



# AGRICULTURE ROLE NATURE AND FACTOR DETERMINING CROP PATTERN IN INDIA

Channappa Lamani <sup>1</sup> and Ms. Philomina Correya <sup>2</sup>

<sup>1</sup>Research Scholar, Postgraduate Department of Economics, Field Marshal K.M. Cariappa College, A Constituent College of Mangalore University, Madikeri-571201, (India).

<sup>2</sup>Research Scholar, Postgraduate Department of Economics, Field Marshal K.M. Cariappa College, A Constituent College of Mangalore University, Madikeri-571201, (India).

## 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 54.6 percentage of the population is engaged in agriculture and allied activities (Census 2011). 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 42.4 per cent of India's geographical region in 2021-2022. So present study is basically a review of role, nature and cropping pattern of India's agriculture.

**Keywords:** Agriculture sector, Employment, GDP, Role, Nature, Crop pattern in India.

## 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 **315,72** million tonnes during **2021-22** is higher by **23.80** million tonnes than the previous five year's average production of foodgrains. highest ever since independence. Agriculture plays an important role Indian economy as it contributes about **8.7** per cent to the total real GDP growth in **2021-2022**.

## OBJECTIVES

The general objective of the study is to evaluate Agriculture, role, nature and factor determining crop pattern in India. However, specifically, the study tries to attain the following objectives.

1. To Study the role of Agriculture in Indian economy.
2. To Analyze the nature of India's Agriculture.
3. To discuss the factor determining crop pattern of Indian Agriculture.

## RESEARCH METHODOLOGY

This study is of analytical nature and makes use of secondary data. The required and 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 **1950-51 to 2021-2022**.

## 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 per cent in 1950-51, the share of agriculture and allied activities. In GDP at factor cost declined to 29.6 per cent in 1990-91 and further to 13.9 percent in 2013-14. According to the new series the share of agriculture and allied activities in Gross Value Added at basic prices was 14.8 per cent in 2019-20 and **16.4** per cent in **2020-21**.

### 2) Largest employment providing sector

In India during 1972-73, 73.9 per cent of the operating population was engaged in agriculture. This percentage fell to 64.8 per cent in 1993-94 per cent in 2011-12 and **41** per cent in **2020**. With rapid increase in population, the absolute number of people engaged in agriculture has become exceedingly large. Development of the other sector of the economy has not been sufficient to provide employment to the increasing addition to working population who are, therefore, forced to fall back upon agriculture even if their marginal productivity on land is zero or nearly so.

### 3) Provision of food surplus to the expanding population

Because of the heavy pressure of population in labour surplus economies like India and its rapid increase, the demand for food increases at a fast rate. The existing levels of food consumption in these countries are very low and with a little increase in per capita income, the demand for food rises steeply. Therefore, unless agriculture is able to continuously increase its marketed surplus of food grains.

### 4) Contribution to capital formation

The importance of capital formation in economic development. Unless the rate of capital formation increases to a sufficiently high degree, economic development cannot be achieved. Since agriculture happens to be the largest industry in developing countries like India, it can, and must, play an important role in pushing up the rate of capital formation. Generation of surplus from agriculture will ultimately depend on increasing the agricultural productivity considerably.

### 5) Providing raw materials to industries

Agriculture provides raw materials to various industries of national importance. Cotton textile industry, Sugar industry, etc. The entire range of food processing industries is similarly dependent on agriculture. Therefore, unless agriculture develops, these industries will also remain backward.

## 6) Market for industrial products

More than two thirds of the population of developing countries like India lives in rural areas, increased rural purchasing power is a valuable stimulus to industrial development. This point was emphatically brought home by **Ragnar Nurkse** when he stated, “The trouble in this, there is not a sufficient market for manufactured goods in a country where peasants, farm labourers and their families, comprising typically two- thirds to four-fifths of the population are too poor to buy any factory products, or anything in addition to the little they already buy. There is a lack of real purchasing power, reflecting the low productivity in agriculture.”

## 7) Importance in international trade

For a number of years the three agriculture-based exports of India, cotton textiles, jute and tea, accounted for more than 50 per cent of export earnings of the country. The share of agricultural exports in total exports was 44.2 per cent in 1960-61. This fell considerably to 30.7 per cent in 1980-81 and **11.2% in 2019-20%**. As far as composition of imports is concerned, capital goods, petroleum etc. maintenance imports have accounted for the bulk of imports. However, during certain years, the country had to face severe drought conditions and large-scale imports of foodgrains had to be resorted to. India also imports dairy products, fruits, vegetables and raw materials etc.

## 8) Role in poverty reduction

Agriculture presently contributes about **15%** of GVA in India yet it continues to employ almost half of the workforce. Moreover, an average Indian still continues to spend almost half of his/her expenditure on food. Since agriculture continues to be a source of livelihood and food security for a vast majority of low income, poor and vulnerable sections of the society, its role in poverty reduction is self- evident. In fact, a major survey of the growth experiences of several developing countries by the **World Development Report 2008**, over the last twenty-five years or so, showed that **1%** growth in agriculture is at least two to three times more effective in reducing poverty than the same growth coming from non-agriculture sectors.

## NATURE OF INDIA`S AGRICULTURE

Indian agriculture was backward and qualitatively traditional in nature on the eve of the First five-year plan. However, it is not sufficient to call Indian agriculture backward, traditional and stagnant and leave the discussion there. We must examine the causes responsible for this state of affairs. This exercise can be carried out by examining the land relations, size of holdings, agricultural techniques, irrigation facilities, widespread rural indebtedness, role of moneylenders in rural economy, etc. Let us examine these causes in some details.

## A]. Feudal relations of production

At the time of Independence, three types of land tenure system were prevalent in the country. Zamindari, mahalwari and ryotwari. Approximately **57%** area of the country was under the **zamindari system**. In terms of coverage, **ryotwari** came second with **38%** area, while **mahalwari** was restricted to only **5%** area. The zamindari system was a major hindrance to agricultural development. Ryots in the ryotwari system also leased out their land to tenants for cultivation and these tenants were also subjected to the same type of exploitation as prevalent under the zamindari system.

After Independence, the State government enacted laws to abolish the intermediaries. However, these were entirely inadequate to have any drastic impact on the agrarian structure. The zamindars only changed their garb and became absentee landlords. Obviously, the classes that are exploited by these landlords are the classes of tenants and agricultural workers. Though no exact estimates on tenancy are available, it has been estimated that around 50% of the cultivated lands is under oral tenancy. A large number of tenants come under the category of tenants at will and sub-tenants. These classes of tenants possess no security of tenure and enjoy cultivation rights only so long as the landlords allow them to do so. This exposes them to the exploitative practices of the landlords since their very existence hinges on the pleasure of the landlords.

The second exploited class is constituted of agricultural workers. This class is at the lowest rung of social ladder in rural areas. A large number of tenants have also been evicted under the guise of personal cultivation and have swelled the ranks of agricultural labourers. The growing number of agricultural labourers indicates the process of `immiserisation` of the rural poor.

## B]. Usurious capital and rural indebtedness

The control of usurious capital is very strong on the Indian agriculture and indebtedness is a common legacy of poor farmers. During the pre-independence period, moneylenders and mahajans ruled the roost as there was no other credit agency worth the name. Taking advantage of their position, these people exploited the farmers in a number of ways. After independence, the government has initiated a number of steps to curb their activities. The most important policy measure being the development of cooperative credit institutions and the increasing participation of banks in providing rural credit. However, because of a number of factors, the small and marginal farmers continue to depend on moneylenders for fulfilling their credit requirements to a large extent and thus become victims of exploitation by the latter. The phrase `**once` in debt, always in debt`** expresses the condition of these farmers graphically. The moneylenders charge exorbitant rates of interest, manipulate accounts to their advantage and often seize the land of small and marginal farmers on one pretext or the other.

### C]. Labour market dualism

Because of the excessive pressure of population on land, wages in the agricultural sector tend to be considerably lower as compared to the modern sector. This leads to a labour market dualism. The fact that large number of workers remain sticking to traditional agriculture despite low wage due either to ignorance of better opportunities outside agriculture, or to their inability to obtain a modern sector job despite wishing to do so, or to the cost of moving being unacceptably high in relation to the expected wage premium. Low wages in the agricultural sector lead to low per capita income and this, in turn, results in low labour productivity.

### D]. Outmoded farming techniques

Most of the Indian farmers continue to use outmoded farming techniques. The traditional agriculture depends on the biological sources of energy, rains and dung manure. Returns to farmers under this technique of production are very meagre and the nature of farming is appropriately described as `subsistence farming`. However, with the advent of the new agricultural strategy in **1966**, modern techniques of production were initiated in certain selected regions of the country like **Panjab, Haryana and Western Uttar Pradesh**. As a consequence of the adoption of modern techniques of production and new high-yielding varieties of seeds, agricultural productivity registered substantial increases in these areas. However, since large areas of the country continue to use outmoded agricultural techniques, a sort of technological dualism has emerged in the country.

### E]. Fluctuations and instability in crop output

The Indian agriculture has rightly been called a `gamble in the monsoon`. Gross cropped area in 1950-51 was 131.89 million hectares, whereas gross irrigated area was only 22.56 million hectares. Thus, only 17.1 per cent of gross cropped area had irrigation facilities. In 2016-17, the gross cropped area was 200.20 million hectares of which 98.15 million hectares was irrigated. Thus, **49.0%** of gross cropped area had irrigation facilities in **2016-17**. This shows that even now **51%** of gross cropped area continues to depend on rainfall. Therefore, nature continues to play a major role in determining the level of agricultural production.

### F]. Diversities in the agricultural sector and the problem of generalization

India is a large country having substantial agricultural diversities. Different regions exhibit entirely different characteristics so that no one plan can be conceived for all agricultural regions of the country. The nature of soil, the magnitude of rainfall, availability of water, etc., differ considerably between regions. For instance, take the case of rainfall. While **Western Rajasthan** and a part of the Thar desert have a very uncertain rainfall of **4 to 5 inches** a year. **Cherrapunji in Assam** has an annual rainfall of more than **450 inches**. While considerable areas face drought conditions in a particular year, some areas encounter the fury of floods. Some areas face the problems of waterlogging and salinity. Practically the entire cultivated area of the country suffers from deficiency of nitrogen. Elements of phosphates and potash also differ significantly in different areas. It is



not infrequent to find plots of land of highly different productivity existing side-by-side in a particular village. Not only this, relations of production are different in different States. There are substantial regional inequalities also in regard to subdivision and fragmentation of holdings.

## **FACTORS DETERMINING CROP PATTERN IN INDIA**

The crop pattern of any country is due to a number of factors which can be classified into the broad categories of natural, social, historical and economic. In addition, the respective Government of a country can also effect changes in crop pattern through its agricultural policy.

### **1). Natural factors**

These pertain to the physical characteristics and natural endowments of a region and are the most important factors determining its crop pattern. Nature of soil, type of climate, extent of rainfall, etc., will determine the basic crop pattern of region over a period of time. This study explains the cultivation of rice in West Bengal. In areas having low rainfall and small availability of water supply, the choice will naturally fall upon jowar and bajra which require small quantity of water. Therefore, in Rajasthan and rain deficient areas in Uttar Pradesh, the basic crops are jowar and bajra. Similarly, the soil of the Indo-Gangetic plain is suitable for the growing of wheat.

### **2). Economic factors**

These pertain to prices of agricultural commodities, incomes of farmers, size of holdings, availability of agricultural inputs, nature of land tenure, etc. The importance of these factors in affecting the crop pattern is self-evident. For example, increase in prices of a certain crop consistently for some years relative to other crops can induce the farmers to shift over to that crop. For instance, farmers growing pulses and inferior cereals like jowar and bajra have been tempted to shift over and to the production of wheat in recent years on account of price factors and also on account of the higher productivity potential of new high yielding varieties of wheat. The size of farm holdings also affects the crop pattern. Small farmers give first priority to food crops because they are more interested in fulfilling their food requirements in the first instance. As against this, large farmers with substantial holdings may tend to devote a part of their land for growing cash crops. Availability of agricultural inputs like seeds, fertilisers, irrigation, etc., also affects the crop pattern to some extent.

### **3). Historical factors**

In certain areas certain crops are grown by sheer accident or necessity and then that cropping pattern is maintained through the years. Historical pattern of land tenure also plays its role. If the land is divided into a number of small and marginal farmers, the tendency will be to grow food crops. As against this, if ownership of land is vested in large landowners, the tendency will be to produce more cash crops.

#### 4). Social factors

Social environment, customs, traditions, outlook towards material things, etc., also influence crop pattern to some extent. For example, in the pre-Independence period, the outlook of a majority of farmers was very narrow and they were bound by traditions. Therefore, the same crop pattern was continued to be adopted by successive generations. After Independence, gradual changes in social awareness and social consciousness are emerging which are, in turn, making farmers more and more responsive to price changes and productivity possibilities of different crops.

#### 5). Government Policy

Policies of the government relating to different crops, exports, taxes, subsidies, supplies of inputs, availability of credit, etc. can affect the cropping pattern in a significant way. In the pre-Independence period, government policy had a very restricted scope to play in the agricultural sector and cropping pattern was determined exclusively by other factors. However, after Independence the policies of expansion of irrigation facilities, determination of agricultural prices like procurement prices, support prices and a host of other policies have all contributed to changing crop pattern. Adoption of high yielding varieties of seeds in selected areas of the country with a package of inputs and incentives has contributed crucially in encouraging the farmers of some regions to switch over to wheat.

#### 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 globalization, 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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