ISSUES AND CHALLENGES SURFACED AFTER COVID 19 IN SUPPLY CHAINS IN AGRICULTURE SECTOR, MEASURES ADOPTED BY THE GOVERNMENT OF INDIA TO COMBAT THIS PANDEMIC.

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Abstract:

Agriculture is the major source of livelihood in India. More than 60 percent of rural population depend on agriculture and allied activities in India. Small land holders and farmers contribute more than 40 percent of the country's food grain production, vegetables, fruits, and oil seeds crops. Agriculture contributes 17 percent of GDP in India. COVID19 pandemic has been disrupted the entire economies of the world. Its impact on agriculture is complex. It varied across diverse segments that form the agriculture value chain. The impact varied widely on agriculture production and wage earners. The pandemic brought new risks and challenges that threaten livelihoods as well as food security. In this paper an attempt is made to identify the issues and challenges faced by the agricultural sector after the pandemic and to examine the measures taken by the government of India to overcome this situation.

Keys words: Agriculture, Challenges, supply chain, livelihood, food security.

Introduction:

COVID19 pandemic has created a devastating effect on the economies of the world. No sector has escaped its impact. Agriculture contribute 17 percent to Indian GDP. Agriculture and allied activities are the major source of livelihood in India. Still 60 percent of rural population depend on agriculture and allied activities. COVID19 impact on agriculture is complex. It varied across diverse segments that from the agriculture value chain. It impact varied widely among agricultural producers, agricultural wage earners, and different regions. The pandemic brought new risks and challenges that threaten livelihoods as well as food security. India has made an early move to combat COVID19 by imposing 21 day lockdown on 1.3 billion people beginning March 25. In this paper an attempt is made
to identify the issues and challenges and their supply chains faced by the agricultural sector. Another attempt is made to examine the policies of government of India to combat this pandemic.

**Objectives of the study:**

1. The first objective of the present study is to identify the issues and challenges faced by the agricultural sector after pandemic.
2. Identifying the supply chain disruptions.
3. Examine the Government of India policies to overcome this pandemic

**Issues and challenges surfaced after COVID19 pandemic:**

**Availability of seeds and crop production:**

- The largest part of seeing process is not affected because lock down period is summer.
- So in agriculture there is no impact on availability of seeds.
- If the same scenario continues definitely seed availability will become an issue.

**Shortage of fertilizers and agricultural inputs:**

- Due to lock down in almost all parts of the world trade disturbance arises. Farmers faced the shortage of fertilizers and agricultural inputs and pesticides.
- There is a little shortage is expected in a shorter span of time.
- Since some of the plant are closed in China in the long period importing fertilizers from international markets will become a problem.
Food production and distribution:

- Indian government imposed travel bans, home confinement, business closures to control COVID19 infection.
- Agriculture produce is highly perishable. In India due to lack of cold storage facilities farmers are compelled to hold their produce for a longer period of time.
- This has threatened the food security and led to reduction in food quality. Again it led to increase in cost of production.

Poultry and fisheries and dairy:

- Due to reduced demand poultry sector saw substantial losses. Prices of chicken fell by over 25 percent.
- Fisheries and live stocks are hardly hit by the pandemic.
- Due to shortage of labor and limited access to animal feed COVID19 has caused a higher impact on live stock farming.
- Ban on travel is affected the delivery of breeding stock of poultry.
- There is a moderate impact of lock down on dairy sector. There is a drop in procurement prices of 30 percent due to decrease in demand.

Floriculture:

- Due to lock down and sudden fall in demand flower farmers have faced substantial losses.
- In the long run many farmers may move away from floriculture.

Agricultural Workers:

- During lock down 50 million people have returned to their home.
- Due to COVID19 and lock down agricultural workers have no work for their sustenance. Agricultural workers have faced many problems due to lack of social protection and proper health services and less savings or no savings.
- Despite the self isolation during COVID19 many of the agricultural workers are obligate to work for their sustenance.

Food demand and food security:

- Due to COVID19, reduction in incomes and purchasing power has affected the food demand.
- Consumers increased their food stocks due to panic which in turn affected the availability of essentials and increases the prices of essentials.
- Food insecurity may arise due to disturbance international trade supply chain and food production.
Impact of COVID19 on Indian Agriculture:

Peak harvest with no procurement:

- This is the Rabi season in India all most all crops are in harvestable stage or almost reaching maturity.
- This is also the time to harvest reaching mantis for procurement to the designated government organizations.

Unavailability of labour due to reverse migration:

- Due to lock down many parts of the country faced non availability of labour.
- Shortage of migrant labour increases wages for harvesting crops.
- In India some areas have used technology for harvesting agriculture and they do not depend on migrant labour in harvesting agriculture.

Public distribution system:

- Both agriculturists and government faced the challenges in distributing food grains, fruits and vegetables and other essential items making available in both rural and urban areas.
- In the lock down period transportation of public distribution items to distribution agencies by rail and road has become a big task.

Fall in Prices:

- Stoppage of transportation and lack of market access leads to collapse in agricultural prices.
- Shortage of labour and rise in labour costs forced the farmers to leave them to rot in the fields a better stop - loss mechanism.

Sales restrictions:

- Restrictions on the inter and intra- state movements of labourers and farmers in harvesting and related activities hit the sales of agricultural produce badly.

Lockdown induced debt and cash flow constraints:

- The main problem of farmers is the repayment of gold loans and crop loans and other informal debts.
- April and May is time of repayment of crop loans and the fresh loan is granted after repayment of loans.
- If anything happens in this period farmers have to borrow money from informal sector which demands high interest rates.
Supply chain disruptions:

- Absence of transportation and blocking of roads has limited the movement of farmers to transport their harvest to markets.
- It also restricted the movement of labour from place to place.

Measures required to keep the agricultural sector and supply chains working smoothly:

1. Regarding farm operations and supply chains government has correctly issued lock down guidelines. Implementation is a big task due to shortage of labour and falling prices.
2. Farmers should have continuous access to markets either through private markets or government procurement.
3. Farmers should be protected with continuous testing of corona virus and practicing social distancing.
4. To maintain food security, supply chains should be maintained properly.
5. Poultry, fisheries and dairy farmers are the worst hit of pandemic. Their input supply and market access problems are to be addressed properly.
6. Lock down increased the demand for home delivery of groceries and E-commerce. This should be encouraged properly.
7. Developing cold storage facilities and establishing processing units in appropriate places is the needed.
8. Foreign trade should be promoted by avoiding ban on exports and restrictions on imports.

The Government of India policy measures to combat COVID19:

Prime ministers Kisan Yojana:

A total of Rs 54000 crores were given to this program. In this program a farmer was given Rs.6000 per year as direct cash to his account in three instalments of Rs. 2000 each.

Agricultural infrastructure fund for farm-gate infrastructure for farmers:

Rs. one lakh crore were given to increase agricultural infrastructural facilities. This fund will increase the infrastructure in agricultural sector by investing in primary agricultural cooperatives, FPOs, agriculture entrepreneurs.

Micro food enterprises:

Rs 10000 crores were allotted to 2,00,000 micro food enterprises to help them to upgrade their technical knowledge, build their brands and to develop marketing activities. In formalisation exercise they have to comply with the Food Safety and Standards Authority of India.
Pradhan mantri Matsya Smapada Yojana:

The Government has been given Rs. 20,000 crores to increase production, productivity and infrastructural development in fisheries. It also given importance to post-harvest management and improved regulatory environment for fisheries.

Animal husbandry and infrastructure development fund:

Rs 15000 crores allotted by the Government of India as a fund to support private investment in cattle feed infrastructure, dairy processing and value addition.

National animal decease control program:

In this program the Government of India allotted Rs 13,343 crores to achieve the target of 100 vaccination of all large and small ruminants.

TOP (tomato, onion, potato) to TOTAL (all vegetables):

The Government has been given Rs. 500 crores as a fund to help the farmers by subsidising the storage and transportation services.

Promotion of herbal cultivation:

Rs 4000 crores were given by the government to promote regional market places for medicinal plants and cultivation of 10,00,000 hectares of land for herbal plants.

Conclusions:

Problems will not end with the end of lock down. They are likely to be increased in agricultural sowing season. The government support is needed in the form of agricultural credit, subsidised fertilisers, and agricultural inputs. Credit requirements to small farmers is very high. Government has to take measures to ensure institutional credit for the requirement of small farmers. Structural reforms like private agricultural markets, land leasing, contract farming are needed to boost the investments in agricultural sector and to protect the small farmer in agricultural sector. Implementation of these reforms should be in coordination with state governments. There is an urgent need for cold storage facilities, processing units that consume agricultural commodities at the time of excess harvesting, rural transportation and marketing facilities in agriculture sector.
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