

## GREEN REVOLUTION

In India in the beginning of 4<sup>th</sup> Five Year Plan Green Revolution emerged. Indian agriculture which had become failure by the end of 3<sup>rd</sup> plan again become green and there was amazing increase in foodgrain production. The situation of despair and uncertainty had ended.

### What is Green Revolution ?

**Green Revolution or Agriculture Revolution means :** Revolution in agriculture means and agriculture production. In other words, Due to adoption of New Agricultural Strategy in 1964-65 the forward leap in agriculture is 'Green Revolution.'

**Late Prime Minister Mrs. Indira Gandhi had said :** "Green Revolution is not meant of making boundary, using agriculture equipments to do agriculture work but there should be sufficient increase in agriculture productivity. The main base of Green Revolution is to use High Yielding Variety seeds so that production can be increased 3-4 times."

### Dr. M.S Swaminathan has defined Green Revolution :

"The growing practice of feeding plants better our crops are slowly changing colour, from a light green or yellow colour of the past to a dark green colour.....it is this change in the colour of leaves as a result of furnished soils becoming better-fed ones that has led to the coming of the term Green Revolution."

In this way Green Revolution has encouraged the use of new technology, HYV seeds chemical fertilizers and other essential means.

### Origin of Green Revolution :

New strategy of agricultural growth which gave birth to Green Revolution was emerged with the starting of Intensive Agricultural District Programme in 1960-61. At first this programme was started in 7 selected districts. Its objectives were accepted to increase technological information, co-ordination of credit and production. During 1964-65 Intensive Agricultural Area Programme was started in which attention was given on specific crops. Both programmes were related with Intensive Agriculture Programme but in them new varieties of crops were not used. In wide area of the country HYV seeds for the first time were used in Kharif crops in 1966. Due to use of HYV seeds, chemical fertilizer and irrigation facilities the production of agriculture increased by 3 to 4 times.

The largest credit of Green Revolution can be given to Late Prime Minister Lal Bahadur Shastri's slogan of Jai Jawan, Jai Kissan. Shastri ji had emphasised on strengthening the country's defence line along with rapid growth of agriculture. His message was fruitful in 1967-68. Since then agriculture production has registered a record increase.

Green Revolution in agriculture was not an accident. Behind this the success of various Five Year Plans are responsible. This revolution is continuing in India, Phillipines, Sri Lanka, Pakistan, Thailand since three decades.



## MERITS OF GREEN REVOLUTION

Due to 'Green Revolution' the important changes have taken place in agriculture. Foodgrain production has increased at large scale and country has become self-reliant in food grains and self-confidence of farmers has increased. Modern techniques of agriculture have improved the approach of farmers. Now they have started adopting modern techniques in place of traditional systems. Green Revolution has benefitted the country in many ways like :

- (1) **Increase in Production** : Due to Green Revolution agriculture has increased a lot. The production of wheat, jowar, millet and rice has increase beyond expectation.
- (2) **Change in Primitive Method of Agriculture** : Farmers have left the old and primitive methods of farming. Majority of farmers have oriented towards mechanic farming. The use of tractor, tube-wells, thrashers etc. has increased.
- (3) **Change in Traditional Form of Farming** : Now farming has been taken as business which was previously a means of livelihood only.
- (4) **Increase in Employment Opportunities** : The employment opportunities in the country have increased. Due to Green Revolution many people got employment in industries making modern equipments for agriculture.
- (5) **Reduction in Food Import** : Generally foodgrains were imported before Green Revolution. But due to increased production of foodgrains after Green Revolution the import of foodgrains had been almost stopped. But due to sudden increase in wheat price India had to import thousand tonnes of wheat from Australia.
- (6) **Increase in Agriculture Savings** : Due to increase in foodgrains the savings of farmers have been increased. This savings contributed a lot in economic development of the country.

## DEMERITS OF GREEN REVOLUTION

There are two classes of opinions regarding importance of Green Revolution. One class of economists accepted the importance and achievements of Green Revolution whereas other class criticizes it vehemently. The important supporter of this New Strategy is Agricultural Scientist Dr. M.S. Swaminathan, Dr. Swaminathan believes that :

“Green Revolution has created the atmosphere of trust towards agriculture abilities.”

The economists who are deadly against the Green Revolution Dr. S.C. Tiwari is main. Dr. Tiwari believes :

“Green Revolution is a myth experiment because neither it is green and nor revolution.”

HYV seeds programme has crossed its limit and its importance is decreasing. No doubt the production of wheat has doubled but the progress in rice production is very slow. Due to lack of sufficient irrigation facilities the sowing area of paddy has not increased much. Alongwith these failure Green Revolution has caused many problems.

(i) **Regional Imbalance** : Due to HYV seeds regional imbalance has been created because these programmes are implemented in those selected areas where sufficient irrigation facilities are available.

(ii) **Economic Inequalities** : Green Revolution has increased economic inequalities in rural areas. The benefits of new agriculture technology has accrued only to big farmers. Mostly fertile and irrigated area are in the hands of big farmers and new seeds, insecticides, chemical fertilisers, equipments and machine purchasing capacities are with them only. Therefore, small and marginal farmers have not got any benefit from Green Revolution.

(3) **Imbalance of Agriculture** : Growth Revolution have caused imbalanced between foodcrops and commercial crops. Green Revolution has no effect on coarse grains, pulses, sugarcane, cotton jute, groundnuts.

(4) **Labour Problems** : New strategy has caused labour problems in rural areas. Used



HYV seeds, fertilisers, new production technology and multicropping have increased intensive cultivation. It has increased the demand for labour and their wages. In states like Punjab and Haryana during busy season farm labourers demand wages more than 150%. Due to it the gap has been created between the relations of farmers and farm workers.

(5) **Neglect of Institutional Changes** : In the New Strategy more emphasis has been given on technical problems and institutional changes like effective regulation of land-revenue, making the owner to tillers and share croppers, consolidation of land are neglected.

(6) **More Emphasis on Use of Fertilisers** : In New Strategy more emphasis has been given on use of chemical fertilisers which will reduce the fertility of agriculture land in the long terms.

(7) **Organisational Defects** : According to the Report of Planning Commission in HYV seeds programme many institutional defects are present like construction and use of big and medium irrigation plans, use of chemical fertiliser less than target, less use of pump-sets. In sufficient flood-control measures, lack of warehouse and storage facilities, seasonal fluctuations in commercial crops, slow progress of market regulations, lack of agriculture research and development, lack of general extension services, lack of development programmes for marginal farmers and farm-labours.

(8) **Encouragement to Capital Farming** : Benefits of main component of Green Revolution like modern equipments, HYV seeds, chemical fertilisers have accrued to big farmers only which encouraged capitalistic farming.

## **SUGGESTIONS FOR THE SUCCESS OF NEW AGRICULTURAL POLICY**

Following suggestions are given for the success of Green Revolution.

(i) There should be co-ordination among agriculture related Government departments, Co-operative committees and other institutions and the responsibility of New Agriculture Policy should be entrusted on them.

(ii) For good produce HYV seeds, fertilizer and irrigation facilities are very essential. For it there should be proper arrangement of distribution of fertilisers and farmers should be given training for using the fertilizers. Irrigation system should be properly extended.

(iii) There is diversity in soil so soil should be tested by agriculture scientists and proper seed development should be emphasized.

(iv) Crop Insurance Plan should be implemented as early as possible.

(v) Sufficient loan should be provided at low interest.

(vi) Prices of foodgrains should be determined. Surplus income earned through it should be used for more production.

(vii) Maximum and minimum limit of land should be fixed. Lands should be either purchased or added to big plot.

(viii) Effective steps should be taken for safety of crop from insects.

(ix) There should be proper channel arranged to make available the results of research and tests. By improving the breeds qualitative improvements should be brought.

(x) Still in Paddy HYV seeds have not proved successful. Now with the use of IRS there is probability of increasing rice production.

(xi) Green Revolution will be green only when it will be successful for all farmers, all regions and all crops otherwise it will increase economic inequality. Poor but progressive farmers and new-landowners should be encouraged to adopt this policy.

(xii) Due to use of new technology in big farms labour unemployment has increased. Green Revolution has damaged the welfare of farm labours.

**Prof Rudra Dutta has said :**

‘As long as the weakest section of rural population are not provided employment opportunities, agriculture revolution will be worthless for lakhs of landless farmers.’

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