

Monsoon Rains and Indian Agriculture

Frank Notes



Dr. S. Nand

Indian agriculture sector has registered positive growth in the past three consecutive years. The performance of the agriculture and allied sectors has been resilient in the face of impact of COVID 19 and its effects. The sector grew at 3.3 per cent in 2020-21 and 3.0 per cent in 2021-22. The increase in food grain production and other crops during the past three years was mainly due to consecutive normal monsoons coupled with various policy initiatives taken up by the Government. As per the third advance estimates, food grain production during 2021-22 is estimated at 314.5 million MT, a growth of 1.2 per cent over 2020-21.

The monsoon is considered the lifeline of India's agri-based economy. Among the four monsoon seasons, viz., Pre-monsoon (March-May), Southwest monsoon (June-September), Post-monsoon (October-December) and winter or North-East monsoon (January-February), Southwest monsoon is the main rainy season in India. Rainfall during Southwest monsoon contributes about 75 per cent of total rains in a year. Therefore, Indian agriculture is highly dependent on Southwest monsoon.

Southwest monsoon begins around 1st of June in extreme south (Kerala) and in extreme east (Assam) of mainland India. Thereafter, it gradually spreads from south to north in the peninsula and from east to west in the northern India. The Southwest monsoon season plays a crucial role in *kharif* sown area. The impact of the Southwest monsoon is also crucial for *rabi* crops as it has an impact on the ground water and water

availability in the reservoirs which provides irrigation for *rabi* crops. Therefore, monsoon rainfall has a direct bearing on all crops across the country.

India's climate ranges from continental to coastal, from extremes of heat to extremes of cold, from extreme aridity and negligible rainfall to excessive humidity and torrential rainfall. The rainfall in India also shows great variation, unequal seasonal and geographical distribution and frequent departures from the normal. These factors have adverse implications for Indian agriculture. The intensity and the distribution of rainfall are controlled by a series of tropical disturbances, in the form of low pressure, depression and cyclonic storms. With the application of modern technology, considerable developments have taken place in the field of weather forecasting, yet it is difficult to make an accurate prediction of weather for each geography of the country. Therefore, despite overall normal monsoon rains, distribution of rainfall across space and time, affect the productivity of agriculture sector.

The pre-monsoon season 2022 started with a positive note. Rainfall received during March to May 2022 of pre-monsoon season was normal. It was 99 per cent of long period average (LPA). Out of a total of 36 meteorological sub-divisions, 18 sub-divisions constituting 38 per cent of the total area of the country received excess/normal rainfall.

India Meteorological Department (IMD) updated long range forecast of rainfall during Southwest monsoon season 2022 on 31st May, 2022. According to IMD, rainfall during Southwest monsoon 2022 is most likely to be normal (96-104% of LPA). Amongst the four homogeneous regions, it is most likely to be 'above normal' for central India and south peninsula at over 106 per cent of the LPA. Rainfall is most likely to be 'normal' over northeast India (96-106 per cent of LPA) and northwest India (92-108 per cent of LPA). The forecast of normal monsoon for the fourth consecutive year augurs well for the farm economy.

Onset of Southwest monsoon 2022 was advanced by 3 days. But, the rainfall during the first month of the monsoon season i.e. June 2022 was 8 per cent lower than LPA. The country received 152.3 mm rains during June 2022 as against 165.3 mm of normal rains. Out of a total of 36 meteorological sub-divisions, 16

Expected normal monsoon rains during the remaining period of the ongoing *kharif* season will lead to increase in sown area as well as positive growth in fertilizer consumption.

constituting 50 per cent of the total area of the country received excess/normal rains. However, the monsoon progressed rapidly and covered the entire country by 2nd July. As predicted by IMD that monsoon rains will be normal during July-September.

Central Water Commission monitors 143 reservoirs in the country which have total live storage capacity of 177.46 billion cubic meter (BCM). Live storage in these reservoirs as on 30th June, 2022 was 48.95 BCM as against 57.14 BCM on the same date in the previous year and 41.43 BCM of normal (average storage of the last 10 years) storage. In other words, live storage in these reservoirs as on 30th June, 2022 was 86 per cent of the last year's storage and 118 per cent of the normal storage.

With the prediction of normal monsoon and comfortable water availability in the reservoirs for *kharif* sowing, prospects of *kharif* 2022 crops seem to be good this year also. The sown area under summer crops till 27th May, 2022 was 5.1% higher than the corresponding period of the previous year. Low rainfall during June 2022 affected cumulative sown area of *kharif* crops. As per the latest information till 1st July, 2022, the sown area under *kharif* crops at 27.87 million ha was 5.3% lower than the corresponding period of the previous year. Area under pulses, coarse cereals and cotton increased by 7%, 2.1% and 3.8%, respectively, during the period. However, sown area under rice, oilseeds and sugarcane declined by 27.1%, 8% and 0.9%, respectively, during the period. With monsoon covering the entire country, sowing of *kharif* crops is expected to pick up momentum.

As per the latest available information, sale of fertilizers reported high growth during April and May 2022. Cumulative sale of urea, DAP and SSP increased

but that of MOP and NP/NPK complex fertilizers declined during the first two months of this year. Overall sale of fertilizers increased by about 10% during the period.

With the normal rainfall received during the pre-monsoon season and prospects of good rainfall during the Southwest monsoon, demand for fertilizers is expected to be high during the main manuring seasons in coming months. It is expected that after 5.5% decline in sale of fertilizer products in 2021-22 over 2020-21, there will be high single digit growth in 2022-23. There is a need for arrangement of adequate availability of fertilizers from domestic production and imports to fulfil the increased demand in the coming months of the year. Fertilizer industry supplies about 65 million tonnes of various fertilizer products in a year throughout the country, comprising around 750 districts, 641 thousand villages and 146 million farm holdings. This is a massive task which the fertiliser industry has been performing without fail year after year.

World's geopolitical developments in recent times has affected the supply chain which has also pushed up the prices of all fertilizer related commodities. Both government and industry have spared no efforts in arranging supplies of fertilizers in every nook and corner of the country. Government of India has also increased subsidy on fertilizers so that farmers remain unaffected from the skyrocketing prices of fertilizers. For example, subsidy on DAP has been increased from Rs. 10,231 per tonne in April 2021 to Rs. 50,013 per tonne in April 2022.

To conclude, it may be construed that expected normal monsoon rains during the remaining period of the ongoing *kharif* season will lead to increase in sown area as well as positive growth in fertilizer consumption. Good soil moisture after good monsoon rains will also benefit *rabi* crops. Arranging the increased demand of fertilizers will remain a task both for industry and the government. Industry is making all efforts to maximize production. Government has made utmost efforts to facilitate import of fertilizer raw materials and fertilizer products. This will help to maximize domestic production and fill the gap between demand and indigenous production. ■