

Drenching damages some rabi crops

Impact note

March 2023

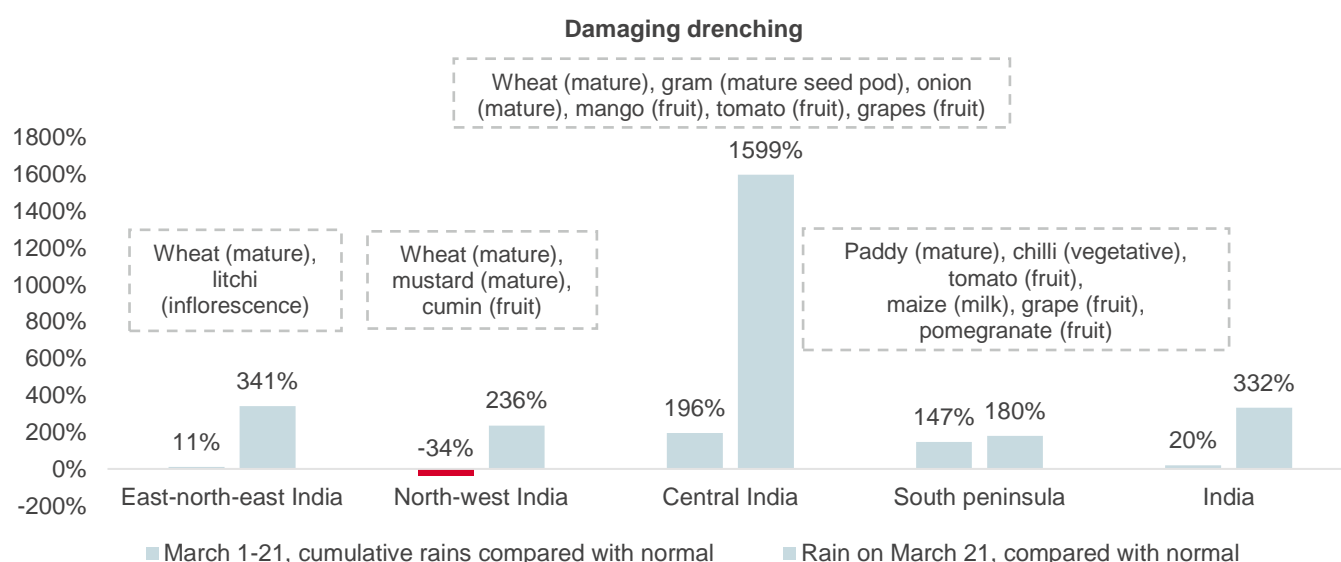


Research

About half of the Indian agricultural land is rainfed, so timely and adequate rains are crucial for crop yields

Unfortunately, the ongoing harvest window for rabi crops has been lashed by an untimely torrent, causing damage to rabi crops — some already harvested, some ready to be harvested and some in the development stage.

Between March 1 and 21, 2023, cumulative rains have been 20% more than normal and, in the past four days, 3-4x the normal. On March 21, rain volume in central India was ~1600% more than normal. Many other regions have also received a drenching.



Source: IMD and CRISIL MI&A Research

Note: 1. The % departure from normal monsoon (in the graph above) has been colour coded as follows



2. Crops mentioned in the box have been damaged by unseasonal rains in March 2023

In the north and north-east, rains have been beneficial for vegetables and mango, but in Bihar it has damaged wheat and litchi crops.

Litchi orchards were in full bloom and excess rains have led to a significant decline in flowering, which is expected to reduce yields by 5-6% on-year.

In wheat, lodging has been reported in many places, which would impact yield.

In West Bengal, paddy has seen grain drop, while potato crop has been damaged in Cooch Behar and Jalpaiguri. The good part is, most of the potato has been harvested here, so the damage is unlikely to be very significant.

The north-west, comprising Punjab, Haryana, Uttar Pradesh and Rajasthan, has also witnessed wheat lodging, which could lead to a 4-5% decline in yield, compared with previous estimates. The crop is in the maturity stage and was to be harvested in the first week of April. Rains could delay the process.

Mustard, another major rabi crop has already seen ~70% harvesting, but pods are said to have been damaged for the rest, especially in Rajasthan.

Isabgol and cumin, both horticulture crops, have seen pod damage and seed drop in Jodhpur and Nagaur in Rajasthan. Consequently, cumin yields are seen declining 10-15% in Rajasthan.

Central India — comprising Madhya Pradesh, Gujarat, and Maharashtra — witnessed widespread damage to both field and horticulture crops.

Almost 5-10% of the onion crop (currently in the harvesting stage) has been damaged in Nashik, Maharashtra.

Farmers are expected to delay harvesting by 8-10 days to prevent bulb rot due to excess moisture.

For grapes, yield is expected to fall 8-10%.

In Madhya Pradesh and Gujarat, hailstorm has caused lodging in wheat, which could result in 3-4% yield loss.

However, Junagadh, which predominantly grows premium mango varieties such as kesar, has received only light showers that are not detrimental to the crop.

In Andhra Pradesh and Telangana, too, there is a grain drop in paddy, while maize has seen lodging, which is likely to impact cob maturation. A yield loss of about 3-4% is expected in both crops.

Kharif chilli, which was in the drying stage, is likely to shrivel or deteriorate in quality owing to moisture ingestion.

In Chittoor, Andhra Pradesh, mango was in the fruit setting stage, and has seen some damage. This could lead to a 4-5% lower yield.

Karnataka is expected to see 5-10% damage to horticulture crops. Tomato has been infested with fruit rot, onion had shoot breakout, grapes are seeing fruit drop and rotting, and pomegranate are seeing breakage.

The damage to wheat, paddy, cumin, onion, tomato and mango would impact their prices.

Consequently, we expect wheat prices to increase marginally in rabi MY23 (marketing year 2023) on a high base of last year. Paddy prices would rise owing to lower available stocks and export demand.

Further, in vegetables such as onion and tomato, prices are likely to increase owing to damages witnessed in Maharashtra and Karnataka in rabi MY23.

Mango prices would still be stable because there are no reports of widespread damage in Gujarat and Bihar.

On the other hand, cumin prices could rise with a decline in yield.

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