An Introduction to Green Revolution in India

**Introduction:** The green revolution in India refers to a period when Indian Agriculture was converted into an industrial system due to the adoption of modern methods and technology such as the use of HYV seeds, tractors, irrigation facilities, pesticides and fertilizers.

This was the part of the larger Green Revolution endeavor initiated by Norman Borlaug in the USA and M.S. Swami Nathan in India.

**Green Revolution:** It was an effort to increase agricultural production in India through a package of industrial agriculture technologies such as hybrid seeds and use of advanced technologies. It was funded by the US and the Indian Government and the Ford and Rockefeller Foundation.

**Objectives of Green Revolution are:-**

a) **Short Term:** addressing India’s hunger crisis (GR was launched for taking care of crisis during 2nd Five Year Plan)

b) **Long Term:** overall agriculture modernization based on rural development, industrial development (infrastructure, raw material, consumer, etc.)
c) **Employment**: would in turn help to provide employment to both agricultural and industrial workers.

d) **Conduct Studies and Biological Tests**: to produce stronger plants which could withstand extreme climates and diseases.

e) **To globalize the agricultural world**: by spreading technology to non-industrialized nations and setting up many corporations in major agricultural areas

**Crops - Wheat, Rice, Jowar, Bajra and Maize**

Therefore, non-food grains were excluded from the ambit of the new strategy. Wheat has remained the mainstay of the Green Revolution over the years. Thanks to the new seeds, tens of millions of extra tonnes of grain a year are being harvested.

The Green Revolution resulted in a record grain output of 131 million tonnes in 1978/79. This established India as one of the world's biggest agricultural producers. Yield per unit of farmland improved by more than 30% between 1947 (when India gained political independence) and 1979.

The crop area under high yielding varieties of wheat and rice grew considerably during the Green Revolution.

The Green Revolution also created plenty of jobs not only for agricultural workers but also industrial workers by creating related facilities such as factories and hydroelectric power stations.

**INDIA: Rice and Wheat production in the year 2017-18 (kg per hectare)**
Impacts of Green Revolution in India-

A. Positive impacts

B. Negative impacts

A. Positive impacts are-

1. Increase in Agricultural Production:

The introduction of Green Revolution in 1967-68 has resulted in phenomenal increase in the production of agricultural crops especially in food-grains. From 1967 onwards, the Green Revolution aimed at bringing about a Grain Revolution.

Among the food grains too, it is the wheat crop which drew maximum benefit from Green Revolution. The production of wheat increased by more than three times between 1967-68 and
2003-04 while the overall increase in the production of cereals was only two times. On account of this reason, it is said that the Green Revolution in India is largely the Wheat Revolution.

2. Prosperity of Farmers:
With the increase in farm production the earnings of the farmers also increased and they became prosperous. This has, especially, been the case with big farmers having more than 10 hectares of land.

3. Reduction in import of food-grains:
The main benefit of Green Revolution was the increase in the production of food-grains, as a result of which there was a drastic reduction in their imports. India was now self-sufficient in food-grains and have sufficient stock in the central pool. Sometimes we are in a position to export food-grains also.

The per capita net availability of food-grains has also increased from 395 grams per day in early 1950s to the level of 436 grams in 2003, this in spite of the rapid increase in population. In the words of Dantwala, Green Revolution has given a breathing time. As a result, there will be relief from anxiety of food shortage and the planners will concentrate more on Indian planning.

4. Capitalistic Farming:
Big farmers having more than 10 hectares of land have tended to get the maximum benefit from Green Revolution technology by investing large amount of money in various inputs like HYV seeds, fertilizers, machines, etc. This has encouraged capitalistic farming.

5. Ploughing back of profit:
The introduction of Green Revolution helped the farmers in raising their level of income. Farmers ploughed back their surplus income for improving agricultural productivity. This led to further improvement in agriculture. According to a study conducted by Punjab Agriculture
University, Ludhiana farmers plough back about 55 per cent of their income for agricultural progress.

6. **Industrial Growth:**

Green Revolution brought about large scale farm mechanization which created demand for different types of machines like tractors, harvesters, thresher, combines, diesel engines, electric motors, pumping sets, etc. Besides, demand for chemical fertilizers, pesticides, insecticides, weedicides, etc. also increased considerably. Consequently, industries producing these items progressed by leaps and bounds. Moreover, several agricultural products are used as raw materials in various industries. These industries are known as agro based industries.

7. **Rural Employment:**

While on one hand, large scale unemployment was feared due to mechanization of farming with the introduction of Green Revolution technology in India, there was an appreciable increase in the demand for labour force due to multiple cropping and use of fertilizers.