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# SOUTH WEST MONSOON 2019- UPDATE

**Delayed onset and tardy progress of monsoon, lag in kharif sowing raise concerns for agri growth**

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***After a sharp deficit of 33% of the long period average (LPA) in June 2019, the volume of monsoon rainfall was 4.6% above the LPA in July 2019. While the latter is an improvement relative to the India Meteorological Department's (IMD's) forecast of a 5% deficit for that month, flooding has occurred in some states in July 2019, which is a sub-optimal outcome. Nevertheless, the cumulative monsoon rainfall stands at a moderate 90.8% of LPA at the end of July 2019. Moreover, the temporal distribution has been unfavourable, with a low ~26% of instances of normal rainfall across the sub-divisions so far. This, along with a subdued pace of kharif sowing, has raised concerns regarding the outlook for agriculture output and yields, food prices and rural sentiment.***

Following the mixed trends in rainfall outcomes since October 2018 (44% below LPA in October-December 2018, 24% above LPA in January-February 2019 and 24% below LPA in March-May 2019), the IMD's second stage forecast for the south-west monsoon for 2019, which was released on May 31, 2019, had estimated the volume of rainfall at 96% +/-4% of the LPA, indicating a range of 92%-100%.<sup>1</sup> Moreover, the IMD had released the region-wise forecast for North-West India (94% of LPA), Central India (100% of LPA), South Peninsula (97% of LPA) and North-East India (91% of LPA) areas, with a higher model error of  $\pm 8\%$ . The monthly rainfall for the country was forecast at 95% and 99%, respectively, for July 2019 and August 2019 (both with a model error of  $\pm 9\%$ ).

The initial trends of the south-west monsoon, however, have been largely unsatisfactory, with a delayed onset over the Indian sub-continent, and sub-normal rainfall during the first month of the season (67% of LPA till June 30, 2019). Weak El Nino conditions prevailing over the Pacific Ocean, coupled with the cyclone Vayu in the Arabian sea, impeded the progress of the south-west monsoon in June 2019. The volume and progress of the south-west monsoon recorded a gradual improvement in the subsequent weeks (refer Exhibit 1). While weekly volumes oscillated between excess and deficit in July 2019, the cumulative rainfall during the month stood at 104.6% of LPA, substantially higher than the IMD's forecast of 95% of LPA for that month. However, flooding has occurred in some states in July 2019, which is a sub-optimal outcome.

The overall volume of rainfall during June-July 2019 was considerably below normal, at 90.8% of LPA, led primarily by the significant shortfall recorded in June 2019. In terms of the major regions, substantial deficit was recorded in the case of the South Peninsula (19% below LPA), as on July 31, 2019. Moreover, the deficit stood at 11% below LPA, 8% below LPA and 5% below LPA, respectively, in the case of the North-East India, North-West India and Central India (refer Exhibit 2). Notwithstanding substantial weekly variation (refer Exhibit 3), 19 subdivisions received normal precipitation<sup>2</sup> on a cumulative basis till July 31, 2019, whereas 3 subdivisions recorded excess rainfall. However, as many as 14 subdivisions received deficient rainfall, namely, Gangetic West Bengal, Jharkhand, West Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Himachal Pradesh, Odisha, Gujarat region, Saurashtra and Kutch, Marathwada, Telangana, TN Puducherry and Karaikal, South Interior Karnataka, and Kerala and Mahe. This is likely to have an adverse impact on agricultural output and incomes in those regions. Moreover, some districts in Assam and Bihar have reported heavy flooding in the recent weeks, which may also dampen the outlook of crop output in these areas.

In terms of the geographical area, 56% of the sub-divisional area of the country received normal precipitation during June-June 2019, while 9% recorded excess rainfall. In contrast, a significant 35% of the sub-divisional area of the country received deficient precipitation during the said period. Moreover, the temporal distribution has been unfavourable, with a low ~26% of instances of normal rainfall across the sub-divisions so far on a weekly basis.

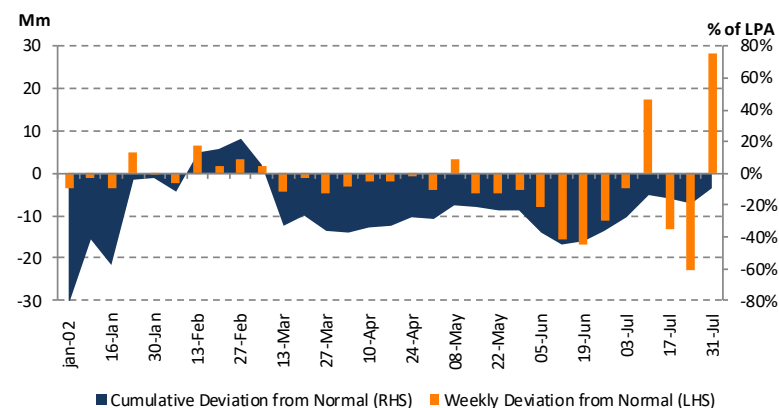
<sup>1</sup> On a pan-India basis, rainfall between 96% and 104% of the LPA is considered normal. The other classifications are deficient (below 90% of LPA), below normal (90-96% of LPA), above normal (104-110% of LPA) and excess (above 110% of LPA).

<sup>2</sup> On a disaggregated basis, the classification is as follows: Large Excess: above 160% of LPA; Excess: 120%-159% of LPA; Normal: 81%-119% of LPA; Deficient: 41%-80% of LPA; Large Deficient: 0%-40% of LPA.

The total area sown till July 26, 2019 (refer Exhibit 4) stood at 68.9 million hectares, which was equivalent to ~65% of the final kharif area in 2018, and represented a YoY decline of 6.5%, mirroring the below-average monsoon precipitation in June-July 2019. Kharif sowing till July 26, 2019 (refer Exhibit 5) lagged the year-ago levels for major crops such as rice (-6.4%), pulses (-18.6%), coarse cereals (-8.9%), oilseeds (-5.2%), jute and mesta (-5.0%), and sugarcane (-5.7%). However, the areas sown under cotton exceeded the year ago levels by 6.3%.

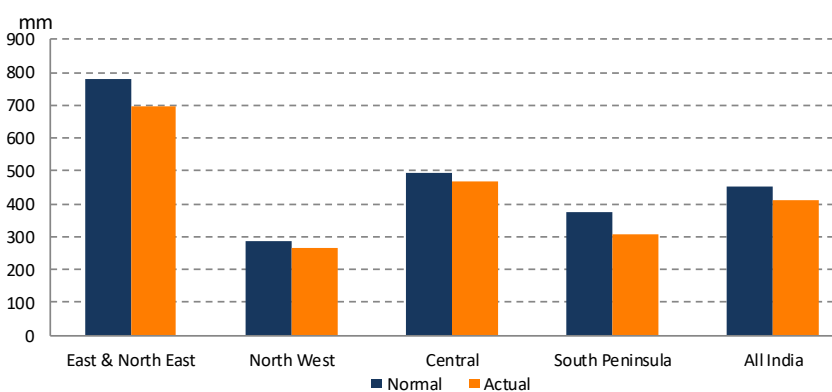
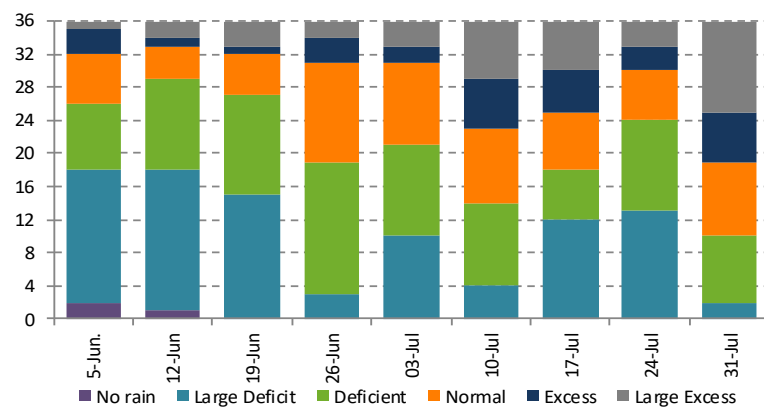
The IMD expects the volume of rainfall to improve significantly over the coming week on account of the Indian Ocean Dipole turning positive and the threat of El Nino having passed. ***Farmers may opt to take advantage of this pickup in rainfall to sow short duration varieties of various crops, which would boost the overall area covered under kharif crops. However, the late pickup in sowing is likely to weigh upon yields. This may also have some impact on food prices, which is an emerging concern related to the outlook for food inflation (refer Exhibit 6). Regardless, a normal temporal and spatial distribution of rainfall in the last two months of the monsoon season, as well as timely withdrawal of the monsoon, will be crucial to bolster yields and prevent crop damage. Overall, based on the available data, we expect a subdued growth of farm incomes from the kharif season, which is likely to weigh upon rural sentiment and consumption demand.***

Reservoir storage recorded a seasonal drawdown to 16% of full reservoir level (FRL) on June 27, 2019 (18% on June 28, 2018). Subsequently, the pace of replenishment has been mild, with storage rising to only 25% of FRL on July 25, 2019, substantially lower than the year-ago level of 41% (refer Exhibit 7). Moreover, the geographical disaggregation of reservoir storage reflects considerable disparity in storage levels. For instance, reservoir storage stood significantly lower than the year-ago levels in the case of the eastern (17% vs. 38%), western (19% vs. 33%), central (25% vs. 34%) and southern (24% vs. 58%) regions as on July 25, 2019 (refer Exhibit 8). However, it was substantially higher than the year-ago levels in the northern region (48% vs. 26%), owing largely to a low base (storage stood at 51% of FRL on July 27, 2017). ***A pickup in monsoon rainfall in the last two months of the season will be crucial for the replenishment of reservoir storage as well as groundwater levels, and would thereby influence the outlook for the upcoming rabi season.***

**Exhibit 1: Weekly and Cumulative Monsoon Deviation from Normal (All-India)**


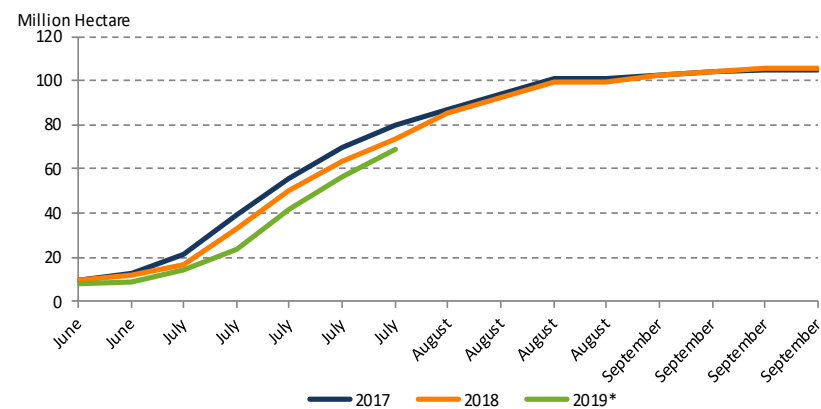
\*Till July 31, 2019

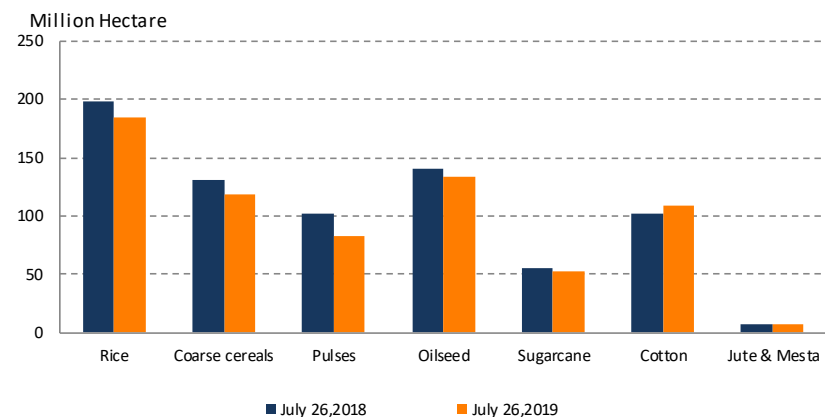
Source: IMD; CEIC; ICRA research

**Exhibit 2: Region-wise Distribution of Monsoon Rainfall (till July 31, 2019)**

**Exhibit 3: Weekly Distribution of Rainfall across 36 Sub-Divisions**


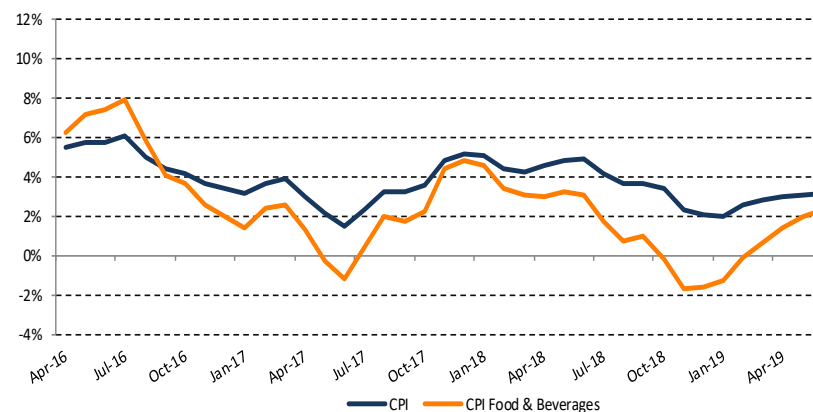
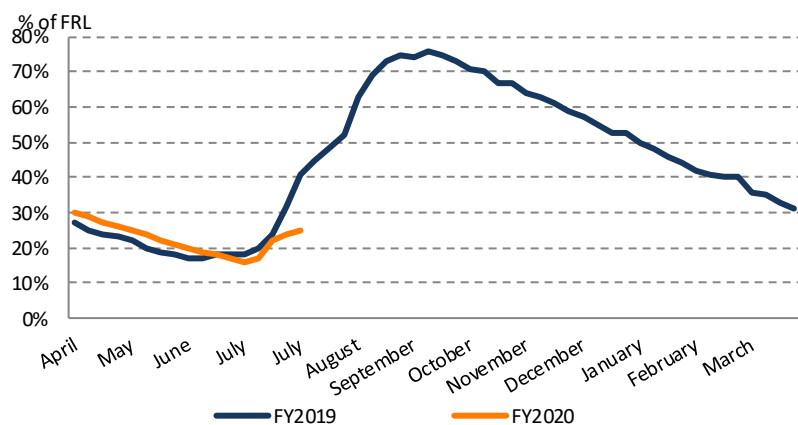
\*Till July 26, 2019

Source: IMD; Department of Agriculture Cooperation & Farmers Welfare, Ministry of Agriculture; CEIC; ICRA research

**Exhibit 4: Trends in Aggregate Kharif Sowing**


**Exhibit 5: Trends in Crop-wise Kharif Sowing**

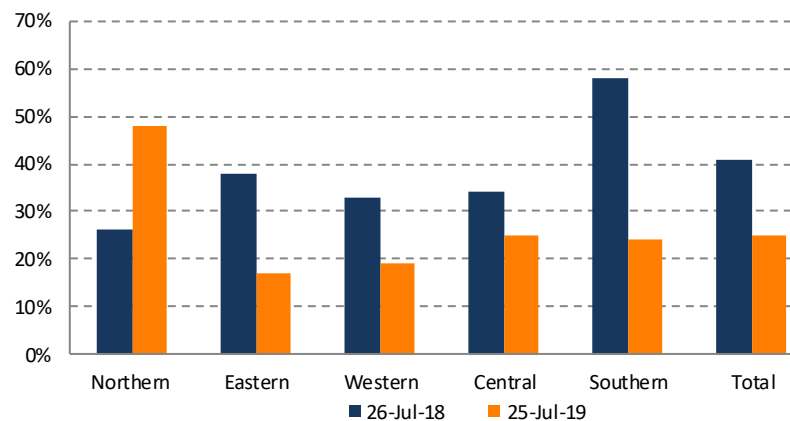
Source: Department of Agriculture Cooperation & Farmers Welfare, Ministry of Agriculture; CSO, Ministry of Statistics and Programme Implementation, GoI; CEIC; ICRA research

**Exhibit 6: Trends in Headline CPI inflation and CPI-Food and Beverages****Exhibit 7: Trends in Reservoir Storage**

\*Till July 25, 2019

#Total number of reservoirs tracked by Central Water Commission (CWC) has increased to 100 as on date from 91 in 2019

Source: IMD; Central Water Commission (CWC); CEIC; ICRA

**Exhibit 8: Sub-Region Distribution of Reservoir Storage**





## ABOUT ICRA

ICRA Limited (formerly Investment Information and Credit Rating Agency of India Limited) was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional investment Information and Credit Rating Agency.

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- Assist the regulators in promoting transparency in the financial markets;
- Provide intermediaries with a tool to improve efficiency in the funds raising process.

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