



## IMPACT OF GREEN REVOLUTION ON ECONOMIC AND SOCIAL DEVELOPMENT: A GEOGRAPHICAL ANALYSIS



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### Abstract :

India faced food shortages due to intermittent droughts. Rapidly growing population put more and more pressure on the agricultural sector. In the 1950s, India was faced with the problem of food shortages. At that time population was high and food grain production and productivity was low. The advent of the Green Revolution helped boost confidence in our agricultural potential and maintain a balance between population growth and food grain production. The true contribution of the Green Revolution was the significant increase in the production of the two major crops, rice and wheat. This first Green Revolution recorded both positive and negative effects on society and the environment. The current consequences are very worrying for human life. In spite of large agricultural production, there are many issues regarding food security in the country. There is an urgent need for a second green revolution for the country. Promotion of improved varieties of dominant crop seeds, diversification of crops is necessary. The present paper examines the social perspective of the new chapter of the Green Revolution in India.

**Key Words:** Agriculture, Dry land, Irrigation.

### Research Objectives:

- To study the background of Green Revolution.
- To study the possibilities of agricultural development
- To study the effects of Green Revolution.
- To suggest solution plan for the problem created due to green revolution.

### Information Sources and Research Methods:

The secondary source of information has been used as a reference book for the present research paper. In it various books, research papers, newspapers have been taken as support.

### Introduction:

Since India is an agricultural country, the rural economy is dependent on agriculture and ancillary industries and most of the agriculture in the country is dependent on seasonal rains.

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Agriculture has been repeatedly hit by the vagaries of rain. In the past few years, Bali raja has been having a hard time due to natural calamities and debt. The state's agriculture today has a mixed picture of dry land farming, food deficit, agricultural productivity below the national average, lagging oilseeds production, leading sugarcane production. The ratio of area under cultivation to total production is busy in Maharashtra. The per hectare productivity of all agricultural produce is lower than the national average in Maharashtra. At present, a large area of Maharashtra and Marathwada is in the rain zone and rain shadow region.

The advances in agricultural production in the 1970s that resulted in intensive agricultural production were named the Green Revolution. It was the product of many efforts in all directions like use of chemical fertilizers, advanced techniques of crop protection. As agriculture in Maharashtra is mainly dry land farming, dry land farming campaign is being implemented for the development of this agriculture. But their benefit is not seen fully. The campaign is expected to be useful in conducting studies and implementing special measures to increase the productivity of the 83 percent dry land areas of the state.

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### **Increase in production:**

Agriculture has always been a priority in Maharashtra. Because the various needs of the people in the society depend on it. In the last ten years, major changes and ups and downs are taking place in the agricultural sector. Due to this, the production has sometimes decreased and sometimes increased. Agriculture and production have been affected due to the irregularity of rains. Due to the timely and abundant supply of fertilizer seeds, irrigation facilities etc. to the farmers, there is an increase in the production of food grains and fruit crops. But if this does not happen, the farmers have to bear the consequences.

The state has been facing natural calamities both drought and heavy rains for the past several years. The work done by the water conservation department is bringing relief to the farmers and the micro irrigation projects are proving beneficial to permanently overcome the drought and create a sustainable irrigated area. The project aims to bring at least 20 percent of the state's geographical area under irrigation.

### **Seed tradition:**

Maharashtra State Seed Corporation was established in 1976. Since then, seed production, stock transportation, distribution has stabilized. At present seed testing laboratories are located in Pune, Nagpur, Aurangabad, Akola, Parbhani in the state. Since 1982-83, an independent system of seed certification has been functioning in the state. Also plans to increase emergency and reserve stocks of seeds are taking shape. There are currently four laboratories in the state for separation and analysis of chemical fertilizers at Pune, Nashik, Aurangabad, and Amravati.

Under the National Seed Project, plans are being made to strengthen and empower agricultural research institutes by providing funds for research and development and for increasing the production of basic seeds. The state of Maharashtra, which is a leader in the field of agriculture, took steps in this direction and established the Maharashtra State Seed Corporation at Akola in the year 1976. Since then till date State Seed Corporation in Maharashtra Mahabeez is functioning in the state. Mahabeez is carrying on a successful tradition of producing quality seeds to enrich the state in agriculture.

In the share capital of the corporation, the Maharashtra government has 49 percent, Rashtriya Seed Nigam Limited 35 percent and the University of Agriculture 3 percent, so the corporation has truly become a farmer's seed company.

**Water Conservation:**

The water conservation program is being effectively implemented in the state through various schemes in order to create protected irrigation facilities for agriculture, to stop the huge amount of soil erosion, to increase the income and production facilities in the rural areas by developing the waste land. Every inch of land should be used in social development. Due to drought, neglect, barrenness due to floods, suitable land for cultivation is lying. Efforts are needed to bring it under new cultivation. The area under Orta is growing massively. Even after the State Irrigation Commission has estimated the catchment capacity at 62 lakh hectares, the current irrigation system leaves very little area under irrigation. Due to lack of proper amount of water, salinity increases in the soil. And the land is out of cultivation. On the other hand, frost and drip irrigation systems can make more efficient use of available water and bring more land under irrigation. Through this, horticulture can also be done better.

The Integrated Watershed Management Program has been implemented in the state since 2009. This has helped in bringing more and more agricultural land under irrigation in the state. Water and Soil Conservation Mission Mahatma Jyotiba Phule Water and Soil Conservation Mission has been started in the state to increase the availability of irrigation water through catchment and water conservation through people's participation for rain-fed dry land agriculture and it is being implemented through the people's participation in rural areas.

**A New Era in Agriculture:**

Central and state governments need to make efforts to create the India of Gandhiji's dream and to provide relief to the farmers. The government has made a great effort to provide financial support to the farmers by implementing the Chhatrapati Shivaji Maharaj Samman Yojana for the farmers in Maharashtra who are in trouble due to the irregularity of rains, but it is not seen that all the farmers have benefited from this. There is a need for the government to make more substantial provision with greater emphasis on irrigation. There is a need to fill the need and backlog of quality seed chemical fertilizer soil health leaflets. This will reduce the cost of production and increase the total income. Also, there is a need to provide relief to the farmers by providing increased provision for agricultural infrastructure. The farmer should get the maximum share of the final sale price of the farm produce instead of going to the middlemen. Efforts should be made for this purpose.



**Figure 1 INDIAN FARMERS FACED SOME PROBLEMS.**

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### Protection for Farmers:

Farmers should be given relief by starting the Farmer Protection Scheme to protect them from calamities. They need to be guaranteed by the government that their income will be protected even during bad weather. There is a need to try to increase income through supplementary industries like poultry farming, beekeeping, goat rearing, fish farming. 18 12 23 crores have been allocated for agricultural rural development. However, it is not enough. Efforts must be made to strengthen the economic condition of farmers and to take measures in the budget to increase their income. Although it has been announced to pay one and a half times the cost of production with emphasis on increasing the production of food grains and fruits, it is not seen that they are being implemented. Up gradation of market committee, food processing industry, storage of perishable vegetables, construction of cold storage, fish farming, agricultural infrastructure, animal husbandry, bamboo mission should be provided for the scheme. Moreover, emphasis should be placed on providing employment to low-yielding farmers in and outside the agricultural sector.

### Conclusion:

Green Revolution has done a lot of positive things, saving the lives of million people and exponentially increasing the yield of food crops. But environmental degradation makes the Green Revolution an overall inefficient, short-term solution to the problem of food insecurity.

So, more sustainable and environmental friendly system of cultivation needs to be practiced.

The world need Green Revolution<sup>2</sup>, which promises to feed a growing world population sustainably-without compromising the needs of future generations.

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