



Study on Impact Assessment of COVID-19 on Indian Agriculture and Rural Economy

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Abstract:- The COVID-19 pandemic has occurred at a time when the global and Indian economic growth was already expected to decelerate. The last few quarters have witnessed a moderation of growth rate of the Indian economy, with quarterly growth in GVA declining from 7.63% in Q4 in 2017-18 to 3.04% in Q4 of 2019-20. The declining trend may have become more severe due to COVID-19, as indicated by many factors. For instance, recently released estimates by Govt of India indicate that production in the eight core sectors of our economy contracted for the third month in a row, with output declining 23.4 per cent in May 2020. Overall growth has been adversely affected in most core sectors, apart from fertilisers.

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1. Introduction:

The novel Coronavirus (COVID-19) pandemic has rapidly spread across the world, adversely affecting the lives and livelihoods of millions across the globe. India reported its first infection on 30 January 2020, prompting the authorities to soon initiate various measures to contain the spread of the epidemic. Given that the disease is highly contagious, the much-needed nation-wide lockdown was enforced starting 25 March 2020 in order to contain the spread of COVID-19 pandemic. During the initial few weeks, the restrictions were strict and all non-essential activities and businesses, including retail establishments, educational institutions, places of religious worship, across the country were prohibited from operating. Subsequently, these restrictions are being gradually eased in a phased manner in most parts of the country. As the restrictions imposed due to the lockdown are being lifted, it is an opportune moment to analyse the impact of COVID-19 on different sectors of the economy. A number of reports have pointed towards the possibility of contraction of Indian GDP in 2020-21. This is a worrisome indication, since a higher GDP contributes immensely towards achieving better living standards, reduced poverty as well as improvement in other socio-economic indicators. While other sectors are reported to be under significant stress, it is important to analyse the impact on agricultural and allied sectors which provide livelihood to majority of the population in India.

The agricultural & allied sector carries immense importance for the Indian economy. It contributes nearly one-sixth to the Indian national income and

provides employment to nearly 50% of the workforce. It is fundamental for ensuring food security of the nation and also influences the growth of secondary and tertiary sector of the economy through its forward and backward linkages. The performance of agricultural sector greatly influences achievements on many other fronts. For instance, World Development Report 2008 released by World Bank emphasises that growth in agriculture is, on average, at least twice as effective in reducing poverty as growth outside agriculture. Agricultural growth reduces poverty directly, by raising farm incomes, and indirectly, through generating employment and reducing food prices. In other words, a thriving agricultural sector is a boon for most sectors of the Indian economy

2. Prioritising Agriculture Sector for Economic Recovery

The economic implications of the novel Coronavirus (COVID-19) pandemic have brought the agricultural sector into sharp focus and heightened its responsibility to feed and employ thousands who might have lost livelihoods. At this time when most sectors of the economy are reported to be under significant stress, the agricultural sector continues to be promising and cushioning the economy. The area sown under all major kharif crops is expected to be higher than corresponding period during the last year. Since the agricultural sector continues to be one of the bright spots amidst this pandemic, there is a need of prioritising agricultural sector during this time to ensure speedy economic recovery of the country.

3. Magnitude of Change of Production at the State level

The magnitude of impact on various sub-sectors have been discussed in following paragraphs:

a. Agriculture: In the agriculture subsector, most of the states have witnessed a decline in production. States like Chhattisgarh (13%) and Himachal Pradesh (15%) have witnessed a sharp decline in agriculture production. However, some large agricultural states like Telangana (23 % increase), Punjab (5%), Rajasthan (4.4%) and Gujarat (6.7%) have actually shown an increase in agricultural production which may be attributed to the fact that rabi season had witnessed a bumper crop production and harvesting of the crops had been completed in many of the states before the onset of the pandemic and the lockdown.

b. Horticulture: Horticulture being a perishable crop was adversely affected during the lockdown even though there was no restriction on sale of fruits and vegetables in the market, except ban on operations of rural haats. All states except Gujarat (5%), Rajasthan (2.5%) and Karnataka (1.7%) have witnessed a decrease in production in the horticulture sector. Amongst the larger states, Himachal Pradesh, Chhattisgarh and Tamil Nadu faced the highest decline of 18%, 17.9 and 13.9% respectively.

c. Poultry: This sector was most strongly impacted in all states (except Arunachal Pradesh where production was reported to increase by 25%) with production declining by a significant amount. The decline in production levels was the sharpest in the states of Haryana (37.2%), Madhya Pradesh (34.2%) and Uttar Pradesh (31.9%). The fall in the production levels in poultry could be directly attributed to the lower demand for poultry products due to the widespread fear prevailing that COVID-19 virus may spread through the poultry birds.

d. Dairy: The dairy sector was one of the least adversely affected sector after crop production as the demand for the dairy products was relatively stable and the supply chain also did not face large scale disruption during the lockdown. At the all-India level, the overall dairy production declined by 6.6%, but this decline was of similar small magnitude across most major states. The States of West Bengal (11.9%), Jharkhand (13%) and Chhattisgarh (11.5%) reported the largest decline in the dairy sector mainly due to decline in demand for milk products as most of the restaurants, sweet shops remained closed during April 2020.

e. Fisheries: The full range of activities required to deliver fish and fish products from production to the final consumer is subject to indirect impacts of the pandemic through changing consumer demands, market access or logistical problems related to transportation and border restrictions. This has led to serious disruptions in the fisheries supply chain. All states except Telangana (increase of 7%) witnessed a

14 decline in fisheries production. Amongst the larger states, those which faced the biggest decline were Maharashtra (23.5%), Madhya Pradesh (22.7%) and Andhra Pradesh (21.7%).

f. Pig/Sheep/Goat: This sector had also been impacted adversely by the pandemic, but to a much lesser extent. One of the reasons for this was that in some regions there has been an increase in Pig/Sheep/Goat consumption as it is being considered a safer alternative to poultry. Telangana and Arunachal Pradesh have seen an increase in production levels by 10% and 25%, respectively. Rest of the states have seen a decline in the production levels with Nagaland (25%), Haryana (17%) and Madhya Pradesh (16.3%) reporting the highest decline.

4. COVID-19 impact

Impact on Production – At All-India level, agriculture production in almost half (47%) of sample districts was adversely affected by the impact of COVID-19. Magnitude wise, agriculture production (-2.7%) had not been adversely impacted significantly, mainly due to the fact that harvesting of rabi crops like wheat was almost complete by the end of April 2020. However, production in allied sector had declined significantly, especially in poultry sector (-19.5%), followed by fisheries sector (-13.6%) and Sheep/Goat/Pig (S/G/P) sector (-8.5%), primarily due to drastic decline in demand for these products possibly due to the widespread fear circulating in the wake of COVID 19 regarding safety of non-vegetarian food, particularly poultry 2 meat, for health related concerns. Similarly, production in dairy (-6.6%) and horticulture (-5.7%) sub-sector also reduced, owing to reduced demand for these products and disruption in their supply chain.

Impact on Farm Gate Prices – Farm gate prices have not declined significantly in crop sector (-2.2%). However, prices in allied sectors had declined in the range of 2% to 18%. This decline was highest in poultry sector (-17.8%), followed by horticulture (-7.6%), dairy (-5.6%), fisheries (-4.8%) and S/G/P (-2.9%) sectors respectively, mainly due to supply disruption caused by restriction on movement of vehicles. On the whole, 54% of sample districts witnessed adverse impact on farm gate prices of agricultural produce.

Impact on Availability of Agri Inputs - Due to restrictions imposed on movement of men/material and closure of shops, availability of agri inputs viz. seeds (-9.2%), fertilisers (-11.2%), pesticides (-9.8%), fodder (-10.8%), etc. declined in the range of 9 to 11 per cent. At all-India level, 58% of sample districts were adversely affected in terms of availability of inputs.

Impact on Prices of Agri Inputs - Due to disruption in supply chain owing to restrictions on movement of vehicles and closure of shops and markets, prices of agri inputs viz. seeds (8.8%), fertilisers (10.0%), pesticides (9.0%), fodder (11.6%), increased in the range of 9 to 12 per cent. At all-India level, 54% of sample districts witnessed an increase in prices of agri inputs, possibly due to its non-availability.

Impact on Agriculture Marketing –Even though local procurement centres were opened by various State Governments under their jurisdiction, yet restrictions on movement of vehicles had adversely impacted about 74 per cent of sample districts in smooth operation of agriculture marketing through mandis. The impact on operation of rural haats was more severe, with 87 per cent of sample districts being adversely affected. This was mainly due to a complete ban on opening of rural haats by the local authorities in majority of the districts in the country.

Impact on Banking Services – As far as banking services are concerned, access to credit through term lending and KCC was adversely impacted in about 89 per cent and 59 per cent of districts, respectively. As regards to recovery, 94 per cent of sample districts were reported to have been adversely affected by the pandemic and consequent lockdown. However, a positive feature that emerged was that 63 per cent of sample districts reported an increase in digital transactions by the customers during the lockdown period.

Impact on Microfinance Activities and FPO/FC– At an all-India level, microfinance activities were adversely impacted in 95 per cent of the sample districts and the business activities of NBFC-MFIs was adversely affected in 88 per cent of the 3 sample districts. Similarly, adverse impact was reported in activities of FPOs and Farmers Clubs promoted by NABARD. However, many SHGs and FPOs seized upon the opportunity of making face mask and sanitizers as also direct selling of vegetables/fruits to the customers, thereby helping the local community and administration as also increasing their business.

Impact on MSME Sector – **MSME sector** was the worst hit sector by the COVID pandemic in terms of impact on price level of raw materials, employment, production level, consumer demand and disruptions in supply chains. Decline in production level and employment was reported in 97 per cent and 96 per cent of the sample districts, respectively. Similarly, adverse impact was reported on consumer demand (85% districts) and cash flow (80% districts) of MSME sector thereby increasing hardship of the people at large.

5. Global Economic Impact on AgricultureThe Food and Agriculture Organization (FAO) anticipates changes in the supply and demand for nutrients on a

global scale. If states do not safeguard vulnerable people from hunger and malnutrition and unclog food supply networks, it forewarns a global "food crisis." Similarly, the UN has cautioned that the Covid-19 situation may result in "food shortages" globally. The Covid-19 problem "threatens to affect millions of people already made susceptible by food poverty and malnutrition," according to the World Food Program (WFP).

Hunger and malnutrition have increased as a result of the Ebola outbreak in Sierra Leone (2014–2016). If small and marginal farmers are unable to cultivate their land, generate profitable product prices, and acquire access to marketplaces for purchase or sale, they will also suffer greatly. For the third week of March 2020, there are indications that global agriculture prices may increase. For wheat and rice, the increases are noticeable. This increase has been attributed, in part, to home stockpiling of grains like rice and wheat as well as international trade restrictions. For instance, the third-largest rice exporter in the world, Vietnam, has halted exporting, which could reduce rice shipments worldwide by 15%. Rice prices may climb quickly around the world if Thailand and India impose export bans. It is anticipated that Russia, the largest exporter of wheat in the world and a major supplier of wheat to North Africa, will limit its exports. One of the world's biggest producers of wheat flour, Kazakhstan, has already outlawed its exports. Other crops have also seen similar tendencies. For example, Serbia has stopped exporting its sunflower oil. The type of trade flows that have existed since the 1990s has been questioned by commentators as to whether these policies portend the beginning of a "wave of food nationalism."

COVID 19 & Crop loss

The above discussion shows that farmers had to go through a lot of trouble, and incur additional costs, for harvesting their crops. Their problems were compounded because of risk of losing the crop. A mature crop, if not stored properly, can be spoiled because of pests and fungus. The storage capacity at the farm-level is limited and often not good enough for prolonged storage. This is particularly a problem for poor and middle peasants and for producers of perishable crops. While perishable crops such as potato and tomato need cold-storage, even grain is at risk of being spoiled.

This problem has been compounded because of several spells of rain and hailstorm across various parts of India through the months of March and April. Between March 1 and April 29, about 59 per cent of the area of the country had a large excess (over 60 per cent) of rainfall. The excess moisture at this stage of the crop is likely to have resulted in considerable losses. Given the lockdown restrictions and various

problems created by it (for example, lack of availability of labour, restrictions on gathering of workers, non-availability of machinery), farmers could not even take mitigating actions (such as hastening harvest and safe storage) to save their crops. In her press briefing on May 15, the Finance Minister announced that claims of Rs. 6400 crores have been paid through PM FasalBima Yojana (PMFBY) during the lockdown. This is a misleading claim for various reasons.

First, claims for the previous year for which payments were pending. Secondly, under the PMFBY, farmers contribute a major part of the premium. The wide range, from 15 per cent to 80 per cent, of the farmer's share in premium paid for crop insurance under PMFBY. In most cases, farmer's contribution exceeds the contribution of the central government as the government's share is equally divided between the Centre and the State governments. Given this, counting the claims paid under PMFBY as relief provided by the Central government is absurd. Thirdly, under PMFBY, insurance coverage is provided primarily by private

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