

“SUSTAINABLE AGRICULTURE IN INDIA”**Shivendra Singh**

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ARTICLE ID: 040**INTRODUCTION**

Agriculture is one of the major sectors, which is playing its crucial role in developing the livelihood sector of India. As per data, it is worth noticing that 70 % of the total population is dependent on Agriculture for sustaining their lives. So, there is no doubt in calling Agricultural sector as the backbone in the overall development of nation. Recently, on the day of Independence, our hon. P.M Shri. Narendra Modi, while addressing the nation renamed the name of “Ministry of Agriculture” as “Ministry of Agriculture & Farmer’s Welfare”. The goal was held forward by “NITI Aayog” whose objectives are-

1. Introduction of major reforms in Agriculture.
2. Doubling farmer’s income by the year 2022.

COMPONENTS OF SUSTAINABLE AGRICULTURE

There are various approaches which can be termed as components of Sustainable Agriculture. They are as follows-

1. Soil Management
2. Crop Management
3. Water Management
4. Disease & Pests Management
5. Waste Management, etc.

DIFFERENT MANAGEMENT PRACTICES UNDER SUSTAINABLE DEVELOPMENT-

1. Crop Rotation- Includes certain practices include periodic rotation of crops (ex. 3-4 years). It helps in improving the overall soil health for better utilization of land.



2. Permaculture- An agricultural approach, for maintaining natural ecosystems within Ecosystem.
3. Soil enrichment practices- Includes managements practices such as Mulching, etc.
4. Integrated Management Practices- Includes various integrated methods which improves crop as well as Pasteur health, reducing the use of chemical fertilizers and pesticides.
5. Agroforestry Practices- Uses certain forests tree species, for employing integrated ecosystems.
6. Cover crop Approaches- To prevent overall soil health, reducing its erosion. Various crops which are used are Cowpea, Rye, etc.

MAIN TOOLS OF SUSTAINABLE AGRICULTURE-

1. Agricultural policies and reforms.
2. Income diversification.
3. Land Conservation.
4. Improved Input Management, etc.

VARIOUS ISSUES IN DIFFERENT ASPECTS OF AG. SUSTAINABILITY-

1. ECOLOGICAL SUSTAINABILITY –

-Degradation of soil-Due to the employment of traditional practices there is a continuous reduction in soil fertility index, causing soil erosion, which in turn contributing in the global climate change.

-Utilization of water-According to the reports, sustainable agriculture commits to the world ensuring provision of safe water by the year 2030. This will target various environmental issues such as environmental degradation, environmental pollution, etc.

-Decrease in biodiversity levels-These results due to the continuous degradation of natural resources.

- Health & Pollution aspects-Due to the excessive use of chemical fertilizers & pesticides which is affecting the natural ecology as well as health of the individuals in a population.

2. ECONOMICAL SUSTAINABILITY-



-FOOD SECURITY-Major issue is of ensuring “Food Security”. As cheap & foreign foods are sweeping into the National markets, making it impossible for the Indian farmers to carry out free selling of their agricultural produce.

3.SOCIAL SUSTAINABILITY-

-INCREASING POVERTY- It covers areas of social injustice, where rural sectors of the society are being neglected from the various opportunities of development.

MAJOR ROLES OF SUSTAINABLE AGRICULTURE-

1. Sustainable agriculture is actively participating in improving the soil structure & also helps in maintaining soil fertility, thereby, reducing chances of soil erosion.
2. Raises the organic matter in the soils, nutrifying top soil, thereby, raising its ability in maintaining & storing rain water which falls & gets wasted every year.
3. Practices include various methods such as Mixed Farming, which helps not only in maintaining biodiversity but also helps in increasing the overall production of crops respectively.
4. Use of natural recreational measures, through efficient utilization of natural resources, which reduces dependency on hazardous chemicals.
5. Economically, helps in building national agriculture support programs, stabilizing food prices & other labour-intensive approaches.
6. Socially, sustainable agriculture technologies are based upon customs, traditions & norms.

MAJOR CHALLENGES UNDER SUSTAINABLE AGRICULTURE –

1. Hunger & Poverty eradication.
2. To protect the natural resource base like degradation of water, conservation of biodiversity, etc.
3. Ensuring safe & high-quality supply of agricultural products.
4. Making a society materially sufficient, socially equitable & economically sustainable.