

### **SNS COLLEGE OF TECHNOLOGY**



(An Autonomous Institution)
COIMBATORE-35.

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai.

#### DEPARTMENT OF AGRICULURAL ENGINEERING

23AGT101 – INTRODUCTION TO AGRICULTURAL ENGINEERING I YEAR- II SEMESTER

# Impact of Green Revolution on Food production



### Introduction



 The Green Revolution was a period that began in the 1960s during which agriculture in India was converted into a modern industrial system by the adoption of technology, such as the use of high yielding variety (HYV) seeds, mechanised farm tools, irrigation facilities, pesticides, and fertilizers.



## Definition of Green Revolution<sup>1</sup>

The great improvement in the production of food grains and other agricultural produce during the period 1960-80 is described as Green Revolution in Indian agriculture. It is known as the Golden Era of Indian agriculture.



# History of Green Revolution



 The Green Revolution in India was first introduced in Punjab in late 1966-67 as part of development program issued international donor agencies and Government of India.



## History of Green Revolution



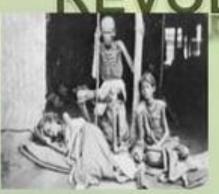
- 1. Norman Borlaug is known as the father of green revolution in the world, but in India Dr. M.S. Swaminathan is known as father of green revolution.
- 2. Green revolution that increased agricultural production worldwide, particularly in the developing world, beginning most markedly in the late 1960



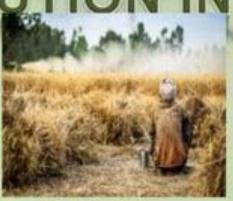
## REASONS OF GREEN



## REVOLUTION IN INDIA



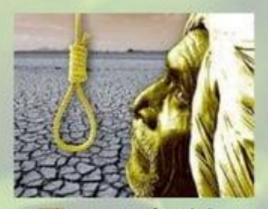
**Bengal famines** 



Lack of finance



Conventional & Traditional Approach



Low productivity



Disease pest infestation





### **Advantages of Green Revolution**

**Reduces greenhouse gas emission:** As the high yield methodology influences the carbon cycles via the atmosphere, it vastly reduces greenhouse gas emissions and emissions-free environments.

**Increase in food production:** It uses various technologies and results in an increase in food production. It is a choice from the conventional method of agriculture.

**Low food prices:** The whole market relies on the demand and supply process. As the yields are continuous, they meet the demand, and the supply becomes easy. High-yield varieties produce more food items and lower the food prices for all consumers globally.

**Increases Afforestation:** As the demand for food increases, deforestation also increases. Thus, introducing a green revolution meets food needs and increases afforestation.

**Continuous Yield:** It also offers a constant yield of crops irrespective of seasons.





### **Disadvantages of Green Revolution**

**Quality of Soil:** It encounters and reduces soil quality because the repetitive usage of the same crops on the land results in soil nutrient depletion.

**Health problems:** Consuming foods produced using pesticides and fertilisers will significantly impact health-related issues.

Lack of biodiversity: Creates more significant exposure to the food chain and leads to the loss of beneficial hereditary attributes produced in conventional farming.

**Seed Sterility:** Introducing new technologies leads to the prevention of future crop growth by composing seeds from mature plants.

**Monocropping:** Green revolution promotes monocropping patterns, which causes various problems and reduces the production of high yield crops.

