



GREEN REVOLUTION IN INDIA A REVIEW OF SOCIO ECONOMIC AND POLITICAL CONSEQUENCES

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ABSTRACT :

In 1960's green revolution M.S. Swami Nathan in India the green Revolution Technology was utilised to increase in the agriculture production by applying modern techniques and tools; such as high yielding seeds, Tractors, Tractors modern irrigation techniques, pesticides and fertilizers etc. Green revolution has brought drastic transformation in the agricultural activities in India. Through the Green Revolution government had given an innovative way to sick the growth and improvement in the Indian agriculture sector. Through the present paper on attempt has been made to understand the historical background of Green revolution and its socio economic political and environmental consequences in Indian perspectives. This study also explore the negative consequences of Green revolution and the factors that where responsible for flourishing of green revolution in India. The green revolution in India has achieved great progress in the agricultural sector in India but on the other hand it had also affected on the socio economic and political conditions in India. Therefore the major Emphasis of the presence study is to explore the consequences of Green revolution on the show economy political and environmental aspects in India.

KEY WORDS: Green Revolution, socio- economic consequences, agricultural sector, political and environment situation, India.

I) INTRODUCTION

Through the implementation of Green revolution concept there was a drastic transformation in the agricultural sector of India during 60s. Concept involved the utilisation of new agricultural practices innovative methods of cultivation by applying machinery and new technology. This concept arrived as a result of adoption of innovative techniques and strategies in agriculture sector. These transformations bring about substantial improvement and growth in agriculture production in a short period. The Green Revolution has contributed to Indian agriculture sector from a Starving Nation to food exporter. The study paper Explorer the show economic environmental political consequences of Green revolution and its impact on the agricultural sector.

II) LITERATURE REVIEW

Ravindra Rena (2013) - Has attempted to highlight the effects of green revolution on Indian agriculture sector. Author has explained various reasons of adoption of Green revolution factors responsible for the Green Revolution and socio economic impact of Green Revolution. in the opinion of

author the Indian experience serve as a model for entire world to achieve self-sufficiency in food.

1. Sutendra Singh (2018) - Has focused on the past and present scenario pertaining to the effects of green revolution on Indian economy and Society. Through the study author has analysed the historical background of the green revolution in the Indian context and assessed the characteristics of revolution. The author has described the present and potential impact of the Green Revolution.
2. Deepa Chaudhari (2017) - Has described the historical background of the green revolution in India and highlighted the socio economic impacts of the Green Revolution. The study author has focused on the role played by the green revolution in shaping the future of India. The study author has presented a state wise decadal growth rate in food grain production from 1960 and focused on achievements of the new agriculture strategy.
3. D.N. Dhanagare (1988) - Has attempted to examine the impacts of the Green revolution on various sections of rural society. Through the study author has attempted to find out whether or not Green Revolution has succeeded in bringing sizable transformation in the rural peoples life and find out whether or not Green Revolution has proved for reducing socio economic inequalities in rural areas.

III) OBJECTIVES

1. To understand the historical background of the green revolution in India.
2. To highlight the factors that were responsible for the green revolution in India.
3. To focus on the socio economic and political constitution of the green revolution in India.
4. To focus on the consequences of the Green revolution on the agriculture sector of India.
5. To know about the environmental consequences of the green revolution in India.
6. To focus on the negative consequences of the green revolution in India.

IV) METHODOLOGY OF THE STUDY

The present study is based on the secondary data and it is descriptive in nature. The required information has been collected through the published literature in the form of books, study papers, government reports etc.

V) THE GREEN REVOLUTION IN INDIA- HISTORICAL BACKGROUND

The Green Revolution had a big impact in the period of Technology advancement in the agriculture sector. Green revolution is the technology which was developed during the 1950 and 1960s by a team of Agricultural experts at the international centre for Maize and wheat improvement in Mexico and the international rice Research Institute in the Philippines. Norman E Borlaug (US 1914 - 2009) was the father of Green Revolution. He helped lay the groundwork for agriculture technology that alleviated world hunger. Green revolution was begun in India in 1960 during which agricultural sector of India was transformed into a modern industrial system by the utilization of Technology, mechanized farm tools, model irrigation facilities, high yielding variety seeds, pesticides and fertilizers. The green revolution was mainly laid by agricultural scientist M.S Swaminathan in India. The green revolution in India was started in 1968 under the premiership Lal Bahadur Shastri. It was crude and helpful to increase the food grain production especially in Punjab, Haryana and Uttar Pradesh. Due to the Green Revolution the status of India, a country of food deficiency, was changed to a food agriculture country. This technology has impacted the socio economic life of Indian people. There are many factors that were responsible for the success of the revolution in India. Some of the important factors have been briefly described in the following paragraphs.

VI) FACTORS RESPONSIBLE FOR THE SUCCESS OF GREEN REVOLUTION IN INDIA

High yielding variety of seeds - this was the major factor of the Green Revolution. The Indian Council for agriculture research has developed new strains of high yield value seeds of wheat rice

millet and corn. These seeds insured a higher yield per acre. The utilization of HYV seeds has considerably risen from production which is caused for the success of the green revolution in India.

1. Double cropping on the available farm land- it was an important factor of revolution. Because of the early maturity of HYV seeds farmers were able to grow more than two crops in a year instead of one crop. Upper from this Dam water and innovative irrigation techniques have also made farmers grow more than one crop in a year this practice was also responsible for the success of revolution in India.
2. Utilization of fertilizers and modern machinery - Growth in utilization of fertilizers and modern farming machinery had also caused the success of revolution in India. the utilization of new farming machinery and other farming tools like tractor, electric water pump, tube Wells, harvesters etc. where enabled multiple cropping and the growing of high end varieties of crops in India.
3. Utilization of innovative and extensive irrigation techniques- The utilization of extension irrigation techniques also one of the important factors that were responsible for the success of the green revolution in India. And extensive irrigation facility made it possible to provide ample water to the farmers and insure optimum utilization of plant and multiple cropping.
4. Easy availability of credit facilities - more attention had been paid by the government to provide adequate financial support to the farmers to buy seeds, Farm machineries, fertilizers etc. which caused the success of the grain revolution. There were many Financial Institutions like the Land Development Bank, primary agriculture Cooperative credit societies and other banks.
5. Plant protection scheme - protecting plants by utilizing pesticides and other devices was also a significant factor that was responsible for the encouraged Green Revolution.
6. Increase in crop areas - increase in crop areas was also a significant factor for the encouragement of revolution in India.
7. Apart from these improvements in storage, food processing, transportation and marketing facilities and support by central and state governments in terms of price policy also contributed to the success of the Green Revolution.

VII) CONSEQUENCES OF GREEN REVOLUTION ON SOCIO ECONOMIC AND POLITICAL CONDITIONS

Socio economic consequences -

To a significant extent the green revolution has impacted on the socio economic conditions of Indian people. Green revolution has caused off for the increase in the food grains, capitalistic farming, growth in agro industry etc. which has introduced for prosperity among the Indian cultivators. From this there was self-sufficiency in food grain production growth in Rural Employment due to print solution there was a change in the cultivator's attitude towards new agriculture techniques which has been implemented and being practiced. The Indian cultivators have welcomed this innovative technical transformation in the agriculture sector. The Green Revolution has helped to save billions of lives from starvation and held in full feeling the basic requirements of poor people. The Green Revolution has encouraged commercial farming in India with the application of new technology like harvester, drills, tractors etc. the satisfactory socio-economic condition of cultivators have changed their social relationship. Drastic growth in agriculture production has been the important direct impact of the Green Revolution. Though there was a growth in wheat, cereals, paddy production there was no significant positive impact on the production of pulses, coarse and some other cash crops. As stated, due to the green Revolution there was an increase in the employment opportunities in the agriculture sector. The Green Revolution has also enhanced the direct role of the multinationals in the development of the agriculture sector; and also encouraged large scale mechanization which created demand for various kinds of farm machinery. Apart from this there was an increase in demand for chemical fertilizer, insecticides, pesticides etc. as the result the industries which manufactured such items increased rapidly and brought flourishing in the Indian economy. Mini Agricultural Products are utilized as raw materials in various Industries like sugar industry, textile industry, edible oil industry etc. the consequences of Green revolution on social economics situation of India was almost favourable.

There is an active participation of government, banks, industrial organizations and other institutions in the development of the agriculture sector due to the Green Revolution.

The Green Revolution has not only impacted on the social economic situation of India but also affected the political condition of India. The Green Revolution has changed the political structure of the state like Punjab, Haryana, Maharashtra, Andhra Pradesh etc. village level politics has no longer remained in the boundary of village Panchayats election but it has winded up to district level. With the change in the political conditions, there was a great attraction of many political leaders towards agriculture labour. The agricultural labour were considered as major port banks for the political parties and the existence of organizations like Shetkari Kamgar paksh, mazdoor Union etc. Is the proof of political intervention among the farmers and Agriculture labour apart from this the use and students organization like all India students Federation CPS etc. has also made a first to increase their hold on the landless labour and marginal poor farmers. It has happened due to the advent of the Green Revolution. due to increased Social awareness among the farmers there was a great involvement by them in the political process. a major transformation in the political structure of Punjab, Haryana, Maharashtra, the Cultivators of these states started dominating in the political scenario of India.

VIII) CONSEQUENCES OF GREEN REVOLUTION ON AGRICULTURE SECTOR OF INDIA

The technique of revolution in India since the 1960's which paid the rich divided the farmers and the society as a whole. This technique was made able to enhance production in the country not just to satisfy the basic needs but for earning foreign exchange also. Due to the Green Revolution India has achieved a tremendous growth in agriculture production, food grain production from 83 metric ton in 1962 61 to about 3004.7 metric ton in 2019 to 20. There is a continuous trend in conjunction with fertilizers. The Department of Agriculture Research and Education has reported that fertilizers have an important role in increasing food grain production. In the past Revolution Era due to utilization of fertilizers production of food grain for hectare have increased due to use of HYV seeds, irrigation under machinery and awareness about agriculture among the cultivators have brought remarkable transformation in the agriculture Sector of India.

IX) ENVIRONMENTAL CONSEQUENCES OF GREEN REVOLUTION

There are some negative environmental consistencies of the Green revolution which have been discussed in the following paragraph.

1. Loss of biodiversity - Because of the Green revolution there are negative effects on the agriculture biodiversity and wild diversity in India. The increase in Green Revolution has caused deforestation, waterlogging, Alkalinity, erosion of soil etc. apart from this optimum utilization of pesticide caused to increase the presence of its residues inputs and environment. This nutrient in the side was depleted and not restored as a result of excess utilization of fertilizers also.
2. Land Degradation - degradation of plants is also one of the major negative effects of revolution on the environment. In India 64% of the land is degraded to some extent with 56% moderating severely degraded.
3. Effect on health - excessive utilization of pesticides may be caused to increase the likelihood of cancer in urban as well as in rural areas. Negligence of farmers towards proper farming activities that is noncompliance to use of mass and over uses of chemicals has compound the adverse effects on the human health.
4. Effect on soil - The nutrient values of soil were depleted due to repeated crop cycle to the growth in crop production. Farmers had increased the utilization of chemical fertilizers to meet the requirement of new kinds of seeds. Due to the excessive utilization of Alkaline Chemicals the soil pH level increased and useful pathogens were due to the uses of toxic chemicals in the soil which caused a decrease in the yield.

Green revolutionaries main feature was Reliance on the uncontrolled utilization of chemical fertilizers and monoculture has caused water security, vulnerability to pests and incidents of violent disputes and social conflicts among marginalization.

X) NEGATIVE CONSEQUENCES OF GREEN REVOLUTION

The green revolution has caused an increase in the Global Food Supply and overcomes social evil like hunger and starvation. However, the new farming method implemented under the green revolution has created some negative impacts and Side Effects which have been explained in the following.

1. The experts of Punjab University observed damage of DNA in 30% Indian cultivators who were often in contact with herbicides and pesticides. There were heavy metals and pesticide chemicals in drinking water which are more and can come for serious health related problems.
2. Many problems arise because the majority of farmers were not aware about handling and disposing of toxic chemicals. Mini farmers created an environment by excessive Toxic products.
3. Rice fields are the major food source for rice fields that have minerals rich soil and region therefore farmers in India have formed them successfully from the longer period. In the hero of the revolution the rice fields were decreased due to biodiversity.

For the proper implementation of Green revolution techniques there is a need of learning water management skills and farmers do not have such knowledge and skills. They are not able to take the benefit of new irrigation Technology existed with the green revolution. Lack of water management skill among the farmers in driver areas with its gain falling below 10%. The green revolution has increased the earning of rich farmers but poor and marginalized farmers could not afford the costly technology of revolution. Does the cool not take any advantages of revolution? And this situation Council to end the income gap in the states likes Punjab, Haryana due to the Green Revolution. There was a concentration of fail assets income in the hands of few rich formers. in addition the technology of Green revolution restricted to only Punjab, Haryana, Maharashtra, Tamilnadu where has in Andhra Pradesh, Madhya Pradesh, Orissa and Uttar Pradesh the Green Revolution has not flourished as per the expectation and therefore formers were fail to make much agricultural production.

XI) CONCLUSION

Green Revolution in India has made positive as well as negative effects on the so show economic condition of people and also affected on the environmental and political situation. in the agriculture sector it had exponentially increased the yield of food grains. The technology of the Green revolution helped to transform the condition of the Indian economy. It has changed the recognition of India as a state of food deficiency to a food surplus state in the world. The great Revolution Technology was not proved as an environmentally friendly Technology because it encouraged the heavy uses of chemical fertilizers and weedicides; which caused soil contamination and water pollution; loss of biodiversity, depletion of groundwater resources, decline inside fertility etc. The Green Revolution has created regional tease parties and caused the economic cab between rich formers and poor marginal farmers in India. Therefore it is concluded that implementation of this technology has not been successfully implemented in the view of many non-economic terms. There is a need for a second grade Revolution which should be suitable to address the issue of food insecurity.

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