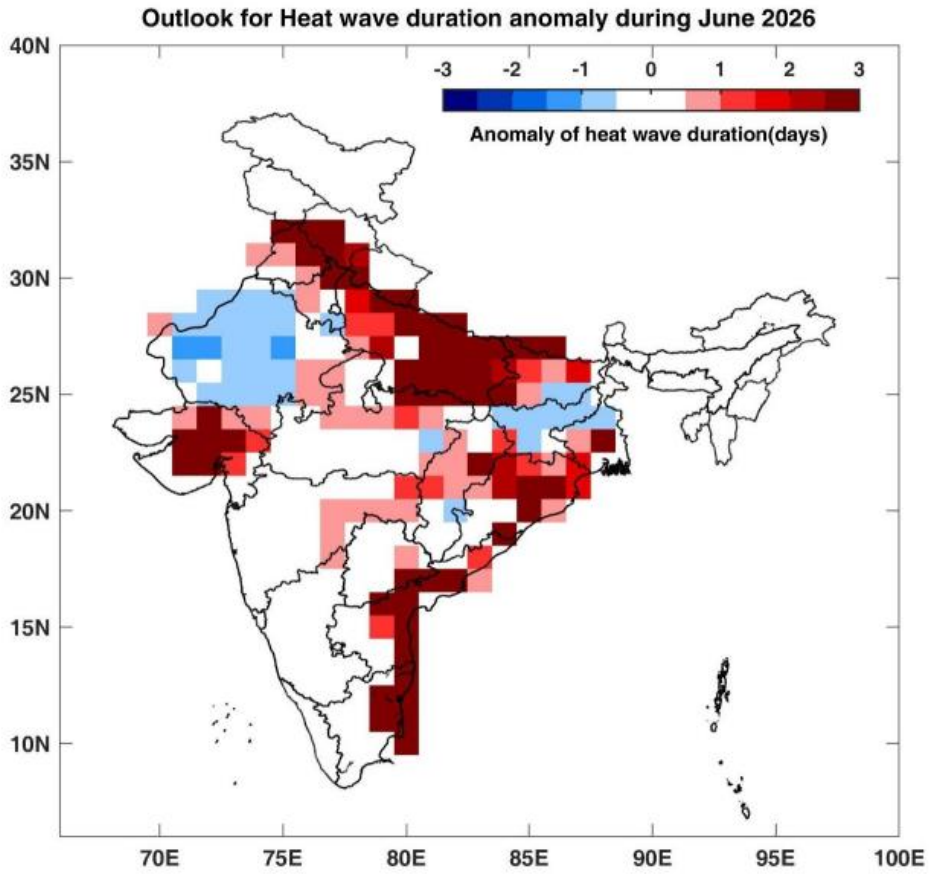
Looking ahead to July, the advancement of the southwest monsoon is expected to bring widespread rainfall and moderate temperatures across much of the country, significantly reducing heatwave risks in central, western, and peninsular India. However, isolated heatwave conditions may still occur over parts of northwest India, particularly Rajasthan, Punjab, Haryana, and western Uttar Pradesh during monsoon breaks or periods of weak rainfall activity. While the monsoon is forecast to provide relief from extreme heat, forecasters continue to monitor evolving El Niño conditions, which could influence rainfall distribution and lead to localized temperature anomalies later in the season.

Figure 4. Weekly Average Temperature



Source: [Climate Prediction Center, National Weather Service, NOAA]

Figure 5. Forecast for heatwave days during June 2026



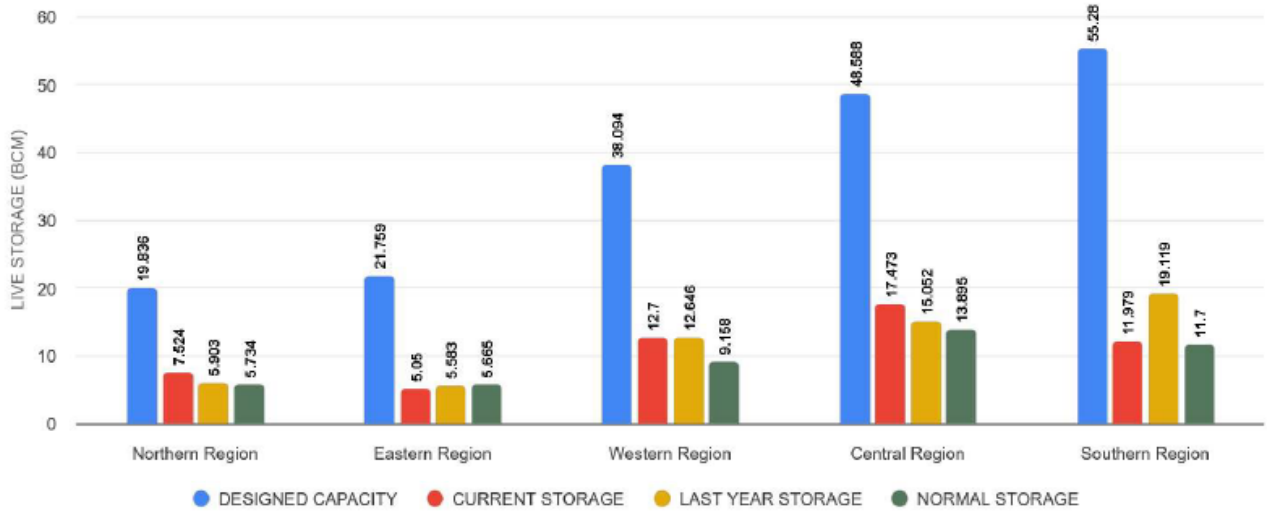
**Heat wave duration anomaly refers to the difference in the number of heatwave days from the long-term normal for June 2026. A darker red area generally suggests hotter and drier conditions favorable for heatwaves, which could be associated with delayed rainfall or breaks in monsoon activity.*

Source: Indian Meteorological Department, Ministry of Earth Sciences

Reservoir Situation

India's Central Water Commission monitors the live storage status of 166 reservoirs across the country on a weekly basis. According to the June 4 reservoir storage bulletin, live storage stands at 54.7 billion cubic meters (BCM), 30 percent of total capacity. India's reservoir system is entering the 2026 monsoon season in a moderately healthy position overall, above the 10-year normal but with significant regional stress, particularly in the southern and eastern regions, and acute deficits in specific reservoirs in Karnataka, Kerala, Tamil Nadu, and Uttarakhand.

Figure 6. Regional Reservoir Storage (billion cubic meters – BCM) – June 4, 2026



Source: Central Water Commission

Kharif Sowing Progress

Kharif 2026 sowing is just beginning in most regions. The major sowing period for crops such as rice, cotton, soybeans, pulses, maize, and groundnuts occurs during June and July. According to the June 5 weekly sowing progress report published by the Ministry of Agriculture and Farmers Welfare, India's Kharif sowing stands at 7.257 million hectares, marginally behind last year's 7.461 million hectares, a decline of 2.73 percent.

Cotton accounts for most of the shortfall, down from 0.972 to 0.751 million hectares (-22.63 percent vs. 2025), likely reflecting delayed rainfall and weak price signals. Meanwhile, rice (7.55 percent), pulses (48.57 percent), and maize (40.74 percent) are all tracking ahead of last year, while sugarcane (5.408 million hectares) remains stable with no change. Oilseeds (-19.23 percent) and coarse cereals, particularly jowar (-88.46 percent), are lagging notably. Overall, the picture is one of a slightly slow start, though sowing figures at this stage are preliminary and progress should accelerate materially once the southwest monsoon advances further inland.

Government agencies and state administrations are advising farmers in some regions to await sustained monsoon rainfall before large-scale sowing, particularly where only isolated pre-monsoon showers have occurred. While the season has started on a relatively stable footing, rainfall distribution during June and July will be critical. Key advisories include postponing irrigation and agrochemical applications ahead of rain, ensuring adequate field drainage, providing mechanical support to tall and fragile crops, and harvesting mature produce during rain-free windows. Rice nursery preparation is the dominant activity from Punjab to West Bengal, with transplanting underway in Kerala, Karnataka, and Jammu and Kashmir. Farmers in Odisha, facing a below-normal monsoon forecast, are advised to favor drought-tolerant, short-duration varieties and water-saving practices. In central India, farmers are advised to wait for approximately 100 mm of cumulative rainfall before sowing kharif crops, while western Uttar

Pradesh farmers are encouraged to shift toward less water-intensive crops such as millets and pulses. In heat-stressed regions including Vidarbha, Marathwada, and Telangana, light and frequent irrigation and shade nets for orchards are recommended. Across all regions, livestock should be sheltered, provided clean water regularly, and vaccinated against Foot and Mouth Disease.

Table 1. *Kharif* 2026 Crop Sowing Progress (in million hectares)

Crop	Area Sown as of June 5, 2026	Area Sown as of June 5, 2025	Final Area (Five-year Average) *	Y-o-Y Change
Rice	**0.285**	**0.265**	**41.200**	**8%**
Pulses	0.052	0.035	12.364	**49%**
Arhar	0.005	0.003	4.432	**67%**
Urdbean	0.010	0.006	2.960	**67%**
Moongbean	0.015	0.017	3.548	**-12%**
Kulthi	0.004	0.006	0.148	**-33%**
Mothbean	0.000	0.000	0.969	**-**
*Other Pulses**	0.018	0.004	0.307	**350%**
Coarse Cereals	**0.101**	**0.122**	**18.263**	**-17%**
Jowar	0.003	0.026	1.444	**-88%**
Bajra	0.002	0.001	7.094	**100%**
Ragi	0.030	0.029	1.201	**3%**
Small millets	0.028	0.039	0.447	**-28%**
Maize	0.038	0.027	8.077	**41%**
Oilseeds	**0.042**	**0.052**	**20.008**	**-19%**
Groundnut	0.005	0.009	4.679	**-44%**
Soybean	0.019	0.017	12.871	**12%**
Sunflower	0.011	0.013	0.120	**-15%**
Sesamum	0.004	0.010	1.288	**-60%**
Niger	0.000	0.000	0.101	**-**
Castor	0.000	0.000	0.949	**-**
Other Oilseeds	0.003	0.003	0.000	**0%**
Sugarcane	5.408	5.408	5.420	**0%**
Jute and Mesta	0.618	0.608	0.640	**2%**
Cotton	0.751	0.972	12.551	**-23%**
Total	**7.257**	**7.462**	**110.446**	**-3%**

** Final area refers to the five-year average area during MY 2020/21–2024/25*
Source: Ministry of Agriculture and Farmers Welfare, Government of India

Figure 7. Core Monsoon Zone of India

Source: Indian Meteorological Department, Ministry of Earth Sciences

Attachments:

No Attachments.