The Infinite
An International Peer Reviewed / Refereed Journal of Multidisciplinary Research

An Online Peer Reviewed / Refereed Journal
Volume 2 | Issue 7 | July 2025
ISSN: 3048-9539 (Online)
Website: www.theinfinite.co.in

Organic Farming and Its Economic Viability for Small and Marginal Farmers in India

Ram Kumar

B.Sc. (Agriculture) I

Dr. R. M. L. A. U. Ayodhya

ARTICLE DETAILS

Research Paper

Keywords :

Organic farming, Small farmers, Economic viability, Agricultural policy, Sustainable agriculture, India

ABSTRACT

Organic farming is increasingly recognized as a sustainable agricultural practice that can address issues related to soil degradation, environmental pollution, and food safety. In India, where over 86% of farmers are small and marginal, the shift towards organic farming raises crucial questions about its economic feasibility. This paper explores the viability of organic farming for these farmers by assessing input costs, yield levels, market dynamics, policy support, and existing challenges. Through a combination of case studies, government reports, and comparative economic analysis, the paper aims to provide an informed perspective on whether organic farming is a beneficial and sustainable alternative for small-scale cultivators.

1. Introduction

India has long been recognized as a predominantly agrarian economy, with agriculture playing a central role in the lives of a large section of its population. A significant proportion of the rural workforce, comprising millions of small and marginal farmers, depends directly on agriculture not only for sustenance but also for economic survival. Despite this, the agricultural sector in India continues to grapple with a range of persistent and emerging challenges that threaten both productivity and sustainability. Among the most pressing issues are the steady decline in soil fertility due to excessive and unbalanced use of chemical fertilizers, the rampant overuse of pesticides, growing water scarcity, shrinking landholdings, and the increasing unpredictability of climate patterns. Additionally, market-related challenges—such as price

volatility, lack of assured procurement, and exploitative middlemen—further compound the distress faced by farmers.

In response to these multifaceted concerns, organic farming has gained attention as a viable and ecologically sound alternative to conventional agricultural practices. By avoiding the use of synthetic inputs and embracing natural methods such as composting, crop rotation, and bio-fertilization, organic farming promotes long-term soil health, conserves biodiversity, and reduces the environmental footprint of agriculture. Moreover, there is a growing consumer demand—both domestically and globally—for organically grown produce, which opens avenues for farmers to access premium markets and fetch better prices for their produce.

This paper delves into the economic feasibility of organic farming specifically for India's small and marginal farmers, who form the backbone of rural agriculture but often lack sufficient capital, institutional support, and market access. It seeks to critically examine whether organic farming, despite its ecological promise, can truly serve as a sustainable and economically viable livelihood strategy for these farmers in the current socio-economic landscape of India.

2. Concept of Organic Farming

Organic farming is defined as a method of farming that avoids the use of synthetic fertilizers, pesticides, genetically modified organisms (GMOs), and growth regulators. Instead, it relies on crop rotation, green manure, compost, biological pest control, and other ecologically sound practices. It is not only a farming technique but also a philosophy that emphasizes harmony with nature, biodiversity conservation, and soil health.

3. Profile of Small and Marginal Farmers in India

Small and marginal farmers are those with less than 2 hectares of land. According to the Agriculture Census 2015–16, they constitute around 86.2% of the total farmers in India but own only about 47% of the total agricultural land. These farmers often struggle with low productivity, high input costs, limited access to credit, and market exploitation.

4. Economic Analysis: Organic vs. Conventional Farming

4.1 Input Costs:

Organic farming reduces dependency on costly chemical fertilizers and pesticides. Inputs like compost, farmyard manure, and bio-pesticides are often sourced from the farm itself, lowering costs over time.

However, the initial years of transition may require investments in training, soil improvement, and certification.

4.2 Yields:

In the initial phase, organic yields may be lower than conventional farming due to the transition period. However, studies suggest that within 3–5 years, yields can stabilize or even improve, especially with proper organic practices.

4.3 Market Access and Premium Pricing:

Organic products often fetch higher market prices due to growing consumer demand for chemical-free produce. However, access to such premium markets is limited for rural farmers due to poor logistics, lack of awareness, and absence of organized marketing channels.

4.4 Certification and Compliance:

Certification is essential for labeling and marketing organic produce. The cost and complexity of obtaining certification are major barriers for small farmers. While government initiatives like PGS-India (Participatory Guarantee System) aim to simplify the process, coverage remains limited.

5. Government Schemes and Policy Support

- **Paramparagat Krishi Vikas Yojana (PKVY):** Promotes organic farming through cluster-based approaches and capacity building.
- **National Programme for Organic Production (NPOP):** Provides accreditation and certification standards.
- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER):** Focuses on organic value chains and market development.

Despite these schemes, awareness, outreach, and implementation remain inconsistent across states.

6. Case Studies

6.1 Sikkim – India's First Organic State: Sikkim became fully organic in 2016, showing that with strong political will and farmer engagement, organic farming can be scaled. Farmers benefited from government support, training, and improved market access.

6.2 Madhya Pradesh – Largest Area under Organic Certification: Madhya Pradesh leads in certified organic acreage. However, challenges such as fragmented markets, limited storage, and poor branding affect farmers' profits.

7. Challenges Faced by Small and Marginal Organic Farmers

1. High Initial Costs and Transition Phase

Transitioning from conventional to organic farming involves several upfront investments that can be burdensome for small and marginal farmers. These include the cost of improving soil health, purchasing organic inputs, preparing compost, and modifying existing farming techniques. Moreover, during the initial 2–3 years of conversion, yields often decline due to the absence of chemical stimulants, leading to reduced income without the immediate benefit of premium organic pricing. This transition phase, known as the "conversion period," is critical and financially vulnerable, requiring strong institutional and policy support to prevent farmer distress.

2. Lack of Knowledge and Training in Organic Practices

Many small farmers are not well-informed about organic farming techniques, including pest management, composting, crop rotation, and natural fertilization methods. Traditional knowledge, while valuable, may not be sufficient to meet modern organic standards or market expectations. Without adequate training, farmers may struggle to maintain soil fertility, manage diseases organically, or achieve desirable yields. The lack of extension services, field demonstrations, and farmer education programs significantly hampers the adoption and success of organic agriculture.

3. Difficulties in Obtaining Certification

Organic certification is essential for farmers to market their produce as genuinely organic and to access premium markets. However, the certification process is often complex, time-consuming, and expensive. Small and marginal farmers, especially those in remote or underdeveloped regions, face challenges in understanding the procedures, maintaining documentation, and bearing the cost of certification. Although systems like Participatory Guarantee System (PGS) aim to simplify certification for local markets, limited awareness and logistical barriers still hinder large-scale adoption.

4. Inadequate Infrastructure and Market Linkages

A major hurdle in the organic farming value chain is the lack of supporting infrastructure such as cold storage facilities, transportation, packaging units, and dedicated organic markets. Without proper post-harvest handling and storage, the quality of organic produce can deteriorate, leading to loss of value.

Furthermore, farmers often lack access to organized supply chains or cooperatives that can help them aggregate, process, and market their produce effectively. This disconnect from the market limits their ability to realize the economic benefits of organic farming.

5. Price Volatility and Exploitation by Middlemen

Even though organic produce is in demand and can command higher prices, small farmers rarely benefit due to limited bargaining power and lack of direct access to consumers. In many cases, middlemen purchase produce at low prices and reap the profits by selling it at premium rates in urban or export markets. Additionally, the organic produce market is still developing and lacks price regulation, making it vulnerable to fluctuations based on demand-supply mismatches and regional market dynamics. This volatility makes income from organic farming unpredictable and discourages risk-averse farmers from transitioning.

8. Recommendations

Strengthening extension services and farmer training programs is essential to equip small and marginal farmers with the knowledge and skills required for successful organic cultivation. Many farmers are unaware of organic techniques such as natural pest control, composting, soil fertility management, and crop rotation. Regular field demonstrations, hands-on workshops, and farmer-to-farmer learning models can bridge this knowledge gap. Extension officers must be well-trained and sensitized to the specific needs of organic farmers, ensuring that guidance is practical, localized, and accessible even in remote areas.

Providing subsidies and incentives during the transition period is crucial to mitigate the financial risk farmers face while shifting from conventional to organic farming. During the first few years, farmers often experience yield reductions without access to organic price premiums, making this period economically vulnerable. Government support in the form of input subsidies, interest-free loans, crop insurance, and direct income support can help cushion the initial shocks and encourage more farmers to take up organic farming as a viable livelihood option.

Simplifying and subsidizing certification processes is necessary to make organic farming more inclusive and accessible. Currently, the process of obtaining organic certification can be time-consuming, expensive, and bureaucratic—especially for smallholders with limited literacy or financial capacity. The expansion and proper implementation of systems like the Participatory Guarantee System (PGS) can offer a low-cost, community-based alternative. Additionally, digital tools and localized language support can further simplify documentation and compliance procedures, encouraging broader participation.

Establishing local and regional organic markets can create direct marketing opportunities for organic farmers and reduce their dependency on exploitative intermediaries. Organic haats (markets), weekly fairs, and designated retail spaces in urban centers can connect producers directly with consumers who are willing to pay premium prices. These markets should be supported with infrastructure like cold chains, storage, grading, packaging, and branding facilities to enhance the visibility and quality of organic produce, ultimately improving farmer incomes.

Encouraging Farmer Producer Organizations (FPOs) for collective marketing empowers small and marginal farmers to pool their resources, reduce input costs, access better infrastructure, and negotiate fair prices. FPOs can help members with bulk procurement of organic inputs, collective certification, aggregation of produce, and coordinated transportation. By enabling collective branding and direct marketing to retailers, wholesalers, or consumers, FPOs enhance the bargaining power of individual farmers and ensure that a larger share of the value reaches the producers themselves.

9. Conclusion

Organic farming holds immense potential for India, especially for ensuring sustainability and health safety. For small and marginal farmers, it can be economically viable if supported by appropriate policies, market access, and technical guidance. A well-integrated approach combining ecological awareness, financial support, and market development is crucial for making organic farming a profitable venture for India's rural backbone.

References:

- Food and Agriculture Organization. (2022). *Organic agriculture: A global perspective*. FAO. https://www.fao.org
- Ministry of Agriculture and Farmers Welfare. (2023). *Annual report 2022–23*. Government of India. https://agricoop.nic.in
- NITI Aayog. (2021). *Doubling farmers' income: The organic path*. Government of India. https://www.niti.gov.in
- Agricultural and Processed Food Products Export Development Authority (APEDA). (2024). *National Programme for Organic Production (NPOP)*. https://apeda.gov.in
- Research Institute of Organic Agriculture (FiBL). (2023). *The world of organic agriculture: Statistics and emerging trends 2023*. https://www.fibl.org

- Singh, K., & Jain, A. (2020). Organic farming in India: Issues and prospects. *International Journal of Agricultural Sciences and Research*, 10(4), 25–32.
- Meena, H. R., & Dhaka, B. L. (2018). Constraints faced by farmers in adoption of organic farming in India. *Indian Journal of Extension Education*, 54(2), 35–39.
- Ministry of Rural Development. (2020). *Study on small and marginal farmers in India*. Government of India. https://rural.nic.in
- Kumar, S., & Sharma, R. (2021). Role of farmer producer organizations in promoting organic farming: A case study from Madhya Pradesh. *Journal of Rural Development*, 40(1), 58–70.
- National Centre of Organic Farming. (2019). *Status of organic farming in India*. Government of India. http://ncof.dacnet.nic.in
- Sharma, P. (2017). Organic farming for sustainable agriculture: A case study of Sikkim. *Asian Journal of Agricultural Extension, Economics & Sociology*, 21(4), 1–10.
- Thakur, D. R., & Chand, R. (2019). Economic analysis of organic farming: Evidence from Himachal Pradesh. *Agricultural Economics Research Review*, 32(2), 209–216.
- Narayanamoorthy, A., & Kalamkar, S. S. (2016). Has organic farming delivered positive results in India? *Indian Journal of Agricultural Economics*, 71(3), 260–272.
- Singh, M., & Kaur, R. (2020). Impact of government schemes on organic farming adoption. *Journal of Agricultural Development and Policy*, 30(1), 101–109.
- United Nations Environment Programme. (2022). *Agroecology and organic farming in developing countries*. https://www.unep.org