

## Role Of Agriculture In Economic Development Of Assam

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### **Abstract:**

Agriculture plays a vital role in the economy of Assam. Assam is heavily dependent on the agriculture sector. Assam is richly endowed in natural resources, such as abundant rainfall, alluvial soil, rich and diverse plant and animal genetic base. The state is well watered by rivers and the agricultural land receives water through the channels of the irrigation system. 70 percent of the people of Assam are directly or indirectly dependent on the agricultural sector. In spite of being richly endowed with natural resources, the state lags behind the rest of India in many aspects. The cultivation in Assam is characterised by several problems from which some are natural and others are manmade such as natural calamities/ disaster, small and fragmented land holding, lack of quality seeds and adequate fertiliser, proper irrigation facility etc. Moreover, the insufficient preservation system specially for perishable agricultural product, lack of awareness towards benefits of using high yielding variety seeds, modernisation of agriculture, lack of farmer's training etc. are also creating challenges to agricultural development in Assam. To improve the agricultural production, there is an urgent need of various strategies which are appropriate, simplest for all the farmers. In this context Government has to play an important and effective role for promoting agricultural development in Assam.

**Keyword:** Agriculture, Economic development, Role, Assam.

### **1. INTRODUCTION:**

Assam is one of the eight states of North Eastern Region blessed with fertile soil and its climatic conditions favour agriculture. Agriculture accounts for more than a third of the state domestic product. Agriculture is the primary sector in the state's economy. The socio-economic condition of Assam largely depends on its agricultural production. Several agro-based industries of the state such as food processing industry, tea industry, paper industry, sugar industry, oilseed industry etc. totally depend on agriculture for their survival. In this way, agriculture constitutes one of the main pillars of Assam economy. It sustains the state's economy.

### **2. IMPORTANCE OF THE PAPER:**

Assam's economy is fundamentally based on agriculture. Agriculture has made significant progress in the economic of Assam. Assam's natural resources, raw materials or mainly agricultural fields have considerable potential. In fact, if the scientific reforms are carried out in the name of science, then the economic sector of Assam will definitely be strengthened. This research paper has great importance in terms of the feasibility of the agricultural sector of Assam and the adoption of good ideas and policy implementation.

**3. OBJECTIVE OF THE STUDY:**

- This study is an effort to bring a light on the importance of agriculture in economy of Assam.
- To study the present scenario and contribution of agriculture in Assam economy.
- To study and analyse the various challenges faces by Agriculture sector in Assam.

**4. METHODOLOGY:**

The data for this study is based on secondary data which are both descriptive and quantitative collected from the field from various sources including published documents, websites, journals, textbooks, articles, etc.

**5. SCOPE OF THE PAPER:**

The scope of this paper covers the agricultural sector of Assam as a whole where the contents of the paper will be analysed by applying the economic theories.

**6. ANALYSIS:****6.1. CHARACTERISTICS OF AGRICULTURAL SECTOR OF ASSAM :**

The state of Assam experiences plenty of rainfall and possess a fertile land which is extremely advantageous for cropping. Assam agriculture is the primary sector in the state's economy. The socio-economic condition of Assam largely depends on its agricultural production. Thereby, the Assam department of agriculture has decided to take up various development measures to ensue growth in crop production.

- **SOURCE OF LIVELIHOOD:** Agriculture is the main occupation. It provides employment nearly 61% persons of total population. It contributes 25% to national income.
- **LARGELY DEPENDENCE ON MONSOON:** Like India, agriculture in Assam mainly depends on monsoon. If monsoon is good, the production will be more and if monsoon is less than average then the crops fail.
- **LABOUR INTENSIVE CULTIVATION:** Agriculture is mainly labour intensive production. It means in the production of agricultural goods, more labour is used as compared to capital.
- **DOMINANCE OF FOOD CROPS:** 75% of the cultivated area is under food crops like Wheat, Rice and Bajra, while 25% of cultivated area is under commercial crops.
- **TRADITIONAL METHODS OF PRODUCTION:** In most of the place of Assam, methods of production of agriculture is traditional. It may be due to inability of the people because of their low income, illiteracy etc.

**6.2. MAJOR CROPS GROWN IN ASSAM: AN OVERVIEW:**

Assam is a paradise for many forms of agriculture, producing a wide range of crops, and then different agro-based industries from them. In other words, this region is a heaven of farming naturally rather than artificially. There are various crops grows in this region. Some major crops grown in Assam are-

- **RICE:** Rice is grown in Assam as a seasonal crop. Farmers in this area do not grow rice paddies all year. They could, however, do so using various artificial procedures, as other agricultural hubs in the country do. People in Assam, view production of rice as a part of their culture rather than a business. As a result, they concentrate on rice paddies for only six months of the year, leaving the rest of the year unproductive.
- **WHEAT:** Wheat is one of the oldest and most important of the cereal crops. Wheat crop has wide adaptability. It can be grown not only in the tropical and sub-tropical zones, but also in the temperate zone. Dhubri, Kokrajhar, Bongaigaon ,Barpeta etc. districts of Assam are the most potential area for wheat production.

- **PULSES:** Among different north eastern states, Assam had the highest pulses area. Pulses are key sources of proteins for the vegetarians in Assam. Its complements the staple cereals in the diets with proteins, essentials amino acids, vitamin and minerals. As per the estimates of the expert group on pulses, Morigaon, Lakhimpur, Kokrajhar, Bongaigaon , Nalbari, Darrang ,Tinsukia etc. are the most potential area for pulse production.
- **OILSEEDS:** The agro-ecological conditions of Assam is favourable for growing various annual oilseeds crops. The most important oilseeds crops grown in this state are Rape & mustard, Sesame, Linseed etc. Most of the oilseed crops are grown in Assam during Rabi season etc.

### 6.3. TRENDS IN AGRICULTURAL PRODUCTIVITY (ESPECIALLY SOME OF THE ABOVE-MENTIONED PRODUCTS) IN ASSAM:(000 tonnes)

| Agricultural products | 2001-02 | 2004-05 | 2007-08 | 2008-09 | 2010-11 | 2012-13 | 2018-19 | 2019-20 | 2020-21 |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Rice                  | 3854    | 3470    | 3319    | 4009    | 5033    | 5128    | 5437    | 5215    | 5214    |
| Food grains           | 4023    | 3617    | 3468    | 4142    | 5178    | 5279    | 5682    | 5467    | 5487    |
| Wheat                 | 85      | 68      | 71      | 55      | 56      | 44      | 23      | 14      | 13      |
| Pulse                 | 66      | 61      | 61      | 62      | 72      | 84      | 113     | 106     | 109     |
| Oilseed               | 156     | 146     | 139     | 141     | 159     | 187     | ----    | ----    | ----    |

Source: Director of Economics and Statistics, Assam

The above table shows a cleared picture of trend in agricultural production during the period from 2001-02 to 2020-21. In 2001-02, Rice production was 3854 thousand tonnes which rose to 5214 thousand tonnes in 2020-21. Among all those years, the production of Rice was highest in the year 2018-19. The production of food grains has also increases continuously from 4023 thousand tonnes in 2001-02 to 5487 thousand tonnes in 2020-21. Production of Wheat shows a trend in a continuously decline manner i.e. it declines from 85 thousand tonnes in 2001-02 to 13 thousand tonnes in 2020-21. On the other hand the production of pulse shows a steady rise from 66 thousand tonnes in 2001-02 to 109 thousand tonnes in 2020-21. Moreover, the total production of Oilseed also shows a steady growth in its production.

### 6.4. CONTRIBUTION OF AGRICULTURE AND ALLIED SECTOR IN ASSAM ECONOMY:

There has been a very significant contribution of agriculture and allied sectors to the state GSDP.

| YEAR                        | CONTRIBUTION OF GSDP(in percentage) |
|-----------------------------|-------------------------------------|
| 2018-19                     | 16.28                               |
| 2019-20(P.E)                | 20.56                               |
| 2020-21(1 <sup>st</sup> PE) | 22.32                               |
| 2021-22(Q.E)                | 22.07                               |

Source: Economic Survey Of Assam 2021-22

The above table depicts the contribution of Agriculture and its allied sector to the state's GSDP. During the year of 2010-20, the contribution of Agriculture and allied sectors to total GSDP of Assam at current prices is 16.28%. Again , the share of Agriculture and its allied sector was increases from 20.56% in 2019-20 to 22.32% in 2020-21 .After that, its contribution was decreases to 22.07% in the year of 2021-22.

Moreover, Agriculture in Assam is regarded as the major source of occupation. As per 2001 census , 74.58% labour was engaged in Agricultural activities while, in 2011 census, 72.58% population was engaged in Agricultural sector.

Again, Agricultural sector of Assam has also performed better contribution to the India's Foreign Trade. Agricultural products such as Rice, Tea, Wheat, Oilseeds, Fruits, Pulses etc. are getting a high demand in both domestic and international markets. Specially, In FY22, the total tea export from Assam accounted for US\$ 179.65 million.

### **6.5. CHALLENGES FACED BY AGRICULTURE IN ASSAM:**

Agriculture in Assam is overwhelmed by several problems i.e. natural and manmade. In this context, some of the main issues or problems directly relating to agricultural sector are discussed below-

- **NATURAL CALAMITIES:** Floods and dry spells are the principal natural disasters faced by farmers in Assam every year. The main source of floods is the Brahmaputra river and its tributaries. The loss of crop, livestock, cultivable land, human lives etc. are common during the yearly flood, which also takes a toll on human spirit.
- **SMALL AND FRAGMENTED LAND HOLDINGS:** Fragmentation of land holding is one of the main causes of low agricultural productivity and backward state of agriculture. A lot of time and labour is wasted in moving seeds, manure, implements, and cattle from one piece of land to another. Irrigation becomes difficult on small and fragmented field. Further, a lot of fertile agricultural land is wasted in providing boundaries for which the farmer cannot concentrate on improvement.
- **LACK OF QUALITY SEED AND PLANTING MATERIALS:** Seed is a critical and basic input for attaining higher crop yields and sustained growth in agricultural production. Distribution of assured quality seed is as critical as the production of such seeds. Unfortunately, good quality seeds are out of reach of the majority of farmers in Assam, especially, small and marginal farmers due to excess price of better seed.
- **INADEQUATE IRRIGATION FACILITY:** Crops require water for their growth and development. The process of supplying water to the crops is known as irrigation. Irrigation is the most essential input in better production of agricultural production. Due to several reasons, farmers either don't receive the appropriate amount of water or don't get the supply on time; many farmers rely on rainwater for irrigation.
- **LESS USE OF MODERN FARMING EQUIPMENT:** In most areas, to date, farmers follow primitive cultivation methods; traditionally-used plough and relevant native accessories continue to be farmer's preference. Despite no shortage of efficient equipment and machinery, there's very little use of modern equipment, majorly because most farmers don't have lands huge enough to use advanced instruments, heavy machinery.
- **POOR STORAGE FACILITIES:** In rural areas of Assam, storage facilities are either insufficient or completely absent. In such a situation, farmers usually have no other option than selling their produce immediately once it's ready, at market prices that are often very low. They are far away from a legitimate income. Etc.
- **UNORGANIZED MARKET:** Till now, agricultural marketing continues to be in awful shape in most of the rural areas. Moreover, lack of cheap, efficient means of transportation is a big problem widely seen in the Assam's agricultural sector. Consequently, farmers cannot deliver their produce to the central market and helplessly sell it in the local market at low costs.
- **GOVERNMENT SCHEMES ARE YET TO REACH SMALL FARMERS:** In Assam, most of welfare programs and subsidies announced by both the central and state governments are yet to reach poor farmers, while big/wealthy landlords are hugely benefited etc.

### **6.6. STRATEGIES FOR DEVELOPMENT OF AGRICULTURE IN ASSAM:**

In order to improve the production and contribution of the agricultural sector to the overall development of Assam, there is a need to devise an appropriate, regionally differentiated strategy.

Some of the major strategies and scientific techniques suitable for development of agricultural sector in Assam are discussed below.

- **MULTIPLE CROPS:** For better yield and profitable results, farmers are advised to cultivate multiple crops, including Apple, Coconut, Ginger, Turmeric, and many others. Diversification with different crops in the same plot of land can be also be a promising option. Depending on the land situation, multiple cropping options such as inter-cropping, relay cropping, cultivation of crops through raised and sunken bed techniques etc. play an important role in augmenting agricultural production in Assam.
- **MODERNIZATION IN AGRICULTURE:** Through encouraging youth for farming and related occupation, the agricultural sector can bloom definitely. They already have basic institutional education and knowledge; they can learn and grow quickly. For instance, almost all of them have smartphones; by using a modern agriculture app, they can perform well in farms.

Besides, introducing modern technology and passing advanced equipment to small farmers will help boost efficiency, productivity, and quality.

- **BETTER WATER MANAGEMENT:** Water resources can be fully utilised through inter-districts coordination on water management; water can easily be delivered to the areas where it is most required. Connecting the rivers and constructing waterways/channels will solve water supply problems and improve irrigation facility, helping farmers in case monsoon fails.
- **FARMER'S EDUCATION IS VITAL:** Many farmers are unaware of crop rotation. Education is pretty much improved in urban areas, but the government has overlooked the need for the same in rural areas, particularly in the overall agricultural sector. This is the reason why farmers remain unaware of several government provided schemes and their benefits.
- **SUPPLY OF QUALITY SEEDS:** Quality seeds should be sold through co-operative societies or village Panchayats. Farmers should be given awareness regarding various varieties of seeds. Marginal farmers should be given seeds on loan.
- **GREEN MANURE:** Production of chemical fertilisers should be increased and it should be made available to farmers at subsidised rates. Farmers should be educated for firing green manure.
- **CREDIT FACILITIES:** Farmers should be advanced loan at reasonable rates of interest. Regional Rural Banks and Commercial Banks should be directed to provide loans to small farmers on easy terms. Local moneylenders should be scrutinized to stop their malpractices. etc.

## 7. CONCLUSION:

Agriculture depends mainly on natural environment. Therefore, in the present context of rapid degradation of natural environment, first of all, efforts should be directed for meeting the needs of the present generation without compromising the needs of future generations. A well-defined and focused plan should be adopted for improving the agricultural sector of Assam. When the assured supply of water is delivered, ordinary seeds can be replaced with better varieties; similarly, instead of wheat and rice, more farmers can switch to other crops, and more agricultural production can be attained and hence more economic growth in the state. Moreover, efforts should be made to encourage contract farming and strengthening of rural infrastructure such as roads, irrigation structures and communication networks. However, the government, farmers, Agricultural Universities, Rural and Commercial Banks as well as the general people of the state should cooperate and work hand in glove for overall agricultural development in Assam.

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