

Organic Farming in India: Status, Constraints and Challenges

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Abstract

Organic farming in India is attaining popularity day by day. India is endowed with various types of naturally available organic forms of nutrients in different parts of the country, and it will help for the organic cultivation of crops substantially. The rising population of India has started creating demographic pressure on the agriculture sector to maintain food security. For producing better crop yield, chemical fertilizers and pesticides were used, and this creates more health hazards. To generate good health and environment, a need arise a shift to organic agriculture. India is home to 30 percent of the total organic producers in the world. Still, it accounts for just 2.59 percent (1.5 million hectares) of the total organic cultivation area of 57.8 million hectares (World of Organic Agriculture Report, 2018). Organic farming is beneficial for natural resources and the environment. The study mainly focused on the Present Status of organic farming in India and given the main challenges and constraints of organic farming.

Keywords: Organic farming, Food security, Green revolution, and Agriculture.

Introduction

The ever-increasing population has necessary to increase agricultural production and stabilize it in a viable and feasible manner. Organic agriculture is an effective strategy to promote sustainable agriculture in India, and it can contribute to a broader development of agricultural productivity, food security, generation of rural employment, and poverty reduction while promoting the conservation of the natural resource base. In philosophical terms, "organic farming means farming in spirits of organic relationship." In this system, everything is connected to everything else. Organic agriculture has demonstrated its ability not only to produce safer commodities for consumers but also to produce bio-diversity at all levels. Organic Farming generally implies modes of agricultural production, which avoid the use of synthetic fertilizers, pesticides, and herbicides, and it helps in the improvement of crop quality and reduces environmental pollution.

Brief History of Organic Farming

The beginnings of the organic movement can be traced back to the beginning of the 1800s. The term "organic farming" was coined by Lord Northbourne in his book "Look to the Land" in 1940. From his conception of "the farm as an organism," he described a holistic, ecologically balanced approach to farming. The principal methods of organic farming include crop rotation, green manures and compost, biological pest control, and mechanical cultivation. Since the 1970s, when it became apparent that intensive farming was leading to soil degradation and water pollution, consumers and governments have become increasingly interested in organic farming. Organic farming has been practiced in India for thousands of years.

In traditional India, the entire industry of agriculture was practiced using organic techniques, where the fertilizers and pesticides were obtained from plant and animal products. The Green Revolution (under the leadership of M. S. Swami Nathan) became the government's most important program in the 1960s. Several hectares of land were brought under cultivation. Hybrid seeds were introduced. Natural and Organic Fertilizers were replaced by chemical fertilizers, and locally made pesticides were replaced by chemical pesticides. In the 1990s, India had surplus food grains and once again became an exporter of food grains. The extensive dependence on chemical farming has shown its many defects. The land is losing its fertility and is demanding larger quantities of fertilizers to be used. Pests are becoming immune requiring the farmers to use stronger pesticides. Both consumers and farmers are now gradually shifting back to organic farming in India because organic farming is healthier.

Review of Literature

Sharma and Saghi (2017) examined the organic agriculture in India and the constraints faced by farmers in practicing organic agriculture in India. They found that high input cost, lack of inadequate infrastructure, shortage of manure, lack of awareness among consumers, farmers and policy makers are the main constraints in organic agriculture and the authors suggest that government should provide subsidies and facility to avail easy credit with low-interest rate to the farmers and also organize workshops, seminars, and conferences regarding organic farming.

Prakash (2003) analyzed the unsuitability of the cost and return accounting methods adopted to find out the economics of organic farming. An economic evaluation of the bad effects of organic agriculture and their internalization through environmental taxes is proposed for a market-based approach to promote organic farming in India.

Rajib Roychowdhary et al. (2013) indicated that India produces a large variety of food crops like cereals, pulses, and oilseeds. The increased productivity and more use of chemical fertilizers will cause health factor at bay. So, a good method of

farming is an urgent need, which satisfies the needs of increased food production. In India, agriculture is highly influenced by the vagaries of various biotic and biotic factors, and organic farming provides economic security to the mediocre farmers as well. They explained the Indian government provided many policies to encourage organic farming for the marketing of organic food products and increased the demand for this type of organic food in domestic as well as international markets. They conclude that perceptions of organic farming are quite divergent, and organic farming is labor-intensive.

Rahudkar and Phate (1992) found out that the experiences of organic farming in Maharashtra. They explained that after using vermicompost, soil fertility is increased, irrigation decreased by 45 percent, and sugarcane quality improve. So, the individual farmers growing sugarcane and grapes. They pointed out that net profits from both sugarcane and grape crops are high in organic farmers.

Balasubramanian (1994) explained that agricultural practices followed in organic farming are governed by the principles of ecology. It is not an alternative system of farming but part of the philosophy of life to know the true spirit and form of nature. Biologically active soil is the foundation of organic farming. Healthy plants grown in healthy soil are naturally more resistant to pests and diseases.

Objectives

1. To find out the Status of organic farming in India.
2. To examine the major constraints and challenges of organic farming in India.

Methodology

The study is based on secondary data. It was collected from Research Institute of Organic Agriculture (FiBL), Agricultural and processed food products export development authority (APEDA), National Centre for organic agriculture annual report of various years, National Programme for Organic Production (NPOP) various reports, Department of Agriculture, Govt. of India, Annual Report 2016-17. The tabulated data were analyzed with the help of Percentages and Simple Annual growth rate.

Status of Organic Farming in India

India is endowed with various types of a naturally available organic forms of nutrients in different parts of the country, and it will help for the organic cultivation of crops substantially. India's rank in terms of World's Organic Agricultural land was 9th, and in terms of the total number of producers was in the first position (FIBL & IFOAM Year Book 2018). India's total area under organic certification is 3.56 million hectares in 2017-18, and this includes 1.78 million ha (50%) cultivable area and another 1.78 million Hectare (50%) for wild harvest collection. During 2016, Sikkim has achieved a remarkable distinction of converting its entire cultivable land (more than 76000 ha) under organic certification (National Programme for Organic Production, NPOP).

Only 30% of India's total cultivable area is covered with fertilizers where irrigation facilities are available. In the remaining 70% of arable land, which is mainly rain-fed, a negligible amount of fertilizers is being used. The northeastern region of India provides a consider-able opportunity for organic farming due to the least utilization of chemical inputs. It is estimated that 18 million hectares of such land are available in the NE, which can be exploited for organic production (Ramesh et al. 2005). The national program for organic production (NPOP) was implemented by agricultural and processed food products export development authority (APEDA) in 2001. The organic food market in India is highly unorganized and fragmented, which offers immense growth opportunities for domestic as well as international players.

As per the latest available cross-country statistics, in the year 2015, India ranked first in terms of the number of organic producers among over 170 countries and ninth in terms of the area under organic agriculture. India has the potential for the export of organic products and was ranked 11th in organic product exports in 2015. India has tremendous potential, largely untapped, for a breakthrough in organic agriculture. India's organic area in 2005 was 0.186 million hectares, and wild collection area was 2.386 million hectares that have increased to 0.51 million hectares and 5.18 million hectares respectively in 2013. The total area of both organic

& wild collection in India has increased from 2.57 million hectares in 2005 to 5.69 million hectares in 2013 [NPOFA, Report, 2012-13].

India has brought out so many changes in the organic farming field. Germany and France are two countries that are leading to the second and third positions of the organic food market in 2016.

Major Constraints and Challenges of Organic Farming in India

Lack of awareness and understanding: There is a lack of awareness and understanding among policymakers, agriculturists, producers, and consumers on the concept, principles, and practices of organic farming. Many of them have only vague ideas about organic farming and its advantages as against conventional farming methods. Unless such a clear and unambiguous direction is available in terms of both financial and technical supports, from the Centre to the Panchayat levels, mere regulation-making will amount to nothing.

Inadequacy of farm labor: Organic farming is labor-intensive by adopting organic principles, and practices undoubtedly require additional labor inputs, especially in managing soil fertility and pests than conventional farming. However, the scarcity of farm labor is an important issue.

Risk of Yield Loss: When a farmer converts his/her land from conventional chemical-based farming to organic farming, there is a risk of loss in yield due to the withdrawal of chemical inputs and high-yielding varieties of seeds. In the case of organic, the cost of laboratory testing and third-party certification is high. Organic farmers cannot find consumers who are willing to pay a premium price. They are forced to sell as chemicals using farmers. So there is no incentive to go for organic farming.

Lack of policy: The biggest challenge faced by organic farmers is the lack of an organic policy for the domestic market. In the absence of regulation on labeling standards for organic production, it is not possible to distinguish an organic product from a conventional product. This has led to fraud practices, and genuine players are not getting the premium, which the consumers of organic products are willing to pay.

Shortage of quality organic inputs: There is a serious shortage of good quality organic inputs, which increases the risk of lose the yield. The available organic fertilizers are much below the required quantity, and there are several spurious players in the market too. Similarly, there is a shortage of good quality organic seeds. There is a lack of marketing and distribution networks for them because the retailers are not interested in dealing with these products, as the demand is low. Higher margins of profit for chemical fertilizers and pesticides for retailing, heavy advertisement campaigns by the manufacturers, and dealers are other major problems affecting the markets for organic inputs in India (Manisha Gaur, 2016). However, there is a need for a policy on input standardization, crop-specific, and region-specific research and development on organic inputs.

Industrial-scale farming is difficult: Many organic crops are grown in mono-cultures, like conventional crops, but use organically registered pesticides and fertilizers. It is common for organic growers to spray pesticides even more frequently than their conventional counterparts to keep up with insect and disease pressure. Organic methods are much more effective on a small scale than on the industrial level.

Organic certification: Many small farmers don't justify the expense of organic certification. Some use methods that are very well suited for their production and environment but still don't qualify for the organic label. Access to certification costs involved therein and a time lag of three years (conversion stage) often constrain farmers, especially small land holders in India, from adopting organic farming (Jitendra Pandey and Ashima Singh, 2012).

Underdeveloped Supply chain: The supply chain is underdeveloped and small, farmers located in hilly regions and tribal belts find it extremely difficult to access the market. There is a shortage of warehouses and refrigerated vehicles, which leads to spoilage of products. Organic products have to be stored separately from conventional products to avoid cross-contamination, and the existing supply chain does not often provide that facility. The government supports organic product marketing through fairs and exhibitions, but it does not give farmers a steady

market. Direct linkages to processors and retailers will help farmers to get a better price, but farmers lack the right linkages and hence have to depend on intermediaries.

Mainstream consumers Quality standards: Organic growers have higher rates of unmarketable blemished products because the consumers already have a mindset to buy good-looking vegetables and fruits based on their color, shape, size, etc. Although nutrition and flavor quality might be excellent, consumers not ready to buy organic products that will reduce the farmer's sales revenue.

Conclusion

The increasing awareness about the safety and quality of foods, long term sustainability of the present farming system, persuades sustainable agriculture practices. Organic farming has emerged as an alternative system of farming, which not only addresses the quality and sustainability concerns but also ensures profitable livelihood options for a rural community in India. As an initial step to promote Sustainable Farming, the Governmental inventiveness to assist the unorganized frames through various means are essential to overcome the present problems faced by Organic farmers and enable them to achieve social and economic development thorough successful sustainable agricultural practices. The Government should provide subsidies to the farmers and provide facilities to avail easy credit with a low-interest rate, higher prices should be determined by the government for organic produce than the conventional produce, and the government should also want to organize workshops, seminars, and conferences by the subject experts for farmers.

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