



ORGANIC FARMING: OPPORTUNITIES AND CHALLENGES IN INDIA

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Abstract: As consumers become more conscious about health, environment, and sustainability, demand for organic products increased, providing an opportunity for organic farmers. Along with this benefit, organic farmers are facing some challenges also. Hence, the main objective of this study is to analyze the opportunities and challenges faced by the farmer while converting from conventional farming to organic farming. This study is based on secondary data collected from articles, journals, and websites. India has a huge market for organic products and the government provides subsidies for adopting organic farming practices. Despite these opportunities, there are some challenges also like a lack of awareness about organic farming, confusion about the certification process, and the high price of inputs that need to be used while cultivating. To reduce these challenges there is a need for support from the government like providing supportive prices for organic products, providing warehouse facilities, and making farmers aware of the certification process and logos.

Keywords: Organic farming, Organic farming challenges and opportunities.

Introduction:

India is the second largest country in terms of population and most of the population depends on agriculture activity. Several decades back farmers were using the traditional method of cultivation due to the increase in population demand for food products got increased, which leads to the adoption of Modern innovations and technology in agriculture. massive demand for food grains by the human population transformed agriculture from a circular causation mode to a linear flow model with complete dependence on external inputs of synthetic fertilizers and pesticides. Large use of these materials increased agricultural yield by many folds and significantly contributed to environmental degradation including greenhouse forcing. The modern concept of organic farming (OF) took place in response to the questions raised on health, environment, and sustainability issues. Organic farming systems emphasize on the use of organic matter for enhancing soil properties, minimizing food chain-associated health hazards, and attaining closed nutrient cycles, the key factors for sustainable agriculture (Cardelli ,2004).

The main objectives of organic farming are • To produce food of high nutritional quality in sufficient quantity • To work with natural systems rather than seeking to dominate them. • To encourage and enhance biological cycles within the farming system-involving microorganisms, soil flora and fauna, plants, and animals. • To maintain and increase the long-term fertility of the soil. • To use, as far as possible, the renewable resources to work as much as possible, within a closed system, with regard to organic matter and nutrient elements. The main principle of organic farming.

The main principles of organic farming are the following: To work as much as possible within a closed system and draw upon local resources. - To maintain the long-term fertility of soils. - To avoid all forms of pollution that may result from agricultural techniques. - To produce foodstuffs of high nutritional quality and sufficient quantity. - To reduce the use of fossil energy in agricultural practice to a minimum. - To give livestock conditions of life that confirm their physiological need. - To make it possible for agricultural producers to earn a living through their work and develop their potential as human beings.

Certification Schemes

Food Safety and Standards Authority of India (FSSAI) is the food regulator in the country and is also responsible for regulating organic food in the domestic market and imports.

a. Participatory Guarantee System (PGS): PGS is a process of certifying organic products, which ensures that their production takes place in accordance with laid-down quality standards. PGS Green is given to chemical-free produce under transition to 'organic' which takes 3 years. It is mainly for domestic purposes.

b. National Program for Organic Production (NPOP): NPOP grants organic farming certification through a process of third-party certification for export purposes.

Government Schemes for promoting organic farming

a. Mission Organic Value Chain Development for North East Region (MOVCD)

Mission Organic Value Chain Development for North East Region (MOVCD-NER) is a Central Sector Scheme, a sub-mission under National Mission for Sustainable Agriculture (NMSA). It was launched by the Ministry of Agriculture and Farmers Welfare in 2015 for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. The scheme aims to develop certified organic production in a value chain mode to link growers with consumers and to support the development of the entire value chain.

b. Paramparagat Krishi Vikas Yojana (PKVY)

Paramparagat Krishi Vikas Yojana, launched in 2015 is an elaborated component of Soil Health Management (SHM) of the major project National Mission of Sustainable Agriculture (NMSA). Under PKVY, Organic farming is promoted through the adoption of organic villages by cluster approach and Participatory Guarantee System (PGS) certification.

c. PM Formalization of Micro Food Processing Enterprises (PM FME)

The Ministry of Food Processing Industries (MoFPI) launched the PM FME scheme as a part of 'Atmanirbhar Bharat Abhiyan'. It aims to bring in new technology, apart from affordable credit to help small entrepreneurs penetrate new markets.

d. Zero Budget Natural Farming

Zero-budget natural farming is a method of chemical-free agriculture drawing from traditional Indian practices.

e. One District - One Product (ODOP)

The program aims to encourage more visibility and sale of indigenous and specialized products/crafts of Uttar Pradesh, generating employment at the district level. The presence of aggregators is imperative to bring about economies of scale for small and marginal farmers.

Literature review

Chandrashekar(2010): The paper aimed at Changing the scenario of organic farming in India. The study identified that in a country like India, where labor is abundant and is relatively cheap, organic farming is seen as a good cost-effective solution to the increasing costs involved in chemical farming. The increasing demand for organic food products in developed countries and the extensive support by the Indian government coupled with its focus on agri-exports are the drivers for the Indian organic food industry.

Suresh Reddy(2010): This paper attempted to bring together different issues in light of recent developments in organic farming. The paper identified that there is a lack of government subsidies or support to make a conversion to organic status easier or cheaper. There are strong views against organic farming mainly on the grounds of the practicability of feeding a billion people, its financial and economic viability, availability of organic inputs and dissemination of know-how. The researcher also disclosed that Given proper encouragement, organic farming will progress tremendously in India, especially in the dryland regions of the country, taking advantage of the diverse soil and climatic conditions.

Jithendar panday and Ashima singh(2012): The researcher analyzed the opportunity and constraints of organic farmers in India. This study was based on secondary data. The researcher identified that the farmers are facing the problem of the non-availability of sufficient amounts of organic supplements, biofertilizers, and local markets for organic produce. Additionally, lack of access to guidelines, certification, and input cost coupled with capital-driven regulation by contracting firms strongly discourage small farm holders who constitute over 70% of a farming community in India and the opportunities are for rural employment and livelihood security.

Yadav et al., (2013): The paper analyzed the impact of organic farming practices on sustainability. The researcher disclosed that Organic farming can provide quality food without adversely affecting the soil's health and the environment. There is a need to identify suitable crops/products on a regional basis for organic production that has international market demands. The whole region as such cannot afford to go for organic at a time because

of its commitment to ensure food and nutritional security. This will provide ample employment opportunities and bring prosperity and peace to the region.

Aulakh and N Ravisankar(2017): This study analyzed the organic farming status in India. the researcher identified that the Lack of awareness about organic products among the consumers and organic agricultural practices among the farmers is a major limitation and the farmers are not aware of the biofertilizers, biopesticides, and organic standards. Organized marketing mechanism with price premiums for organic products is lacking. The small and marginal farmers, who can adopt this system easily, are unable to market their organic product, Certification of organic farms is a complex and costly process that the small and marginal farmers cannot afford.

Karthikeyan Mariappan and Deyi Zhou(2019): This research aimed to identify the economics and efficiency of organic farming and the possibilities to reduce farmers' suicides in the Tamil Nadu region through the organic agriculture concept. the researcher identified that The organic farming practice leads to improve soil fertility, better yield, less input cost and better return than the conventional farming study suggests that reducing the cost of cultivation and getting a marginal return through the organic farming method to poor and small scale farmers will reduce socio-economic problems such as farmers' suicides in the future of Indian agriculture.

Opportunities to Organic Farming

The world's population is expanding as well as demand for food products also get increasing to fulfill this demand pressure on forests, soil, and the environment. There has been a significant decrease in forest cover and biodiversity over the years. Groundwater sources are also getting depleted rapidly. High-input, resource-intensive farming systems have caused massive deforestation, water scarcity, soil depletion, and high levels of greenhouse gas emissions.

To reduce the stress on soil and environment transformation towards 'holistic' approaches such as agro-ecology, agro-forestry, climate-smart agriculture, and conservation agriculture is necessary. Practices such as agroecology, including organic Farming, result in better yields without compromising the needs of future generations. They are advocated by FAO and other international organizations.

India is endowed with various types of naturally viable organic forms of nutrients across different regions of the country which will be helpful in the organic cultivation of crops (Butterworth et al., 2003; Reddy, 2010b). This will help substantially in the organic cultivation of crops. There is a wide diversity in climate and ecosystem. India has a strong traditional farming system with innovative farmers, vast drylands, and the least use of chemicals. The rainfed tribal, north-east, and hilly regions of the country where negligible chemicals are used in agriculture, have been practicing subsistence agriculture for a long period; such areas are organic by default Suresh Reddy(2010).

a.Minimize the cost of production

Organic Farming practices drastically cut down production costs by encouraging farmers to prepare essential nutrients and plant protection materials with locally available resources, thereby ending the need of fertilizers and other chemicals. The inputs like Jivamrit and Beejamrit are significantly reducing the costs of cultivation.

b.Increase farmer income

organic Farming aims to make farming feasible and ambitious by increasing the net incomes of farmers on account of reduction in cost, reduced risks, similar yields, incomes from intercropping, increasing crop intensity along with availing fair price of the crop grown.

c.Improve yield

organic Farming increase yields by maximizing production factors like labor, soil, and equipment and by avoiding the use of non-natural inputs like fertilizers, herbicides, and pesticides which impact the health of the soil.

d.Employment Opportunity

organic Farming leads to rural employment and increases the financial status of small farms. Organic farming has the potential to generate employment opportunities across the agricultural value chain, from production, distribution, and retail of natural mixtures to market linkages for such produce. Further easy accessibility to natural inputs would bring in gender equality in the sector.

e.Eliminate the application of chemical input

More usage of chemical fertilizers and pesticides is a threat to soil and the environment. This adversely impacts the crop response ratio and creates an imbalance of nutrients in the soil. organic farming helps to replace chemical fertilizer with compost made by using natural input.

Challenges to the organic farming

The Green Revolution took shape in India during the early 1960s, and with the introduction of modern chemical fertilizers, there was better management of the seeds, along with the introduction of new and modern techniques for farming and Because of the heavy use of chemical fertilizers and pesticides, many areas of land reached a stage where they no longer produce anything.

As consumers become more conscious about health demand for the organic product got increased. Converting chemically fertilized land into organic has many challenges, however, from a broader perspective, these challenges can be met with proper counter-measures and government policies.

a.Supply-Demand Disparity of Organic Food

In the case of fruits and vegetables, the produce has to be local otherwise most of the organic food doesn't reach the retailer's shelf in time, and even if it reaches, the marketability reduces. For the produce to be local, there have to be willing companies, aggregators, and farmers around that particular area from where the demand is coming.

Generally, the demand comes from the big metros, and these are exactly the areas where you would not find clean farmland to produce organic fruits and vegetables. This is the main reason for this disparity.

b.Shortage of organic seeds and inputs

Seeds and inputs are highly regulated and governed by government policies. While the government provides subsidies for chemical fertilizers and pesticides, there is no such provision for organic inputs. The certification program is available for the seeds, but there is no recognition for certified seeds.

Availability of certified organic seeds is a major issue in organic farming, hence most of the time the farmers are forced and advised to use the conventional seeds only, as they could be treated with chemicals.

c.Confused certification framework

Certification has been made mandatory for the product which is selling as organic product in market but this created a huge confusion among the farmers as well as the consumers.

Farmers are agitated to get certification for their crops due to the high certification cost. While in reality, most of the certification cost is taken care of by the private players. The government also provides various programs through which the costs could be covered. Brands are confused about the regulations and the applicability of the same.

d.High price of organic food products

Because of some reason, the final prices of organic produce are higher than the conventional products. From the Indian perspective, customers usually prefer cheaper products and this factor hugely impacts the organic produce market.

Right from expensive organic farming methods, limited production, supply chain irregularity, storage, and preservation to market competition, organic produce stays on the higher side of the cost factor, but with government support and proper supply chain mechanism, the prices can be reduced. Apart from this, public awareness and knowledge are also important for people to understand the benefits of organic food in the long run.

Conclusion

After covid 19 people become more conscious about their health and environment as a result of this demand for organic products got increased. To promote the organic farming practice in India government has introduced new schemes like Mission Organic Value Chain Development for North East Region (MOVCD), Zero Budget Natural Farming, and Paramparagat Krishi Vikas Yojana (PKVY). Converting from conventional farming practices to organic farming practices increases the crop-yielding capacity, increases soil health, and helps to

achieve the sustainability goal. Despite all these opportunities, organic farmers face some problems like lack of certified input, confusion with the certification process, and lack of demand due to the high price of the product as compared to conventional products. There is a need to take some steps by the government to reduce these challenges by conducting some programs to make the farmer aware of the certification process and by providing subsidies.

REFERENCE

1. Aulakh, C. S., & Ravisankar, N. (2017). Organic farming in Indian context: A perspective.
2. Bodapati, S., & Chander, M. (2013). Integrating indigenous knowledge of farmers for sustainable organic farming: An assessment in Uttarakhand state of India. *Indian journal of traditional knowledge*, 12(2), 259-264.
3. Chandrashekar, H. M. (2010). Changing scenario of organic farming in India: An overview.
4. Meemken, E. M., & Qaim, M. (2018). Organic agriculture, food security, and the environment. *Annual Review of Resource Economics*, 10, 39-63.
5. Narayanan, S., & Narayanan, S. (2005). *Organic farming in India: relevance, problems and constraints*. Mumbai: National Bank for Agriculture and Rural Development.
6. Pandey, J., & Singh, A. (2012). Opportunities and constraints in organic farming: an Indian perspective. *Journal of Scientific Research*, 56(1), 47-72.
7. Panneerselvam, P., Halberg, N., Vaarst, M., & Hermansen, J. E. (2012). Indian farmers' experience with and perceptions of organic farming. *Renewable Agriculture and Food Systems*, 27(2), 157-169.
8. Reddy, B. S. (2010). Organic farming: status, issues and prospects—a review. *Agricultural Economics Research Review*, 23(347-2016-16927), 343-358.
9. Roychowdhury, R., Abdel Gawwad, M. R., Banerjee, U., Bishnu, S., & Tah, J. (2013). Status, trends and prospects of organic farming in India: a review. *J Plant Biol Res*, 2, 38-48.
10. Singh, M. (2021). Organic farming for sustainable agriculture. *Indian Journal of Organic Farming*, 1(1), 1-8.
11. Yadav, S. K., Babu, S., Yadav, M. K., Singh, K., Yadav, G. S., & Pal, S. (2013). A review of organic farming for sustainable agriculture in Northern India. *International Journal of Agronomy*, 2013.