# ORGANIC PRODUCTS AND ENVIRONMENTAL SUSTAINABILITY

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## Abstract

Organic products are grown under a system of agriculture without the use of chemical fertilizers and pesticides with an environmentally and socially responsible approach. This is a method of farming that works at grass root level preserving the reproductive and regenerative capacity of the soil, good plant nutrition, and sound soil management, produces nutritious food rich in vitality which has resistance to diseases. Organic farming is a holistic approach to integrated farming that produces food and meat without using conventional fertilizers, synthetic pesticides, growth hormones, chemicals or genetically modified organisms. Organic farming strives for sustainability, ensures crops which do not have any harmful residues, and enterprises methods which are sustainable and maintain harmony with nature. Sustainable farming or, in a broader way, sustainable agriculture is the production of food, fibre or other plant or animal products using farming techniques that protect the environment, public health, human communities and animal welfare. In other words, it promotes practices that are economically viable, environmentally friendly and that protect public health. Water and soil are two extremely important resources necessary for growing food.

**Key words:** Environmental sustainability, sustainable agriculture, organic products, organic farming, organic food, etc.

## **1. Introduction**

Organic produce is grown using manure instead of synthetic fertilizer. It is often promoted as a farming method that produces lower environmental impacts because it replaces the chemical inputs with the natural inputs. Organic farming is an agricultural system that is fully consistent with sustainable development approach. It is an agricultural production management system that uses no chemical fertilizers, pesticides, an industrial synthetic product or a genetically modified organism. Organic farming is a holistic approach to integrated farming that produces food and meat without using conventional fertilizers, synthetic pesticides, growth hormones, chemicals or genetically modified organisms. The former approach is a more recent phenomenon associated with pragmatic considerations of scaling up the size of operations and long distance shipping to take advantage of distant markets. To define environment sustainability, we must first define sustainability. Sustainability is the ability to continue a defined behaviour indefinitely. Environmental sustainability is the rates of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be continued indefinitely.

# 2. Organic products and environmental sustainability

Sustainability and the environment are top of mind for many today. Organic farming rebuilds soil health and stops harmful chemicals from getting into our water supplies. Water and soil are two extremely important resources necessary for growing food. Organic farming strives for sustainability, ensures crops which do not have any harmful residues, and enterprises methods which are sustainable and maintain harmony with nature. Sustainable farming is the production of food, fibre or other plant or animal products using farming techniques that protect the environment, public health, human communities and animal welfare. Organic products are grown under a system of agriculture without the use of chemical fertilizers and pesticides with an environmentally and socially responsible approach. This is a method of farming that works at grass root level preserving the reproductive and regenerative capacity of the soil, good plant nutrition, and sound soil management, produces nutritious food rich in vitality which has resistance to diseases.

## 3. Review of literature

Several studies related with different aspects of organic product and environment sustainability. Literature review is the method to gather information for the introduction and theoretical framework section. The process started with searching for key words such as environmental sustainability, agriculture, organic products, organic farmers, food product, etc.

Prabhakar Shetty (2007) stated that organic farming has the potential to provide positive externalities in social aspects like job opportunities and rural development.

Gahukar (2006) stated that bio-fertilizers are natural and organic products. They help to provides and keep in the soil all the materials and micro-organism required for the plant growth.

Pal, et al. (2005) stated that green revolution technology has undoubtedly increased production and labor efficiency. But, it showed remarkable side effects on field and farm-level diversity as well as on environment.

## 4. Objectives of the study

- 1. To show how important role the concept plays when entering the organic market.
- 2. To gain trust about credibility of organic products.
- 3. To enhance the assurance to the consumers in Indian organic products in the global market.

## 5. Methodology

The data were collected from articles, journals, annual report, manuals, etc.

# 6. Environmental benefits of organic product

**Sustainability over the long term**: Many changes observed in the environment are longterm, occurring slowly over time. Organic agriculture considers the medium and long-term effect of agricultural interventions on the agro eco system. It aims to produce food while establishing an ecological balance to prevent soil fertility or pest problems. Organic agriculture takes a proactive approach as opposed to treating problems after they emerge.

**Soil**: Soil building practices such as crop rotations, inter-cropping, symbiotic associations, cover crops, organic fertilizers and minimum tillage are central to organic practices. These encourage soil fauna and flora, improving soil formation and structure and creating more stable systems. In turn, nutrient and energy cycling is increased and the retentive abilities of the soil for nutrients and water are enhanced, compensating for the non-use of mineral fertilizers.

Water: In many agriculture areas, pollution of groundwater courses with synthetic fertilizers and pesticides is a major problem. As the use of these is prohibited in organic agriculture, they are replaced by organic fertilizers and through the use of greater biodiversity, enhancing soil structure and water infiltration.

Air and climate change: Organic agriculture reduces non-renewable energy use by decreasing agrochemical needs. Organic agriculture contributes to mitigating the greenhouse effect and global warming through its ability to sequester carbon in the soil.

**Biodiversity**: Organic farmers are both custodians and users of biodiversity at all levels. At the gene level, traditional and adapted seeds and breeds are preferred for their greater resistance to diseases and their resilience to climatic stress.

**Organic farming prevents algal bloom formation:** Algal blooms are caused by runoff from farms where conventional fertilizers rich in nitrogen and phosphorus are used. It can be argued that even organic fertilizers contain nitrogen and phosphorus. However, they contain many other nutrients which create a nutritional balance. Moreover, organic farming improves soil binding and reduces runoff. A nutrient rich soil is complete and contains earthworms and nematodes which result in increased soil density and reduced sandiness thereby causing less runoff. Organic farming boosts bacteria named rhizobia that help plants fix nitrogen and help utilize and convert these nutrients before they get an opportunity to run-off.

# 7. Conclusion

The agricultural sector is of vital importance for the region. It is undergoing a process of transition to a market economy, with substantial changes in the social, legal, structural, productive and supply set-ups, as is the case with all other sectors of the economy. Organic agriculture ensures soil enrichment and conditioning, soil stabilization, waste decomposition, carbon sequestration, pest predation, and pollinators. Organic farming promotes a pollution free and sustainable agricultural system.

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