

INDIAN ECONOMICS

B.A PART1

TOPIC :- GREEN REVOLUTION

GREEN REVOLUTION, “ during the mid-sixties was the outcome of NEW AGRICULTURAL TECHNOLOGY.”

The new agricultural technique was introduced as a package Programme to include HYV seeds, fertilizers and pesticides.

This new technology laid emphasis on the adoption of the whole package simultaneously.

To increase agricultural production and productivity, the Government of India invited a team of experts sponsored by the Ford Foundation. The team submitted its report entitled India's Food Crisis and Steps to Meet It. in April 1959. This report suggested the means of improving production and productivity of the country with stress on modern inputs, especially fertilizers, credit, marketing facilities etc.

On the basis of the recommendation of this team Government introduced Intensive Area Development Programme (IADP) in 1960 in seven selected districts. The seven selected districts were West Godavari (AP), Shahabad (Bihar), Raipur (Chhattisgarh), Thanjavur (T.N.), Ludhiana (Punjab), Aligarh in U.P. and Pali (Rajasthan). As a result of high-yielding varieties of wheat the production of wheat rose to high level of 5000 to 6000 kg. These seeds required proper irrigation facilities and extensive use of fertilizers, pesticides and insecticides.

This new 'agriculture strategy' was put into practice for the first time in India in the Kharif season of 1966 and was termed HIGH-YIELDING VARIETIES PROGRAMME (HYVP). This programme was introduced in the form of a package programme since it depended crucially on regular and adequate irrigation, fertilizers, high yielding varieties of seeds, pesticides and insecticides.

Impact or the Effects of Green Revolution:-

(i) Increase in Production and Productivity:

As a result of new agricultural strategy, food grains output substantially increased from 81.0 million tonnes in the Third Plan (annual average) to 203 million tonnes in the Ninth Plan (annual average) and further to 212.0 million tonnes in 2003-04. HYVP was restricted to only five crops – wheat, rice jowar, bajra and maize. Therefore, non- food grains were excluded from the ambit of the new strategy.

Wheat has made rapid strides with its production increasing from 11.1 million tonnes (Third Five Year Plan) to 71.3 million tonnes in the Ninth Plan. The production of wheat touched a high level of 72.1 million tonnes in 2003-04, the overall contribution of wheat to total food grains has increased from 13 per cent in 1950 – 51 to 34 per cent in 2003-04. The average annual production of rice rose from 35.1 million tonnes in the Third Plan to 87.3 million tonnes in the Ninth Plan. It stood at 87.0 million tonnes in 2003-04.

(ii) Scientific Cultivation:

A very important effect of Green Revolution is that traditional agricultural inputs and practices have given way to new and scientific practices. Instead of farm seeds, farmers are now using HYV seeds. Traditional fertilizers are replaced by chemical fertilizers. Consequently under HYV seeds increased sharply from 1.66 million hectares in 1966-67 (when green revolution came to India) to about 78.4 million hectares in 1998-99.

(iii) Change in Cropping Pattern:

Two changes are significant. First, the proportion of cereals in the food grains output has increased and the proportion of pulses has declined. Second, the proportion of wheat cereals has increased while that of coarse grains has declined.

(iv) Development of Industries: Green revolution has benefited the industrial development. Many industries producing agriculture, machinery, chemical fertilizers, pesticides, insecticides etc., have come up to meet the growing demand for these commodities.

(vi) Change in Attitudes:

A healthy contribution of green revolution is the change in the attitudes of farmers. Our farmers have now begun to think that they can change their misfortunes by adopting new technology. Unlike past, they are now giving up traditional agricultural practices for scientific practices.

Package Programme:

The new technology adopted in the Indian agriculture during mid-1960s consists of several ingredients like HYV seeds, chemical, fertilizers, pesticides, irrigation and improved machines and tools like tractors, pump sets etc. All these things are together termed as, package programme.

If any one of these elements are missing there will be no significant remarkable impact on productivity per hectare of land. In this case, we cannot then call it Green Revolution or the New Agricultural technology. Thus, in other words this new technology is known as Package Programme, i.e., it insists the adoption of total package.

The new technology was tried out in 1960 – 61 as a pilot project in seven selected districts of India and this programme was named Intensive Area Development Programme extended to other districts on an experimental basis and was called Intensive Agriculture Areas Programme (IAAP). Thus, as a result both production and productivity per hectare have increased considerably. This qualitative and quantitative improvement in Indian Agriculture is scientifically termed as “GREEN REVOLUTION”.

The Government took several steps to improve irrigation facilities in rural areas. The number of tractors used for cultivation increased from 0.3 lakh in 1960-61 to about 20 lakhs in 1999-2000. The gross irrigated area was 22.56 million in 1950-51 and went up to 94.7 million hectares in 1999-2000. All these efforts of the Government led to a rapid improvement in productivity of different crops as shown

The following in table:

Table 2. Average Yield Per Hectare of Crops during 1950-51 to 1999-2000 (Yield per hectare in Kgs)

<i>Year</i>	<i>Rice</i>	<i>Wheat</i>	<i>Pulses</i>
1950-51	668	663	441
1960-61	1,013	851	539
1970-71	1,123	1,307	524
1980-81	1,336	1,630	433
1990-91	1,740	2,281	578
1992-93	1,744	2,327	573
1995-96	1,855	2,493	552
1999-2000	1,986	2,778	635

This Table shows that except pulses, average yield (mostly rice and wheat) per hectare has improved significantly due to new technology.

The important achievements of the package programme are:

- (i) Increase in the total production of crop.
- (ii) Increase in food crops per hectare.
- (iii) Increase in use of chemical fertilizers
- (iv) Increase in use of HYV seeds,
- (v) Increase in use of power tillers and tractors,
- (vi) Expansion of irrigational facility

Limitations of the Green Revolution:

In spite of several achievements, the green revolution has several defects:

(i) More inequality among farmers (Inter-personal inequalities):

The new technology requires a huge amount of investment which can be only, afforded by the big farmers. Hence, these farmers are getting the absolute benefits of the green revolution and became comparatively more rich than farmers. This increases inequality in rural India

(ii) Regional inequality:

Benefits of the new technology remained concentrated in wheat growing area since green revolution remained limited to wheat for a number of years. These were thy regions of Punjab, Haryana and Western Uttar Pradesh. On account of the above reasons new agricultural strategy has led to an increase in regional inequalities.

(ii) The Question of Labour Absorption:

There is a general consensus that the adoption of new technology had reduced labour absorption in agriculture. The uneven regional growth was mainly responsible for the low absorption of labour within agriculture. The growth of output was also slow to generate adequate employment opportunities. The sudden rise in the demand for labour in these areas induced mechanisation and labour-saving practices in general.

(iv) Undesirable Social Consequences:

Some micro level socio-economic studies of green revolution areas have revealed certain undesirable social consequences of the green revolution. Many large farmers have evicted tenants as they now find it more profitable to cultivate land themselves.

Thus, a large number of tenants and share-croppers have lost their lands and have been forced to join the ranks of agricultural labourers. Wetlands have also attracted outsiders (non-agriculturists from nearby towns to invest capital in buying farms.

(v) Health Hazards:

The health hazards of the new technology can also not be lost sight of. Increased mechanization that has accompanied the modernisation of farm technology in green revolution areas carries with it the risk of incapacitation due to accidents. The attitude of the Government towards the problems of treatment and rehabilitation of victims of accidents on farm machines is that of total ambivalence. Meagre compensation is provided to victims.

(vi) Change in Attitudes:

A healthy contribution of green revolution is the change in the attitudes of fanners in areas where the new agricultural strategy was practised. Increase in productivity in these areas has enhanced the status of agriculture from a low level

subsistence activity to a money- making activity. The desire for better farming methods and better standard of living is growing up.

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