



IMPORTANCE OF SUSTAINABLE DEVELOPMENT WITH SPECIAL REFERENCE TO AGRICULTURE SECTOR

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ABSTRACT:

By the concept of sustainable development, we mean "preservation of resources for future generations while meeting the present needs of humans". At present, the economic resources are being exploited at a rapid pace, after which there will be very little possibility of their supply and production in the future. That is why in this blind race of economic development, there is an extreme need to follow the concept of sustainable development for the conservation of natural resources and environment. The first ideas related to sustainable development were presented in the year 1987 in a report called "Our Common Future", which is known as the Birtland Report. In India, the concept of sustainable development has been followed in the year 2015, under which 17 goals and 169 targets related to various social, economic and cultural sectors have been approved and commitments have also been made to achieve these goals and targets by the year 2030, which have been implemented at the state and district level.

In present times, due to increasing modernization and mechanization in agriculture, there is a continuous decline in the fertility and quality of soil and due to excessive use of chemical fertilizers and pesticides, the effect of acidity in the soil is increasing. As a result, useful nutrients of the soil are getting destroyed. Biodiversity and natural vegetation are being destroyed rapidly due to excessive spraying of pesticides, due to which it is very important to promote the concept of sustainable development in agriculture sector, under which organic agricultural methods and environmentally friendly crops are produced so that there is a continuous supply of quality food to the world's approximately 8 billion population.

KEYWORDS:

SUSTAINABLE DEVELOPMENT,ORGANIC FARMING,AGRICULTURE MODERNIZATION, ECONOMIC DEVELOPMENT.

INTRODUCTION -

Sustainable development means "while fulfilling our present needs, we have to keep the resources safe for the future generations". In the present materialistic era, due to maximum production and indiscriminate and improper exploitation of resources, there is an extreme need to adopt sustainable development. The need for sustainable development is being felt in every field such as economic, social and environmental protection. In the modern era, in the competition and blind race of economic development, natural resources are being exploited at war level at the global level, but it takes thousands of years for these resources to be supplied, due to which problems like regional imbalance arise. The agriculture sector has also not remained untouched by this serious problem. Due to modernization and investment of green revolution in agriculture, there has been a huge increase in the production of crops, but chemical fertilizers, pesticides and mechanization have had an adverse effect on the fertile land and problems like soil erosion have arisen. As a result, to maintain the fertility of the soil, methods of organic farming and soil conservation should be adopted.

MATERIALS AND METHODS -

This could be a mixed methods, approaches, combining quantitative analysis of agriculture data with qualitative insights from case study or expert interviews.

DATA COLLECTION -

Mijor include the primary data in this paper but miner use of secondary data. Agriculture statics from government sources on crop yields,fertilizer use,land use and organic farming adoption rates.

Data on soil health indicators from research institution or agriculture University.case study of successful organic farms in different regions of India.documenting their practices, challenges and outcomes.

Interview with farmers, agricultural experts and policy maker regarding the adoption of sustainable agriculture practices.

DATA ANALYSIS -

Statical analysis to examine the relationship between organic farming and crop yields,soil health and economic outcomes.comparative analysis of different organic farming model and their effectiveness.

SUSTAINABLE DEVELOPMENT -

The concept of sustainable development was first presented in the Bartland Report. In 1987, the World Conference on Environment presented the concept of sustainable development in its famous report "Our Common Future" which is known as Bartland Report. Definition of Sustainable Development as per the report-"Sustainable development is the sacrifice of the present

generation for the future generation.”

According to Prof. Suvindra Singh- “Saving resources for the future generation while fulfilling the present needs is sustainable development.”

The Government of India has set 17 goals and 169 targets to promote sustainable development from the year 2015, which have to be successfully achieved in the entire country by 2030.

PRINCIPLES OF SUSTAINABLE DEVELOPMENT -

Under sustainable development, the concept of development is expressed in which integrated development, balanced development and sustainable development are emphasized.

1. INTEGRATED DEVELOPMENT -

In sustainable development, the concept of proper and integrated development of all activities of the economic sector is found, so that emphasis is laid on developing primary and secondary economic activities.

2. BALANCED DEVELOPMENT -

Social development is also an important aspect in sustainable development. It should be ensured that people of all classes get equal opportunity for development.

3. ENVIRONMENTAL PROTECTION -

In sustainable development, special attention is given to environmental protection and management because environmental pollution remains the biggest challenge of the present time, for which appropriate rules and laws are made and followed and provision is made to maintain the level of biodiversity and natural vegetation in an optimized and balanced state.

CONCEPT OF SUSTAINABLE DEVELOPMENT IN AGRICULTURE -

At present, as a result of the investment of Green Revolution in agriculture, excessive use of chemical fertilizers and pesticides has started, due to which a large part of fertile land is in danger of turning into barren and wasteland and the fertility of the land is getting destroyed day by day, due to which the need for sustainable development in agriculture is being felt. The following measures will have to be implemented to promote sustainable development in agriculture.

1. ORGANIC FARMING -

To maintain the fertility and productivity level of agricultural land, organic farming method has to be adopted. Under which organic manure (composite and green manure) and medicines made through biological process are sprayed for the treatment of various diseases.

Organic farming is a system in which crop production is done by using only crop cycle, organic residues, crop residues and other organic inputs and mineral inputs and bacterial mines, rejecting the use of all synthetic inputs. This is why it is also called ecological farming. In this, environmental protection and sustainable agriculture is

promoted so that the level of soil health and biodiversity can be maintained.

The credit for applying modern knowledge and videos in traditional agriculture (organic farming) goes to Sir Albert Howard. The basic principles of organic farming are based on health, ecology, fairness and care and under this the concept of Jeevamrit, Beejamrit, Ghanjeevamrit, Achaadhan is followed.

Organic farming in India started in Madhya Pradesh in the year 2001-2002. And the first state in the country to follow complete organic farming is Sikkim which has been declared as a fully organic state and the Union Territory of Lakshadweep has been declared as the first Union Territory to adopt complete organic farming. In the present times, it has become very important to adopt organic farming for soil conservation in agriculture because due to indiscriminate mechanization in agriculture, the process of soil erosion is spreading at a very fast pace in the region of northern and north-western India.

NEED FOR ORGANIC FARMING IN INDIA -

About 60% of the population in the country is directly or indirectly associated with the agricultural business. At present, a lot of investment is being made in modernization and mechanization in all the activities related to agriculture. As a result, due to excessive use of chemical fertilizers and pesticides, adverse effects are being seen on human health and fertile soil. According to the report released by the Ministry of Rural Development (2020), a total area of barren and infertile land in the country is 55.76 million hectares (16.96%) and in future about 20% of the land is on the verge of turning into barren land, in which the area under the states of Rajasthan and Maharashtra is the highest. To get rid of this serious problem, it has become very important to adopt organic methods in agriculture so that the health and quality of soil and humans can be saved in time.

2. RENEWABLE ENERGY RESOURCES -

In the modern era, we have to abandon traditional sources of energy and adopt renewable energy resources. Solar energy-powered motors should be used instead of fossil fuel-powered tube wells and tube wells for irrigation. Diesel-powered machines and equipment in the agricultural sector should be abandoned and alternative energy sources like solar energy, biomass and biogas should be promoted so that dependence on fossil fuels can be reduced and environmental pollution can be controlled.

3. CROP ROTATION -

Crop rotation is very important to maintain sustainability and fertility in the soil. Under this, different crops should be sown on the land according to the seasons. So that the cycling of nutrients continues in the soil. This helps in fighting weeds, pests and diseases. For crop rotation, it is necessary that the next crop should be of a different species than the previous crop. So that the supply of

nutrients in the soil continues.

4. IRRIGATION MANAGEMENT -

Irrigation plays an important role in promoting sustainable agriculture. At present, by using modern and artificial means of irrigation (drip irrigation, sprinkler irrigation), maximum area can be irrigated with minimum water supply and by proper management of water, balance can be established between its demand and supply. Supply of clean water is extremely necessary for the future, hence it is very important to adopt sustainable development in this field.

5. CLIMATE CHANGE FRIENDLY CROPS -

Climate change has emerged as a very serious problem at the global level at present. To prevent this, climate friendly programmes will have to be conducted in every activity of the economic sector. And in the agricultural sector also, priority will have to be given to those crops which are less affected by the changing climatic conditions. For this reason, improved and refined seeds of crops are being produced so that production from the agricultural sector can be maintained for a long time. And the supply of food items continues to be available to the future generations as well.

6. CROP DIVERSITY -

In present times, due to modernization in agriculture, the trend of crop-specific agriculture has increased a lot, due to which the distribution and production of many useful crops is declining day by day, which has a negative impact on agricultural land, environment and humans. The distribution of nutritious food crops (coarse grains) has reduced a lot, that is why crop diversity should be promoted more under sustainable development. So that more production can be obtained for a long time at a low cost according to the quality of the soil.

7. TRAINING OF FARMERS -

Trained farmers will play an important role in promoting sustainable development in agriculture. Therefore, the most important task will be to train the people and farmers associated with agriculture work so that new technology and environment friendly (organic farming) activities can be incorporated in agriculture. A trained farmer can get good quality produce at very low cost by using organic fertilizers and medicines and organic farming will also reduce environmental pollution and the health of the soil will also remain optimized.

NEED FOR SUSTAINABLE DEVELOPMENT -

Nowadays our world is facing many challenges like climate change, environmental pollution, excessive population and lack of resources. To face these challenges, we need sustainable development so that we can hand over a clean environment and resource-rich economic system to the coming generations.

At present, there is a great need for sustainable development in the agriculture sector because in

developing countries like India, most of the population (56%) is involved in agriculture related activities and day by day agricultural production and crop quality and soil health are declining and if these conditions remain, then in the coming time the level of agriculture and land will fall to a very low level. And situations like food crisis can arise. As a result, the concept of sustainable development should be implemented in agriculture so that modern chemical and mechanized agriculture can be converted into organic and environment friendly agriculture.

The main need of sustainable development is for biodiversity and environmental conservation because at the global level, the destruction of biodiversity and environmental degradation has reached its peak, the main reason for which is the blind race for economic development and registering maximum increase in agricultural and mineral production. The area of high biodiversity and natural vegetation in the world has shrunk to only around the equator and the continuously expanding single crop specialized agriculture in the monsoon and temperate zone has completely destroyed the natural vegetation and biodiversity here. That is why the time has come to limit the modernization of agriculture and return to organic farming and environment friendly agriculture so that the 8 billion population of the earth can have good health and a continuous supply of food.

CONCLUSION

It is clear from the research that for sustainable development, we have to focus on conservation of energy resources and use of renewable energy sources. To maintain sustainable agricultural production and to keep the quality of food crops good, more use of traditional means and organic matter should be made. And the use of chemicals and pesticides should be completely stopped. According to the Desertification and Hunger-Erosion Report published by the Indian Space Research Organization, about 30% of the land in the country is about to be converted into land erosion and desert soil and all this has increased due to excessive use of chemicals in agricultural land and increasing the amount of acidity in the soil. The Government of India has started the Sustainable Land and Ecosystem Management program to deal with this problem, but the cooperation of the general public is needed to promote the concept of sustainable development in the agricultural sector. Therefore, every citizen of the country will have to contribute by considering the conservation of nature and land as their duty. Only then will this concept of sustainable nutritional development be completely successful. And the main objective of the research to make the common citizen aware of the present and future will also be successful only then.

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