

ORGANIC FARMING IN INDIA: CURRENT POSITION, CHALLENGES AND TECHNOLOGICAL BREAKS

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ABSTRACT

This paper attempts to bring together different issues in the light of recent developments in organic farming. The after effects of green revolution have encouraged the farmers to take up organic farming. This paper has reviewed the Indian scenario with reference to organic farming. In India, The key issues emerging in organic farming include yield reduction in conversion to organic farm, soil fertility enhancement, integration of livestock, certification constraints, ecology, marketing and policy support.. It has been argued that organic farming is productive and sustainable, but there is a need for strong support to it in the form of subsidies, agricultural extension services and research.

Keywords: organic farming, Indian farmers, sustainable development

1. Introduction

In the current agricultural scenario, crop yields are decreasing day by day despite maximization. Chemical inputs The vicious cycle of chemical farming is now being highlighted in the stability of the growing crop, high input requirement, poor soil quality, as well as recurrent insect and disease infections. Apart from this, the intervention in yield due to climate change has increased significantly. Under unforeseen weather conditions, predictions appear in potential biotic capabilities. Harmful compounds have been entered into more / indiscriminate use of pesticides and fertilizers. In the food chain, the death of natural enemies and the decline of the surrounding ecology (Chitale) et al., 2012). Increased use of pesticides has a serious effect on human health. His environment Therefore, the quality of production and maintenance of the system productivity and resources is essential for sustainable agriculture. Many of these problems can be solved by organic farming. Since this system helps in maintaining soil productivity and effectively controls insects. Natural processes and cycles in harmony with the environment. Today, it is clear for agriculture. Organic farming is not only the best option for biological farming, but also for the protection / maintenance of soil plants - scientific relations but to reduce adverse effects of climate change. However, lack of proper technical progress is the main obstacle in achieving proper objectives. Organic farming. In this background, an Indian biological farming practice called Iha is rational. Farming (IRF) technology has demonstrated

some promising results that have brought forward. Relevant to organic farming in today's agricultural scenario.

2. Definition and purpose of organic farming

Although a biological movement was started a decade ago, but it failed to get the desired benefit. Speed due to many ambiguities The concept of organic farming is mostly done as a barrier. Instead of using synthetic inputs and biological replacements i.e. organic fertilizers and using synthetic fertilizers / pesticides, natural methods of protection of plants But it is not. Truth (Bhattacharya and Chakraborty, 2005). However, organic farming is a distant concept.

Only non-chemicalization In a real sense this refers to a broader approach towards improvement. The surrounding ecology leading to the promotion of both the soil and the underlying productivity of the plant's health; Which is a pre-requisite criteria for sustainable agriculture. According to IFOAM, "Organic agriculture is a production system that maintains the health of soil, ecosystem. And people ". It depends on ecological processes, biodiversity and chakras suited to local conditions, rather than the use of inputs with adverse effects, is the main object of organic farming. Self-sustainable agricultural systems that are harmonious with nature Eco-friendly and economically sustainable pure food on the development of which includes the enrichment of surrounding biodiversity and its entire component.

3. Organic farming in India: Current situation and future

India has a unique place in 172 countries practicing organic farming: There are 6, 50,000 in it. Organic producers, 699 processors, 669 exporters and 7,20,000 hectares under cultivation. But only 0.4 percent of the total agricultural land under organic farming, the industry has a long time. Further travel (Bindolo, 2016). India produced about 1.35 million metric tons (2015-16) of certified organic. Products that include all types of food products, such as sugarcane, oil seeds, cereals and millets, cotton, pulses, medicinal plants, tea, fruits, spices, vegetables, coffee etc. are not limited to the food sector, but also organic cotton Produces fiber, functional food products, etc.

Table 1: Export of organic farm commodity from India (2014-15 to 2016-17)

organic agriculture Object (source: apeda)	Basmati Rice	No basmati rice	o t h e r Grain	F r u i t & The vegetables	Pulses	Processed item	Fruit / Sabji seed
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2014-2015	Quantity (MT) Rupees.	3702284	8225564	6425297	3212091	22104	721622	12498
		27598.71	20336.00	10233.02	12434.95	1218.10	12195.93	124.98
2015-2016	Quantity (MT) Rupees.	4044833	6374172	1522707	2982038	255602	728224	10684
		22714.37	15085.38	2561.24	12719.60	1655.44	12738.80	106.84
2016-2017	Quantity (MT) Rupees.	3999722	6813397	1000640	5155810	137177	1320527	11680
		21605.13	17121.08	1868.49	16138.49	1281.63	13121.44	116.80

4. Biological Farm World Scenario of Organic Farming

According to the latest FiBL survey on certified organic farming around the world, there were 50.9 million hectares of organic farming land, which has the highest organic farming land. After Australia (22.7 m hectares) Argentina (3.1 m hectares) and United States (2 m). (Hectare). With the exception, organic farming has increased in all areas. In Latin America A large relative increase of organic farmland was noted in many African countries.

- 50.9 million hectares of agricultural land is under biological (share). Total agricultural land increased from 0.2% to 1.1% in 1999

2015).

- Oceania has the highest 45% of the total organic area, 97% of which are grasslands.

- Increased organic producers from 2.4 million in 1999, the number of growers in India is estimated to be in 2015 (approximately)

24 percent).

- In addition to agricultural land, 39.4 million hectares are represented wildy in India with the third highest area (3.71 mha) collection.

- The highest area under organic farming is cereal (3.89 mha) followed by fodder (2.51 mha), oilseeds (1.24 mha), fruits (0.99)

mha), coffee (0.90 mha), olive (0.67 mha), textile crop (0.45 mha), nuts (0.41 mh), pulses (0.40 mha) and vegetables (0.35 m ha).

• Source: Vilar and Larnod, 2017 Figure 1: Distribution of organic land according to the type of use

Countries like Kenya, Madagascar, Zimbabwe and Côte d'Ivoire (Viner and Larnaud, 2017)

5.Organic farming: Debating issues between the Agriculture fraternity

5.1 Does organic farming feed the world?

The role of organic farming in food security is the subject of a debate considering the loss of the crop. Increasing costs of productivity and production. Theoretically organic farming is the best way. Ecological and financially sustainable crop production and many scientific studies receive. Support the facts with encouraging results compared to conventional farming. However, for the economically viable financially sustainable biological, the production is still very large, without the loss of technical breakthrough time.

5.2 What are the organic means for releasing pesticide residues?

Studies conducted by various certification agencies indicate either low or very low levels. Identifiable range of pesticides and other contaminated substances in organic food products). Residual biological products are mainly due to drift from conventional farms. According to the USDA, approximately 21% of organic samples had detectable residues (Savage, 2016). However, in the context of biological toxic residues, food products are definitely more secure, although there are some incidents. Misconduct and violations that require investigation.

5.3 Is the taste of biological products better?

According to Yadav (2010), ingredients that give flavor, oil and other flavors are ingredients. More in biological products are found. According to the report, high yields have been obtained in some fruits today and under the traditional cultivation there are crops of high chemical fertilizers and other inputs. Chances come at the expense of crop nutrition and sensory quality (Theuer, 2006).

5.4 Do organic products increase the risk of food poisoning?

There is a scientific debate on these issues. Organic farming depends on the use of fertilizers. Therefore, it is believed that they take greater risk of contamination (Yadav, 2010). However, there is no risk of any food poisoning or bacterial infection through the conclusions of the majority study. organic products. They are as safe as any other product produced by any other system.

5.5 Does biological products have more nutrition?

There is a scientific debate about the quality of nutrition in organic food compared to that. Traditionally grown food A comprehensive review by Hetan (2001) indicated that in 43% of cases, organic food consisted

of high nutrients, 45% had equal nutrients and 11% had less nutrients in the case of traditionally grown foods. In comparison. In India, Bera et al. (2013) and Seal et al (2017) got the equivalent of high polyphenol and vitamin C content, respectively, in the tea and potato grown organically. However, there can be a dispute, but the trend indicates its superiority over traditional products.

5.6 Is it possible to fully meet the nutritional requirements of crops from biological sources?

Basic requirement in organic farming is to increase the input usage efficiency at each stage of the farm. Operations. It is partially achieved through reducing losses and adopting new ones. Enhancing nutrient content in compost, as well as increase in the upliftment and utilization of nutrients; Plant efficiency with scientific plant management practice According to a conservative estimate, if we can convert large quantities of bio-waste in India into biological compost; Manure will be approximately 440 million tons per year (Ramaswamy, 1999). Tapping these resources and transforming it into biological compost with technological advances, and planning a step-by-step plan for resource-based regeneration will help in moving forward towards self-reliance in biological management.

5.7 Is it possible to manage pests and diseases in organic farming?

After the traditional CDL approach of insect management using weak biological pesticides, the issues of kit / disease can not be solved with organic farming. This can only be dealt with effectively. Through improvements in plant health. A healthy plant falls short in the germ of disease and disease. Infection. Therefore, a major objective for organic farmers is to create such conditions which are the highest. Healthy plant Stress weakens the defense mechanism of plants and makes them easy targets. For pests and diseases Focusing on plant management for its physical growth. Activities help to rejuvenate the underlying quality of the plant's self-preservation and self-protection, which, in turn, helps in reducing the incidence of pest / disease infections and thereby becomes effective organic pest control option Use control

5.8. Are there any significant environmental benefits of organic farming?

Environmental costs of traditional agriculture are significant, and there are significant evidence. Environmental refinement is over-whaling through conversion for organic farming. Review of more than 300 published reports showed that out of 18 environmental impacts, organic farming systems performed very well in 12 and did not perform poorly in any (Romesh et cetera, 2005). But the biggest impact is that in the food chain there is a minimum of insecticides and heavy metals residues, which are in danger. Human health aspects.

5.9 Is organic agriculture economically possible?

In principle, the reduction in replacement of external inputs through agricultural-derived resources should lead to variable input costs under biological management. However, in most cases, the cost of production is increased by heavy outsourcing biological inputs, effective pest control and heavy production loss. Even the cost of farming increases due to the need for more human-days under biological practice. Technological advances that can adequate and timely agricultural resource production and harvesting enable productivity, can only cut production costs.

6. Indian biological producers faced obstacles

In spite of efforts under the government and other agencies, subsidies and other schemes, the area, organic farming of total farming in India is still less than 1%. Farmers of biological adoption have to face difficulty in farming to keep their last products alive and marketed.

6.1 Absence of Assistant Policy

The most important obstruction is felt in the progress of organic farming.

6.2 Loss of crop yield

Farmers who adopt traditional organic farming have to face heavy losses up to 71% in the initial stage. Year (Savage, 2016). The time required to obtain crop stability under current organic farming system is still unknown and as a result, higher farming cost and economic. According to a survey of USDA, organic yields were low in 84% of the areas. The inter alignment of organic yield is the major for crops, fruit crops and vegetables.

6.3 Non-achievement of required quality

Most organic production fails to achieve the desired internal and external properties. Under organic farming, and thus lose the consumer base.

6.4 Failure of organic pest management

After the traditional CDL approach of insect management using weak biological pesticides, can not solve the issues of pest / disease in organic farming. And this is the main reason. Crop failure under biological.

6.5 Lack of biomass and livestock

This has become a major constraint due to conventional farming practices, increase in mechanization and lack of bio-resource for the production of narcotics in per capita land holdings. Large-scale biological conversion.

6.6 Lack of quality seeds supporting organic farming

Hybrid seeds have been prepared for the response of fertilizers and chemicals. Genetic and fertilizer sensitive seeds and plantation materials currently govern the market with indiscriminate indigenous varieties, which are more suitable for organic farming. There is a large vacuum in quality of the availability of organic seeds and a major hindrance to the farmers who want to adopt organic farming.

6.7 Lack of storage, transport and organized organic marketing system

The disadvantage of yield due to inadequate agricultural infrastructure and the challenge of translation of cold storage facilities is the loss of yield. In addition, especially the poor road infrastructure in the hills, the result of poor and delayed connectivity in the farmers' markets.

6.7 Vested interests of chemical and pesticide lobby

In the form of seeds, fertilizers and pesticides industry, these inputs are also for the country. Their biggest opposition to traditional farming and organic farming is the biggest. Obstructing the direction of the spread of organic farming.

6.8 Lack of awareness and guidelines for organic farming

There is lack of adequate research and development backup as well as training related to organic. Farming in India Most of the farmers of the country have only unclear views about organic farming. And unlike conventional farming methods, its benefits

6.9 Inability to meet export demand

According to a study by Garib and Jyoti (2013), Indian biological exports face different obstacles. To wit. Quality, incompatible quality and residues, high cost expectations in relation to time consuming and the demand for export have resulted in complex paper work etc.

7. Future of organic farming in India

India is ready for rapid growth with the growing domestic market. The success of the biological movement in India depends on the growth of our domestic markets. Naturally organic / organic organic farming with a large size essence, India has tremendous potential to grow crops in a systematic way; emerge as a major supplier of organic products in the world's organic market. Simultaneously, demand for greater technical innovation, such as IRF technology and their implementation, will ensure economically viable organic farming in the farmers and it will help in adoption by the common farmer without any subsidy scheme or guaranteed premium value. . idea Increasing awareness about the safety and quality of food items, organic farming has emerged as one, while accumulating the long-term stability of the system and proof of being

equally productive. An alternative system of farming that can not only address the quality and sustainability concerns, but also ensure a debt-free, profitable livelihood option.

8. conclusion

Ensuring the ability of adoption, safe livelihood and at the end of the consumer. India can provide a rich history of organic farming and the growing domestic market of organic food. Drive required for biological movement. Consumer and both awareness programs Farmers' level is necessary for large-scale biological transformation. But most important new organic farming technologies like Inhana Rational Farming (IRF) can be popular. Practicing even poor poor farmers by ensuring ecologically and financially Constant organic crop production in a timely manner. Case Studies of IRF Organic Practice Confirm GHG Mitigation and Optimization Capability in High Use carbon sequence, soil processing uplift, uses high energy efficiency as well as development. Plant Flexibility; But the highlight is its cost effectiveness and timely results.

Reference

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