

SUSTAINABLE AGRICULTURE, ORGANIC FARMING.

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Introduction

- What is agriculture? It is science or art of cultivating the soil, growing and harvesting crops and raising live stocks
- Sustainable agriculture means farming system that are capable of maintaining their productivity & usefulness to society indefinitely. Such systems must be resource-conserving, socially supportive, commercially Competitive and environmentally sound.

- The main basic needs of human being is food and shelter.
- Modern package of technology, services and public policies have improved the production of food crops and supply of food products has increased.

Agriculture including crop , horticulture, flouri-culture, animal husbandry, forestry and agro forestry, fisheries, agro industries provides livelihood to over 70% of population.

Berozgari Hatao – eradicate unemployment is our call. A high percentage of new livelihood opportunities have to come from agricultural and agro industries sectors.

Types of agriculture



- **Intensive Agriculture**
- **Extensive Agriculture**



- **Shifting agriculture**
- **Slash and burn agriculture**



- **Till less Agriculture**
- **Mixed farming**



- **Plantation Farming**
- **Poultry**



- Dairy farming
- Sericulture



Scope for agriculture in 5 year plans

- Green revolution during the period 1967- 1977. Green revolution meant a phenomenal expansion of agriculture with emphasis on construction of dams and irrigation canals and increased reliance on pesticides.
- In recent years, damage to the foundations of agriculture namely land and water.
- Deforestation and atmospheric pollution in the race of modernization,.

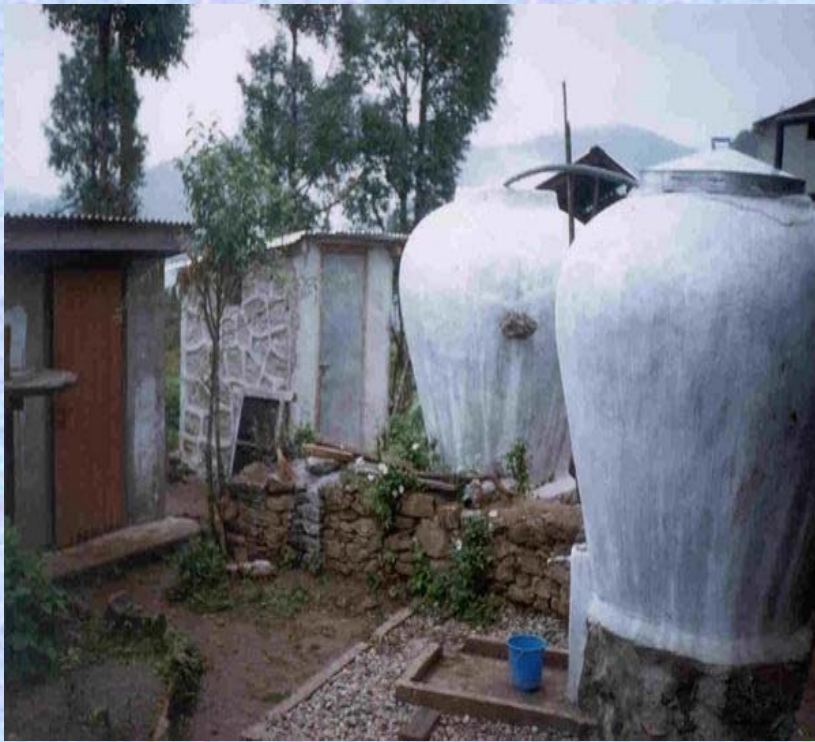
key solutions-- revive traditional methods of farming..



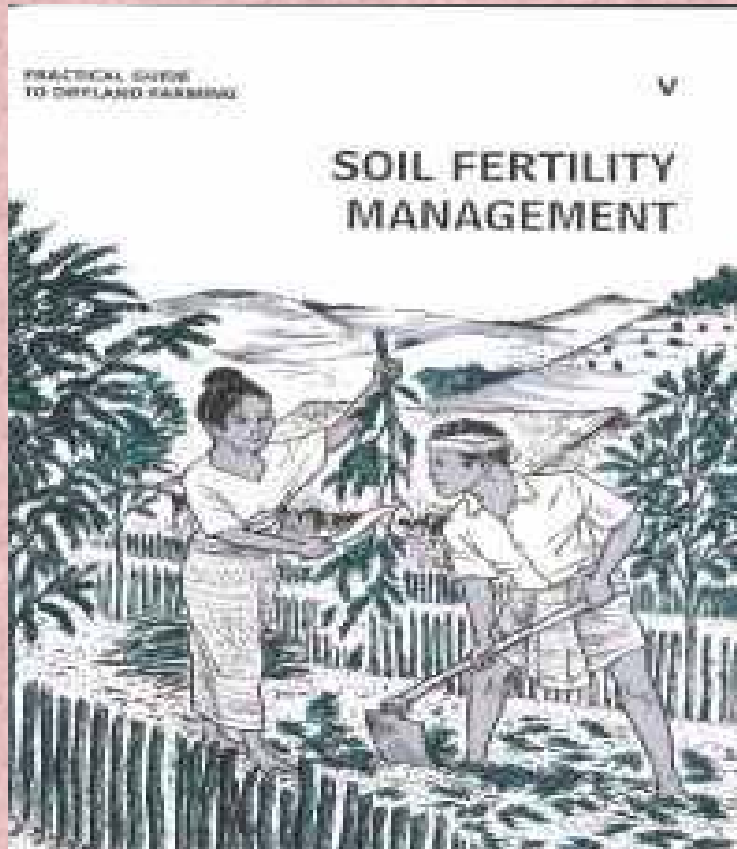
Sustainable agriculture is a system of crop cultivation which doesn't impair the manurial or humus content of the soil and water

- **Controlling soil – water regimes**

- **Rain harvesting & irrigational methods**

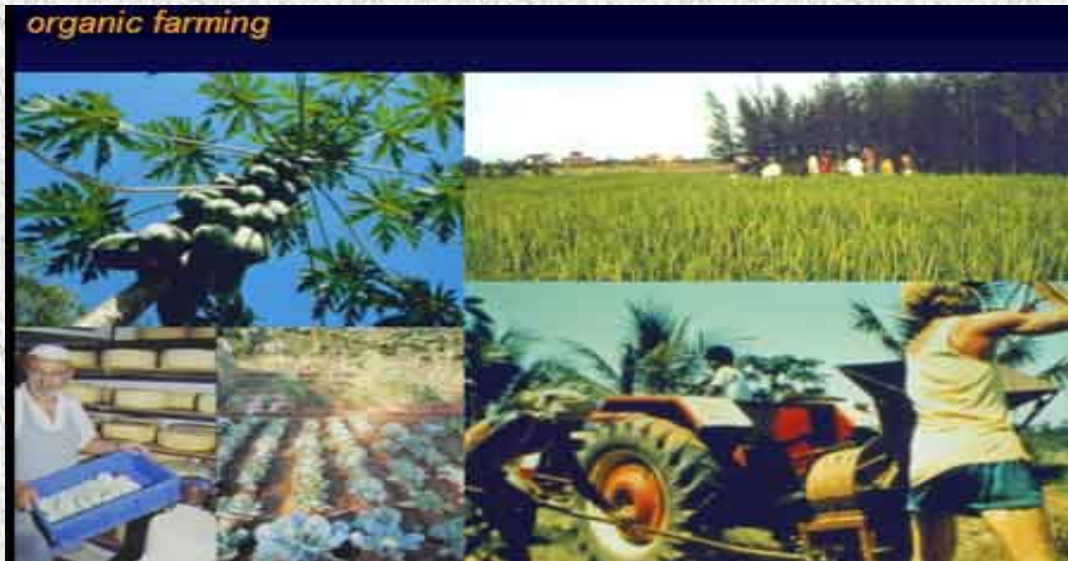


- **Soil Fertility management**
- **Organic residue management**



Organic farming.

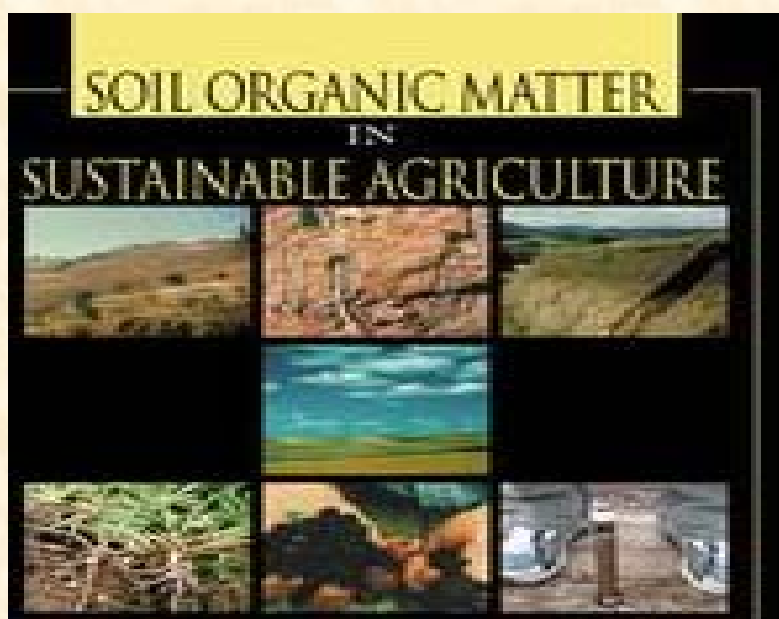
- Organic farming is a form of agriculture which avoids or largely excludes the use of synthetic fertilizers and pesticides, plant growth regulations, and livestock feed additives.



History:

- Advances in Biochemistry,
- Engineering in the early 20th century
- Research in plant breeding produced hybrid seeds
- Specialized cropping
- Efficient use of machinery.
- Technological advances during world war
- Launching the era of widespread pesticides use.





The British botanist, sir Albert Howard often called “the father of modern organic agriculture” studied traditional farming practices in Bengal India.

The first use of the term organic farming is usually credited to
Hard North Bourne,

In 1972, the International Federation of Organic Agriculture Movement (IFOAM), was founded in ... France..

pressing for government regulation of organic production. This led to legislation and certification standards being enacted beginning in the 1990s.

Methods

- Organic farming involves fostering natural processes, often over extended periods of time, and what advocates describe as a holistic approach.
- Enhancing soil health
- Repeated use of insecticides and herbicides and other pesticides organisms.

Organic pest control

- Benefits—soil protection and improvement, fertilization, Pollination ,water conservation, etc.,
- Weeds are controlled mechanically, thematically and through the use of mulches

Organic farming systems

- The Bio-dynamic farming is an approach, based on esoteric teachings of Rudolf Steiner, The Japanese farmer and writer Masanobu Fukuoka invested a no-till system for small-scale grain production that he called Natural farming.
- French intensive and Bio intensive methods are both small scale gardening techniques.