

Impact of Pandemic in Indian Agro-based Economy: A Detailed Study

Dr. Archana Tripathi

Associate Professor in Economics. A.N.D. College Kanpur, U.P.

Abstract

India confirmed its first coronavirus on January 30, 2020. A nation-wide lockdown was implemented on March 25, 2020 in order to control the spread of the the pandemic. As the constraints imposed due to the lockdown are being eased, it is an appropriate opportunity to examine the effect on various sectors of the economy. The Indian economy benefits greatly from a strong agricultural sector. Agriculture accounts for around one-sixth of India's GDP and employs roughly half of the workforce. It has a significant impact on the economy's secondary and tertiary sector development via its forward and backward links. The chapter reveals the impact of pandemic in Indian agricultural business.

Introduction

The unique coronavirus (COVID-19) epidemic has swiftly spread throughout the planet, significantly impacting the livelihoods of millions around the world. India confirmed its first illness on January 30, 2020 (Bhatnagar, et al., 2020), causing the authorities to swiftly start numerous efforts to limit the spread of the disease. Given that the illness is extremely infectious, the much-needed nation-wide lockdown was implemented on March 25, 2020 in order to control the spread of the Corona virus pandemic (Prateek, Kumar, Kar, & Krishnan, 2021). During the initial few weeks, the rules and regulations were stringent and all activities which are not compulsory were stopped and companies, including every commercial establishments, academic institutions, and religious places of all races, throughout the nation were barred from functioning. Parallel, the limitations are being progressively lifted with a stepwise way in almost every sections of the nation.

As the constraints imposed due to the lockdown are being eased, it is an appropriate opportunity to examine the effect of Corona on various sectors of the economy. A lot of publications have mentioned the probability of a decrease in "Indian Gross Domestic product" in 2020–

21 (Dar & Ahmed, 2020). This is a concerning sign, as a larger Gross Domestic Product helps tremendously towards obtaining improved living standards, reducing poverty, and improvement in other socio-economic indices. While other sectors are believed to be under severe stress, it is crucial to assess the effect on agriculture and allied industries, which give employment to most of the people in India. The Indian economy benefits greatly from a strong agricultural sector. Agriculture accounts for around one-sixth of India's Gross Domestic Product and employs roughly half of the workforce. It has a significant impact on the economy's secondary and tertiary sector development via its forward and backward links.

Objectives of the Study

Based on the above statement, the following objectives are required to be investigated:

- i. To see the importance of agriculture in Indian Economy;
- ii. To investigate the role of agro-business in country's economy;
- iii. To identify the impact of Coronavirus in Indian economy.

Importance of Agriculture in Indian Economy

The Indian economy relies heavily on agriculture and associated sectors (Rakshit & Basistha, 2020). It accounts for around one-sixth of India's GDP and employs roughly half of the workforce. As a result, it has a direct impact on the economy's secondary and tertiary sector development via its forward and backward links (Agrawal, 2020). The agriculture sector's success has a significant impact on other sectors' outcomes. Citing an example as the "World Bank's 2008 World Development Report" emphasises that agricultural development is at least twice as beneficial as growth outside agriculture in decreasing poverty (Hall, 2009). Indirectly, agricultural expansion decreases poverty via job creation and lower food costs through increased farm earnings. In other

words, the Indian economy benefits greatly from a strong agricultural sector (Hussain & Hanjra, 2004).

The Role of Agriculture in India

To give people some perspective on where we stand in the agricultural world, India is number one in the production of a wide range of crops, including pulses and okra, as well as citrus fruits such as lemons, mangoes, and bananas (Table 1.1). More than a fifth of the world's paddy and pulse output is produced in India. Okra, cauliflower, brinjal, banana, mango, and papaya are just a few of the horticultural crops that account for more than 20% of world output. However, the country's principal field and horticultural crops have a poor level of production.

Table 1.1: Source: Food and Agriculture Organization Corporate Statistical Database

Item	India (Million Tones)	World (Million Tonnes)	India's		Next to
			%Share	Rank	
1. Crop production					
(A): Total Cereals	294	2849	10.3	Third	China, USA
Wheat	93.5	749.5	12.5	Second	China
Rice (Paddy)	159	741	21.4	Second	China
Total Pulses	17.6	82	21.5	First	
(B): Oilseeds					
Groundnut (in shell)	7	44	15.6	Second	China
Rapeseed	6.8	69	10	Third	Canada' China
2. Fruits & Vegetables					
Vegetables & Melons	120	1075	11.2	Second	China
Okra	5.5	9	62.0	First	
Potatoes	44	377	11.6	Second	China
Tomato	18.4	177	10.4	Second	China
Onion (dry)	19.4	93.2	21	Second	China
Cabbages & other Brassicas	9	17.2	12.3	Second	China
Cauliflower& Broccoli	8.2	25.2	32.5	Second	China
Brinjal	12.6	51.3	24.5	Second	China
Fruits excluding Melons	91	866	10.5	Second	China
Mango and Guava	18.8	46.5	40.4	First	
Lemon & Lime	3	17.3	17.2	First	
Papaya	5.6	12.6	44.4	First	

The countrywide production of key crops (save for groundnut) is less than the world average yielding output even though India is one of the leading producers in the agricultural and horticulture industries. These crops produce significantly less than other countries, and the national output is substantially below the global average. As seen in Table 1.1, Because of the COVID-19 epidemic, the world’s agricultural sector has been hit hard, and India’s agriculture industry is no exception.

Table 1.2: Crop Yields: Comparing Global and National Data.

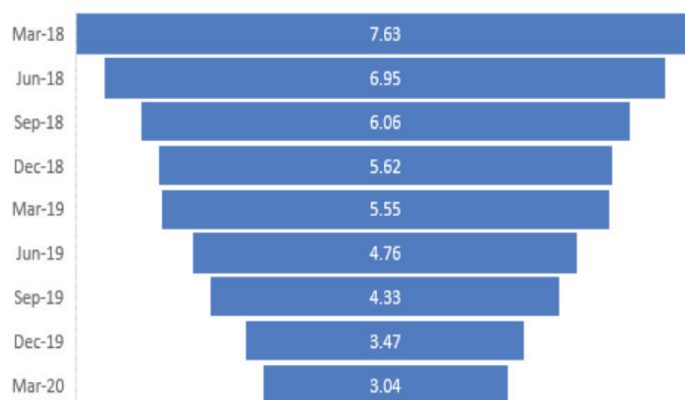
Item	World (kg/ha)	India (kg/ha)	Next to
Paddy	4602	3848	China (6917), Brazil (6210)
Wheat	3531	3219	Germany (7644), France (6757)
Maize	5755	3115	USA (11084), Argentina (7576)
Pulses	1009	664	Russia (2008), Canada (1964)
Sugarcane	70891	69735	Gautemala (121012), USA (82412)
Groundnut	1686	1732	USA (4566), China (3709)
Tobacco	1843	1711	Pakistan (2368)

Source: Food and Agriculture Organization Corporate Statistical Database

Corona Virus: Rural Economy-Related Issues.

When the COVID-19 epidemic struck, worldwide and our country’s economic growth was already predicted to slow. After increasing by 7.63 percent in Quarter 4 of 2017-18 and falling to 3.04 percent in Quarter 4 of 2019–20, the Indian economy’s growth rate has moderated during the last few quarters (Table 1.3). Many indicators point to the corona virus as the possible cause of the deteriorating trend’s becoming worse. The latest estimates from the government of India show that productivity in the eight very important sectors of our economy shrank for the third month at a time in May 2020, with a result of dropping by 23.4%. With the exception of fertilizers, most key industries have had their expansion slowed.

Table 1.3: Growth in GVA on Year To Year Basis



Putting Agriculture at the Top of the List for Economic Regrowth

As a result of the new pandemic, agricultural producers are more aware of their obligation to nourish and educate those who may lose their jobs. The agriculture industry remains a source of hope and a cushion for the economy at a time when most other sectors are under substantial strain. Overall kharif crop sowing is predicted to be greater this year than it was during the same time last year for all key crops. As long as the epidemic persists, the agricultural sector must be given top priority in order to secure a quick return to economic health for the nation.

The coronavirus has had a significant impact on the Indian economy.

There are two ways in which this affects production: COVID-19 had a negative impact on agricultural productivity in nearly half (47%) of the sample districts at the national level.

As a result of the harvesting of rabi crops like wheat being almost complete by the end of April 2020, agricultural output was not negatively affected in magnitude (-2.7 percent). But the poultry sector (-19.5 percent), followed by the fisheries and sheep, goat, and pig sectors (13.6 percent and 8.5 percent, respectively), saw a significant drop in production, mainly due to a dramatic drop in demand for these products, which may have been fueled by the widespread fear circulating in the wake of Corona virus regarding the safety of non-vegetarian food, particularly poultry meat, for health-related concerns. Dairy (6.6 per cent) and horticultural (5.7 per cent) output also decreased due to a decrease in demand for these goods and a breakdown in the supply chain.

Farm Gate Prices: In the agricultural sector, farm gate prices have not fallen significantly (-2.2 percent). Prices in the related industries, on the other hand, had fallen by 2–18 per cent. The poultry industry had the largest

decrease (17.8 per cent), followed by horticulture (-7.6 per cent), dairy (-5.6 per cent), fisheries (-4.8 per cent), and Standard gross production (-2.9 per cent), mostly owing to disruptions in supply induced by restrictions on vehicle mobility. Lower farm gate prices for agricultural products were reported in 54% of the areas studied.

The supply of agro-inputs such as seeds, fertilizers, insecticides, and feed was reduced by 9 to 11 percent as a result of restrictions on the movement of people and goods, as well as the closure of stores, among other factors. A lack of inputs impacted 58 percent of the sample districts in India.

Due to limitations on the movement of vehicles and closures of shops and marketplaces, agri-input prices, viz., seeds (8.01 per cent), fertilizers (9.01 per cent), pesticides (9.01 per cent), and fodder (11.5 per cent), rose by between 9 and 12 percent. Agricultural input costs increased in 54 percent of sample districts across India, most likely due to a lack of supply.

Although many state governments created local procurement centres under their control, limitations on vehicle mobility have significantly affected the smooth functioning of farm marketing via mandis in roughly 74 per cent of sample districts. The effect on rural haat operations was more severe, affecting 87 per cent of the major districts. A large part of this was due to local governments throughout the nation imposing a blanket prohibition on the construction of new rural haats.

Access to different types of credit via short and long term loans and Kisan Credit Card was negatively affected in about eighty nine percent and fifty nine percent of districts, respectively, in terms of banking services. Recovery has been hampered in 94% of the sample districts because of the epidemic and the resulting lockdown. However, sixty three per cent of the districts registered an increment of different digital forms of transactions by their clients in the lockdown period.

Microfinance and FPO/FC activities are affected. In 95% of the sample districts, microfinance operations were negatively impacted, and in 88% of the sample districts, NBFC-MFIs' business activities were negatively impacted. NabARD-sponsored FPO and Farmers' Club activities have also had a negative effect. Even while some groups took the chance to make face-masks as well as direct-to-consumer sales of veggies and fruits, they also helped the local habitats and administrative departments as well as increased their own trading consequently.

The MSME sector was the heavily damaged by the deadly pandemic in terms of raw material price levels, employment, production levels, customer demand,

and supply chain disruptions. 97% and 96% of the sample areas indicated a decrease in output levels and employment levels, respectively. Consumer demand (eighty five percent of districts) and cash flow (eighty percent of districts) in the Micro, Small, and Medium Enterprises were also reported to be negatively impacted, adding to people's overall suffering.

Recommendations for further study and action

In light of the loss in agricultural productivity, agriculturists in gross and those involved in domestic fowl and fishing may be eligible for income assistance. The PM-KISAN program's enhanced income assistance may be a wise choice in this context.

Due to the economy's sluggish recovery, banks may provide a one-year interest remission for farm term loans.

More cash will be injected into NBFCMFIs, reviving microfinance businesses.

The next dosage of credit for SHGs should be pushed by banks in order to strengthen their credit relationship.

At least two-thirds of interest would be waived on current loans to boost the MSME sector with the help of short term loan as seed money at a concessional rate, interest subvention programmes, and loan forgiveness.

SHGs and FPOs may be able to take advantage of opportunities to produce masks, sanitizers, and food directly from farms.

To take advantage of the new potential for direct marketing of agro and horticultural goods to consumers, National Bank for Agriculture and Rural Development grant support to Farmers Producer Organisations for the acquisition of a compact road transport vehicle may be considered.

SHGs, FPOs, and FCs in rural regions may launch awareness campaigns and disseminate information on how to cope with situations like the Corona Virus.

Due to a decrease in farm gate prices and mandi and rural haat marketing disruptions, farmers' incomes have decreased, resulting in a weak recovery. As a result, a one-year interest-free agri-term loan may be explored.

The NBFCMFI sector has to be injected with money to resuscitate microfinance operations so that small businesses on the sidewalk and roadside may once again flourish in semi-urban and rural regions.

Financial institutions always must be pushed to increase credit linkage and/or provide the next dosage of credit to Self-Help Groups that are qualified.

Increased digital infrastructure for online agribusiness transactions

MNREGS should be expanded to include migrant workers who have returned from larger cities, as well as those who remain in rural areas.

Conclusions

Overall, at the national level, the effect of the Corona virus and the consequent lockdown has been fairly severe on the agricultural and associated sectors in the majority of areas. Among various market segments, rabi harvests have been relatively untouched as their cultivation was on the edge of collapse of finalization, but affiliated industries such as livestock, fish stocks, and animal industries observed a severe decrease in sales due to misplaced rumours, leading to declining production as well as declining farm gate prices. However, costs of agriculture inputs were projected to climb partly because to interruptions in the supply chain and the closure of shops and markets. Apart from these, financial institution's operations were spared from lockdown, fundamental banking services, viz., loans, deposits, and recovery, were significantly impeded in most of the sample areas in the nation. However, the silver lining was the growth in digital banking transactions in most of the sample areas. The microfinance sector and the micro, small and medium enterprises sector were the major victims, with interruptions in more than four-fifths of the sample districts, substantially hurting the livelihoods of the unorganised sector, which offers most employment in the rural regions. The operations of farmer-producer organizations and farmers' clubs likewise came to a total end. However, these rural institutions, like Self-Help Group, embraced the opportunity presented by the scenario of sewing face masks, PPE kits, and manufacturing sanitizers, thus assisting the population as well as generating some revenue for their members. Furthermore, farmer producer organizations in close

conjunction with local authorities in several of the areas were fairly crucial in the door-to-door distribution of fruits, vegetables, and dry rations to the needy there by lending a helping hand to the community. These rural institutions, like Self-Help Groups and Farmers' Clubs, were also engaged in the promotion of creating common consciousness in village regions about Corona virus and its preventative arrangements.

References

1. Agrawal, C. (2020). The Effects of Liberalization on the Indian Economy: A Labour Force Perspective. *Management and Labour Studies* , 38 (4), 373--398.
2. Bhatnagar, T., Murhekar, M. V., Soneja, M., Gupta, N., Giri, S., Wig, N., et al. (2020). Lopinavir/ritonavir combination therapy amongst symptomatic coronavirus disease 2019 patients in India: Protocol for restricted public health emergency use. *The Indian journal of medical research* , 151 (184), 2-3.
3. Dar, A. B., & Ahmed, F. (2020). Financial inclusion determinants and impediments in India: insights from the global financial inclusion index. *Journal of Financial Economic Policy* .
4. Hall, D. (2009). The 2008 World Development Report and the political economy of Southeast Asian agriculture. *The Journal of Peasant Studies* , 36 (3), 603--609.
5. Hussain, I., & Hanjra, M. A. (2004). Irrigation and poverty alleviation: review of the empirical evidence. *Irrigation and drainage* .
6. Prateek, G., Kumar, K., Kar, P., & Krishnan, A. (2021). Civil Society as Policy Entrepreneur in Agriculture and Forestry sectors amidst COVID-19 lockdown in India. *Journal of Asian Public Policy* , 1--23.
7. Rakshit, B., & Basistha, D. (2020). Can India stay immune enough to combat COVID-19 pandemic? An economic query. *Journal of Public Affairs* , 20 (4), e2157.