

Impact of COVID-19

on Agriculture

Akanksha Klate, Niyati Thakur and Shilpa*

Dr. Yashwant Singh Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh 173 230

COVID-19 pandemic proved to be a disaster due to its negative effects on world economies. It created many threats to the sustainability of agriculture sector, which is sensitive of all, as it poses threat on food supply security needs. In order to adapt to the pandemic, the risks, vulnerability, resilience and systemic shifts of agricultural systems need to be understood better. The agricultural markets were adversely affected at national as well as global levels, including major sectors, viz. horticulture, poultry and dairy. A decline of 2.7, 5.7, 19.6, 6.6 and 13.6% were observed during the year 2020–2021 compared to the previous year in the production of agriculture, horticulture, poultry, dairy sectors and fisheries respectively in India. Himachal Pradesh, a north-western Himalayan state faced an annual decline of 15% in agricultural production and 18% in horticultural production. The overall agricultural marketing impact score assigned by NABARD during 2020–21 of India also declined by 3.37. The main purpose of this article is to have thorough understanding of the pandemic on agriculture and allied sectors.

Keywords: Agriculture, COVID 19, Impact

THE agriculture industry has been playing a pivotal role in uplifting poverty, improving food security and enhancing income of the farmers. Agriculture, the most important sector in human development relates to food security. Food security and nutrition have been severely harmed as a result of the loss of purchasing power among those who lost their jobs, particularly who were already poor. The world has been witnessing an outbreak of several epidemics, some of which include the Spanish Flu of 1918, Ebola, HIV/AIDS, etc. Also, India has been dealing with many diseases such as the plague, small pox, polio and it has been observed that quarantines and isolations have an adverse impact on various activities and ultimately on the economy as a whole. Also, a negative impact is noticed on agricultural activities as when there is an outbreak of infectious disease, there is also an increase in hunger and malnutrition.

Impact of COVID-19 on Global Agriculture

According to the World Bank, 80% of the world's poor living in rural areas are dependent upon the agriculture. The pandemic has mostly affected the agrarian economies of the world such as India, Vietnam, Bangladesh etc, in which agriculture holds 12–16% of their GDP. For the global impact,

the main stress was laid on the agricultural commodity markets, with the lag between the trading and physical delivery prices of the agricultural produce. The restrictions on the mobility across borders and within the countries have caused a shortage of labour, specifically in the countries which are more reliant on migrant workers,



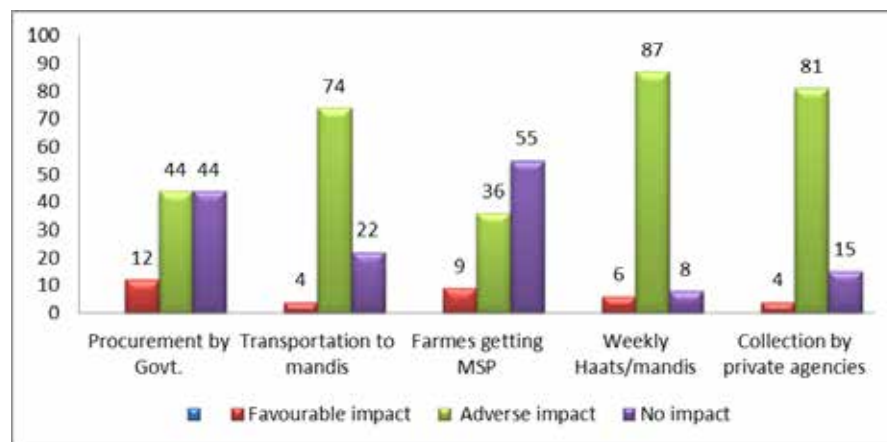
Piled up harvested flowers due to less demand and unavailability of markets

Source: <https://www.floraldaily.com/article/9208195/indian-floriculture-industry-crumbles-due-to-covid-19/>

therefore, affecting the availability of food and prices all over the world. The global agricultural markets faced an adverse impact in the form of the demand shock caused by the COVID-19 pandemic. This lower demand obviously led to a downward pressure on the production and producer prices simultaneously. Following the slowdown of the economy, biofuel prices fell abruptly in 2020, followed by their main feedstock, maize and oilseeds. Although the income losses and local supply chain disruptions associated with the pandemic undoubtedly have led to an increase in food insecurity.

Impact of COVID-19 on Indian agriculture

COVID-19 induced lockdown in India disrupted food markets, which forced consumers to alter their consumption patterns. Various surveys reported that the lockdown coupled with sudden negative income shocks posed serious concerns about food and nutrition security in India. Markets saw increased arrivals in May 2020 owing to distress sale and market reforms insulated farmers from lower prices. Smaller cities and rural areas saw higher price rise than the urban areas. As per a report of NABARD 2020–21, out of the total 560 districts, the agricultural production has decreased, increased and remained constant in 263, 108 and 189 districts respectively. There was a decline in the production of agriculture (2.7%), horticulture (5.7%), poultry (19.6%), dairy (6.6%) and fisheries (13.6%) during 2020-



Impact on marketing of agricultural produce (Per cent of total districts) during COVID-19

21. Maximum decline in agricultural production as compared to previous years was seen in Telangana (23%) while in case of horticultural crops, maximum decline was in Himachal Pradesh (18%) followed by Chhattisgarh (17.9%). Manipur witnessed the maximum decline in the dairy sectors (16.7%). There was an increase in the farm gate prices in 129 districts of India, whereas, decrease in 303 districts. The supply of agricultural inputs declined in 323 districts all over India and remained same in 211 districts. The prices of agricultural inputs increased in 300 districts of India. The food grain procurement was adversely impacted in 247 districts, whereas, remained the same in 245 districts. Same number was seen as the impact of COVID-19 on farmers' ability to take the produce to APMC's or Mandis. Farmers' access to credit through Kisan Credit Card (KCC) was badly affected in 330 districts. The microfinance activities had also reduced by 6.15%.

Agricultural inputs had witnessed

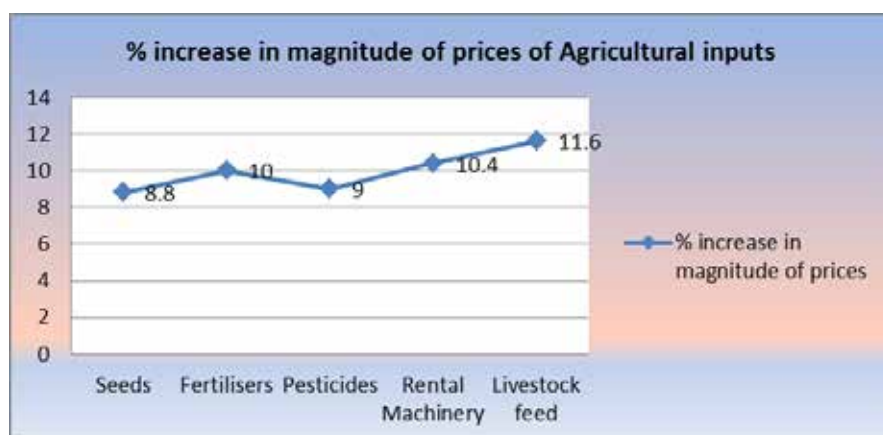
an increase in the magnitude of prices because of lower availability due to disruption in supply, closure of markets and decline in purchasing power of farmers as they were facing difficulty in marketing of their produce.

Impact of COVID -19 on agriculture in Himachal Pradesh

Agriculture is the main occupation of the people in Himachal Pradesh and has an important place in



Stored fruit due to unavailability of good price in the market during COVID-19 pandemic



Increase in the magnitude of prices of agricultural inputs (%) during COVID-19

the state's economy. Agriculture/horticulture provides direct employment to about 70% of total workers of the state. The share of agriculture and allied sectors in the Gross Value Added (GVA) of the state at current prices has declined from 15.89% in 2015–16 to 13.62% in



Dumping of perishable commodities during pandemic

Source: <https://www.wbur.org/hereandnow/2020/05/27/food-waste-coronavirus-pandemic>



Quintals of tomatoes binned to rot upon failing to sale

Source: <https://www.hindustantimes.com>

2020–21 due to the pandemic. This is a natural outcome of development process that leads to faster growth of non-agricultural sectors owing to structural changes taking place in the economy.

During the pandemic, the fruit growers almost ran out of packaging material to store their produce, after a 21-day nationwide lockdown was invoked to curb the spread of the novel corona virus. All the factories, manufacturing packaging material were unable to manufacture cartons, boxes and crates for fruit growers across the state due to COVID-19 restrictions and lack of raw material. Packaging material sourced from Uttar Pradesh was also in short supply. Fruit growers also faced depleting supplies of fertilizers, pesticides, micronutrients, fungicides and a lack of means of transport to mandis (markets) for sale. The state was at a loss as most of the producers were unable to sell their produce due to restrictions imposed by the government. The state's cherry produce was almost ripe and ready to be marketed but due to loss of packaging material, it was not marketed. Similarly, this happened to the stone fruits-including plums, apricots, bayberries, green almonds and peach, followed by apple and pear.

As per NABARD survey, the production of agriculture and allied sector products' decreased in 8 districts of the state, whereas remained the same in remaining 4. The impact of COVID-19 on various

sectors of agriculture in Himachal Pradesh is tabulated in Table 1 and 2.

Way Forward

Few workable suggestions which might help in the future at the times of such global and national

emergency are:

- Minimising trade restriction which leads to achieve stability in the markets.
- Market transparency through dissemination of timely market information.
- Ensuring best practices,

Table 1. Impact of COVID-19 on production and farm gate prices of commodities of agriculture and allied sector-magnitude

Particular	Decrease/Increase in magnitude (%)				
	Agriculture	Horticulture	Poultry	Dairy	Fisheries
Agricultural production	-15	-18	-12	-5	-21.3
Farm gate prices of agricultural commodities	8	-8	11	0	12

Source: National Bank for Agricultural and Rural Development, 2020–21

Table 2. District wise impact of COVID-19 on various factors in agriculture and allied sector of Himachal Pradesh

Factor	Districts of HP (nos.)		
	Decreased	Increased	Constant
Agricultural production	8	0	4
Farm gate prices of commodities in agricultural and allied sector	3	4	5
Supply of agricultural-inputs	8	0	4
Prices of agricultural-inputs	0	7	5
Supply of agricultural-labour	8	1	3
Demand for agricultural/rural labour	1	5	6
Wages of agricultural/rural labour	5	1	6
Food grain procurement by govt. agencies	0	3	9
Farmers' ability to take produce to APMC	0	3	9
FPO's aggregation business	10	1	1
Price discovery through MSP	5	1	6
Rural weekly markets/haats	9	1	2
Farmers' access to credit through KCC	8	1	3
Digital transaction	0	9	3
Bank's recovery	12	0	0
Credit through SHG	11	0	1
Overall micro-finance activities	11	1	0
Activities of farmers' club	9	1	2

Source: National Bank for Agricultural and Rural Development, 2020–21

harmonisation of measures to smoothen the processes at the borders.

- Looking for opportunities to facilitate farmers' access to alternative work force.
- Enforcing regulation, governing proper handling and selling of agriculture produce.
- Working with the private sectors to find alternative supply chain.
- Looking ahead, emergencies like COVID-19 offer a chance to enhance the resilience, sustainability and productivity of the agriculture sector.

SUMMARY

The COVID-19 pandemic is a global health crisis that had devastating impacts on the world economy - both directly and through necessary measures to contain the spread of the disease. These impacts were being felt by the food and agriculture sector. While the supply of food was held up in many countries, the measures put in place to contain the spread of the virus disrupted the supply of agro-food products to markets and consumers, both within and across borders. Governments managed multiple demands - responding to the health

crisis, managing the consequences of the shock to the economy, and ensured smooth functioning of the food system. While the pandemic posed some serious challenges for the food system in the short term, it was also an opportunity to accelerate transformations in the food and agriculture sector to build its resilience in the face of a range of challenges, including climate change.

*Corresponding author's e-mail:
dhatwaliashilpi@gmail.com



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