

Impact of COVID-19 pandemic on agriculture sector

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ABSTRACT

Agriculture is unavoidable even under pressure of pandemic. In agriculture, calendar of operations cannot be postponed for much time even under difficult situations. Delay of agricultural operations may leave a lasting impact and country's food security may get disturbed. Lock down due to COVID-19 has created considerable dispute for agriculture sector, because of massive lockdown for more than 2 months. Unavailability of labours led to delay/ slowdown of agricultural operations. This article has shown the impacts and challenges before agriculture in the wake of global COVID19 pandemic.

India produces 11.2 per cent of global vegetable. The COVID-19 pandemic compelled various countries across the world to initiate lockdown in the absence of any curative measure against the virus. This extended lockdown have brought all economic activities into a halt and thus affected all sectors of the economy in which agriculture is not an exception. The timing of the pandemic, have put excess pressure on agricultural as the lockdown was coincided with harvest time of *rabi* crops in some areas and sowing time of summer crops in other areas of the country. The price of the farm gate of various crops been decreased, but customers still pay more. The agricultural production and economy has been substantially affected by COVID pandemic as well as post harvest value chain networks have been adversely affected. Unavailability of agriculture labours who mainly come from the eastern states of Bihar, Jharkhand, West Bengal disrupted the harvesting activities and caused irreversible damage. To bring resilience in food security, the appropriate option is to focus on the agricultural sector at this crucial stage, as climate change already adversely affecting agriculture. It is desirable to focus towards the challenges for assured food production, and to construct a satisfactory model with a far stronger nutritional focus where diets are more diverse.

Problems

Problems in agriculture related with availability of labours and marketing facilities after harvest. The non availability of labours hindered agricultural operations in many areas. Commercial crops are more affected as they tend to be more dependent on skill labourer usually immigrates seasonally from other states. A survey during first two weeks of May, 2020 by Public Health Foundation of India, Harvard T H Chan School of Public Health and the centre for sustainable agriculture found that 10 % of the farmers could not able to harvest and 60 % of farmers who did harvest reported yield loss and majority of them facing difficulty for next season sowing

(Chishti and Seema, 2020). Tea estates were unable to harvest first flush due to labour shortage, fall in revenue was significant in entire Darjeeling tea based tea industry during pandemic (Bose and Pratim Ranjan, 2020).

The shortage of labours led to the sharp increase in daily wages, even at the rate of 50 per cent in some areas for harvest, thus making it burdensome for producers since prices has collapsed due to lack of market access, stoppage of transportation and closure of borders (Ananth, 2020). Rise in labour wages and lack of transport access farmers are facing huge losses and allowing economic product to rot in the field. During lockdown food wastage increased due to disrupted supply chains and thus huge loss to farmers (Singh et al., 2020)

Lockdown has virtually halted all the economic activity which led to the widespread loss of jobs and income for informal workers and often they are facing hunger. Current situations led to a drop in demand and affected trade. There was a fall in farm prices of a range of commodities in agriculture. Shortage of workers for harvesting operations led to raise the demand of mechanical harvesters, but lockdown regulations hinders their free movement. COVID-19 has disrupted supply chains which impacts the consumer health (Fig 1.)

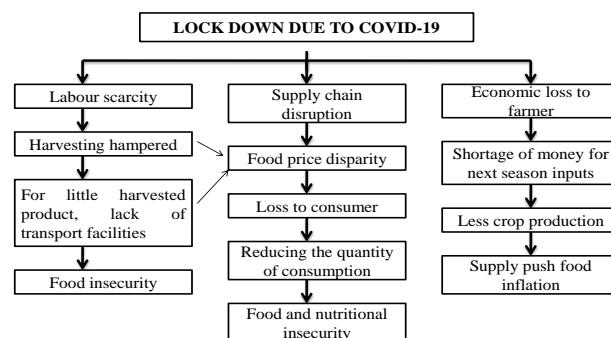


Fig 1 : Flow chart of affects of COVID-19 lock down on agriculture (source: Mukherjee et al., 2020)



However, wholesale markets were closed and some farmers who were supplying high value fruits and

vegetables to restaurants and hotels had no alternative.

Immediate Challenges

The time when government announced lockdown was coincided with the harvest stage of *rabi* crops viz., wheat, gram, lentil, mustard *etc.* and was also time for some crops to reach market yards where assured procurement operations by government was necessary. Sufficiency of labours must be ensured for critical field operations and their safety and welfare should be prioritized, as well as harvested produce must be protected. Mechanization must be promoted for some operations under labour

scarcity and also food processing, cold storage and transportation facilities must be ensured. During lockdown the critical challenge for government was to make sure the supply of food grains, fruits and vegetables to urban and rural people. Distribution of essential goods to vulnerable people by maintaining guidelines and social distancing should be monitored. Smooth functioning of supply chain and transportation of public distribution system items to last mile delivery agents with safety measures has to be ensured (ICRISAT, 2020).

Need for Contingency Plan

End of lockdown may not be the end of complications created due to pandemic. On the other hand it is likely to be compounded at the new agricultural season and repayment of loans at least to formal banking sector. Then fresh loans will be granted for new cropping season, but price collapse led to huge losses and farmers are highly indebted hence no means to repay their loans. Any failure may cause the farmer to borrow money from informal agencies with high rates of interest. Hence, government should consider rescheduling of loans where existing loans are converted to long term loans (Ananth, 2020), hence farmers no need to rush immediately for repayment. To give relief from economic burden, support should be needed for agricultural inputs for next season crop.

lockdown. Even under the pressure smooth running of agricultural operations is mandatory to ensure present and near future food security. Lockdown enforced the migratory labours to leave to their own workplace, hence shortage of workers for harvesting operations. These operational restrictions can disrupt supply chain and may lead to food and nutritional insecurity to the country. The need to upgrade international standards for hygiene, working conditions and living facilities on agricultural activities need to be reconsidered in the light of the pandemic. Abatement of marketing facilities and supply chain led to huge losses which hinder the farmer to repay their loans and there is an every need of involvement of government for relief up to some extent. Focus should be on vulnerable population to meet their immediate food needs and on reducing trade related costs. To reduce the risk of COVID-19, digital tools should be promoted to improve communication on access points for food deliveries, distribution times and measures.

Conclusions

In almost all the sectors there is a considerable loss to which agriculture is not an exception due to COVID-19

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