



INDIAN AGRICULTURE SECTOR : CHALLENGES AND OPPORTUNITIES

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ABSTRACT

The article discusses some of the developmental challenges faced by the Indian agriculture sector in particular and developing nations in general - illiteracy, poor socioeconomic conditions, lack of technical knowledge and awareness, small land holdings, modernization leading to barren land and disasters leading to rural poverty, weather-dependent farming systems, low per capita income, underdeveloped physical infrastructures and inefficient bureaucratic procedures associated with the comparatively high cost of agricultural production. Natural disasters and human induced environmental degradation are closely associated with improved farming systems. Indian Agricultural Sector is playing very important role in economic development of India. Agriculture sector is a critical sector of the Indian economy. In India around 70% of the population earns its livelihood from agriculture sector. This is an attempt, through the review of literature, to understand the history and characteristics of the Indian agriculture sector, its transition from traditional to commercial agriculture and the problems it faces. Modern agricultural practices and the relationship with environmental depletion have also been assessed. The article discusses some of the developmental challenges faced by the Indian agriculture sector in particular and developing nations in general - illiteracy, poor socioeconomic conditions, lack of technical knowledge and awareness, small land holdings, modernization leading to barren land and disasters leading to rural poverty, weather-dependent farming systems, low per capita income, underdeveloped physical infrastructures and inefficient bureaucratic procedures associated with the comparatively high cost of agricultural production. Natural disasters and human induced environmental degradation are closely associated with improved farming systems.

India has been consistently making innovative efforts by using science and technology to increase production. Also discuss some of the major issues and challenges faced by Indian Agriculture sector.

◀ KEYWORDS

Indian Agricultural Sector, Corporate Farming, Economic Development, Contract Farming, Challenges and Perspectives, Group Farming.

◀ INTRODUCTION

Indian Agricultural Sector is the largest sector, before industrial sector, which provides employment. Agricultural sector is playing very important role in economic development of India. The Indian agricultural sector trade has been seen to be the fastest growing in the world. There are numerous estimates of the size of the agricultural sector in India. Agriculture sector is a critical sector of the Indian economy. In India around 70% of

the population earns its livelihood from agriculture sector. This is an attempt, through the review of literature, to understand the history and characteristics of the Indian agriculture sector, its transition from traditional to commercial agriculture and the problems it faces. Modern agricultural practices and the relationship with environmental depletion have also been assessed.

In India the agriculture sector which is the backbone of Indian economy. In the agricultural sector, we have studied physiographic, climate and natural vegetation in India. It still provides livelihood to the people in our country. Apart from unique geographical conditions, India has been consistently making innovative efforts by using science and technology to increase production. Also discuss some of the major issues and challenges faced by Indian Agriculture sector. It fulfills the basic need of human beings and animals. It is an important source of raw material for many agro based industries. India's geographical condition is unique for agriculture because it provides many favourable conditions. There are plain areas, fertile soil, long growing season and wide variation in climatic condition etc.

The significance of agriculture sector in India is not restricted to its contribution to GDP, but that on account of its complementarities with other sectors. It has far reaching ability to impact poverty alleviation and rural development. There are several areas of importance for the agriculture sector growth. These include, among others, enhancing public sector investment in research apart from effective transfer of technology along with institutional reforms in the research set up to make it more accountable and geared towards delivery, conservation of land, water and biological resources, the development of rain fed agriculture, the development of minor irrigation, timely and adequate availability of inputs, support for marketing infrastructure, an increase in flow of credit particularly to the small and marginal farmers. A strategic vision for agriculture sector must factor in three important elements for India's comparative advantage, efficient markets at home and free trade and environmental sustainability. The agriculture sector calls for major reforms, from marketing to investment and institutional change, especially in water management, new technologies, land markets and creation of efficient value chains.

◀ OBJECTIVES OF THE RESEARCH STUDY

The present research study was carried out with following objectives in view:

1. To study the recent trends in Indian Agricultural Sector.
2. To study the various Types of Farming in India.
3. To study the Challenges before Indian Agriculture Sector.

◀ RESEARCH METHODOLOGY

The present research study uses the most recent available published secondary data. To achieve the above stated objectives, the secondary data was used. The secondary data that are mainly used are published in annual reports of various banks and survey reports of leading business and agriculture magazines. The secondary data was also used from various reference books related to Agriculture, Indian Economy, E-Commerce, E-Banking, M-Commerce, Information Technology, Marketing, Banking, Finance, Commerce, Management etc. For the said research study the secondary data is also collected from the various National and International Research Journals which are related to Commerce, Management, Marketing and Finance.

For the said research study the data pertaining to the above objectives was collected and reviewed the literature on the topic concerned. The literature was thus collected by visiting various libraries. The Secondary data is also collected from various websites.

◀ HYPOTHESIS OF THE RESEARCH STUDY

The said research study is carried out with the following hypothesis in view:

- 1 Recent years, the nature of Agricultural Sector and the challenges before Indian Agriculture Sector are increasing day-by-day.
- 2 In early days, Agricultural Sector is playing very important role in economic development of India.

◀ RECENT TRENDS IN INDIAN AGRICULTURE SECTOR

Most parts of India have subsistence agriculture. Subsistence agriculture of agriculture has been practiced in India for several hundreds of years and still prevails in a larger part of India in spite of the large scale change in agricultural practices after independence. In India despite increase in urbanization and industrialization, about 70% of population is still directly or indirectly dependent on agriculture. So many pressure of population on agriculture sector in India. Green Revolution took place in India in the late sixties and early seventies. After more than forty years of Green Revolution and revolution in agricultural machinery and equipments, complete mechanization is still a distant dream, means the mechanization of agricultural sector in India.

In India has a different type of variety of crops. As mentioned in the beginning of the lesson, India has diversity of topography, climate and soil. Since India has both tropical and temperate climate, crops of both the climate are found in India. There are very few countries in the world that have variety comparable to that of India. Would realize that when we would discuss the different type of crops in detail. Since Indian agriculture has to feed a large population, production of food crops is the first priority of the farmers almost everywhere in the country. However, in recent years, there has been a decline in the share of land used for food crops due to various other commercially most advantageous uses of these lands. India has three distinct agricultural/cropping seasons. Might have heard about kharif, rabi and zaid. In India there are specific crops grown in these three seasons. For example rice is a kharif crop whereas wheat is a rabi crop. Since independence, there has been a rapid expansion of irrigation infrastructure. Despite the large scale expansion, only about one third of total cropped area is irrigated today. As a consequence, two third of cropped areas is still dependent upon monsoon. As you know, monsoon in India is uncertain and unreliable. This has become even more unreliable due to change in climate, means the agricultural sector totally dependence upon monsoon in India.

◀ TYPES OF FARMING IN INDIA

The main types of agriculture training is as under :

1. **Commercial Farming** : Commercial Farming is just the opposite of subsistence farming. In this case, most of the produce is sold in the market for earning money. In this system, farmers use inputs like irrigation, chemical fertilizers, insecticides, pesticides and High Yielding Varieties of seeds etc. Some of the major commercial crops grown in different parts of India are cotton, jute, sugarcane, groundnut etc. Rice farming in Haryana is mainly for commercial purpose as people of this area are predominantly wheat eaters. However in East and North-Eastern states of India, rice cultivation would be largely of subsistence type.
2. **Subsistence Farming**: Majority of farmers in India practices subsistence farming. This means farming for own consumption. In other words, the entire production is largely consumed by the farmers and their family and they do not have any surplus to sell in the market. In this type of farming, landholdings are small and fragmented. Cultivation techniques are primitive and simple. In other words there is a total absence of modern equipments like tractors and farm inputs like chemical fertilizers, insecticides and pesticides. In this farming, farmers mostly cultivate cereals along with oil seeds, pulses, vegetables and sugarcane.
3. **Intensive Farming** : Intensive Farming records high production per unit of land. Best example of intensive cultivation is in Japan where availability of land for cultivation is very limited. Similar kind of situation can be observed in the state of Kerala in India.
4. **Extensive Farming**: The basic difference between these two types of farming is the amount of production per unit of land. In comparison with temperate areas of USA, Canada, and former USSR, India does not practice extensive cultivation. When we use large patch of land for cultivation then we call it extensive farming. Here, total production may be high due to larger area but per unit production is low. In India extensive cultivation can be observed in Punjab, Haryana and Western Uttar Pradesh.
5. **Plantation Farming**: Most of these crops were introduced in India by the British in the 19th Century. Plantation farming is an artificial and established form. It is an estate where a single cash crop is grown for sale. This type of agriculture involves growing and processing of a single cash crop purely meant for sale. Tea, coffee, rubber, banana and spices are all examples of plantation crops.

6. **Mixed Farming:** It is a situation in which both raising crops and rearing animals are carried on simultaneously. Here farmers engaged in mixed farming are economically better off than others. All classifications are based on nature and purpose of farming. It may overlap. For example: Banana is a plantation type of farming. It can also be classified as commercial farming.

◀ CHALLENGES BEFORE INDIAN AGRICULTURE SECTOR

Major challenges faced by the agricultural sector in India relate to the following aspects:

1. No proper management of Irrigation :

Irrigation in India can be broadly classified into two parts, each having different issues. There are a few major problems with surface irrigation. Irrigation facilities are inadequate and there is no effective system management for how much water is stored, how much is used for irrigation or what value can be added to this water. Consequently, farmers depend on rainfall, specifically the Monsoon season. A good monsoon results in robust growth for the economy as a whole, while a poor monsoon leads to sluggish growth. With groundwater, the major problem is of equity.

2. Dependence of Agriculture on Weather :

Agriculture in India and many other developing countries depends on the monsoon because irrigation facilities are not fully developed. If the monsoon fails or it rains heavily or untimely, it ruins agricultural production. Agriculture is also a gamble with temperature. Too high a temperature negatively affects the productivity of a crop. The present insurance system in India does not cater much for any loss of crop due to unfavourable and unavoidable climatic conditions or pest epidemics. Small farmers who have taken loans to raise crops fall into heavy debt in such situations and if this continues, the poor farmer may starve and sometimes even commits suicide as reported in Maharashtra and Andhra Pradesh.

3. Policies leads to slow Agricultural Growth :

Slow agricultural growth is a matter of concern as most of India's population is dependent on rural employment for a living. Current agricultural practices are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems and lack of good extension services are among the factors responsible. Farmers' access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation.

4. Poor Socio Economic condition of Farmers :

Illiteracy, the root cause of farmers' poor socioeconomic condition, should be tackled vigorously. Though the government is taking the initiative by adopting policies like universal education, a highly centralized bureaucracy with low accountability and inefficient use of public funds limits their impact on poverty. Lack of technical knowledge and awareness are also responsible for low productivity, adding to the problem of poverty among farmers. Other causes are the slow progress in implementing land reforms, inadequate or inefficient finance and marketing services for farm produce and inconsistent government policy. Agricultural subsidies and taxes often change without notice for short-term political ends.

5. Inadequate Infrastructure & Low Investment :

India has inadequate infrastructure and services because of low investment. Farming equipment and infrastructure are scarce outside the provinces of Punjab and Haryana. Because many of the farms are small, the farmers cannot afford irrigation systems that would increase productivity. Most big farms are family-owned and run and do not take advantage of economies of scale - the concept that the cost per unit falls as output quantities increase, because the problem of land absenteeism in big farms which hinders the development of land to increase productivity because the tenant who cultivates the land has little care for its development or productivity. Low investment in big and small of farms leads to lower production, inefficiency and higher costs, one of the causes of food inflation in India.

6. Disasters leading to Rural Poverty

Rural poverty has two characteristics: the poverty of rural human beings and the poverty of weather prone rural areas. The degradation of natural resource may be caused by drought or flood because of global warming or by modern farming methods which affect the land negatively, ultimately making rural people poor. The first one leaves the land barren and the second one, though costly, leads to large scale economies. Because

of high returns, farmers are tempted without giving thought to its ill effects. The poor who cannot afford it fall further into the trap of poverty because they cannot compete with rich farmers while casual labourers lose their jobs with the introduction of mechanization. To remove rural poverty, small farmers and women must be integrated into the development effort, so that they also contribute to the removal of poverty.

7. The average size of Land Holdings is small :

The average size of land holdings is less than 20,000 m² and subject to fragmentation due to land ceiling acts and, in some cases, family disputes. Such small holdings are often overmanned, resulting in disguised unemployment and low productivity of labour.

8. Use of Technology is Inadequate :

Adoption of modern agricultural practices and use of technology is inadequate, hampered by ignorance, high costs and impracticality in the case of small land holdings. In India, farming practices are too haphazard and non-scientific and need some forethought before implementing any new technology. The screening of technology is important since all innovations are not relevant or attractive to all areas.

◀ CONCLUSION

In changing ground, the nature of Agricultural Sector and the challenges faced by the Indian Agriculture Sector are increasing day-by-day. In early days, Agricultural Sector as well as Industrial Sector is playing very important role in economic development of India. The role of Agriculture Sector of social welfare view also employment is increasing day by day in India. Agricultural Sector is playing very important role in economic development of India. Agriculture sector is a critical sector of the Indian economy. In India around 70% of the population earns its livelihood from agriculture sector. This is an attempt, through the review of literature, to understand the history and characteristics of the Indian agriculture sector, its transition from traditional to commercial agriculture and the problems it faces. In India the agriculture sector which is the backbone of Indian economy. In the agricultural sector, we have studied physiographic, climate and natural vegetation in India. It still provides livelihood to the people in our country. In the agricultural sector, we have studied physiographic, climate and natural vegetation in India. In India the agriculture sector which is the backbone of Indian economy. It still provides livelihood to the people in our country.

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