ICRA

SOUTHWEST MONSOON 2023- UPDATE

Forecast of weak August rainfall dims prospects of kharif acreage reaching last year's level

AUGUST 2023

Highlights

Click to Provide Feedback

Rainfall was above normal at 105% of LPA in Jun-July 2023, boosted by excess rains in July 2023

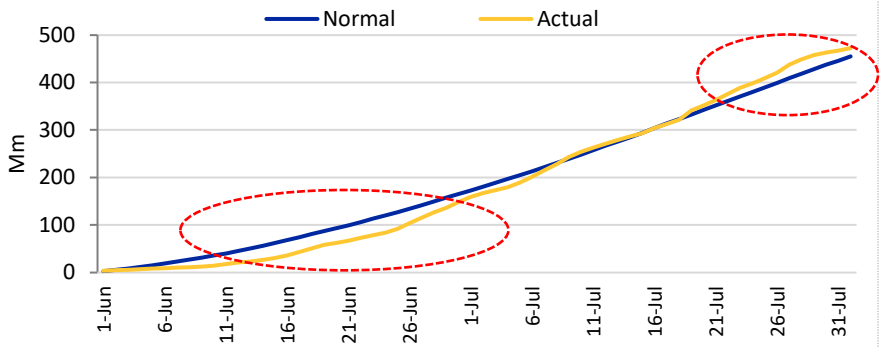
Below normal rainfall forecast for Aug 2023 suggests kharif sowing may not gather steam; may end up trailing final levels of 2022

If kharif sowing trails last year's levels, we see a downside risk to our GVA growth forecast 2.5% for agriculture, forestry and fishing for FY2024 (+4.0% in FY2023)

- Although the South-west monsoon rainfall was above normal at 105% of Long Period Average (LPA) in June-July 2023, the temporal and spatial distribution was quite uneven. The actual volume of rainfall at 114% of LPA in July 2023 overshot the IMD's forecast of 94-106% of LPA for the month, which compensated for the sub-normal rains seen in June 2023 (90% of LPA).
- The India Meteorological Department (IMD) expects normal rainfall in Aug-Sep 2023 (94-106% of LPA) amid a below normal forecast for August 2023 (<94% of LPA). Given the 5% surplus in June-July 2023, the 2023 monsoon rainfall appears likely to end close to the LPA (100%), if the actual rainfall in H2 comes in at 94% of the LPA, i.e. the lower end of the IMD's expected range.
- While witnessing a seasonal uptrend, the all-India reservoir storage of 48% of live capacity at full reservoir level as on July 28, 2023 was lower than the year-ago levels. Nevertheless, it remains comfortably above the historical levels of past 10 years.
- The intense rainfall spells in July 2023 have aided in narrowing the year-on-year (YoY) gap in the pace of kharif sowing to 0.3% as on July 28, 2023 from 8.7% as on July 7, 2023. However, the YoY decline in pulses remains significant at 11.3% amid lag in sowing in Karnataka and Maharashtra.
- The IMD's forecast of below normal rainfall in Aug 2023 suggests that the kharif sowing may not gather pace significantly, particularly for pulses. Adequate rainfall in the month would be critical for a timely completion of sowing and favourable crop yields.
- If kharif sowing trails last year's levels, we see a downside risk to our GVA growth forecast of 2.5% for agriculture, forestry and fishing for FY2024 (+4.0% in FY2023).
- The ongoing vegetable price shock is likely to temporarily push the CPI inflation above 6.0% mark in July 2023. However, the spike in prices of some vegetables may be transient, reversing after the next harvest.

Exceeding IMD's forecast, pan-India rainfall was 14% above LPA in July 2023 after the lull seen in June 2023

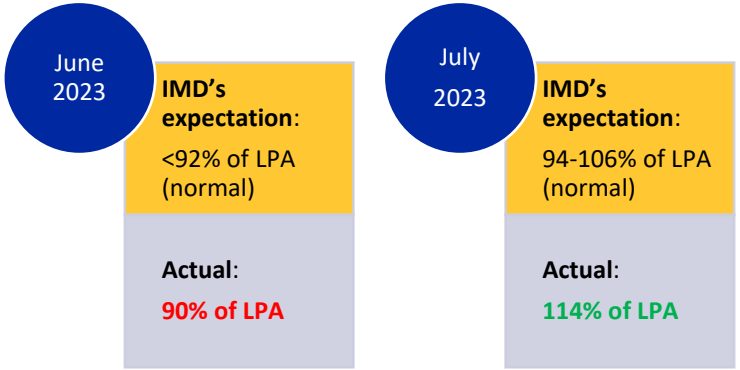
EXHIBIT: Cumulative normal vs. actual rainfall during June-July 2023



Source: IMD; CEIC; ICRA Research

- The delayed onset of the South-west monsoon season (June 8 vs. June 1) had led to sub-par rainfall in June 2023. The gap between the normal and actual cumulative rains was 10.1% by the end of the month.
- Subsequently, the gap between the two narrowed in the first week of July 2023, and the actual cumulative rainfall exceeded the normal level as on July 9. The deviation widened from (+)2.5% as on July 19 to (+)7.1% as on July 28, before easing to (+)4.8% as on July 31.

EXHIBIT: Actual vs. IMD's forecast of Monsoon rainfall in June and July 2023



Source: IMD; CEIC; ICRA Research

- The actual pan-India rainfall stood at 90% of the LPA in June 2023, in line with the IMD's below-normal forecast for the month (<92% of LPA).
- For July 2023, the IMD had projected the pan-India rainfall to be normal at 94-106% of LPA, with a higher possibility of it to be on the positive side of normal. However, the actual rainfall has significantly overshot the expected range, and stood at 114% of LPA in the month.

Temporal and spatial distribution in June-July 2023 was highly uneven

EXHIBIT: Monthly Region-wise distribution of rainfall*

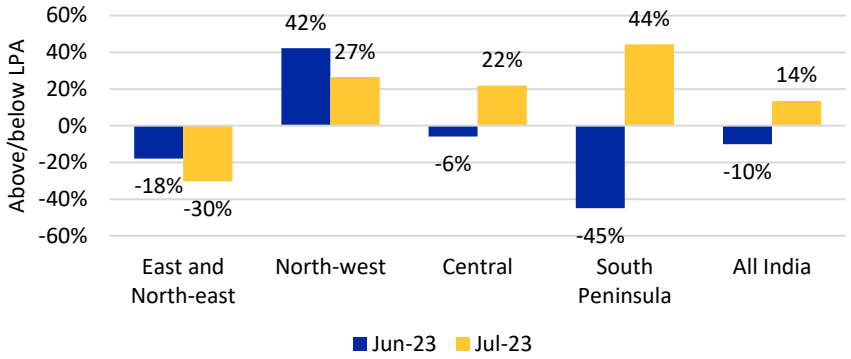
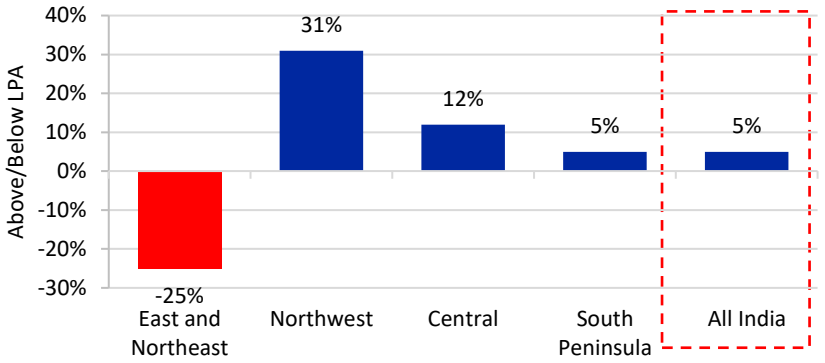


EXHIBIT: Cumulative Region-wise distribution of rainfall* in June-July 2023

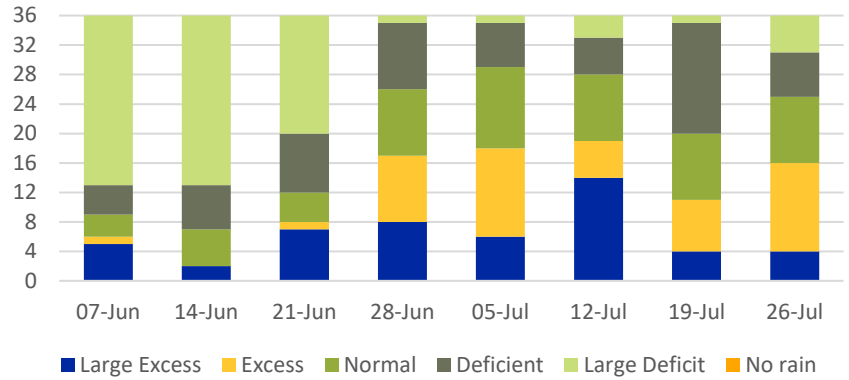


**On a pan-India basis, rainfall between 96% and 104% of the LPA is considered to be normal. The other classifications are deficient (below 90% of LPA), below-normal (90-96% of LPA), above-normal (104-110% of LPA) and excess (more than 110% of LPA); Source: India Meteorological Department (IMD); CEIC;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

- Overall, India has witnessed above normal rainfall at 105% of LPA till July 31, 2023. However, the spatial distribution of rainfall has been quite uneven, with large deficits in East and North-east region, and surpluses in North-west region. After recording sub-par rainfall in June 2023, Central India and South Peninsula recorded excess precipitation in July 2023, which partly aided in bridging up the deficit gap from the normal levels on a pan-India basis.
- Cumulatively, rainfall in Jun-Jul 2023 was excess in the North-west (131% of LPA) and Central India (112% of LPA), and above normal in South Peninsula (105% of LPA), as per the IMD's classification. However, East and North-east India (75% of LPA) witnessed deficient rainfall in this period.

Half of 36 sub-divisions saw normal rainfall in June-July 2023, while 35% witnessed large excess or excess rains

EXHIBIT: Weekly Distribution of Rainfall across sub-divisions*



**36 subdivisions in the country; Source: IMD; CEIC; ICRA Research*

EXHIBIT: Distribution of rainfall over 36 sub-divisions in Jun-July 2023

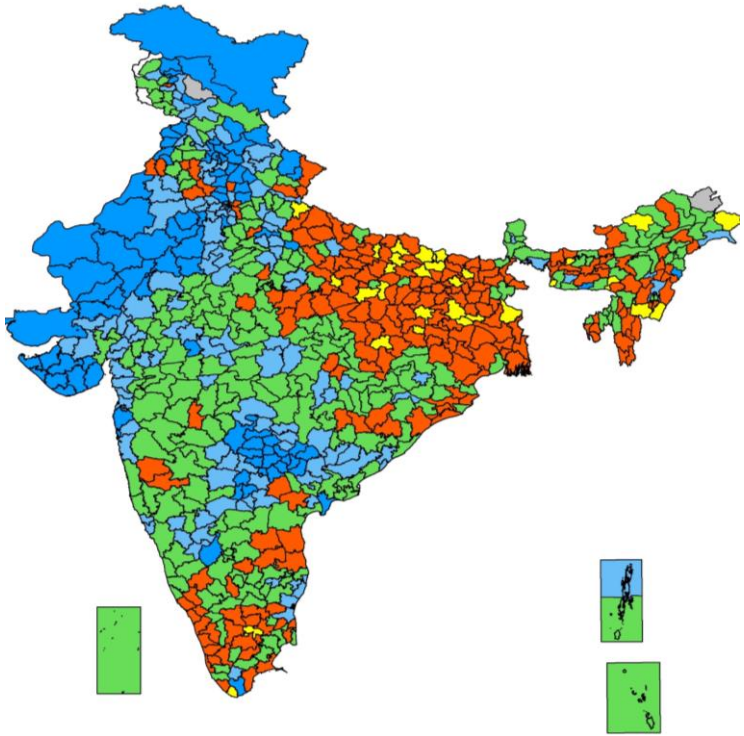
Category	% of LPA	No. of sub-divisions	% of Total
Large Excess	above 160	2	9%
Excess	120-159	10	26%
Normal	81-119	18	50%
Deficient	41-80	6	15%
Large Deficient	0-40	0	0%
No Rain	0	0	0%
Total		**36**	**100.0%**

Source: IMD; CEIC; ICRA Research

- A majority of 36 sub-divisions witnessed large deficits in the first three weeks of June 2023. This was followed by a rise in the number sub-divisions witnessing excess and large excess rainfall in the following three weeks. However, a larger number of sub-divisions witnessed a rainfall deficit in the week ended July 19, before the trend reversing once again in the week ended July 26.
- Of the 36 sub-divisions, 50% received normal rainfall during June-July 2023, while 35% recorded either excess or large excess rains. Additionally, the share of sub-divisions reporting deficient rainfall during this period stood at 15%, while none of the subdivisions have recorded large deficient rainfall during the monsoon season so far (till July 31, 2023).

Majority of districts recorded normal or above normal rainfall in June-July 2023

EXHIBIT: District-wise monsoon rainfall during monsoon season



- The cumulative district-wise distribution of rainfall reveals that most of the districts in North-west India recorded large excess rainfall in the first half of the monsoon season.
- Most of the districts in the Central region have recorded normal rainfall as on Aug 1, 2023, while the trend is mixed in South Peninsula with a combination of deficient and normal rains in the season so far.
- In contrast, most districts in the East and North-east regions received either deficient or large deficient rainfall during this period.

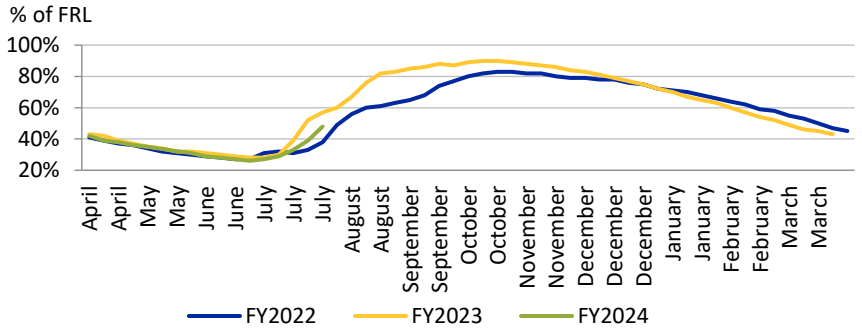
Classification on a disaggregated basis

Large Excess (above 160% of LPA)
Excess (120% to 159% of LPA)
Normal (81% to 119% of LPA)
Deficient (41% to 80% of LPA)
Large Deficient (1% to 40% of LPA)
No Rain (0% of LPA)

As on Aug 1, 2023; Source: IMD; CEIC; ICRA Research

Reservoir storage lagging year-ago levels, but remains comfortably above historical levels

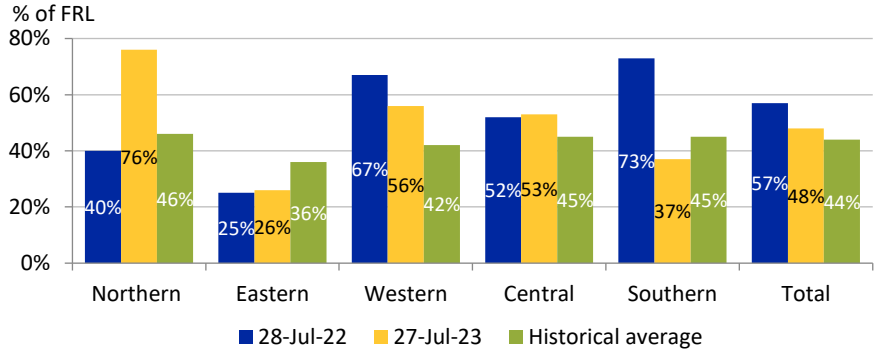
EXHIBIT: Reservoir storage levels as percentage of Live Capacity at Full Reservoir Level (FRL)



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

- The all-India reservoir storage levels began charting a seasonal uptrend since the first week of July 2023, amidst excess rainfall seen in the month. They stood at 48% of the live capacity at FRL as on July 28, 2023, while trailing the year-ago level of 57% of FRL.
- However, the levels remain above the historical average of the last 10 years (44% of FRL).

EXHIBIT: Region-wise reservoir storage levels

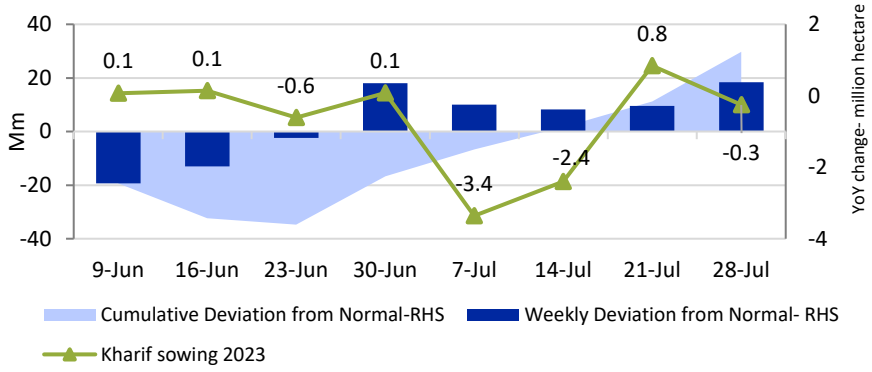


Source: CWC; CEIC; ICRA Research

- The region-wise distribution is mixed, with storage being higher than the year-ago levels in three of the five sub-regions as on July 28, 2023, including the northern (76% vs. 40%), eastern (26% vs. 25%), and central (53% vs. 52%) regions.
- In contrast, the storage in the western (56% vs. 67%) and southern (37% vs. 73%) regions have lagged the year ago levels, amid a large deficient rainfall.
- Barring the East and the South, all other regions recorded higher reservoir storage relative to their respective historical levels as on July 28, 2023.

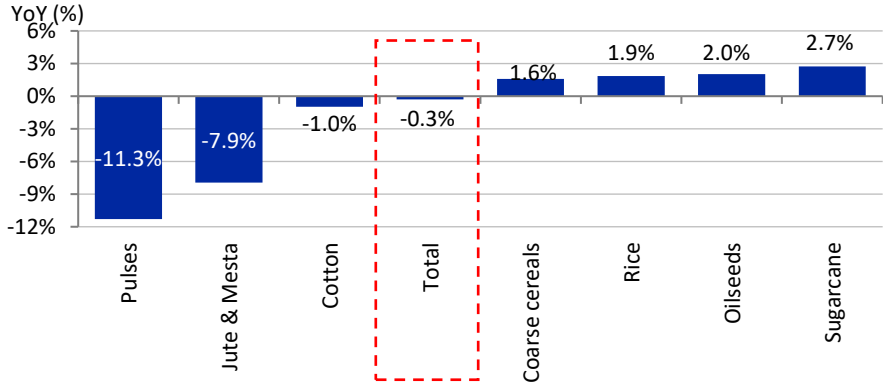
While kharif sowing picked up pace in July 2023, it continues to trail year-ago levels

EXHIBIT: Weekly and Cumulative Rainfall deviation (mm) from Normal in 2023 and YoY change (million hectare) in kharif sowing in recent weeks



Source: IMD; Ministry of Agriculture and Farmers' Welfare; ICRA Research

EXHIBIT: YoY growth in Kharif Sowing as on July 28, 2023



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

- The uptick in rainfall over the last few weeks had led to a sharp increase in the area sown in the week ended July 21, 2023, pushing up the YoY growth in the cumulative area sown to 1.2%.
- Subsequently, as on July 28, 2023, the cumulative sowing of kharif crops trailed the year-ago level by a muted 0.3% (75.3% of last year's total area sown so far vs. 75.5% in 2022), led by pulses (-11.3%), jute and mesta (-7.9%), and cotton (-1.0%). In contrast, coarse cereals (+1.6%), rice (+1.9%), oilseeds (+2.0%), and sugarcane (+2.7%) exceeded their respective year-ago levels as on July 28, 2023.
- **With the IMD projecting below-normal rainfall in Aug 2023 (<94% of LPA), the pace of sowing could decelerate in the ongoing month. Going ahead, the impact of El Nino conditions on rainfall in Aug-Sep 2023, sowing, crop output and rural income remains to be seen.**

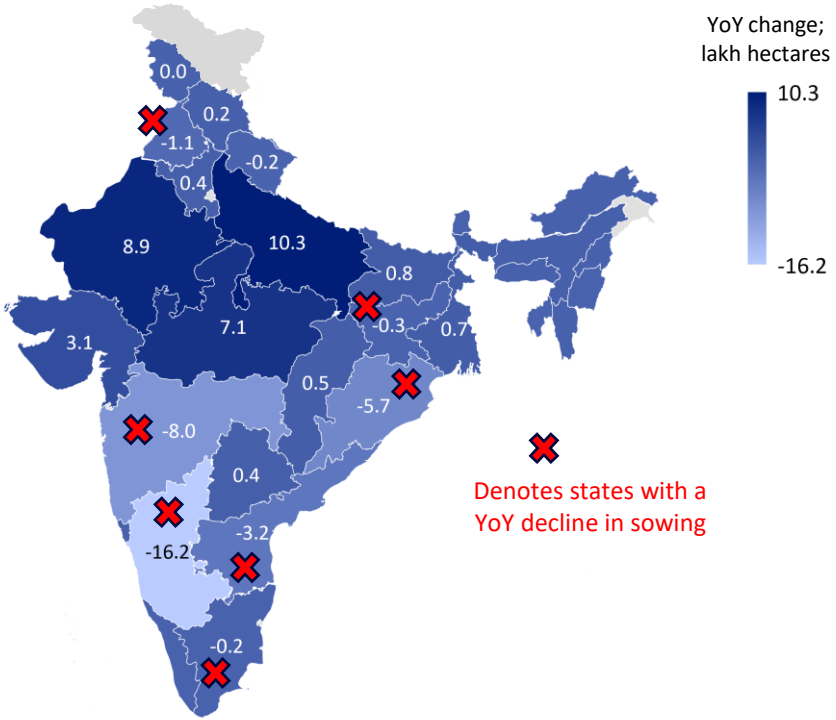
Karnataka and Maharashtra accounted for bulk of the decline in pulses acreage at end-July 2023

	YoY change				
	-1.23 Million hectare	-0.12 Million hectare	+0.23 Million hectare	+0.43 Million hectare	+0.34 Million hectare
	Pulses	**Cotton**	**Coarse Cereals**	**Rice**	**Oilseeds**
					
Key states	**YoY rise in coverage area**: Rajasthan (+0.2), Uttar Pradesh (+0.02), etc. **YoY decline in coverage area:** Karnataka (-0.7), Maharashtra (-0.3), Madhya Pradesh (-0.2), etc.	**YoY rise in coverage area**: Gujarat (+0.2), Rajasthan (+0.1), etc. **YoY decline in coverage area:** Karnataka (-0.2), Telangana (-0.1), Punjab (-0.1), etc.	**YoY rise in coverage area**: Rajasthan (+0.4), Madhya Pradesh (+0.2), etc. **YoY decline in coverage area:** Karnataka (-0.4), Maharashtra (-0.3), etc.	**YoY rise in coverage area**: Uttar Pradesh (+0.4), Madhya Pradesh (+0.2) **YoY decline in coverage area:** Odisha (-0.4), Karnataka (-0.2), etc.	**YoY rise in coverage area**: Madhya Pradesh (+0.4), Gujarat (+0.1), etc. **YoY decline in coverage area:** Karnataka (-0.2), Andhra Pradesh (-0.2), etc.

As on July 28, 2023; Cotton includes both BT and Non-BT segments; Source: Ministry of Agriculture and Farmers' Welfare, GoI; ICRA Research

Karnataka witnessed a significant lag in aggregate kharif sowing by end-July 2023

EXHIBIT: State-Wise Progress of Kharif Sowing as on July 28, 2023



Despite normal rainfall during Jun-July 2023, Karnataka recorded the steepest YoY decline of 1.6 million hectare in kharif sowing upto July 28, 2023, largely led by pulses

Other states like Maharashtra (-0.8 million ha), Odisha (-0.6 mn), also witnessed a significant YoY decline in the kharif sowing, followed by Andhra Pradesh (-0.3 mn)

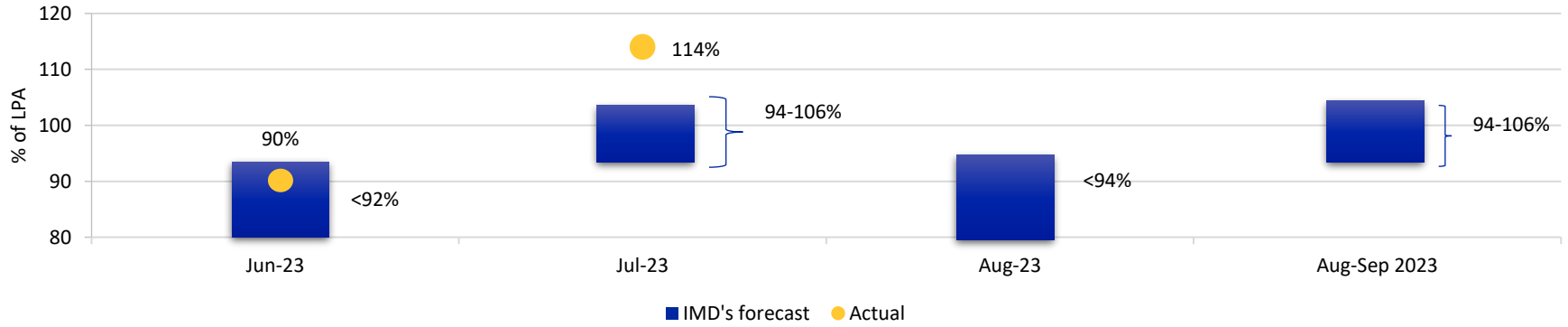
The YoY dip of 0.1 million hectare in sowing in Punjab upto July 28, 2023 can be partly attributed to excess rains in the month of July 2023 which disrupted sowing for paddy

In contrast, states like UP (+1.0 mn ha), Rajasthan (+0.9 mn), Madhya Pradesh (+0.7 mn) and Gujarat (+0.3 mn) have seen appreciably higher sowing than the year-ago levels, partly compensating for the lag in aforesaid states

Cotton includes both BT and Non-BT segments; Source: Ministry of Agriculture and Farmers' Welfare, GoI; ICRA Research

IMD expects a normal monsoon in Aug-Sep 2023, with tendency to be on negative side of normal as El Nino conditions are likely to intensify

EXHIBIT: Monthly forecast of monsoon rainfall by the IMD and actual precipitation in the month

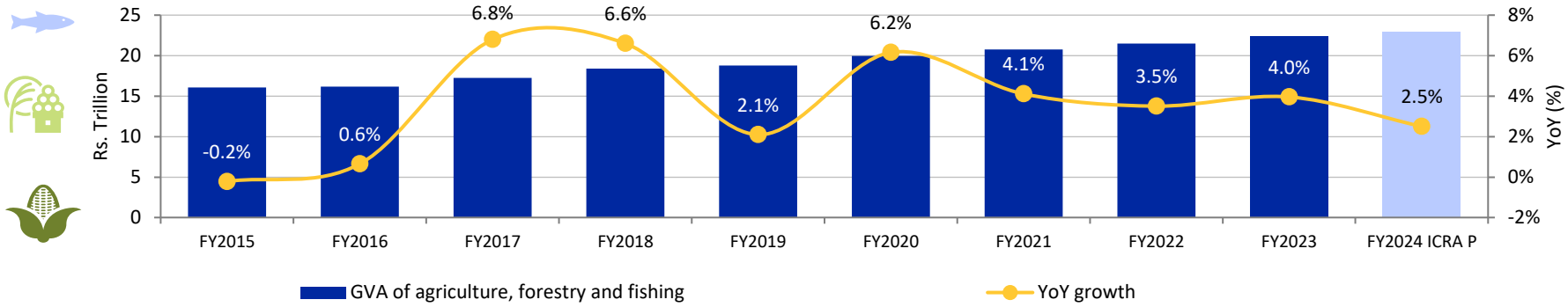


Source: IMD; ICRA research

- At end-July 2023, the IMD released its Long-Range Forecast for the second half of the southwest monsoon (Aug-Sep 2023), which has estimated the volume of rainfall to be normal at 94-106% of the LPA, with a tendency to be on the negative side of the normal. Moreover, the volume of rainfall in August 2023 is estimated to below normal at <94% of LPA with expectations of El Nino conditions intensifying further and continuing up to early next year.
- Given the 5% surplus in June-July 2023, the 2023 monsoon rainfall (June-September) appears likely to end close to the LPA (100%), if the actual rainfall in H2 comes in at 94% of the LPA, i.e. the lower end of the IMD's expected range of 94-106% for the second half of the season. Consequently, if rainfall in H2 falls below 94% of the LPA, overall monsoon season is likely to end up at sub-100% of the LPA.
- **With IMD's expectations of below normal rainfall in August 2023, the kharif sowing, which has remained uneven so far, is unlikely to gather pace substantially in the coming weeks, especially for crops like pulses.**

Downside risk to FY2024 agri GVA growth forecast of 2.5%, if kharif sowing trails 2022 levels

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

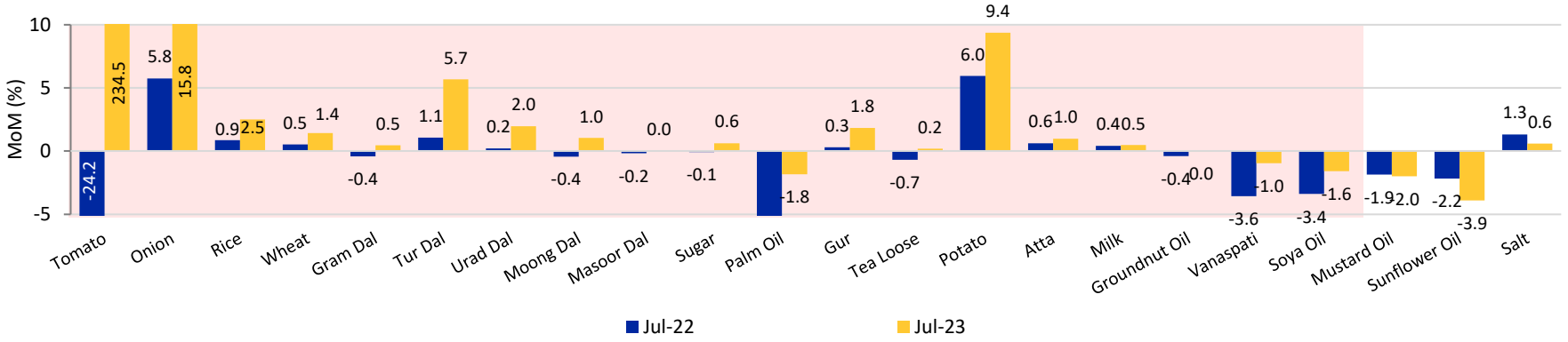


P: Projected; Source: NSO; ICRA Research

- The IMD's expectations of below normal rainfall in August 2023 dulls the prospects for a pick-up in the sowing of kharif crops. Nevertheless, the adequacy and distribution of rainfall over the country in Aug-Sep 2023 needs to be monitored amid El Nino conditions.
- **If kharif sowing trails last year's levels, we see a downside risk to our GVA growth forecast of 2.5% for agriculture, forestry and fishing for FY2024 (+4.0% in FY2023), in spite of a sharp expansion seen in Q1 FY2024 on the back of the robust rabi output for many crops.**

Higher MoM uptick in prices of certain items in July 2023 vs. July 2022 to push up food inflation in the month

EXHIBIT: Month-on-Month (MoM) trends in prices of essential commodities

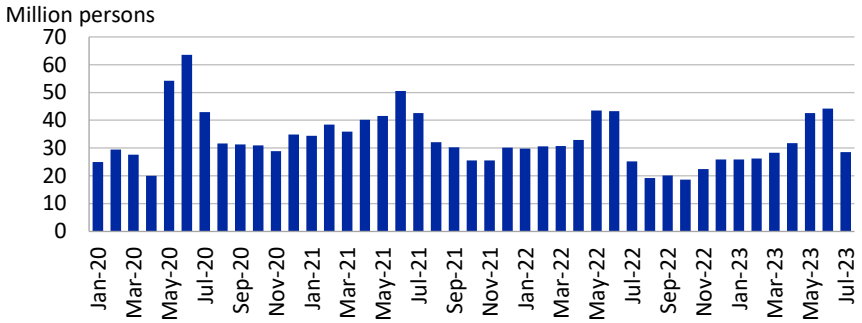


Source: DCA; ICRA Research

- As per the data released by the Department of Consumer Affairs (DCA), the average retail prices of as many as 19 of the 22 essential commodities saw a sharper MoM uptick in July 2023 vs. July 2022, partly on account of monsoon-led disruptions related to the transport/supply of goods, particularly perishables. The average price of tomatoes surged by 235% in the ongoing month (pest attacks in producing states), while the extent of MoM rise has been relatively moderate for onion and tur dal (inadequate supply), and modest for rice (YoY lag in sowing), wheat, and other pulses.
- The retail prices for rice, wheat, milk, pulses, onions and tomatoes saw a steeper YoY rise in July 2023, relative to June 2023, which is expected to push up the CPI-food inflation quite sharply in that month (+4.6% in June 2023). However, the GoI has undertaken measures to tame the uptrend in prices of pulses, rice, and wheat, which should have an impact on inflation prints in the subsequent months. Moreover, the spike in prices of some vegetables may be transient, reversing after the next harvest.
- **Overall, the spike in vegetable prices is set to temporarily push the headline CPI inflation above the 6.0% mark in July 2023, implying that the Q2 FY2024 CPI inflation print will significantly exceed the MPC's last forecast of 5.2% for that quarter.**

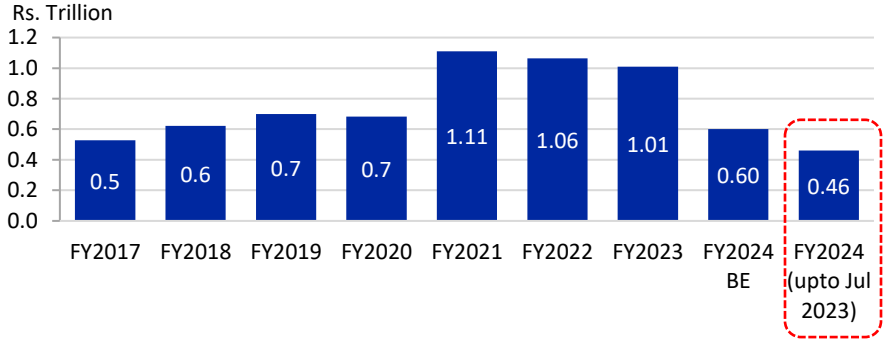
Work demand under MGNREGS muted, but >70% of budget exhausted by end-July 2023; additional allocation of Rs. 250-300 billion may be needed in FY2024

EXHIBIT: Work demand under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)



Source: NREGA portal; ICRA Research

EXHIBIT: Annual outgo under MGNREGS



BE: Budget estimates; Source: NREGA portal; ICRA Research

- The work demanded under MGNREGS declined by a mild 0.9% YoY to 118.6 million people in Q1 FY2024. Thereafter, the demand in July 2023 reported a usual MoM decline amid the onset of kharif sowing season, while displayed a YoY growth of 13.0%. While the demand was slightly higher than the levels seen in July 2019, it significantly trailed the trends seen in Covid affected years of FY2021-22, indicating no significant signs of rural distress at present.
- The person days generated under this scheme stood at 1.4 billion in FY2024 so far (till July 2023), relative to 3.0 billion seen in FY2023 and a record 3.9 billion in FY2021. However, the average wage has risen by 7.5% to Rs. 234.3/personday in FY2024 so far (up to July 2023) from Rs. 217.9/personday recorded in FY2023 after a hike of 2-10% in wages w.e.f. Apr 1, 2023, thereby pushing up the total cost.
- The GoI provided an outlay for MGNREGS of Rs. 0.6 trillion in FY2024 BE, lower than the actual spending incurred in FY2021-23. In the four months of FY2024, more than 70% of budgeted amount or Rs. 0.46 trillion has already been spent, indicating that additional allocations may be made though the supplementary demand for grants. **ICRA estimates the outgo under MGNREGS in FY2024 to exceed the BE by Rs. 250-300 billion.**

Click to Provide Feedback

Analytical Contact Details

Name	Designation	Email	Contact Number
Aditi Nayar	Chief Economist, Head-Research and Outreach	aditin@icraindia.com	0124- 4545 385
Rahul Agrawal	Senior Economist	rahul.agrawal@icraindia.com	022 – 6114 3425
Aarzoo Pahwa	Senior Associate Economist	aarzoo.pahwa@icraindia.com	0124 – 4545 835
Tiasha Chakraborty	Senior Associate Economist	tiasha.chakraborty@icraindia.com	0124- 4545 848

Business Development/Media Contact Details

Name	Designation	Email	Contact Number
L Shivakumar	Chief Business Officer	shivakumar@icraindia.com	022-61693304
Neha Agarwal	Head – Research Sales	neha.agarwal@icraindia.com	022-61693377
Rohit Gupta	Head Business Development - Infrastructure Sector	rohitg@icraindia.com	0124-4545340
Vivek Bhalla	Head Business Development - Financial Sector	vivek.bhalla@icraindia.com	022-61693372
Vipin Saboo	Head Business Development – Corporate Sector - West & East	vipin.saboo@icraindia.com	022-61693348
Shivam Bhatia	Head Business Development – Corporate Sector - North & South	shivam.bhatia@icraindia.com	0124-4545803
Naznin Prodhani	Head – Media & Communications	communications@icraindia.com	0124-4545860

ICRA

Thank You!