

# INDIAN AGRICULTURE: ROLE, CHALLENGES AND CROPPING PATTERN

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**Abstract:** Agriculture is the most important part of Indian economy and it has always been celebrated as the primary sector of India. Indian agricultural sector in the pre-Independence period can be correctly described as a 'subsistence' occupation also has experienced a phenomenal growth since the mid-twentieth century after the advent of planning. At present it has reached the stage of development and maturity. The next stage of growth of Indian agriculture however, faces a serious challenge in terms of sustainability. India will safely be characterized as an associate degree agricultural country despite the recent spurt in producing and services and therefore the declining share of agriculture within the value, since majority of its population (65%) square measure still engaged in agriculture for livelihood. Agriculture is that the solely suggests that of living for pretty much simple fraction of the used category in India. The agriculture sector of India has occupied nearly 44 percent of India's geographical region in 2010-11. So present study is basically a review of role, challenges and cropping pattern of India agriculture.

**Keywords:** Agriculture sector, GDP, Subsistence, Employment, Cropping pattern.

## I. INTRODUCTION

India is an agrarian economy, where agriculture is the pre-dominant sector of the Indian economy. Even in present days, inspite Indian economy opening out to the world and globalization, agriculture serves as the most important sector in the economy. In fact in India the secondary and tertiary sectors are growing at increasing rates, still a majority of Indian manpower continue to depend on agriculture. After the Green revolution, India is now self-sufficient in production of food. Due to the increasing efforts and interventions by the society, nature and quantum of agricultural production is being influenced rapidly. Over last few decades Indian agriculture has registered impressive growth. The food grain production has increased from 51 million tonnes in 1950-51 to 255.36 million tonnes during 2012-13 highest ever since independence. Agriculture plays an important role Indian economy as it contributes about 17% to the total GDP.

## II. OBJECTIVES

- To Study the Issues associated with Indian Agriculture.
- To Analyze Problems and give their solutions related to Indian Agriculture.
- To discuss the cropping pattern of Indian Agriculture.

## III. RESEARCH METHODOLOGY

This study is of analytical nature and makes use of secondary data. The required & relevant secondary data are collected from various publications of Government of India, census data, from the data of Five Year Plans and various other websites. The time series data and the relevant data have been collected for the period 1950 to 2017.

## IV. ROLE OF AGRICULTURE IN INDIAN ECONOMY

In the initial stages of economic development of India, Agriculture has been the prime economic activity. Initially its nature also remained primitive where fewer interventions were made by the people for production and economic activities. However, because the method of economic development started flowering as a result of increasing efforts by the society, agriculture was being seen as a crucial supply of economic development. Being the predominant economic activity, agriculture is meant to produce support to the non-agricultural economic activities in many ways. Some of the major roles being played by the agricultural sector in Indian economy are as follows:

- 1) **Share in national income-** Agriculture shared two-thirds of national income at the time of First World War. However, when the initiation of planning in Republic of India, the share of agriculture has persistently declined on account of the event of the secondary and tertiary sectors of the economy. From 53.1 percent in 1950-51, the share of agriculture and allied activities in gross domestic product at factor cost declined to 29.6 percent in 1990-91 and additional to 13.9 percent in 2012-13.
- 2) **Largest employment providing sector-** In India during 1951, 69.5 per cent of the operating population was engaged in agriculture. This share fell to 66.9 % in 1991 and to 56.7 % in 2001. Throughout the amount 2008-11, agriculture provided employment to 46 % of the male employees and 65 % of the feminine employees. With speedy increase in population, absolutely the variety of individuals engaged in agriculture has become extremely giant.
- 3) **Provision of food surplus to the expanding population-** Due to serious pressure of population in labour-surplus economies like India and its speedy will increase, the demand for food will increase at a quick rate. Agriculture is accountable for provision food to the folks in associate economy. Agriculture is that the solely major supply of food provide because it is providing regular provider of food to such

a large size of population of our country. It's been calculable that regarding sixty per cent of house consumption is met by agricultural product.

- 4) **Providing raw materials to industries-** Agriculture sector provides various inputs/raw materials to the industrial sector of national importance. In fact, industrial sector requires various types of raw materials from the agriculture sector, specially for the agro-based industries. Sugar industry, jute industry, cotton industry are some of the agro-based industries which are solely depended on agriculture. Thus, unless agricultural sector develops, these industries will also remain backwards.
  - 5) **Role of poverty reduction-** Agriculture contributes 17% of India's GDP and it continues to employ more than half of the manpower of India. Agriculture plays a source of livelihood and food security for the population of India. Its role in poverty reduction is self-evident. As India is still home to the number of poor persons and malnourished people, a major priority to agriculture will achieve the goals of reducing poverty and malnutrition as well as achieving growth.
  - 6) **Market for industrial products-** Agriculture sector provides large market to the products of the industrial sector as well as service sector. The interaction of the agricultural sector with the progressive modern sectors is very helpful in overall development of Indian economy.
  - 7) **Importance in international trade-** Agriculture in India is enjoying a really important role each within the internal and external trade of the country. Agricultural merchandise like tea, coffee, sugar, tobacco, spices, cashew-nuts etc. square measure the most things of our exports and represent concerning 50 per cent of our total exports. Besides factory-made jute, cotton textiles and sugar additionally contribute another 20 per cent of the full exports of the country. So nearly 70 per cent of India's exports square measure originated from agricultural sector. Further, it helps the country in earning precious exchange to fulfill the desired import bill of the country.
  - 8) **Overall Economic Development-** In the course of economic development, agriculture employs majority of individuals. This suggests raising the extent of the value and customary of living of the human. The rapid rate of growth in agriculture sector offers progressive outlook and any motivation for development. As a result, it helps to make correct atmosphere for general economic development of the economy. Thus, economic development depends on the speed at that agriculture grows.
  - 9) **Source of Government Revenue-** In our country, several state governments get sizeable revenue from the agriculture sector. Land revenue, agricultural revenue enhancement, irrigation tax and a few different sorts of taxes area unit being levied on agriculture by the state governments. Moreover, significantly revenue is attained by manner of excise duty and duty on agricultural merchandise. Dominion committee on Agricultural Taxation has steered imposition of taxation on agricultural financial gain for raising revenue.
- The above discussion bring out clearly that agriculture occupies an important place in the development of Indian economy. It is in fact, development of agriculture is a pre-condition for economic up liftment.

## V. CHALLENGES FOR AGRICULTURE

At the time of Independence, Indian agricultural sector was in a state of backwardness. Indian agriculture was backward and qualitatively traditional in nature on the eve of the First Five Year plan. However is not sufficient to call India's agriculture backward without knowing the causes responsible for this state of affairs. So the three agriculture sector challenges are vital to India's overall development and therefore the improved welfare of its rural poor:

- 1) **Raising agricultural productivity per unit of land:** Raising productivity per unit of land can have to be compelled to be the most engine of agricultural growth as nearly all arable land is farmed. Water resources also are restricted and water for irrigation should manage increasing industrial and concrete wants. Farmers additionally suffer owing to lack of irrigation facilities. Moreover, normal sorts of seed will be replaced by higher varieties if there's an assured supply of water. The necessity for the development of minor irrigation works of an area nature is each imperative and pressing. In fact, the entire water potential within the country is over equal to irrigate the full areas beneath cultivation. However, the current problem is one in all discovering low cost and simple ways of utilising these immense provides of water.
- 2) **Reducing rural poverty through a socially inclusive strategy that comprises both agriculture as well as non-agriculture employment:** Rural development should additionally profit the poor, landless, women, scheduled castes and tribes. Moreover, there are robust regional disparities: the bulk of India's poor are in rain-fed areas or within the jap Indo Gangetic plains. Reaching such teams has not been simple. Whereas progress has been created the agricultural population classified as poor fell from nearly four-hundredth within the early Nineties to below half-hour by the mid-2000s there's a transparent would like for a quicker reduction. Hence, impoverishment alleviation could be a central pillar of the agricultural development efforts of the government and therefore the International Bank for Reconstruction and Development.
- 3) **Ensuring that agricultural growth responds to food security needs:** The sharp rise in food-grain production throughout India's revolution of the 1970's enabled the country to attain autonomy in food-grains and foreclose the threat of famine. Agricultural intensification within the 1970's to 1980 saw associate enhanced demand for rural labor that raised rural wages and, besides declining food costs, reduced rural economic condition. But agricultural growth within the 1990's and 2000's stalled, averaging concerning 3.5% each year, and cereal yields have enhanced by only 1.4% each year within the 2000's. The slow-down in agricultural growth has become a significant cause for concern. India's rice yields area unit third of China's and concerning half those in Vietnam and land. Identical is true for many different agricultural commodities. Policy manufacturers can so got to initiate and/or conclude policy actions and public programs to shift the world far from the present policy and institutional regime that seems to be not viable and build a solid foundation for a far additional productive, internationally competitive, and wide-ranging agricultural sector.

The presence of large diversities in the agricultural sector makes it necessary to devise separate agricultural policies for different regions. It is not possible to generalize and formulate a single agricultural policy for the country as a whole as such generalization is bound to gloss over inter-regional differences and fail to deliver the goods.

## VI. CROPPING PATTERN OF INDIAN AGRICULTURE

By crop pattern, means the proportion of area under different crops at a point of time, changes in this distribution over a period of time, and factors determining this change in distribution. Cropping pattern in India is determined mainly by natural factors. However technological factors have also very important for India's cropping pattern. Various significant facts about the cropping pattern in India are as follows:

- 1) Food crops including cereals, millets, pulses, vegetables and fruits cover nearly three-fourth of total cropped area. For instance in 1950-51, out of total area of 97.3 million hectares under food grains as much as 78.2 million hectares was devoted to cereals. Of the total area of 120.2 million hectares under food grain in 2012-13, 97.6 million hectares was devoted to cereals.
- 2) In India rice is the most important food grain. It is grown on more than one-third of the total of the total area under food grains. In 1950-51, it was grown on 30.8 million hectares which amounted to 31.6 percent of the total area devoted to food grains. In 2012-13, it was grown on 42.4 million hectares which amounted to 35.3 percent of total area under food grains.

### 6.1 Area, production and yield of major Crops

Table 6.1: Cropping pattern of Indian Agriculture

Crops	Area (Lakh hectare)			Production (Million tonnes)			Yields (Kg per hectare)		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16 <sup>@</sup>
Rice	441.36	441.10	433.88	106.65	105.48	104.32	2416	2391	2404
Wheat	304.73	314.65	302.27	95.85	86.52	93.50	3145	2750	3093
Coarse cereals	252.19	251.70	237.75	43.29	42.86	37.93	1717	1703	1596
Pulses	252.12	235.54	252.59	19.25	17.15	16.47	764	728	652
Food grains	1250.41	1243.00	1226.50	265.04	252.02	252.22	2120	2028	2056
Oilseeds	280.50	255.96	261.34	32.74	27.51	25.30	1168	1075	968
Sugarcane	49.93	50.66	49.53	352.14	362.33	352.16	70522	71512	71095
Cotton*	119.60	128.19	118.72	35.90	34.80	30.15	510	462	432
Jute & Mesta**	8.38	8.09	7.85	11.69	11.12	10.47	2512	2473	2399

@ 4th advance estimates

\*Production in million bales of 170 kg each.

\*\*Production in million bales 180 Kg. each.

- 3) The other main important food grain crop in India is wheat. In 1950-51, it was shown on 9.8 million hectares. However, it has consistently improved its position particularly after the advent of green revolution during the mid-1960. In 2012-13, wheat was grown on 29.7 million hectares which comes to 24.7 percent of the area under food grains.
- 4) The case of coarse cereals is not very satisfactory in India. The combined area under jowar, bajra and maize declined in percentage from 28.6 in 1950-51 to 20.5 in 2012-13. Coarse cereals also face competition from superior cereals like rice and wheat which in some areas are available at prices lower than that of coarse cereals.
- 5) Area under oilseeds was 10.7 million hectares in 1950-51 and 19 million hectares in 1985-86. To meet the domestic requirement of edible oils, the government had to import considerable amount of oilseeds in early 1980s. To achieve self-sufficiency in edible oils, the government launched a number of programmes in 1980s. As a result of these programmes, area under oilseeds increased speedily from 19 million hectares in 1985-86 to 26.2 million hectares in 1998-99. Thereafter, it started falling and in 2003-04, area under oilseeds was 23.7 million hectares. However, in 2012-13, area under oilseeds stood at 26.5 million hectares.
- 6) Coming to commercial crops it is shown that area under sugarcane increased from 1.7 million hectares in 1950-51 to 2.8 million hectares in 1995-96 and 5.1 million hectares in 2012-13. Area under cotton rose from 5.9 million hectares in 1950-51 to 12.0 million hectares in 2012-13. The area under jute and Mesta increased from 0.6 million hectares in 1950-51 to 0.9 million hectares in 2012-13.

The above data shows that the cropping pattern in India has undergone significant changes during the period of planning. These cropping patterns are due to a number of factors like natural factors, social factors, historical factors and economic factors of the country.

## VII. CONCLUSION

Most of the Indians square measure directly or indirectly looking on the agriculture. Some square measure directly hooked up with the farming and a few others square measure concerned in doing business with this merchandise. Asian nation has the capability to provide the food grains which may create huge distinction in Indian Economy. Agriculture makes the very best contribution to India's gross domestic product. It's been seen within the previous few years that the input of the agriculture sector has been declining, however it's still the largest contributor. Agriculture occupies a distinguished position in Indian policymaking not solely attributable to its contribution to gross domestic product however additionally attributable to the big proportion of the population that's addicted to the world for its bread and butter. But it's clear that India's agricultural sector has created immense strides in developing its potential. The revolution massively accrued the assembly of important food grains and introduced technological innovations into agriculture. This progress is manifested in India's web trade position. Wherever once Asian nation had to rely on imports to feed its individuals, since 1990 it's a web bourgeois of agrifood product. Its agriculture is massive and various and its sheer size means even slight changes in its trade have important effects on world agricultural markets. Lastly, within the implementation of reforms for roaring globalisation, one crucial component, not entirely inside management is that they want permanently governance and stability within the political and economic atmosphere.

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