



Consequence of Lockdown amid Covid-19 Pandemic on Indian Agriculture

Tanushree Saha¹ and Sarthak Bhattacharya²

Ph.D Research scholar, Department of Fruit Science, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal ¹ Teaching Associate, The Neotia University, School of Agriculture and Allied Sciences, Sarisha, Diamond Harbour, 24 PGS(S), West Bengal²

ABSTRACT

The lockdown to curb the spread of Covid-19 has severely hampered India's agricultural sector, starving it of buyers and migrant labourers as the restrictions halt people's movements. Agriculture sector currently contributes to 16-17% of the GDP. India hosts nearly one fourth of the world's farmers and possess 48% of world's arable land. The country has made significant advances in many off-farm sectors such as service sector, industrial production etc. but agriculture continues to be the lifeline of the nation, especially for the 64% Indians living in rural areas. Non-availability of migrant labourers is interrupting some harvesting activities but the Government and ICAR is monitoring in its best possible way to boost the farmer's income as well as to ensure the food security of the nation.

Agriculture is laid low with several hindrances. The impact of nationwide lockdown because of Covid-19 entrenched the economic set up is no doubt devastating. No sector has escaped from its waves. Covid-19 pandemic not only hampering the conventional life, but its impact on agriculture is complex and varied across diverse segments that form the agricultural value chain. This agriculture sector is facing plenty of problems due to the non-availability of migrant labourers which is interrupting some harvesting activities. Transportation problems lead to disruptions in supply chains.

In these circumstances, the nation is not only plagued by this pandemic, but the medical emergencies due to Covid-19 have adversely affected the way of life. Prices of the vegetables, fruits and other crops have dropped suddenly after lockdown. The restaurants, temples, mosques are closed due to this lockdown, which cuts down the demand of the flowers, vegetables, fruits etc.

India's position based on agriculture:

Agriculture is the backbone of Indian economy and it is a harbour of cereals, pulses, fruits, vegetables and flower crops etc. Now, a sudden outburst of the Corona virus not only creates anxiety among the farmers, but also due to the lockdown for uncertain period, the farmers are stuck with their harvest.

In India this is the peak of Rabi season and crops such as wheat, gram, lentil, mustard etc (including paddy in irrigated tracts) are at stage of harvest or nearly reaching maturity. This is the time for assured procurement

operations of farm products by designated agencies after reaching to the *mandis* (market yards). As workers are the crucial for both harvesting and post-harvest operations, the migration of workers from different parts of the country to their native place triggered panic.



Pic 1: Farmer inspecting his wheat field (Source: The Indian Express)

The Union Home Ministry, in a very momentous move, has notified to keep out movement of farmers, farm labourers and harvesting and sowing-related machines from the purview of lockdown (Padhee, 2020).

Major challenges:

Though government has taken several steps for giving exemption for movement of agricultural commodities, input delivery system, extension of date of repayment of loan etc. But, inspite of several steps taken by government for agriculture, it is expected that agriculture may likely to be adversely affected in the following manner:



Because of the prolonged lockdown period, farmers throughout the country are in panic and facing difficulties in terms of rotting of ripened fruits and vegetables, mandi operations have almost stopped, and due to transport bottlenecks labourers could not reach to farms for harvest operation also. In Narayangaon market in Maharashtra, prices of tomato has crashed to Rs. 2/kg or less as growers could not find buyers. Farmer leaders also said that, this situation is worse than the time during demonetisation, which did not damage the crop. In Haryana, a lush farm state, Kamal Yadav started plucking bountiful harvest of cucumbers and bell peppers on a two hectare plot at the beginning of lockdown. But demand dipped down drastically. In the Western Maharashtra, Asia's largest onion trading market in Lasangaon is struggling to move the freshly harvested crop across the country or ship it to countries like Malaysia and in the Middle East (Paricha, 2020).



Pic 2: Farmers facing difficulty in selling their produce (Source: PTI)

Pankaj Khandelwal, MD, INI farms, Mumbai, said that despite fruits and vegetables being exempted category, there is a substantial disruption within the supply chain (Bhosale, 2020). Muted exports shave off India's financial growth that already faces challenges on the domestic front because of the ongoing lockdown and coronavirus pandemic.

Demand for high value farm produce like strawberry, broccoli typically jumps in the beginning of summer, but in the present situation when India's farm supply chain in disarray, farmers are struggling to transport and sell in cities. The unexpected crash of demand affecting millions of farmers in the World's second most populous country. Anil Salunkhe from Satara district in Maharashtra said that he hoped to make 8,00,000 rupees, but now could not even recover the production cost of around 2,50,000 rupees, as it has become tough

to transport harvested produce to large cities now. After failing to sell 15 tonnes of grapes, Munishamappa, a farmer near Bengaluru, dumped all of them in a nearby forest. He also could not recover the production cost of approx 5,00,000 rupees which he has spent on his crop (Reuters, 2020).

Farmers in West Bengal are also facing rigorous economic challenges due to the lockdown. The key problem is in procuring oil seeds as prices are high. Prices of farming equipments and tools have skyrocketed because of the lockdown and they had to sell all their products at much lesser prices (Loiwal, 2020).

Table 1: Loss to GDP% in FY 2020-21 from Agriculture sector (Source: Money life)

Sector	% share in GDP	Sub sector	% share in GDP (GVA)	% of share Not affected	% of share affected	Lockout (Days)	Recovery times (Days)	Total inactive time (Days)	Fraction of Year	% Negative effect on GDP
			A	B	C=A-B	D	E	F=D+E	G=F/365	H=GXC
Agriculture	16	Longer shelf life	12	12	0	0	0	0	0	0
		Perishable	4	1	3	21	7	28	0.08	0.23

Baby John, President, Pineapple growers Association, Kerala told that prices started eroding, especially when APMC markets were started closing down. This has badly affected the movement of fruits, which was down by 50 per cent from 1,000 tonnes per day (Kumar, 2020).

As it is the harvest time for various crops like, grapes, watermelons, bananas, muskmelons, chana, cotton, chillies, turmeric, jeera, coriander, onion, potato etc., the amount of losses going to mount. The grape industry faces losses of Rs. 1000 crores as the harvest will continue for a few weeks and also the main buyers are far away from the orchard. Even if interstate transport revives, urban demand is probably going to be minimal during this lockdown period, said by grape growers. Green peas in Punjab are ready to be harvested, but they cannot reach the wholesale market in due time.

Dr. Sunilam, President, Kisan Sangharsh samiti from Madhya Pradesh stated that, wheat farmers are also worried as *mandis* are not in working condition, wheat prices have fallen from Rs. 2200/quintal 2 weeks ago to Rs. 1600/quintal today. The matured wheat can also be damaged due to the unseasonal rainfall if harvesting is delayed.



Muskmelon is grown on thousands of acres within the districts of Kadappa, Chittur and Ananthpur districts is rotting in the fields as there are no available means to transport the fruits to Mumbai, Gujarat, Delhi and Chennai. Kisan Bochare from Junar, Maharashtra worried of losing of about Rs. 8-10 lakhs as the watermelons grown on 5 acres of land is ready to harvest (Bhosale, 2020).

The Covid-19 induced prolonged lockdown and resulting in closed state borders, unavailability of labourers and public dependence on commodities with a longer shelf life have contributed to remarkable losses. Trucks loading with summer fruits like watermelons were disposed at the wholesale market, while tonne of GI- tagged Vazhakulam pineapples await harvest in fields (Theresa, 2020).

Floriculturists and traders are experiencing profound losses as they could not even recover their investment. Mitesh Patel, a grower of flowers at Badarkha, a village near Ahmedabad, is anxious for an end to the lockdown as he is frightened that his rose plants will get burnt down in this high temperature, if harvesting is delayed. A floriculturist, Patel also said that he has never gone through the throbbing chore of dumping the entire harvest of fresh pink desi roses and marigold into a waste pit, as he has done daily for last 17 days. Monaj Waman from Maharashtra feared to lose Rs. 1.60 lakh as he could not harvest about 2 tonnes of Chrysanthemum flowers. He also said that they are forced to let the vegetables, flowers to rot in the plant. So, the plants cannot bear new fruits and flowers and ultimately they have to uproot the entire crop.

Year	Quantity (tonnes)	Value (\$ million)	
2014-15	22,947	75.4	
2015-16	22,692	73.8	
2016-17	22,020	81.8	
2017-18	20,703	78.7	
2018-19	19,727	82.0	
2019-20 [#]	14,358	63.0	

Fig 3: Floriculture export upto Jan'20 compiled by BS Research Bureau (Source: APEDA)

In Ahmedabad city, florist Kunal Yadav expressed with grief that he had to discard his entire Rs.

15,000 worth of flower stocks as these were started rotting and stinking. Bollapally, a director of South India Floriculture Association (SIFA), a body of cut flower growers and exporters, said that growers are suffering a lot as flowers don't come under essential commodities. Shreekant Bollapally, a large-scale grower of cut flowers such as carnations and roses from Bengaluru said that, due to the lockdown they had no option other than dumping the flowers into manuring pits or using the stalks for cattle feed. Floriculturist in Denkanikottai, Keshava Murthy, who shipped an average of 1.2 lakh roses a month to countries such as New Zealand and Malaysia told that due to disruption in air connectivity and lockdown exports of cut flowers have completely stopped.

The scene is not different in North-India also. Ashok Kumar from Jhaja village, Solan said that he has grown chrysanthemum and carnation flowers on 3000 sq. metres of land, but due to the lockdown he had incur a loss of at least Rs. 15 lakh (Vora *et al.*, 2020). With the religious and social gatherings out, people are not going to temples and events are put off or cancelled. Tonnes of marigold, chrysanthemums, lily, jasmine and other locally grown flowers that were transported to wholesale markets in the cities, have to be dumped (Maitreyi, 2020).

Agriculture innovation to achieve food security:

The coronavirus pandemic may likely to possess far-reaching and enduring influence on the agricultural industry. Once said by Jawaharlal Nehru, the very first Prime minister of India that, everything can wait, but not agriculture. Thus, India needs to be constructive and on the other hand productive by implementing quick, smart and innovative approach for improved sustainability (Pandav *et al.*, 2020).

- The underprivileged sections of society are always the toughest hit in any disaster or pandemic situation. However, people reckoning on agriculture and allied activities, mostly those losing their income from informal employment at this lockdown period, must be supplied with alternative avenues (cash transfers) till the economy bounces back.
- Amidst the present stress, quality seeds and other farm inputs must reach to the farmers in time for kharif season.



- Policies must facilitate easy availability of machinery through state entities, farmer Producer Organizations (FPOs) or Custom Hiring Centres (CHCs) with suitable incentives to hinder the instantaneous concerns of scarcity of farm labour.
- It is additionally recommended to explore leveraging NREGS funds to pay part of the farm labour (with farmers paying the balance wage amount) to minimize the monetary saddle on the farmer, while ensuring wage employment to the landless labourers and workers.
- Relaxation of the rules and regulations by Agricultural Produce market Committees (APMCs) allowing farmers to sell their produce beyond the designated *mandis* will definitely relieve the burdens of farmers.
- There are universal concerns on restriction of exports of agricultural commodities by a few global players. India, being trade-superfluous on commodities like rice, meat, milk products, tea, honey, horticultural products, etc. may grasp the opportunities by exporting those products with a secured agri-exports policy. India's agricultural exports are valuing 37 billion US Dollars in 2018-2019 and might stand up further with needed policies. Development of export-supportive infrastructure would need investments and support from the private sector that will be within the long run interests of farmers in boosting their income.
- The Reserve Bank of India (RBI) has also announced monetary assistance on agricultural term loans (including crop loans) for a period of three months (Ramakumar, 2020).
- The Indian Finance Minister also announced of a package of Rs. 1.7 trillion, predominantly for the helpless sections (including farmers) to support them in this situation. The announcement contained advance release of Rs. 2000 to bank accounts of farmers as income support under PM-KISAN scheme. The Indian Council of Agricultural Research (ICAR) has

issued state-wise guidelines for farmers to be followed during the lockdown tenure.

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