Monsoon’s Late Surge Helps, But Floods Hurt Crop Prospects

October 01 2019, 1:29 PM

The India Meteorological Department is tasked with predicting rainfall for four months during the South-West monsoon, that too, three months in advance. IMD uses a Statistical Ensemble Forecasting System for projecting the rainfall. Since 2012, IMD has also been using the dynamical global Climate Forecasting System model developed under the Monsoon Mission, 2012.

In its first-stage forecast in April 2019, IMD projected 96 percent of the long-period average of 50 years, with an error margin of +/-5 percent.

On May 31, in its second-stage forecast as well, IMD said that average rainfall in the June-September period is likely to be 96 percent of LPA (+/-4 percent). For July and August, the projection was 95 percent and 99 percent (+/-9 percent) of LPA respectively, due to weakening of the El Niño effect.

Private forecaster Skymet, on the other hand, predicted below-normal rainfall at 93 percent (+/- 5 percent) and the persistence of El Niño up to September. For June and July, its prediction was 77 percent and 91 percent of LPA respectively.

By June 26, cumulative rainfall was 36.8 percent below LPA. Out of 36 sub-divisions, 31 had received deficient or scanty rainfall.

Fish carcasses sit in the bottom of the dried-out Porur Lake in Chennai, on July 5, 2019. (Photographer: Dhiraj Singh/Bloomberg)

The situation improved a little in the next four weeks to July 25, but cumulative rainfall was still 19 percent below normal and 21 sub-divisions were deficient.

- The area under rice was about 9.4 percent lower than last year.
- Acreage under pulses and coarse cereals was also lower by 16 percent and 7.5 percent respectively than last year.

It was a worrisome situation and it was feared that Kharif production may be much lower than in 2018. There was gloom due to a heat-wave and a shortage of drinking water in several parts of India. Dams in several states were at their lowest level in a decade.

The forecasts proved accurate for August and there were good rains across India. By Aug. 28, cumulative rainfall was just 0.2 percent below LPA and only 7 subdivisions showed deficient rainfall while 22 had received normal rainfall and 7 had received excessive rains. However, Haryana, Uttarakhand and Marathwada were still deficient.

This year, September received unusually heavy rains touching 151 percent of the long-period average. This takes the seasonal rainfall to 110 percent of LPA, highest since 1994. Two sub divisions received large excess (60 percent more than LPA) and 10 received excess (+20 percent). Rainfall was normal in 19 sub divisions received normal monsoon rainfall (± 19 percent). Regions of rather low normal rainfall (as per LPA), like eastern Madhya Pradesh,

Saurashtra and Kutch, central Maharashtra, Karnataka, received excess rains. Several districts in 12 states were affected by flooding of agricultural fields resulting in damage to standing crops. Many areas in Kerala, Karnataka, Maharashtra, Uttar Pradesh, and Bihar were flooded, while damage to crops was also reported from Punjab and Andhra Pradesh. However, in Haryana, the deficiency was 42 percent. Prolonged rainfall will delay harvesting and procurement of paddy as well as other crops.

By end-September, the area under rice, sugarcane and pulses was only slightly less than last year and area under cotton, oilseeds and coarse cereals was marginally higher than last year.

Reservoirs have about 15 percent more water than last year and residual moisture is surely going to help in Rabi cultivation.

Water from the Krishna River overflows from the Khodshi dam, following monsoon rains near Karad in Maharashtra. (Photograph: PTI)

Reflecting the turnaround in the monsoon, the first advance estimate released by the Ministry of Agriculture on Sept. 23, pegs food-grains production of 140.57 million tonnes, against 141.71 million tonnes last year.

Last year, in Kharif 2018 the government had decided to fix the minimum support price at 50 percent over paid-out costs plus family labour. As a result, the MSP of common-variety of paddy went up by 12.9 percent.

This has resulted in the procurement of 44 million tonnes of rice in the last 12 months, an all-time high.

On Oct. 1, it is estimated that rice stock with the government may be about 27.13 million tonnes, against the buffer norm of 10.25 million tonnes. The Food Corporation of India and state governments will face a problem of plenty, to manage the excessive stock. Storage space will be required in rice-procuring states and it will not be easy to get. It will also increase the carrying-cost of grains and inflate unpaid bills of food subsidy.

Workers move rice sacks after flooding at a grain market following heavy rains in Amritsar. (Photograph: PTI)

Maize Shortage, For Second Year

Another challenge in coming months will be the shortage of maize in the country. In 2018-19, the government increased the MSP of maize by 20 percent from Rs 1,425 per quintal to Rs 1,700 per quintal for 2018-19. Last year, maize production was 19.04 million tonnes, about a million tonnes less than in 2017-18. This pushed up the price of maize in the open market to Rs 2,300 per quintal. Yet, the area under maize has hardly increased in Kharif 2019.

This year, the estimated production, as per the first advance estimate, is 19.89 million tonnes. The trade estimate of production is about 1 million tonnes lower than this.

Several districts of Maharashtra and Karnataka will see 15-20 percent loss in maize production due to floods.

As a result, the poultry industry may have to pay a higher price for maize this year. This may reflect in a higher price for chicken in the retail market.

Due to the lower maize crop last year, the government allowed duty-free import of 1 lakh tonne of feed-grade maize under the Tariff Rate Quota. In view of a potential shortage for the poultry-feed industry, India may have to import about 5 lakh tonnes of maize.

If the government had actively discouraged the production of paddy in water-stressed, north-west states by ensuring MSP to farmers, maize production would have been higher.

Farm workers carry maize corn on the outskirts of Jammu, on July 21, 2019. (Photograph: PTI)

For water security of green revolution states, the government must prepare a plan to reduce the area under rice and increase maize area in Kharif 2020 in Punjab and Haryana.

The shortfall in maize production in two consecutive years will prove that India's food surpluses are marginal and transitory.

Soybean is another Kharif crop, adversely hit by floods in Madhya Pradesh and Maharashtra. The second advance-estimate of production is 13.5 million tonnes, about the same as last year but trade estimates are lower by about 10 percent due to damage to standing crop. In Mandsaur, Neemuch, Ratlam, Hadra districts in MP, the crop was submerged and losses would be very high. This may be compensated by a much better crop of groundnut and cottonseed. Last year the MSP of soybean was raised by 11.4 percent but mandi prices remained lower. Due to lower crop this year, it is possible that prices will be around MSP, thus benefiting the farmers. The import duty of 35 percent plus the 3.5 percent Swachh Bharat Cess will also help maintain prices around MSP, but there may be a slight increase in the import of soybean oil.

The production of castor seed will also be higher this year, fetching good income to farmers in Gujarat.

In conclusion, it may be said that despite the imperfect science of monsoon prediction, IMD did well and its projections for August and September have turned out to be accurate. Farmers waited patiently in June and July but sowing caught up once rains came in July. To address water scarcity and modifying cropping patterns, the planning for Kharif 2020 should begin now.

Siraj Hussain is a former Union Secretary, Ministry of Agriculture, and is presently Visiting Senior Fellow at ICRIER.