

SOUTH-WEST MONSOON WRAPUP 2022

**Late surge in rainfall may delay kharif
harvest; reservoir levels at FY2021
peak augur well for rabi sowing**

OCTOBER 2022





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Despite surplus rainfall during Jul-Sep 2022, kharif sowing till Sep 30, 2022 was down 0.8% YoY, led by rice and pulses

Total kharif foodgrain production is estimated to trail the year-ago level by 3.9% as per the 1st AE for FY2023

While reservoir levels augur well for timely onset of sowing of rabi crops, agri GVA growth may dip to 2.0% in FY2023 from 3.0% in FY2022



- India recorded above-normal rainfall at 106% of Long Period Average (LPA) in the South-west Monsoon season 2022. This was slightly better than the Indian Meteorological Department's (IMD's) projection of 103% of LPA.



- After 8% below-normal rains in June 2022, precipitation was 10% above-LPA during July-August 2022. Subsequently, the country witnessed above-normal rainfall at 108% of LPA in September 2022, slightly lower than the IMD's forecast for that month (>109% of LPA).



- Benefitting from the healthy, albeit uneven monsoon rainfall, the all-India reservoir storage stood at 87% of live capacity at Full Reservoir Level (FRL) as on Sep 28, 2022, similar to the FY2021 peak. Nevertheless, kharif sowing was down 0.8% YoY as on Sep 30, 2022.



- As per the 1st Advance Estimates (AE) of kharif production for FY2023, the total foodgrain output is estimated to dip to a three-year low, trailing the year-ago level by 3.9%, mainly led by the decline in rice output (-6.1%), mirroring the trend for sowing (-4.8% as on Sep 30, 2022).



- Heavy rainfall in the last two weeks of Sep 2022 in some states is likely to add to the moisture levels of the crops, which does not portend well for yields and a timely harvest. We estimate agri GVA growth at ~2.0% each in Q2-Q3 FY2023.



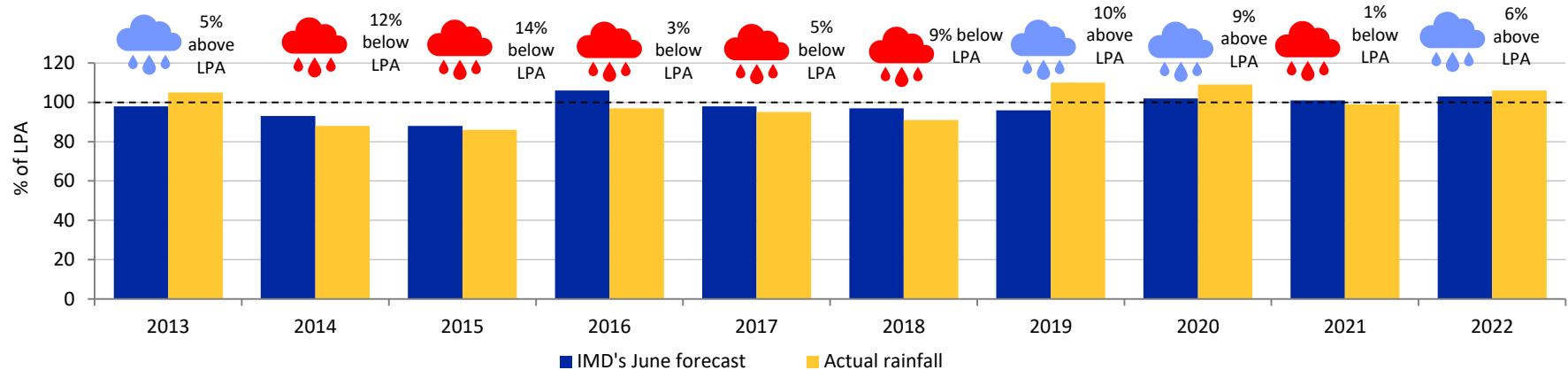
- In our view, the healthy reservoir levels augur well for a timely onset of rabi sowing, although concerns over the availability of labour in specific states and fertilisers would continue. We estimate a pick-up in agri GVA growth to 3.0% in Q4 FY2023 on a high base.



- We remain circumspect regarding the agri GVA growth of 4.5% estimated by the NSO for Q1 FY2023. Overall, we foresee a dip in the agri GVA expansion to ~2.0% for FY2023 from 3.0% in FY2022.

Pan-India rainfall was above-normal at 106% of LPA in 2022's monsoon season, mildly higher than the IMD's forecast

EXHIBIT: IMD's June Forecasts of Pan-India Monsoon Rainfall in the season vs. Actual Rainfall (% of LPA)

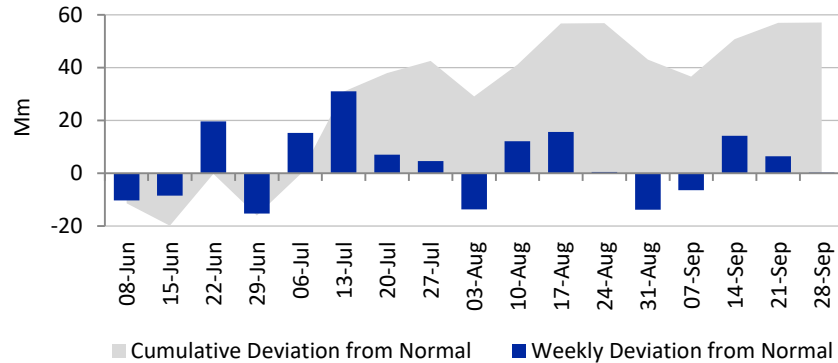


On a pan-India basis, rainfall between 96% and 104% of the LPA is considered to be normal. The other classifications are deficient (below 90% of LPA), below-normal (90-96% of LPA), above-normal (104-110% of LPA) and excess (more than 110% of LPA); Source: IMD; ICRA Research

- India received above-normal rainfall of 106% of LPA or 92.5 cm in the entire monsoon season (June-September) as a whole.
- This was slightly higher than the IMD's second stage Long Range Forecast (LRF) for this season of 103% of the LPA with a model error of +/-4%, released in May 2022.

After recording deficient rainfall in Jun 2022, rainfall remained above-LPA during Jul-Sep 2022

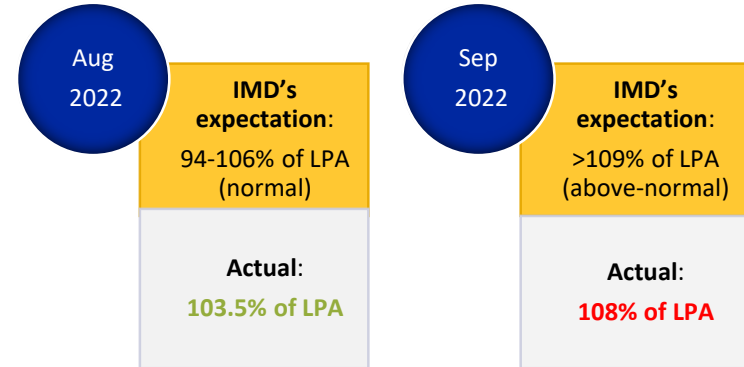
EXHIBIT: Cumulative and weekly rainfall deviation from normal



Source: IMD; CEIC; ICRA Research

- While India witnessed above-normal rainfall at 106% of LPA in the South-west Monsoon season (June-September), the temporal distribution was quite uneven, with a deficit in June (-8% of LPA) followed by above-LPA rainfall in July-Sep 2022.
- While rainfall was 17% above LPA in July 2022, it was only a modest 3.5% above LPA in August 2022. Subsequently, above-normal rainfall was recorded in September (108% of LPA).

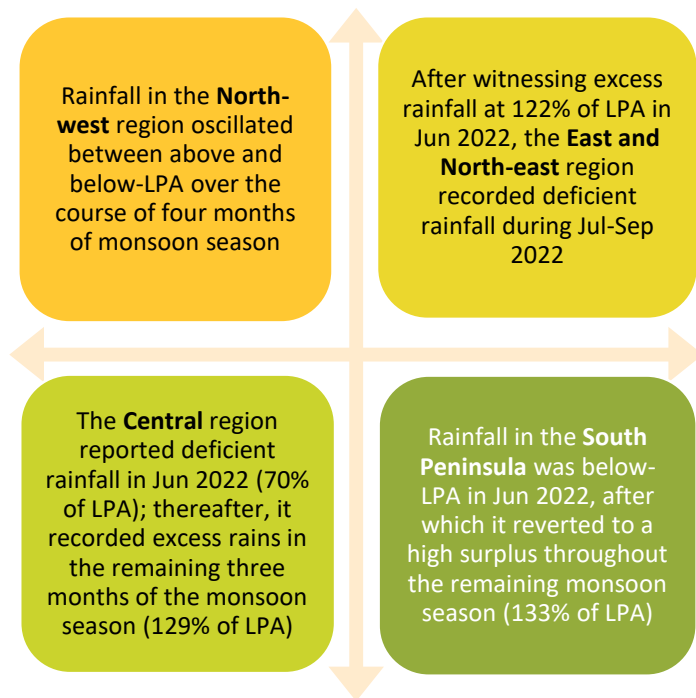
EXHIBIT: Actual vs. IMD's forecast of Monsoon rainfall in August and September 2022



Source: IMD; CEIC; ICRA Research

- The IMD had indicated that the Multi-Model Ensemble (MME) probability forecast suggested a normal pan-India rainfall of 94-106% of LPA in August 2022. The actual pan-India rainfall was normal at 103.5% of LPA, slightly below the higher end of the IMD's forecast range of 94-106%.
- For September 2022, the pan-India rainfall has been above-normal at 108% of LPA in the month, albeit mildly lower than the IMD's forecast for that month (>109% of LPA).

Temporal and spatial distribution of rainfall was uneven



Cumulatively, rains were normal in North-west India (101% of LPA), excess in Central India (119% of LPA) and South Peninsula (122% of LPA), and deficient in the East and North-east region (82% of LPA)

EXHIBIT: Region-wise and Pan-India monthly rainfall departure from normal in 2022 monsoon season

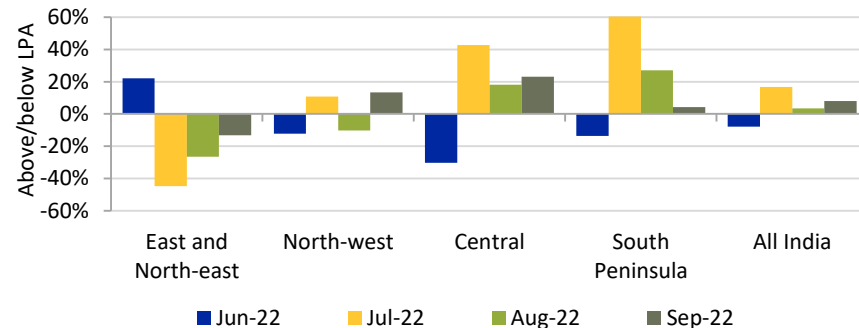
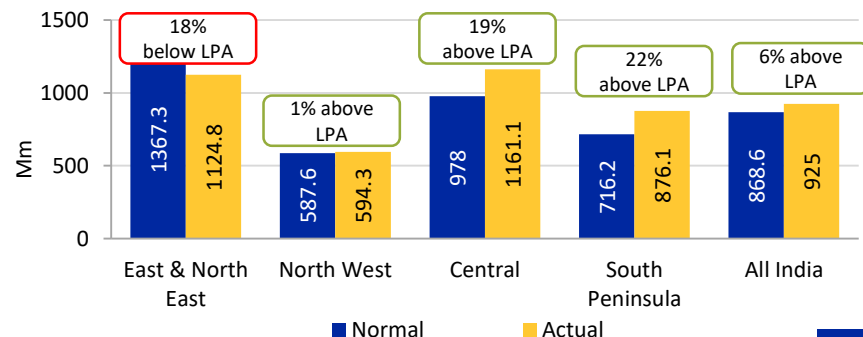


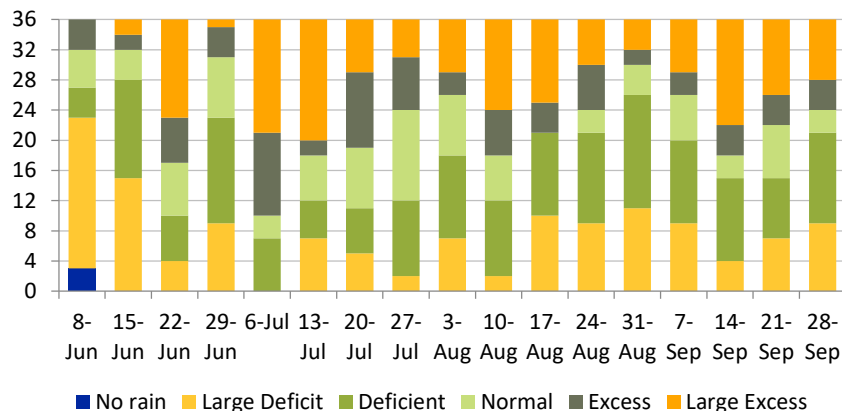
EXHIBIT: Region-wise and Pan-India Cumulative Rainfall Distribution



On a pan-India basis, rainfall between 96% and 104% of the LPA is considered to be normal. The other classifications are deficient (below 90% of LPA), below-normal (90-96% of LPA), above-normal (104-110% of LPA) and excess (more than 110% of LPA); Source: IMD; CEIC; ICRA Research

83% of sub-divisions saw either normal or excess rainfall in the monsoon season

EXHIBIT: Weekly Distribution of Rainfall across sub-divisions*



*Total of 36 subdivisions; Source: IMD; CEIC; ICRA Research

EXHIBIT: Distribution of rainfall over 36 sub-divisions as on September 30, 2022

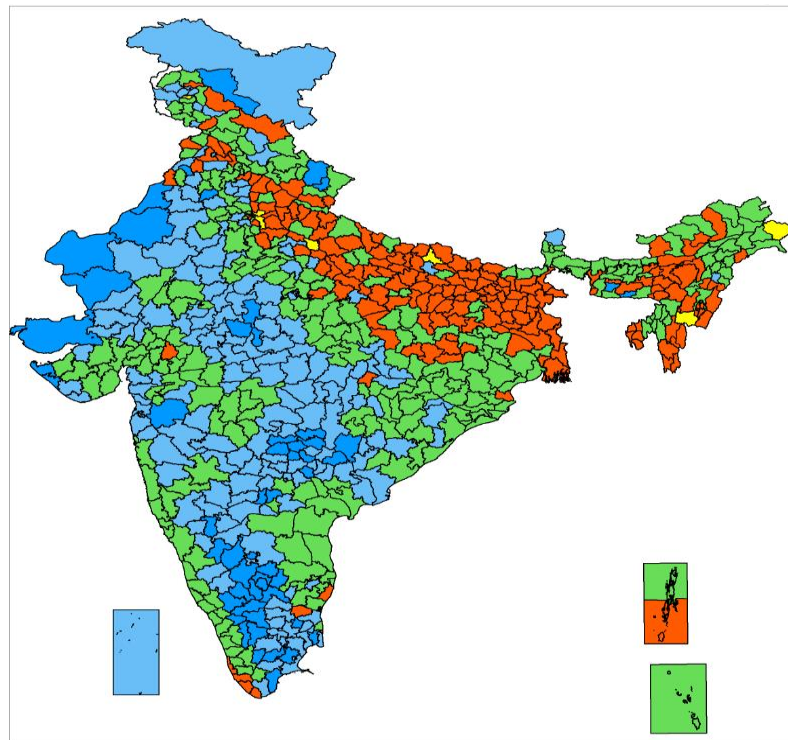
Category	% of LPA	No. of sub-divisions	% of Total
Large Excess	above 160	0	0%
Excess	120-159	12	40%
Normal	81-119	18	43%
Deficient	41-80	6	17%
Large Deficient	0-40	0	0%
No Rain	0	0	0%
Total		36	100.0%

Source: IMD; CEIC; ICRA Research

- The temporal break-up of the rainfall recorded over 36 sub-divisions in the monsoon season of 2022 indicated that ~43% of the sub-divisions received normal rainfall during this period, while ~40% recorded excess rainfall. Only ~17% of the sub-divisions recorded deficient rainfall during this period.
- None of sub-divisions reported large excess rainfall or large deficient rainfall during the monsoon season of 2022.

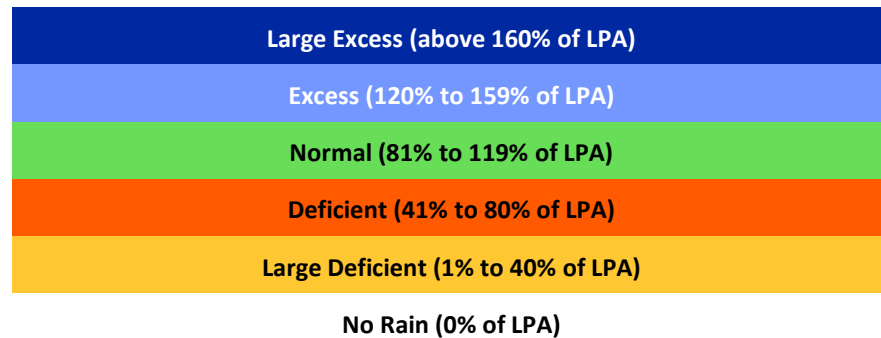
Large proportion of districts in East and North-east regions recorded deficient rainfall in the monsoon season

EXHIBIT: District-wise monsoon rainfall during monsoon season (as on Sep 30, 2022)



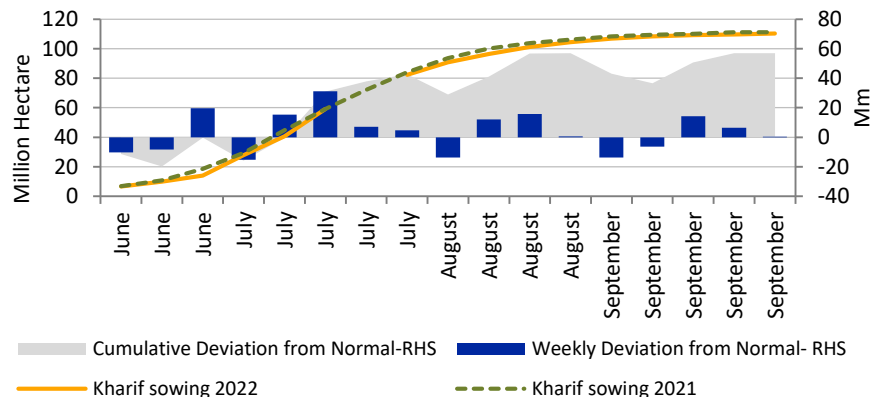
- The cumulative district-wise distribution of rainfall during the 2022 monsoon season reveals that most of the districts recorded excess or normal rainfall during that period.
- However, a large proportion of the districts in the East and the North-east regions, particularly in Bihar, West Bengal, Jharkhand and Uttar Pradesh have received deficient rainfall during the ongoing monsoon season so far.

Classification on a disaggregated basis



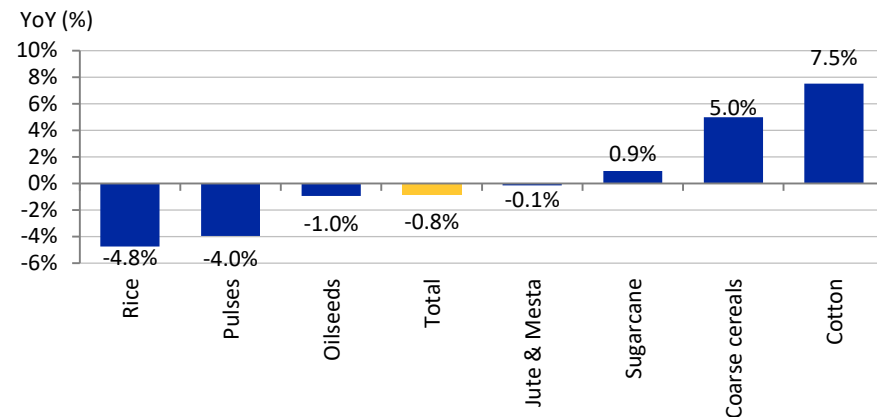
As anticipated, kharif sowing in 2022 season ended lower than 2021 levels

EXHIBIT: Kharif sowing trends in 2021-22 and South-west Monsoon Rainfall deviation from Normal in 2022 season



*Complete data for the week-ended July 22, 2022 is not available; Source: IMD; Ministry of Agriculture and Farmers' Welfare; CEIC; ICRA Research











EXHIBIT: YoY trends in kharif sowing as on Sep 30, 2022



Source: Ministry of Agriculture and Farmers' Welfare, ICRA Research

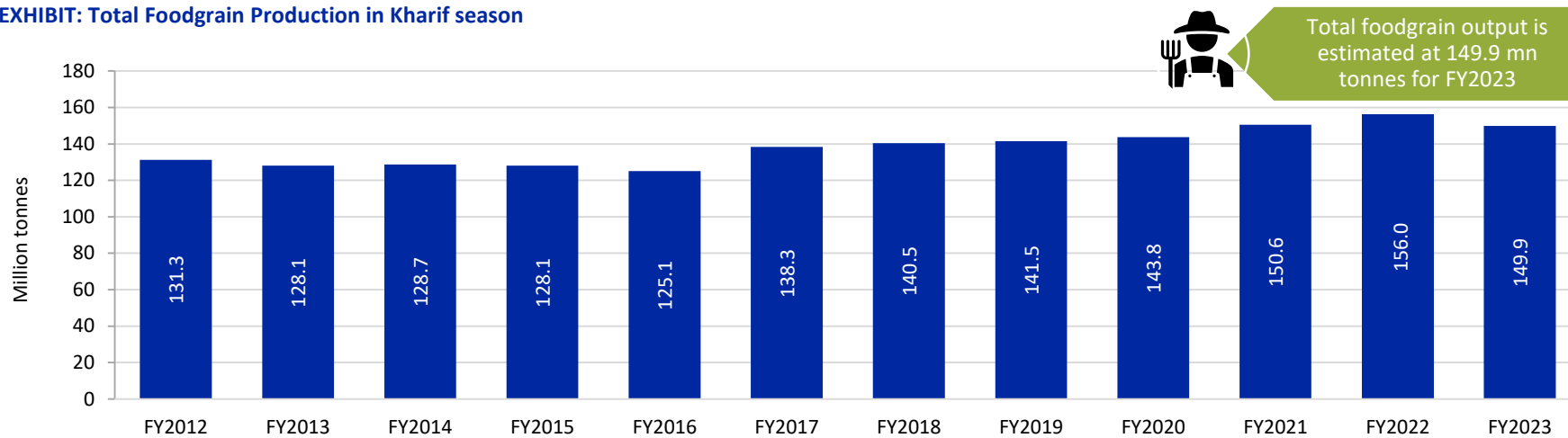
- While kharif sowing gathered pace through July-August 2022, it trailed the year-ago levels by 0.8% as on September 30, 2022, primarily driven by the sharp YoY contraction in the sowing of rice (-4.8%), pulses (-4.0%), and oilseeds (-1.0%).
- In contrast, the area sown for sugarcane (+0.9%), coarse cereals (+5.0%), and cotton (+7.5%) has recorded an uptick till September 30, 2022.
- As anticipated, the acreage in 2022 kharif season stands at 110.3 million hectare as on Sep 30, 2022, lower than the final acreage reported for 2021 (112.2 million hectare, as on Oct 1, 2021), with crops such as rice and pulses acting as key laggards owing to deficient rainfall in key producing states.

Jharkhand, West Bengal, UP and Bihar accounted for bulk of the decline in rice acreage at end-Sep 2022, in line with deficient rainfall in these states

YoY change					
Key states	 -2.02 Million hectare	 -0.19 Million hectare	 -0.55 Million hectare	 +0.87 Million hectare	 +0.89 Million hectare
	Rice	Oilseeds	Pulses	Coarse Cereals	Cotton
					
	YoY rise in coverage area: Haryana (+0.1), Telangana (+0.1), etc.	YoY rise in coverage area: Maharashtra (+0.2), Rajasthan (+0.1), etc.	YoY rise in coverage area: Madhya Pradesh (+0.4), Uttar Pradesh (+0.03)	YoY rise in coverage area: Rajasthan (+0.8), Madhya Pradesh (+0.1), etc.	YoY rise in coverage area: Gujarat (+0.3), Maharashtra (+0.3), Karnataka (+0.2), etc.
	YoY decline in coverage area: Jharkhand (-0.9), West Bengal (-0.4), Uttar Pradesh (-0.3), Bihar (-0.2), etc.	YoY decline in coverage area: Madhya Pradesh (-0.3), Gujarat (-0.2), etc.	YoY decline in coverage area: Maharashtra (-0.4), Telangana (-0.2), etc.	YoY decline in coverage area: Maharashtra (-0.2), Jharkhand (-0.1), etc.	YoY decline in coverage area: Telangana (-0.04), Haryana (-0.04), etc.

Kharif foodgrain output estimated at three-year low in FY2023, with sharp drop in rice production

EXHIBIT: Total Foodgrain Production in Kharif season



Data for FY2012-21 include Final Estimates, while it is the 4th AE for FY2022 and 1st AE for FY2023; Source: Ministry of Agriculture & Farmers Welfare; ICRA Research

- As per the 1st Advance Estimates (AE) of kharif production for FY2023 released by the Ministry of Agriculture and Farmers' Welfare, the total foodgrain production is estimated to decline to a three-year low 149.9 million tonnes, 3.9% lower than the 4th AE for FY2022.
- This is mainly driven by the sharp YoY contraction of 6.1% in kharif output of rice, which is estimated at 105.0 million tonnes for FY2023. In addition, the output of coarse cereals is expected to rise by a muted 1.8% to 36.6 million tonnes in FY2023, relative to 4th AE of FY2022, while that of pulses is expected to remain flat at 8.4 million tonnes.

Output of sugarcane, coarse cereals and cotton expected to rise in FY2023, benefitting from higher acreage

Crop-wise YoY production and sowing trends



Pulses output is estimated to remain flat in kharif FY2023, even as the area sown for the crop recorded a YoY decline of 4%.



Kharif sowing of coarse cereals rose by 5.0% in FY2023, higher than the muted 1.8% expansion in output estimated during the season.



Kharif sown area under oilseeds posted a mild 1.0% YoY decline, similar to the dip in projected output (-1.3%).



Sown area of rice fell by a concerning 4.8%, similar to the Ministry's estimated decline in output (-6.1%) in FY2023.

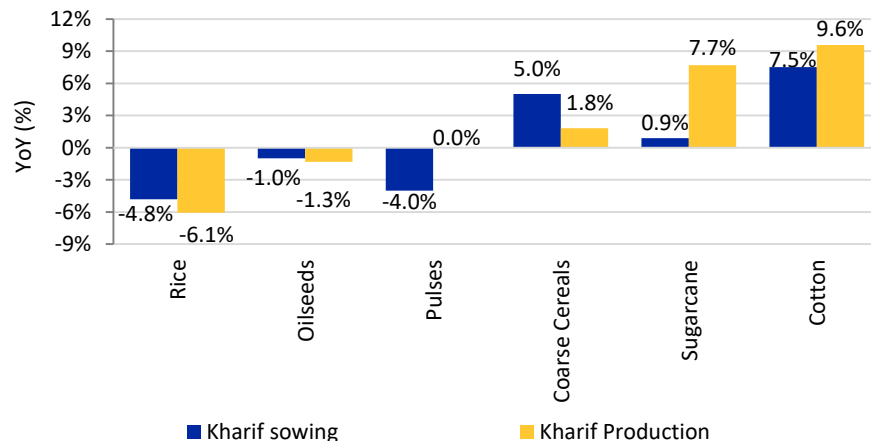


Area sown under cotton has risen by 7.5% this year, lower than the 9.6% increase in output estimated by the Agriculture Ministry.



The output of sugarcane is projected at a record-high in FY2023, with a healthy YoY rise of 7.7%, even as area sown displayed a muted rise (+0.9%).

EXHIBIT: YoY growth in Kharif Sowing (as on Sep 30, 2022) and Kharif production*

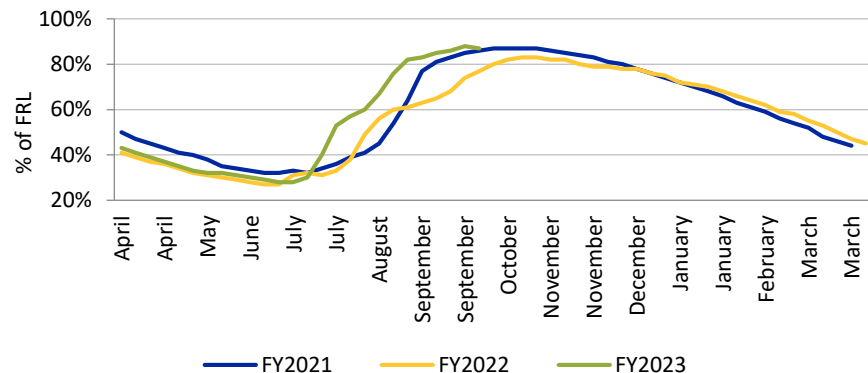


**as per 1st AE for FY2023, relative to 4th AE for FY2022 ; Source: Ministry of Agriculture and Farmers' Welfare; ICRA Research*

- However, the heavy rainfall in the last week in some states will add to the moisture levels of the crops, which does not portend well for yields and a timely harvest.

Reservoir storage similar to FY2021 peak, auguring well for timely rabi sowing

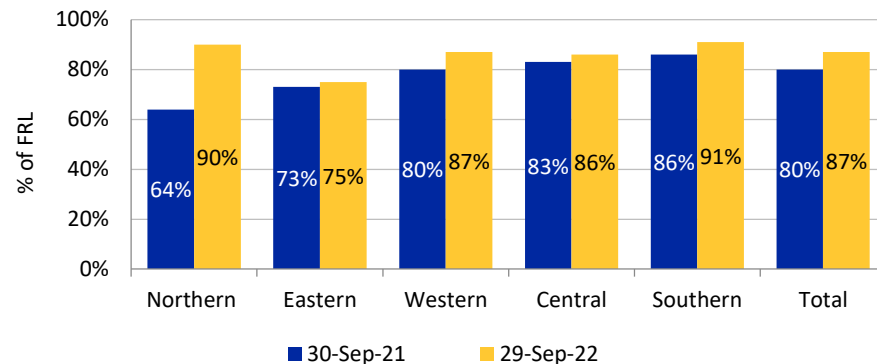
EXHIBIT: Reservoir storage levels as percentage of Live Capacity at Full Reservoir Level (FRL)



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

- The all-India reservoir storage rose above last year's peak, to 87% of live capacity at FRL as on September 29, 2022.
- This was also considerably higher than the year-ago levels (80% as on September 30, 2021) period as well as the historical period (77%; last 10 years), and similar to the FY2021 peak.

EXHIBIT: Region-wise reservoir storage levels

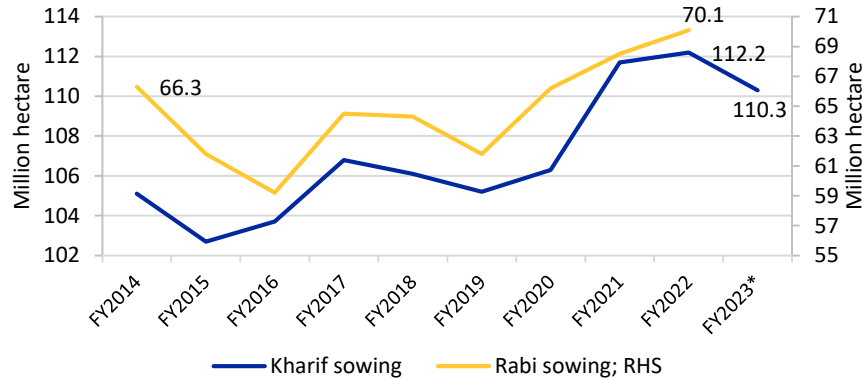


Source: CWC; CEIC; ICRA Research

- The storage was higher than the year-ago levels in all the regions as on September 29, 2022, led by significantly higher storage in the northern (90% vs. 64%) and western (87% vs. 80%) regions.
- This was followed by the southern (91% vs. 86%) and Central (86% vs. 83%) regions.

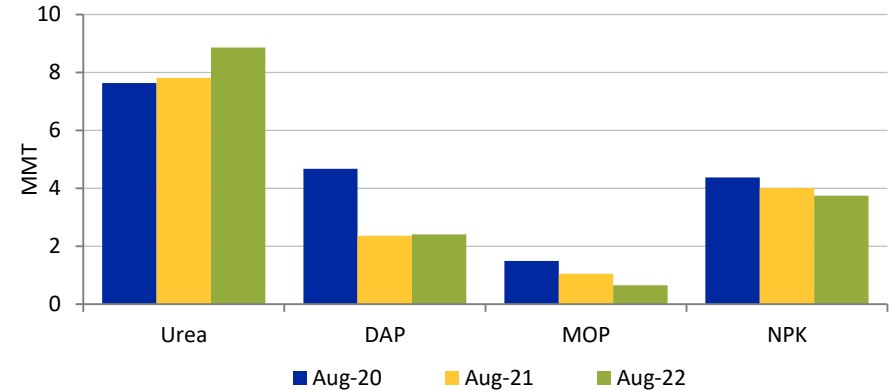
Nevertheless, availability of fertilisers and labour pose downside risk to rabi acreage

EXHIBIT: Kharif and Rabi annual sowing trends



*Till Sep 30, 2022; Source: Ministry of Agriculture and Farmers' Welfare, GoI; ICRA Research

EXHIBIT: Trend in availability of key fertilisers in India

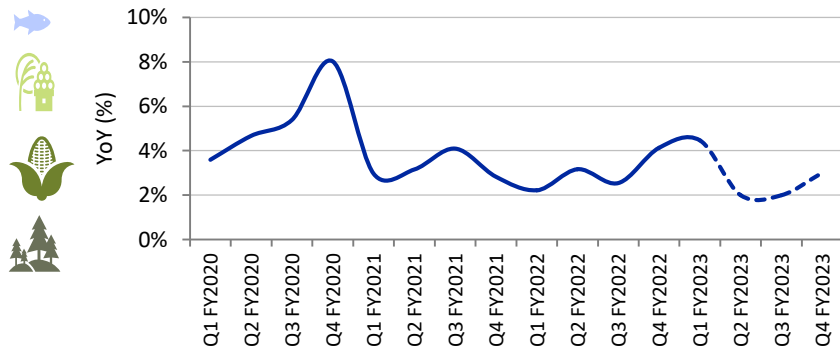


Source: Department of Fertilizers, GoI; ICRA Research; DAP: Diammonium Phosphate, MOP: Muriate of Potash and NPK: Nitrogen Phosphate and Potash

- Fertiliser inventory levels are significantly below historic levels across most segments, mainly due to lower imports amid limited availability in the international market and elevated prices.
- In addition, we remain concerned that with labour having shifted back to urban centres with a revival in service sector demand, the availability of manpower in the rural areas to till the land may be limited in the rabi season as well.
- Even though the healthy reservoir levels are likely to ensure a timely onset of rabi sowing, availability of fertilisers and labour remain concerns for the eventual rabi acreage.

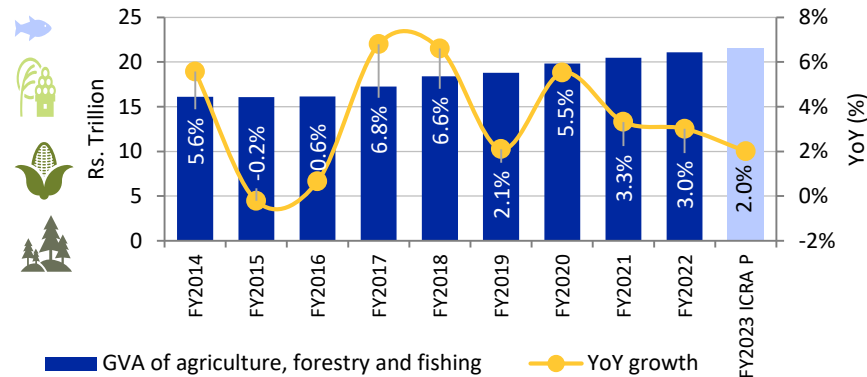
Agri GVA to grow by modest 2.0% in FY2023

EXHIBIT: Quarterly GVA of agriculture, forestry and fishing at 2011-12 prices



*Dotted line represents ICRA's projections; Source: National Statistical Office (NSO); ICRA Research

EXHIBIT: Annual GVA of agriculture, forestry and fishing at 2011-12 prices

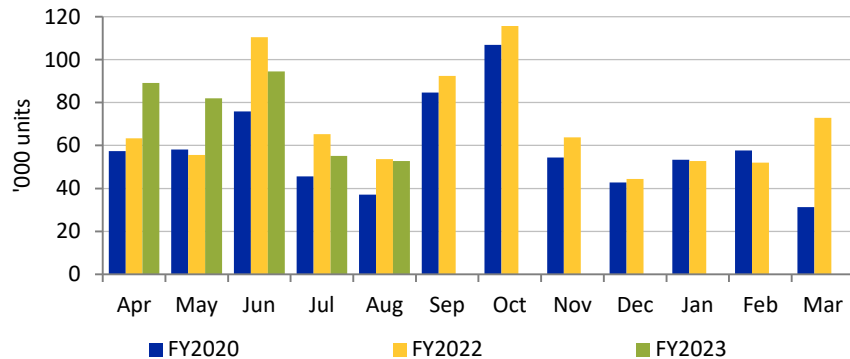


P: Projected; Source: NSO; ICRA Research

- The NSO's initial estimate of GVA growth of 4.5% for agriculture, forestry and fishing in Q1 FY2023 was much higher than the muted 0.6% rise in rabi output (foodgrains and oilseeds) portrayed by the 4th AE of crop production released by the Ministry of Agriculture and Farmers' Welfare.
- Heavy rainfall in the last two weeks of Sep 2022 in some states is likely to add to the moisture levels of the crops, which does not portend well for yields and a timely harvest. We estimate the agri GVA growth at ~2.0% each in Q2-Q3 FY2023.
- In our view, the healthy reservoir levels augur well for a timely onset of rabi sowing, although concerns regarding the availability of labour in specific states as well as fertilisers would continue. Notwithstanding an estimated pick-up in growth to 3.0% in Q4 FY2023 on a high base, we foresee a dip in the agri GVA expansion to ~2.0% for FY2023 from 3.0% in FY2022.

Domestic tractor and motorcycle sales deteriorated in Jul-Aug 2022, led by seasonal trends and base normalisation

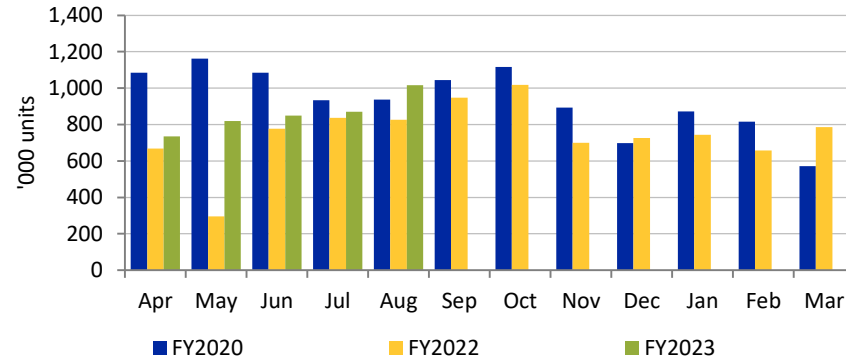
EXHIBIT: Trends in domestic tractor sales



Source: CMIE; ICRA Research

- Tractor sales recorded a YoY contraction of 9.3% in Jul-Aug 2022 (+15.8% in Q1 FY2023), partly reflecting seasonal trends.
- However, they exceeded the pre-Covid volumes of Jul-Aug 2019 by a healthy 30.6%.
- **Industry volumes are estimated to remain at healthy levels in FY2023 aided by favourable underlying drivers for rural cash flows. However, given the high base and increase in cost of ownership, volumes are likely to represent only a marginal YoY growth of 0-4% growth in FY2023.**

EXHIBIT: Trends in domestic motorcycle sales

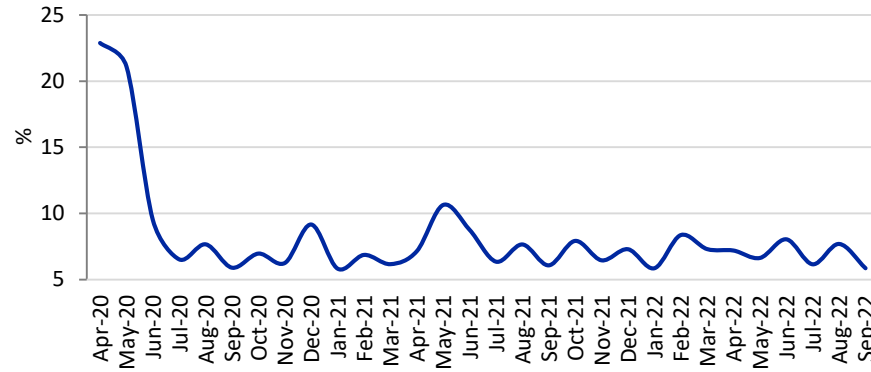


Source: SIAM; CEIC; ICRA Research

- Similarly, the YoY growth in domestic motorcycle sales moderated to 13.5% in Jul-Aug 2022 from 38.2% in Q1 FY2023, led by a normalising base.
- However, the volumes were only 0.8% higher than the sales during Jul-Aug 2019, reflecting the impact of elevated ownership costs (vehicle cost and petrol prices), inflationary headwinds and supply side challenges.
- **Sales are expected to remain healthy with the onset of the festive season as well as expectation of a normal monsoon. Overall, ICRA expects motorcycle sales to grow by ~9-10% in FY2023 on a low base.**

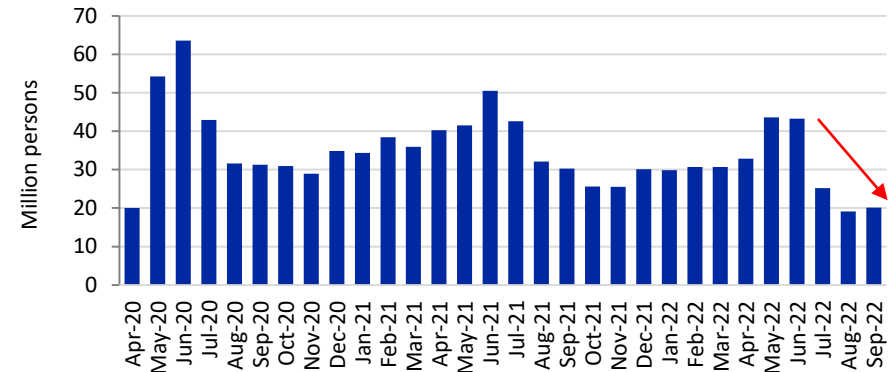
While rural unemployment eased, work demand under MNREGA rose mildly in September 2022

EXHIBIT: Monthly trends in rural unemployment rate



Source: Consumer Pyramids Household Survey (CPHS); CMIE; ICRA Research

EXHIBIT: Trends in work demand generated under MNREGA

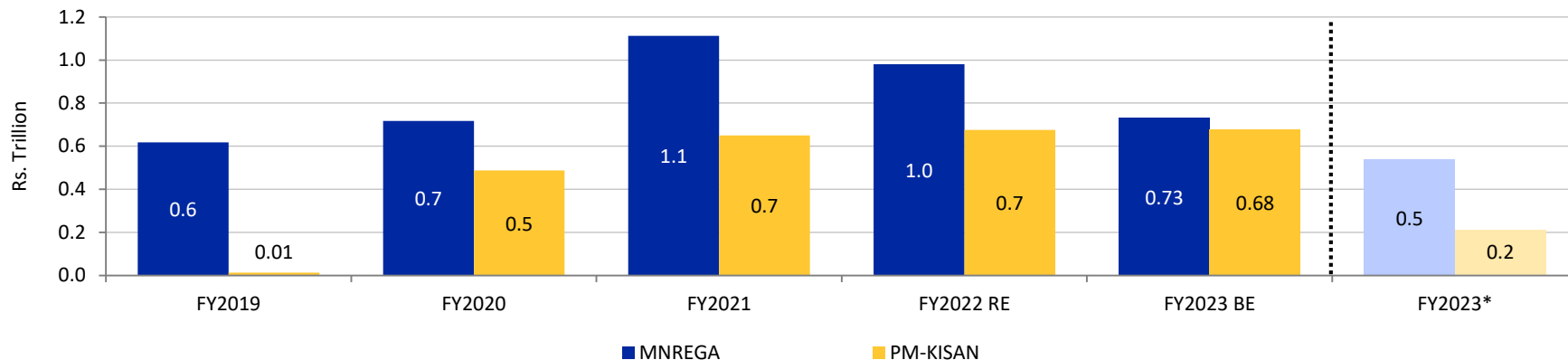


Source: Ministry of Rural Development, GoI; ICRA Research

- Rural unemployment eased to an eight-month low of 5.8% in September 2022 from 7.7% in August 2022, continuing to display a volatile pattern.
- In contrast, the work demand under MNREGA rose mildly to 20.1 million people in September 2022 from 19.1 million people in August 2022, which is likely to be on account of the kharif sowing activities drawing to a close. However, the Q2 FY2023 (21.5 million people) average remained substantially lower than the Q1 FY2023 average (39.9 million people) as well as that for Q2 FY2022 (35.0 million people).
- **We believe that the ongoing resilience in services demand and moderation in commodity inflation augur well for protecting the incomes and sentiments of the non-farm portion of the rural economy.**

More than 70% of MNREGA outlay for FY2023 utilised in H1; eleventh tranche under PM Kisan disbursed to farmers

EXHIBIT: Annual outlay under MNREGA and PM-KISAN schemes



*As on Sep 30, 2022; RE: Revised Estimates; BE: Budget Estimates; Source: MNREGA; PM-KISAN Govt; ICRA Research

- Against the annual budgeted outlay of Rs. 0.73 trillion allocated in FY2023 for MNREGA, Rs. 0.54 trillion or ~74% has been utilised so far in the first half of the fiscal (till Sep 30, 2022). Given the recent trends, the outlay under this scheme is likely to be enhanced for FY2023 relative to the BE.
- Additionally, the eleventh installment under the PM Kisan scheme, amounting to Rs. 210 billion was transferred to the farmers on May 31, 2022.



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