

# ENVIRONMENTAL BENEFITS OF ORGANIC OR NATURAL FARMING

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## ABSTRACT

*There is no doubt that projections about the expansion of the human population will lead to the need of the creation of more farmlands. On the other hand, there have been significant concerns over the dangers that are connected to the expansion of agriculture around the globe during the course of the next half-century. This is a consequence of concerns about the environment as well as issues regarding the quality of agricultural products among the general people. In addition to providing clients with food that is fresh, flavorful, and reliable, organic farming is a kind of agriculture that respects the natural processes that occur throughout the life cycle. In both established and developing countries, organic farming and food are now gaining a great deal of attention due to their growing popularity. Customers may get health benefits from organic products, in addition to the significant environmental benefits that organic products provide to the earth. Organic farming helps to protect biodiversity and reduces pollution in the air, water, and soil. Organic farming also increases soil quality. Within the scope of this study, these environmental concerns are investigated and brought to light. "natural farming is a farming practice that mimics the way that nature operates." People often refer to this kind of farming as "do-nothing farming" or "the natural way of farming." The practices that are used in natural farming are identical to those that are used in natural ecosystems. These practices include not using weeding, fertiliser, soil tilting, or ploughing. In India, the zero budget natural farming (ZBNF) model is the most popular natural farming approach, despite the fact that there are other efficient natural farming systems all over the globe. This all-encompassing, organic, and spiritual farming approach was developed by Padma Shri Subhash Palekar, who is also the developer of the technique. In spite of the fact that organic farming is more expensive than natural farming, it is still more expensive since it needs a significant quantity of manure and has an ecological impact on the environment that is nearby. In comparison, natural agriculture is not only incredibly cost-effective but also completely integrates with the biodiversity of the surrounding area.*

**KEYWORDS :** *Organic farming , natural farming , environment benefits*

## INTRODUCTION

In addition to providing clients with food that is fresh, flavorful, and reliable, organic farming is a kind of agriculture that respects the natural processes that occur throughout the life cycle. There are several different steps that need to be taken in order to make the switch from conventional farming to organic farming. The use of artificial chemicals, such as chemical pesticides and fertilisers, animal antibiotics, food additives, and processing aids, need to be subject to certain restrictions. It should be against the law to employ animals that have been genetically modified on purpose. using resources that are in the possession of the property, such as feed that is produced on the farm or animal faeces that is used as a fertiliser. Selecting plant and animal species that are resistant to illness and have adapted to the climatic environment. bringing animals up in the open air, in their natural environment, and giving them organic food with organic food.

Concerns of a grave kind have been voiced in response to the dangers that will be faced by the global expansion of agriculture during the next half-century. There is no doubt that projections about the expansion of the human population will lead to the need of the creation of more farmlands. This necessitates the transformation of more cropland and range land into agricultural land. As a consequence of this, it is projected that the total biodiversity would decrease. In addition, the use of more machinery and chemical pesticides and herbicides will lead to a rise in the pollution of the environment (water, air, and soil) all over the world. In today's world, organic farming is gaining more and more significance in terms of both rural development and agricultural policy. People are growing more concerned about the environment, the welfare of animals, and the safety of food, which has led to an increase in the popularity of organic farming. Many developed countries have shown their support for the organic sector. The people who live in industrialised countries have chosen organic farming in particular because it is a kind of agriculture that is less harmful to the environment. It is possible to purchase organic food, which is healthier for you since it does not include any residue from artificial pesticides. Organic farming has a much better soil structure compared to conventional farming systems, which results in a reduction in nitrate pollution and a promotion of significantly greater crop health.

In addition, organic farming does not include the use of any chemicals and offers higher environmental advantages in comparison to conventional farming techniques. On the other hand, it has been observed that agriculture that makes use of pesticides and other chemicals may result in the production of foods that trigger the development of cancer.

Agriculture serves as the primary foundation upon which human life and development are built. Between the years 7500 and 6500 B.C., the development of agriculture was a gradual shift for humanity from hunting and gathering to cultivation. Therefore, agriculture is a process of development that takes a very long time. Through the course of its history, agriculture has mostly gone through three distinct phases: the Primitive, Traditional, and Modern eras. A significant amount of farmyard waste and green manures were used in ancient

agriculture in order to increase the fertility of the soil. Insect pests were managed via a variety of methods, including crop rotation, their natural enemies, and human controls. The widespread use of agricultural chemicals in contemporary agriculture, which includes growth-regulating agents, herbicides, fertilisers, and insecticides, leads to the deterioration of the environment and causes damage to the environment.

In response to the many environmental, safety, and health concerns that were brought about by industrial agriculture, organic agriculture arose as a viable option. Organic farming takes conventional farming to a whole new level of excellence. Therefore, the primary concept is to maintain agriculture's growth in a sustainable manner while simultaneously minimising the negative impacts that it has on the environment in order to facilitate its rapid proliferation throughout the whole world. It is possible to protect both human and soil health via the use of a production technique known as organic farming, which also helps to maintain a healthy relationship with the environment. In order to compensate for the negative effects that chemical inputs have on the environment, the ecosystem is dependent on the presence of biodiversity, a wide variety of ecological processes, and natural cycles. A number of different techniques may be used to characterise organic agriculture; nonetheless, they all lead to the same conclusion: organic agriculture is a kind of agricultural system that relies more on the management of ecosystems than it does on inputs from outside sources.

Through the elimination of artificial inputs such as artificial fertilisers and pesticides, veterinary drugs, genetically altered seeds and breeds, additives, preservatives, and radiation, this approach begins to take into consideration the potential environmental and social repercussions that may be incurred. The use of these is replaced by site-specific management strategies that, over the course of time, increase the fertility of the soil, control pests and diseases, and maintain it. Through the promotion of biological cycles, biodiversity, and the biological activity of the soil, organic agriculture, which is an all-encompassing method of production management, works to promote the overall health of the agroecosystem.

It encourages the employment of management strategies that are superior than off-farm inputs, while keeping in mind that localised systems are required owing to the features of the agricultural region. This is accomplished by performing any function that is stated within the system by using, where it is practicable to do so, agronomic, biological, and mechanical processes rather than synthetic components. The term "non-certified organic agriculture or products" refers to organic farming systems and products that are not usually certified via the certification process. Agricultural systems that do not automatically apply synthetic inputs are not included in this category. Examples of such systems include those that erode land and do not provide techniques for soil building.

There are three main factors that motivate organic farming:

1. Organic agriculture when the market or customers are the driving force. Labelling and certification make it possible for products to be readily identified without much effort. The manner in which their food is produced, cooked, handled, and promoted is something that customers carefully consider. As a result, the consumer has a significant part to play in the process of organic agriculture.
2. Agriculture that is organic and is carried out by services. In order to provide environmental goods and services, such as reducing the amount of groundwater pollution or increasing the amount of biological variety in the landscape, countries such as the European Union (EU) pay subsidies for organic farming.
3. Organic farming that is based on farms. Some farmers have developed alternative production techniques because they believe that conventional agriculture is not sustainable and that doing so would be beneficial to their family's health, farm earnings, and/or feeling of independence. The practice of organic farming is gaining popularity in many developing countries as a means of reducing the prices of inputs or increasing the food security of families. Produce does not always sell on the market or at a premium price since it does not have the necessary certification. A growing number of small farmers in prosperous countries are establishing direct distribution channels in order to provide clients with organic food that has not been certified.

## **THE FUNDAMENTALS OF ORGANIC FARMING**

According to the health concept, organic farming should be beneficial to all living things, including plants, animals, people, and the environment as a whole, and it should also be sustainable. According to this idea, the health of persons and communities is intrinsically tied to the health of the environment. This theory proposes that healthy soils lead to healthy crops, which in turn promote the health of both humans and animals.

1. The ecological principle: Organic farming should adhere to the natural cycles and ecological balance in order to make sure that they are preserved. The use of organic farming as a means of preserving the ecological balance of the environment is the primary emphasis of this concept. The size, environment, culture, and permissions of the region all need to be taken into consideration while adjusting organic management.
2. The concept of fairness states that in order to ensure the long-term viability of organic farming, there must be a relationship that is relatively harmonious between organic farming and the surrounding

environment. It is the belief of this concept that equity is preserved throughout the whole of the production and distribution chain for organic agriculture and the byproducts of organic agriculture.

3. The care concept states that organic farming is responsible for the preservation of biodiversity, the environment, and the health of both present and future generations. This principle ensures that all three of these things are preserved. The report asserts that accountability and preventive measures are the most important factors to take into account when making choices about the management, development, and technology aspects of organic agriculture.

## **DIFFERENT ADVANTAGES OF ORGANIC FARMING**

There are four main advantages of organic farming in broadways. These are listed in the following order:

### **Financial advantages**

1. It is possible to reduce the amount of external inputs by increasing the amount of product that comes from organic sources.
2. Ensuring that the genetic and biological potential of various plant and animal species is properly used.
3. Production levels that are sustainable over the long run
4. Production that is economical and efficient by means of improved management of biological resource, water, energy, and soil conservation.
5. Organically cultivated plants are more resistant to diseases and pests than conventionally grown plants.

### **Environmental advantages**

1. Because it requires a much lower amount of energy, organic farming is considered to be more ecologically friendly than conventional farming.
2. It maintains the diversity of the environment and does not disrupt the habitats of any species.
3. When compared to other methods of agriculture, it produces a much lower amount of carbon dioxide emissions.
4. It has the potential to be used in the process of revitalising damaged areas and contributing to the avoidance of environmental degradation.

## **Social advantages -**

1. It is possible for small farms to use organic farming practices, which will be beneficial to marginal farmers.
2. There is a possibility that it will reduce the dependency on costly technologies and inputs from other sources, particularly for farmers who have limited finances.
3. It is beneficial to the economy of the local area since it creates employment.

## **Advantages of soil health -**

1. On the other hand, organic fertilisers are considered to provide complete plant sustenance. Despite the fact that the majority of nitrogenous fertilisers cause the soil to become acidic, the pH of the soil may be neutralised by organic matter using organic matter.
2. These organic inputs, particularly organic manures, are responsible for supplying the plant with all of the nutrients that it requires.
3. The soil's physical qualities are improved as a result of this.
4. Bacteria that contribute to the aggregation of soil are provided with energy by the carbon that is found in organic materials.

## **INDIA'S ORGANIC FARMING PROSPECTS**

For a very long time, India has been a pioneer in organic farming; but, the advent of modern agriculture that is driven by science and requires a significant amount of inputs has unfortunately damaged it. In the meanwhile, the organic agriculture system has the potential to be sustainable over the long term, and it is also starting to accumulate evidence that it is comparably productive. This is due to the rising perception among the general public about the importance of food safety and quality standards. Organic farming, which is described as an alternative type of farming, has become more popular. It provides a means of sustenance that is both profitable and free of debt, while at the same time addressing concerns about quality and sustainability. In order for the organic movement to be successful in India, the domestic market there has to see rapid expansion. At this time, India is one of the leading manufacturers of organic food all over the globe.

## **Biological Diversity**

It has been possible for plants and animals to survive in their natural environments. These systems have developed over the course of millions of years, which has resulted in the assortment of creatures that we see today. On the other hand, when we limit natural ecosystems to environments that were created by humans, it seems that the number of habitats for plants and animals that are not desired is reduced. A contemporary agricultural system results in the destruction of complex ecosystems such as rangelands and forests via the practice of clear-cutting. In addition, the problem becomes much more severe when chemical-based remedies are used in the process of eradicating weeds and pests. The bottom vegetation of hedges that are produced organically is less damaged by farming, and the species diversity of organic hedges is much larger than that of conventional hedges. According to the findings of comparative research carried out in arable regimes, there is a general trend towards an increase in the earthworm population when organic management management is used. There have been evidence that the presence of grass-clover leys within biological cycles is the primary source of the considerably increased number of butterflies, spiders, and beetles that are not considered to be pests.

## **Global warming and air pollution**

In organic farming, one of the fundamental principles is to keep nutrient cycles as tight as possible in order to minimise losses to the air and water reserves. The reduction in air pollution may be attributed to a number of factors, including the absence of chemical sprays that are released into the atmosphere and the reduction in the carbon footprint. In order to modify land in such a way that it produces just the things that are sought and not weeds or pests, a large variety of chemicals have been taken into consideration. There is a possibility that this may be monitored via the use of aircraft and material storage tanks, particularly following the agricultural revolution. As well as being a victim of climate change, agriculture is also a driver of the phenomenon. According to the Intergovernmental Panel on Climate Change (IPCC) in 2005, it is anticipated that the agricultural sector has been responsible for the emission of around six gigatons of carbon dioxide on an annual basis. This accounts for around 10–12 percent of the total emissions of greenhouse gases. Therefore, the only way to produce healthy commodities without having any bad consequences on the environment, both locally (air pollution) and globally (climate change), is to move to an organic farming system. This is the only method to achieve this goal.

## **NATURAL FARMING**

Both natural and organic farming methods often do not include the use of any chemicals and are usually free of any harmful substances. Farmers are prohibited from using chemical pesticides, fertilisers, or any other agricultural procedures on plants under any of these two systems. The use of local varieties of vegetables,

grains, pulses, and other crops, as well as native breeds of seeds, is strongly promoted among farmers. Agricultural practices that are natural and organic promote the use of pest control methods that are manually applied and do not involve the use of chemicals. According to Masanobu Fukuoka and Mokichi Okada, the individuals responsible for the development of natural farming in Japan, "natural farming is a farming practice that mimics the way that nature operates." People often refer to this kind of farming as "do-nothing farming" or "the natural way of farming." The purpose of organic farming is to optimise the health and productivity of a wide variety of populations that are found within the agroecosystem. These populations include people, plants, animals, and creatures that live in the soil. Growing enterprises that are sustainable and cognizant of their impact on the environment is the primary goal of organic farming.

## **Principal variations between organic and natural farming**

When using a natural farming method, no chemical nor organic fertilisers are applied to the field. In point of fact, there is not a single kind of external fertiliser that is applied to the soil or given to the plants. The process of natural farming involves encouraging the decomposition of organic materials by earthworms and other microbes directly on the surface of the soil. This process causes the soil to progressively acquire nutrients over the course of time. The use of organic farming involves the use of organic fertilisers and manures, such as compost, vermicompost, cow dung manure, and other organic materials, to farmlands that are obtained from outside sources. When it comes to organic farming, fundamental agricultural practices including weeding, tilting, mixing manures, and ploughing are still required methods of cultivation.

The practices that are used in natural farming are identical to those that are used in natural ecosystems. These practices include not using weeding, fertiliser, soil tilting, or ploughing. In India, the zero budget natural farming (ZBNF) model is the most popular natural farming approach, despite the fact that there are other efficient natural farming systems all over the globe. This all-encompassing, organic, and spiritual farming approach was developed by Padma Shri Subhash Palekar, who is also the developer of the technique. In spite of the fact that organic farming is more expensive than natural farming, it is still more expensive since it needs a significant quantity of manure and has an ecological impact on the environment that is nearby. In comparison, natural agriculture is not only incredibly cost-effective but also completely integrates with the biodiversity of the surrounding area.

## **Benefits of Organic Agriculture**

- Ensure that the quality of the environment and the soil is maintained.
- Emissions of carbon dioxide are lower in natural farming.



- The soil's health is promoted and maintained by this.
- Restores natural ecosystems, which leads to cleaner air and water and eliminates the contamination of dangerous pesticide residues.

## **Benefits of growing organically**

- Chemical and pesticide residues in the soil are reduced as a result of this.
- Management of resources that is efficient
- Decreases the expenses that are incurred by farming.
- Items that are grown in a regular environment have a higher nutritious content.
- It has a flavour that is superior to that of an organic meal.
- Those animals who are in better health
- The guard's natural habitat, such as its greenery and the animals that live there.
- The soil and the ecosystem are important public assets.

In general, organic farming and natural farming are both associated with higher soil quality and lower rates of soil erosion when compared to their conventional equivalents. The employment of organic farming practices often results in reduced contamination of the land and water, as well as fewer emissions of greenhouse gases and greater energy efficiency. There is also a correlation between organic farming and increased genetic diversity, as well as a wider variety of plant, animal, insect, and microbial species.

## **OBJECTIVES**

1. To research organic farming
2. To study about organic farming
3. To understand the advantages of natural and organic farming for the environment

## **CONCLUSION**

Organic farming is the best solution for those who wish to keep a peaceful connection with the environment. This is because organic farming is more environmentally friendly than conventional agricultural approaches. On a daily basis, individuals are searching for meals that are considered to be healthier and more nutrient-dense. As a consequence of this trend, organic food is gaining more and more popularity. With organic farming, both the integrity of the ecosystem and the health of the soil are protected, which is one of the reasons why organic farming is good to the health of consumers. Furthermore, the market for organic goods is now expanding at the quickest rate in the globe, including in India of all the countries in the world. At the same time, all of these things are taking place. In addition to contributing to the protection of the environment and the improvement of consumer health, organic agriculture also makes a contribution to the overall economic growth of a country via the collection of money. If India focuses a larger emphasis on organic farming, it has the potential to become a country that is economically, environmentally, and nutritionally healthy in the near future. This is a possibility that must be taken into consideration. Through its emphasis on the positive aspects of organic farming, this research has brought to light the environmental advantages that organic farming has in comparison to conventional agricultural operations.

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