**Green Revolution:**

The term green revolution was first introduce in March 8,1968Speech by administrator of the U.S .Agency for international Development (USAID), william’s who noted the spread of the new technology. It is not a violent red revolution like that of the soviets, nor is it a white revolution like that of shah of Iran. I call it the green revolution.

**What is Green Revolution?**

• It is a large increase in crop production in developing countries achieved by the use of

Artificial fertilizers, pesticides and high yield crop varieties

* The green revolution was the period when the productivity of the global agriculture

Increased drastically as a result of new advancement

* The chemical fertilizer made it possible to supply crops with an extra amt of nutrients

Ad therefore, increase yield

**History of Green Revolution:**

* The begging of the green revolution are often attributed to Norman Borlaug an American scientist interested in agriculture. In 1940, he began conducting research in Mexico and development new disease high yield verities of wheat.
* Due to success of the green revolution in Mexico, its technology spread worldwide in the 1950 and 1960.
* The introduction of high yield varieties of seeds after 1965 and the increased use of fertilizers and irrigation provided the increase in production which improved agriculture in India.

**Method used in Green Revolution:**

There are different methods of Green Revolution

1. Double or multiple cropping
2. Seeds with superior genetics
3. Proper irrigation system
4. High yield variety of seeds
5. Use of pesticides and fertilizer
6. Use of modern machinery(tractor, harvester, thrasher)
7. Expansion of forming areas

 **Basis Elements in Green Revolution:**

1. **Continued expansion of farming areas**

Green revolution contained with quantities expansion of farmlands

1. **Double cropping existing farmland**

Instead of one crop season per year, the decision was made to have two crope

Season per year. There had to be two monsoons per year .one would be the natural monsoon and the other an artificial monsoon

1. **Using seeds with superior genetics**

This was the scientific aspects of the green revolution to use high yielding variety of seeds

**Causes of Green Revolution:**

There are different causes of green revolution

1. High yielding verities of seeds
2. Chemical fertilizer
3. Irregation
4. Multiple cropping
5. Modern agriculture machinery
6. Credit facilities
7. Agriculture research
8. Plant protection
9. Rural electrification
10. Soil testing and soil conservation

 **Benefits of Green Revolution:**

As a result of the green revolution and the introduction of chemical Fertilizer synthetic herbicides and pesticides, high yield crops , and the method of multiple of Cropping the agriculture industry was able to produce much larger quantities of food . This increase in productivity made it possible to feed the growing human population

In addition to producing larger quantities of food, the green revolution was also beneficial because it made it possible to grow more crops roughly the same amount of land with a similar amount of efforts. This reduces production costs and also resulted in cheaper prices for food in the markets. The ability to grow more food on the same amount of land was also beneficial to the environment because, it meant that less forest or natural land needed to be converted to form land to produce more food.

 **Results of Green Revolution:**

1. **Economic Results:**
* The increase in irrigation created need of new dams to harness monsoon water.
* It boosted industrial growth, created jobs and improved the quality of life of the peoples.
* India paid back all loans taken from the bank for the purpose of the green revolution
1. **Sociological Results:**
* The green revolution created plenty of jobs not only for agriculture workers but also industrial workers by the creation of lateral facilities such as factories and hydro electric power station help to uplift the social as well as the economic condition.
1. **Other Results:**
* India transformed itself from a starving nation to an exporter of food. Green revolution was one factors that made Mrs. India Gandhi (1917-84) and her party ,a very powerful political force in India
* Poor farmers cannot achieve yields as high as those with better access to water, fertilizer and land.
* More people own land ,but it is being divided into smaller and a smaller plots. This is because of population growth and land redistribution schemes.

**Limitation of Green Revolution:**

1. The Green revolution however impressive, but not a 100 percent success.
2. Only Punjab and Haryana states showed best results of green revolution
3. The new forming technique, as given birth to the serious pollution of drinking water causing cancer and other diseases.
4. A recent PUNJAB university study found a high rate of genetic damage among formers, which was attributed to pesticides use.
5. The new organic fertilizer , pesticides and chemical are running the soils
6. Led to unemployment and rural or urban immigration.
7. FORMERS SUICIDES have increased after green revolution.

 **The New Green Revolution:**

Although the green has been able to improve agricultural output in some region in the world, there was and is still room for improvement. As a result, many organization continue to invent new ways to improve the techniques already use in green revolution. Frequently quoted inventions are the system of rice intensification, marker assisted selection, agro ecology, and applying existing technologies to agricultural problems of the developing world. Crunt challenges for nation trying to modernize their agricultural include closing the urban rural income gap, integration of small holders into values chains, an maintaining competitiveness in the market.

**Conclusion:**

Green revolution has done a lot of positive things ,saving the lives of millions people and exponentially increasing the yield of food crops. But environment degradation makes the green revolution an overall inefficient, short term solution to the problem of food insecurity.

So, more suitable an environment friendly system of cultivation needs to be practiced. The world needs green revolution 2, which promises to feed a growing world population sustainably without compromising the needs of future generation.

 **Graph:**

