

Agriculture is one of the most important sectors in India. It accounts for around 16.38% of GDP. According to a survey published by the Ministry of Labor and Employment, the sector employs 42.6% of the workforce. Almost all varieties of crops are produced in the country due to the diverse climatic conditions. The production increased substantially after the green revolution in the 1970s when HYV (High Yielding Varieties) of seeds were introduced. However, the sector is under distress for the last few years with an increasing number of farmers suicides, decreasing remuneration, etc. In this article, we will look at various aspects of Agriculture in India.

Agriculture In India: Potential; Issues; Way Forward

Potential of India Agriculture

- Indian agricultural production in 2021, was recorded at **303.34 million tonnes** against a target of 301 million tonnes
- A large population that itself creates demand for the produce. Also rising urban and rural income increases the quality based demand.
- External demand is also increasing due to new markets and strategic alliances. India is among the 10 leading exporting countries of agricultural products. This grew at 17.34% over the last decade to reach approx. 41.25 US \$ in 2021.
- As the urban population is increasing, changing lifestyles, the sector has also been diversifying from grains towards pulses, fruits, vegetables, and livestock products. This helps in increasing the value addition of the produces and raw materials and development of food processing industries.
- Opportunities in the sector are increasing. Scientific inventions in biotechnology with developing GM Crops, hybrid seeds, and fertilizers.
- Promising storage capacities, infrastructure development like cold storage, logistics, etc.
- Competitive advantage due to the high proportion of agricultural land (157 Million hectares), the leading producer of spices, Jutes, pulses, and the second-largest producer of wheat, paddy, fruits, and vegetables.
- Increasing policy support and subsidies from the government.

However, it is plagued by various paradoxes and problems, that are hampering the desired growth, and consequences is increasingly harmful.

Issues in Indian Agriculture:

- The productivity per hectare of Indian agriculture is much lower than in countries like Europe, China, the United States, etc. Reasons being, poorly

irrigated areas (only around 35%), heavy dependence on monsoon, very low, and continuously decreasing farm size (1.16 hectares).

- There have been paradoxes in the policies of the government. It is more favorable to consumers and not to farmers. Inter department convergence between agriculture, water, commerce, and finance has been completely absent.
- Upon the presence of APMC (Agriculture produce market committee) Act, the number of middlemen and illegal traders has been increased. Farmers are unable to realize the actual values for their produce whereas consumers have to pay a much higher rate. Cartelization has been increasing and keeps farm gate prices low.
- Ashok Dalwai committee report on agriculture, showed the increase in farm input prices extensively, whereas the remuneration has been the same or even declining in the last few years. This has decreased the purchasing power of farmers and hence the productivity.
- The problems of the green revolution can be seen now. Misuse and abuse of technology have destroyed the agricultural sector. Extensive use of fertilizers, groundwater has impacted land and soil.
- Very low seed replacement ratio, poor quality of seeds, increasing the cost of seeds, and unscientific use of farm-produced seeds have also impacted productivity.
- Indian agriculture is very poorly mechanized which has both decreased productivity and increased disguised employment
- Farmers, still have been dependent on informal sources like money lenders. Around 40% of the credits come from these sources.
- MSP structure has been inefficient. This has distorted the cropping pattern. Also as Shanta Kumar Committee reports, only 6% of farmers get the benefit of MSP, whereas 94% are still dependent on the market. Some are refused due to quality and some don't have adequate storage or logistics facility to sell it to government.
- Climate change has been a new challenge for agriculture across the world. Economies like India has been severely affected because of overdependence on agriculture. Frequent droughts, floods, cyclones, temperature fluctuations, unseasonal rains, hail storms are leading to pest attacks, crop failure, soil erosions, etc.
- Enabling infrastructure across the value chain is not adequate. Both backward and forward linkages like markets, cold storages, warehouses have not developed in sync with the increasing production. This has led to wastage of produce, poor price discovery, distress sales, etc. Also, poor road connectivity has disconnected markets from villages.
- Research and development in agriculture have been more or less stagnant at below 1%.

- The sector is suffering from cheap imports, a sharp fall in prices both in domestic and international markets, interventionist policies and restrictions by the government ban on future trading, and stockholding further adds to the woes of the farmers.

Way Forward:

- The government needs to improve irrigation efficiency by completing the undertaken projects. New rainwater harvesting methods need to be implemented. Incentives for sprinkler irrigation, drip water irrigation, and precision farming should be provided to the farmers. Schemes like PMKSY (Pradhan Mantri Krishi Sinchai Yojana), Har Khet ko Pani, etc. need to expedited.
- Farmer should be taught about the effective use of inputs and how overuse can decline further the productivity. Schemes like Soil health card, Neem coated Urea should be widely replicated. Apps like PUSA, Kisan Suvidha should be made widely reachable. Agri centers within common service centers can be opened.
- The consolidation of lands is necessary to improve mechanization optimize productivity. This can be done by proper land titling and automated records. Incentives can be given to farmers in groups with a minimum hectare of land. Paramparagat Krishi yojana based on clusters of farmers is a good step in this direction.
- Post-harvest loss reduction can be of great importance in providing enough remuneration to farmers and increasing their profitability. More and more food processing industries and food parks should be developed with proper forward and backward infrastructure. PM Kisan Sampada Yojana is a scheme that ensures the development of mega food parks.
- Every state should go with eNAM to integrate all the agricultural markets across the country.
- Financial solutions like credit facilities and insurances should be taken to all farmers through schemes like PM fasal bima yojana.
- Allied activities should be promoted through revolutions like Blue, White, etc which can supplement rural income in times of adversities and also add to the revenues.

Several other solutions have been given by committees like Ashok Dalwai Committee, Shanta Kumar Committee and should be implemented in priority. Small farmers should be made stakeholders in policy making and their considerations should be taken. The population of the country and the need for food security with changing demand forces us to think about it. We cannot neglect this sector at any cost. As M. S. Swaminathan stated, "If agriculture fails, everything else will".