# Major Issues/ Problems in Agriculture Sectors and their Possible Solutions

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## Introduction

The most important role in the socioeconomic structure of India is played by agriculture, which serves as the engine of the national economy. Indian agriculture is a diverse and extensive sector involving a large number of stakeholders (Borthakur and Singh, 2013). The process of socioeconomic development depends heavily on agriculture. Approximately 58 percent of the population in India relies solely on agriculture for their means of subsistence, and this number rises to about 70 percent in rural areas (IBEF, 2021). Around 20% of India's Gross Domestic Product comes from the agriculture sector, which is a significant contributor to the country's economy (GDP) India's population depends on it for survival to the tune of about 62% (Gupta &Nagar, (2017). In India, where agriculture accounts for about 20.19 percent of GDP, it is a vital economic sector.

India is endowed with 183 million hectares of cultivable land, 115.6 million farming families, 400 million ofannual precipitation, and a conducive agro-climate for cultivating a variety of crops.  About two-thirds of the country's population work in agriculture and feed over 1000 million people every day. Yet the majority of farmers are under the clutches of poverty, debt and hunger (Hans, 2010).

## Major Issues/ Problems in Agriculture Sectorsand their possible solutions

### 1. Inadequate crop rotation:

In India, the long-term practice of rotating cereal crops has led to nutrient imbalances, an increase in pest infestation, and soil erosion (Chauhan et al., 2012). Thus, the pulse-cereal rotation strategies must be implemented in order to enhance the crop. Crop rotation seeks to retain soil fertility while increasing crop yield. Importantly, pulses may be a substitute for diversifying or stepping up the intensity of cereal rotations. Pulses may improve soil's organic carbon content and spread nutrients across the soil profile (Kamanga et al., 2014).

### 2. Inadequate use of manure and fertilizers:

Indian soils have been utilized for cultivation for many years with little thought given to replenishment. Soils have been exhausted and depleted as a result. The average yields of almost all crops are among the lowest in the world. Increased usage of manures and fertilizers will help to address this important problem. The same way that a healthy diet benefits the body, manures and fertilizers have the same effect on soils. Effective fertilizer management will be essential for increased yield, long-term sustainability, and minimizing environmental impact. Numerous long-term studies have shown that an improper or unbalanced fertilizer application has a significant impact on the fertility and quality of the soil (Sharma et al., 2014). Crop yields have increased in areas where agricultural practices heavily rely on the use of chemical fertilizers, yet problems with soil quality and environmental contamination have also been reported. Agriculture organic waste, such as compost, animal manure, and agricultural leftovers, has so traditionally been regarded as a valuable source of agricultural fertilizer in agroecosystems (Brunetti et al., 2019).

### 3. Poor quality of seeds:

For greater agricultural productivity and continuous farming expansion, seeds are a crucial and fundamental component. Both the production and distribution of high-quality seeds are essential. Because of the extremely high cost of those seeds, a considerable percentage of farmers, particularly small holders, poor, and rural farmers, do not have access to high-quality seeds (Murphy, 2010). The Indian government established the NSC (National Seeds Corporation, 1969) and SFCI (State Farmers Corporation of India, 1963) to tackle this problem. According to the Department of Agriculture, Cooperation & Farmers' Welfare's annual report for 2020-21, 15.42 lakh quintals of seeds were produced or purchased by NSC during 2019–20, and 15.85 lakh quintals of seeds were distributed by NSC overall in 2019–20.

### 4. Agricultural marketing:

Rural agricultural marketing is still in a state of chaos. Farmers are compelled to rely on local merchants and intermediaries to sell their agricultural output, which is sold at a loss, since they lack viable marketing channels. Most of the time, these farmers are forced to sell their produce at a loss due to socioeconomic circumstances (Chakraborty, 2018). To overcome this problem Government of India has launched Marketing Research and

Information Network:It facilitates collection and dissemination of information related to better price. It improves agricultural marketing efficiency through regular training, extension of education etc. It provides assistance to generate marketing information at grass root level. Marketingorganizations, various project stakeholders, farming communities, etc. can benefit from this. It provides a system with modern software resources for managing management information systems (MIS). It gives internet connectivity for initial 5 years by National Information Centre (NIC). It gives training to the personnel for handling software and hardware.

### 5. Problem of Agricultural labour:

Labour plays an important role in growing the crops in our field. They face many problems like

Inadequate Wage: In India, agricultural labourers' earnings and family incomes are extremely low. Money pay rates began to rise with the introduction of the Green Revolution. The actual wage levels did not rise, as there was a sharp rise in prices of other commodities. Another problem faced by labour is Employment and Working Conditions: Agricultural labourers confront unemployment and underemployment issues. They remain unemployed for a significant portion of the year since there is no work on the farms and they do not have alternative forms of employment. Measure Taken by the Government: Fixation of Minimum Wages Providing Land to Landless LabourersSpecial Schemes for Providing Employment: Rural Employment (CSRE), National Rural Employment Jawahar Gram SamridhiYojana (JGSY), and National Food for Work Programme (NFFWP), Mahatma Gandhi Rural Employment Guarantee Act MGNREGA.

### 6. Problem of post-harvest lose:

Postharvest loss includes both direct physical losses and quality losses that reduce the crop's economic value or render it unfit for human consumption. In extreme cases, these losses can amount to up to 80% of total production (Fox, 2013). Storage is a crucial step in the food supply chain, and several studies have found that the greatest losses occur during this operation (Majumder et al., 2016). Most crops are grown seasonally, and after harvesting, grains are stored for short or long periods of time as food reserves and seeds for the following season. According to studies, in developing countries such as India, 50%-60% of grains are stored in traditional structures (Grover and Singh, 2013).

## Conclusion

The knowledge and infrastructure gaps, especially in rural areas, are the main issues facing the agricultural sector at the moment. Water, commerce, and transportation network issues significantly increase the cost of living for producers. Lack of procurement systems is a much worse issue. There appear to be numerous initiatives aimed at advancing agriculture. Corporate agriculture might therefore be a solution for the Indian agricultural sector, but it needs careful consideration and novel legislation to ensure that neither the corporations nor the producers or farmers suffer.Although conventional farming has expanded agricultural production, it has done serious ecological harm. Because organic production uses fewer external inputs and has a smaller environmental impact, people believe it to be more sustainable to nature.

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