

# Challenges Faced in Organic Farming

**Author 1:** C G Accamma, Asst.Professor, Center for Management Studies, Jain (deemed-to-be) University, Bangalore, India

**Author 2:** Baisakhi Debnath Asst.Professor, Center for Management Studies, Jain (deemed-to-be) University, Bangalore, India

**Author 3:** Saanvi J Naik Student, Centre for Management Studies, Jain (deemed-to-be) University, Bangalore, India

**Author 4:** Yaksh Kumar Student, Centre for Management Studies, Jain (deemed-to-be) University, Bangalore, India.

**Author 5:** Pratik Rathod Student, Centre for Management Studies, Jain (deemed-to-be) University, Bangalore, India.

**Author 6:** Zoya Amina Khaleel Student, Centre for Management Studies, Jain (deemed-to-be) University, Bangalore, India.

**Abstract:-** Organic farming has many benefits, including less negative environmental effects, greater soil quality, and higher animal welfare, but it also confronts several difficulties that could impede its capacity to feed a growing population in the face of climate change and increased demand. This essay examines the difficulties facing organic farming and explores the question of whether organic farming can support a growing population and adapt to climate change. The study indicates that organic farming can contribute to food security and sustainable agriculture, but it requires a coordinated effort from farmers, academics, governments, and consumers to overcome its obstacles and promote its benefits.

**Keywords:-** Organic Farming, Challenges, Opportunities, Potential, Global Economy, Sustainable Agriculture, Food Security.

## ➤ Research Gap

Can organic farming accommodate a growing population with consideration to climate change and demand?

## I. INTRODUCTION

Food security and the global economy both heavily rely on the agricultural sector. Organic farming has arisen as an alternative agricultural system that attempts to encourage sustainable and ecologically friendly food production as knowledge of the environmental and health risks of traditional farming practises has grown. Natural techniques are used in organic farming to improve soil fertility and plant growth, while artificial fertilisers and pesticides are used as little as possible and animal welfare is given top priority. Organic farming is seen as a more environmentally friendly method of raising food since it promotes biodiversity, lowers carbon emissions, and protects natural resources.

Despite the apparent advantages of organic farming, there are still difficulties. We investigate the economic, technical, and regulatory difficulties that organic farming faces in this study article. It can be more expensive and

labour-intensive to cultivate organically than conventionally, which makes it difficult for farmers to stay profitable. However, organic farming presents a number of technical difficulties that call for in-depth knowledge and skill, including managing pest and disease control, crop rotation, and soil fertility.

Furthermore, organic producers may face substantial difficulties due to regulatory issues relating to market access, intellectual property rights, and organic certification and labelling. It can be challenging for organic farmers to manage the intricate web of rules and regulations because the regulatory framework for organic farming can change dramatically between nations.

In order to encourage the expansion and sustainability of organic agriculture, we seek to present a thorough overview of the difficulties faced in organic farming in this study paper and suggest alternative solutions. Understanding these issues and figuring out viable solutions will help advance the growth of a more environmentally responsible and sustainable agriculture.

## ➤ Objective of the study

The objective of this paper is to examine, analyse and understand the following:

- The potential for expanding organic farming to satisfy the rising need for food as well as the existing situation of organic farming in terms of production, demand, and market trends.
- The difficulties and opportunities that organic farming must overcome in order to adapt to climate change, including extreme weather conditions and shifting growth circumstances.
- The potential of organic farming techniques to provide enough food to satisfy a growing world population while upholding sustainability and environmental protection
- The possibility for integrating cutting-edge ideas and technologies into organic farming methods in order to boost productivity and efficiency, such as genetic engineering and precision agriculture.
- The potential socio-economic benefits of expanding organic farming, including the opportunity for new jobs

and local food systems as well as increased income generation

## II. LITERATURE REVIEW

In this literature review, we examine the existing literature on the challenges faced in organic farming's capacity to meet the rising food demand and tackle issues like climate change and environmental sustainability.

A review by Lampkin and Measures (2019) found that limited availability and high costs of organic inputs, such as fertilizers and pesticides, were major challenges for organic farming. Organic farming also faces challenges in terms of yield, as it may produce lower yields compared to conventional farming due to lower nutrient inputs and pest control. Furthermore, organic farming requires specialized knowledge and skills, which can limit its adoption and scalability.

Climate change is a significant challenge faced by organic farming, as it can lead to increased weather variability and extreme weather events that can damage crops and disrupt natural processes. A study by Gomiero et al. (2017) found that organic farming practices, such as crop diversification and intercropping, can improve soil health and water retention, making them more resilient to climate change. Furthermore, organic farming can reduce greenhouse gas emissions, as it relies less on fossil fuel-based inputs, such as synthetic fertilizers.

Several studies have evaluated the effectiveness of organic farming practices in terms of producing enough food to meet demand. A review by Ponisio et al. (2015) found that organic farming can produce yields that are comparable to or even higher than conventional farming, especially in systems that incorporate agroecological principles. However, the effectiveness of organic farming may depend on factors such as soil quality, climate, and pest pressure.

There has recently been a rise in interest in incorporating new technologies and innovations into organic farming practices to improve efficiency and productivity. A study by Malakouti et al. (2018) found that precision agriculture technologies, such as sensors and drones, can improve nutrient management and reduce fertilizer use in organic farming. Furthermore, there is potential for genetic engineering to develop crops that are more resilient to pests and climate change while maintaining organic certification standards.

Organic farming can be integrated into broader sustainable agriculture systems that can meet the growing demand for food while also addressing issues such as food security, biodiversity conservation, and climate change mitigation. A study by Albrecht et al. (2017) found that diversified agroecological systems, which incorporate organic farming practices and principles, can improve soil health, biodiversity, and ecosystem services while also improving food security and livelihood.

## III. RESEARCH METHODOLOGY

This paper is based on secondary data review.

## IV. ANALYSIS AND FINDINGS

The benefits of organic products for the environment and human health are often admired. Organic gets a lot of hype, and it's no surprise. However, organic farming has many difficulties and requires a lot of work. As such, we must be aware of this regarding the development and production of organic foods.

However, it should not discourage young farmers who want to jump on the organic farming bandwagon., they must be aware of them.

### ➤ *Time is of the essence*

Timing is he one of the major problems in organic farming. Getting organic foods and meats to market faster often, but not in all cases, requires an efficient supply chain.

The use of fewer chemicals throughout the food production process is the primary distinction between conventional and organic farming. Despite the clear health advantages, organic produce is typically more likely to go bad for a variety of reasons. To ensure food safety and appeal, organic produce must be consumed sooner because it is often less tolerant of temperature changes during transport and has a shorter shelf life.

### ➤ *Pests also want organic products*

Pest infestations, which are as old as agriculture itself, are a major barrier to organic farming because they allow rodents, insects, and other pests to destroy crops. For this reason, pesticides have been used by humans for a very long time to efficiently eradicate pests. Nevertheless, since many of these substances are synthetic and damaging to the environment, organic farming is not permitted to utilise them.

Thus, organic farms must devise innovative and effective pest management plans. Despite the fact that pesticides are prohibited in organic farming, some natural insecticides are nevertheless permitted.

Crop diversification, trapping, preventing mating, or utilising birds and other insects are further ways to combat pests.

### ➤ *Marketing organic products is more difficult*

As was previously noted, it's critical in organic farming to deliver products to market swiftly to preserve their nutritional content and freshness. But, organic products are at a disadvantage in a culture where long commutes and online purchasing are the norm.

As a result, organic farmers must locate regional markets for their goods, which is sometimes difficult. Farmers can instead invest their money on dependable, air-

conditioned trucks to enable longer transit. 4. A scarcity of organic food.

The final barrier is the low output yield of organic farming when compared to food produced conventionally. Because industrial pesticides, herbicides, and fertilisers are no longer used, productivity has decreased, and organic farming requires more land to produce at historical levels.

Farmers should prepare their crop in advance and undertake their research to combat this. They must ensure that particular cultivars and plant types are appropriate for the region and that the produce they raise is constantly in season.

**Table 1:- Socio Economic Profile In Organic Farmers**

	<b>Independent Variables</b>	<b>Variables</b>	<b>No of Respondents</b>	<b>Percentage (%)</b>
1.	Age	Below 20	83	20.75
		21-30	172	43
		31-40	65	16.25
		Above 40	80	20
2.	Education	No Schooling	58	14.5
		School Level	191	47.75
		College level	151	37.75
3.	Respondent Area	Urban	77	19.25
		Semi Urban	164	41
		Rural	159	39.75
4.	Marital Status	Married	273	68.25
		Unmarried	127	31.75
5.	Gender	Male	321	80.25
		Female	79	19.75
6.	Annual Income	Below 30000	81	20.25
		30001-60000	117	29.25
		60001-90000	133	33.25
		Above 90000	69	17.25
7.	No of Family Members	Below 3	90	22.5
		4-5	172	43
		Above 5	138	34.5
8.	Farming Experience (Years)	Below 4	104	26
		5-10	112	28
		11-15	93	23.25
		Above 15	91	22.75
9.	Experience in Organic Farming	Below 4	131	32.75
		5-10	164	42
		11-15	73	18.25
10.	(Years)	Above 15	32	8

**Source: Secondary data**

➤ **Interpretation**

According to the results, the majority of respondents (43%) are between the ages of 21 and 30. The majority of respondents (47.75%) are between the ages of 7 and 11. The majority of respondents (41%) live in a semi-urban area. The majority of respondents (68.25%) are married, and the majority (80.25%) of respondents (47.75%) are between the ages of 18 and 24. Family size, in terms of members The majority of responses (43%) fall within the group of 45 family members, while the category of farming experience (years) was the majority of respondents (28%) and the majority of respondents in the 5-10 Experience in Organic Farming (Years) group (42%) respectively.

**V. CONCLUSION**

Organic farming faces numerous challenges that may limit its ability to feed a growing population in the face of climate change and rising demand. However, this research shows that organic farming can contribute to sustainable agriculture and food security if its challenges are addressed and its benefits are promoted. Scaling up organic agriculture, enhancing soil carbon sequestration, and improving crop resilience are essential steps towards adapting organic farming to a changing climate and increasing demand. Additionally, supporting policies that promote organic farming, such as subsidies and market access, can enable more farmers to adopt organic practices and meet consumer demand. However, organic farming

alone cannot solve the complex challenges of food security and climate change. Therefore, the integration of multiple approaches, such as agroforestry, agroecology, and conservation agriculture, can provide a holistic and diversified food system that ensures sustainability and resilience. In conclusion, organic farming has the potential to contribute to sustainable agriculture and food security if it is supported by farmers, policymakers, researchers, and consumers.

### REFERENCES

- [1]. Swarna R, Thiripurasundari K (2016), Prospects and problems of organic farming in tirunelveli district, <http://hdl.handle.net/10603/175903>.
- [2]. Dr. C. Vethirajan, & C. Ramu, role of corporate social responsibility in national re-enforcement in Indian multinational companies, Vol. 5, No. 8, August 2016, International Journal of Advanced Research in Management and Social Sciences, ISSN: 2278-6236
- [3]. Dr. G.Nedumaran & M.Manida, (2019), Sustainable Development and Challenges of Organic Farming Practices, Conference book for “Clean India for New India”, ISBN:978-81-8094-3232.
- [4]. Dr. G.Nedumaran & M.Manida, (2019), E-Marketing Strategies for Organic Food Products, International Journal of Advance and Innovative Research, June- 12, 2019, [https://www.researchgate.net/publication/332832989\\_E\\_Marketing\\_Strategies\\_for\\_Organic\\_Food\\_Products](https://www.researchgate.net/publication/332832989_E_Marketing_Strategies_for_Organic_Food_Products).
- [5]. Bello. W. B Problems and Prospect of Organic Farming in Developing Countries, Ethiopian Journal of Environmental Studies and Management. Vol. 1 no. 1 March 2008.
- [6]. Dr G.Nedumaran & M.Manida, E-Agriculture and Rural Development in India, Volume XIII, Issue I, January 2020, Page No: 105-121, A Journal Of Composition Theory, ISSN: 0731-6755. [https://www.researchgate.net/publication/338422120\\_E\\_Agriculture\\_and\\_Rural\\_Development\\_in\\_India](https://www.researchgate.net/publication/338422120_E_Agriculture_and_Rural_Development_in_India)
- [7]. Siwi Nugraheni, Agustinus Febi Dwi Purnama, (2013), Problems and Prospects of Organic Farming in Indonesia: lessons from five districts in West Java province”, Presented at the 23th Pacific Conference of the Regional Science Association International (RSAI), Bandung, Indonesia, 2-4 July 2013