

## **Green Revolution**

At the time of its independence, India was an agricultural dependent economy. And yet the state of Indian agricultural sector was dismal. From the lack of investment, a dearth of technology, low yield per acre and many such problems plagued the industry. And so the Indian government took steps to bring about the Green Revolution using HYV seeds.

The Green Revolution, or Third Agricultural Revolution, is a set of research technology transfer initiatives occurring between 1950 and the late 1960s, that increased agricultural production worldwide, particularly in the developing world, beginning most markedly in the late 1960s. The initiatives resulted in the adoption of new technologies, including high-yielding varieties (HYVs) of cereals, especially dwarf wheats and rices, in association with chemical fertilizers and agro-chemicals, and with controlled water-supply (usually involving irrigation) and new methods of cultivation, including mechanization. All of these together were seen as a 'package of practices' to supersede 'traditional' technology and to be adopted as a whole.

The Green Revolution started with the first introduction of High Yielding Variety (HYV) seeds in Indian agriculture. This was coupled with better and efficient irrigation and the correct use of fertilizers to boost the crop. The end result of the Green Revolution was to make India self-sufficient when it came to food grains.

After 1947 India had to rebuild its economy. Over three-quarters of the population depended on agriculture in some way. But agriculture in India was faced with several problems. Firstly, the productivity of grains was very low. And

India was still monsoon dependent because of lack of irrigation and other infrastructure.

In 1961, India was on the brink of mass famine. Norman Borlaug was invited to India by the adviser to the Indian minister of agriculture Dr. M. S. Swaminathan. Despite bureaucratic hurdles imposed by India's grain monopolies, the Ford Foundation and Indian government collaborated to import wheat seed from the International Maize and Wheat Improvement Center (CIMMYT). Punjab was selected by the Indian government to be the first site to try the new crops because of its reliable water supply and a history of agricultural success. India began its own Green Revolution program of plant breeding, irrigation development, and financing of agrochemicals

### **Features of the Green Revolution**

- The *introduction of the HYV seeds* for the first time in Indian agriculture. These seeds had more success with the wheat crop and were highly effective in regions that had proper irrigation. So the first stage of the Green Revolution was focused on states with better infra – like Punjab and Tamil Nadu.
- During the second phase, the HYV seeds were given to several other states. And other crops than wheat were also included into the plan
- One basic requirement for the HYV seeds is *proper irrigation*. Crops from HYV seeds need alternating amounts of water supply during its growth. So the farms cannot depend on monsoons. The Green Revolution vastly improved the inland irrigation systems around farms in India.

- The *emphasis of the plan was mostly on* food grains such as wheat and rice. Cash crops and commercial crops like cotton, jute, oilseeds etc were not a part of the plan
- Increased availability and use of *fertilizers* to enhance the productivity of the farms
- Use of *pesticides and weedicides* to reduce any loss or damage to the crops
- And finally the introduction of *technology and machinery* like tractors, harvesters, drills etc. This helped immensely to promote commercial farming in the country.