

Rural Entrepreneurship and Organic Farming in India: Present Status, Challenges and Technological Break through

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Abstract—India is home to 30 per cent of the total organic producers in the world, but accounts for just 2.59 per cent (1.5 million hectares) of the total organic cultivation area of 57.8 million hectares, according to the World of Organic Agriculture. The biggest challenge is the lack of an organic policy for the domestic market and imports. In the absence of regulation on labelling standard for organic production and logo, it is not possible to distinguish an organic product from a conventional product.

Keywords: Organic farming, Prospects, practices, Sikkim model

Introduction

Organic farming endorses the concept that the soil, plant, animals and human beings are linked so to create an integrated, environmentally sound, safe and economically sustainable agriculture production system. The basic concepts behind Organic farming are; It concentrates on building up the biological fertility of the soil so that the crops take the nutrients they need from soil in slow process. Use of bio-pesticides, bio-insecticides and various cultural techniques such as crop rotation, mixed cropping, results in development of an ecological balance within the system.

With the increase in global health consciousness, organic food is set to knock every door and make its way in healthy kitchens worldwide. People in the world over use organic food as a hygiene factor rather than a product by itself. Organic food is a holistic approach in the Indian environment which starts at the farm and ends at the fork of the consumer. The main stakeholder is the source, and challenges faced during organic farming can be overcome with a smart strategy, scientific planning, responsible public activity and government support.


India's green leaders

Top organic states and the main crops they grow

States	Total certified area (In ha)	Main cultivated crops
Madhya Pradesh	2,866,571.88	Cotton, oil seeds, cereals like maize and sorghum, pulses
Himachal Pradesh	631,901.99	Fruits/vegetables, cereals like maize and sorghum, wheat, pulses
Rajasthan	217,712.19	Oilseeds, cotton, cereals like maize and sorghum, spices
Maharashtra	177,345.48	Cotton, oilseeds, fruits and vegetables, pulses
Uttar Pradesh	111,644.83	Cereals like maize and sorghum, fruits and vegetables, wheat, rice
Uttarakhand	105,465.98	Cereals like maize and sorghum, herbs and medicines, oil seeds, rice

According to the estimates available with the Agricultural and Processed Food Products Export Development Authority (APEDA), as of 2017-18, nearly 90,500 hectares of land in the NE region is already under organic cultivation. Even though Sikkim accounts for more than three-fourths of this, other States such as Meghalaya and Assam have shown tremendous progress in embracing organic farming. As per the available statistics, another 77,600 hectares is the process of switching over to organic cultivation. The conversion process normally takes three years.

Organic cultivation in North-Eastern region		
(In hectares)		
State	Area	In conversion
Sikkim	74,094	1,982
Meghalaya	2,580	37,756
Assam	9,883	18,129
Nagaland	3,526	5,314
Arunachal	51	6,129
Manipur	158	5,240
Tripura	204	2,048
Mizoram	0	999
Total	90,496	77,597

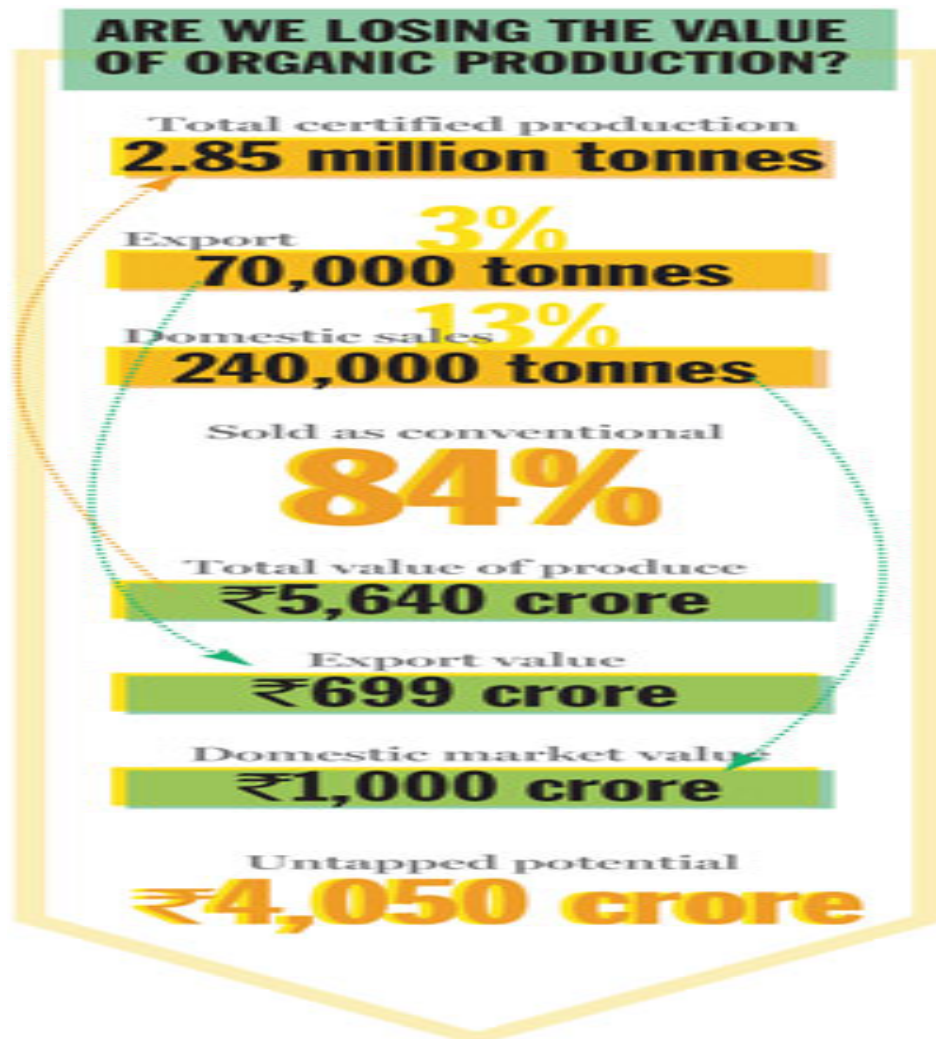


Source: APEDA

Organic farming is yet to taste success. Problems are evident even in Sikkim, which was recognised as the country's first organic state in 2018. A survey shows that the state's transition to organic farming is yet to become a true success. The survey found that the phasing out of chemicals in Sikkim was not complemented by a simultaneous increase in availability of and access to organic manure.

Farmers also complained of low productivity during the transition from conventional chemical farming to organic farming. Pest attack on organic crops is another reason cited by the farmers for low productivity and demanded education and training to deal with it. The problem of pest attacks increased after the conversion to organic farming, but the state is yet to maintain data on this, which is needed for plant disease management. Similarly, nearly 98 per cent farmers in Rajasthan are aware of ecological hazards of conventional chemical-based farming, but fear of decline in production and unavailability of organic inputs in the market discourage them from switching to organic farming. The Indian government has been undertaking measures to promote organic farming with the aim to improve soil fertility and help to double the farmers' incomes by the year 2022. The Prime Minister had visited Sikkim—which is India's first organic state—and encouraged other states to replicate the "Sikkim model". Some of the policy initiatives to promote organic farming and exports include development of an organic regulation for exports by the Agricultural and Processed Food Products Export Development Authority (APEDA), removal of quantitative restriction on organic food exports, providing subsidies to farmers under the Paramparagat Krishi Vikas Yojana (PKVY) in partnership with the state governments, and other schemes such as the Mission Organic Value Chain Development for North Eastern Region. Despite these initiatives, a move to organic farming methods may not be that easy and organic farmers are not getting the expected premium price for their produce.

Today's situation is highlighted as follows :



Objectives of the Paper.

- (i) To assess and evaluate the factors which may facilitate the adoption of organic farming in the country.
- (ii) To analyse the constraints, both political and social, and above all economic, in the introduction of organic farming in India.

Methodology

The paper is based on secondary data. Information from literature on the historical evolution of the organic farming and the progress it has made both in India and abroad collected from the published sources like the websites of the European Union countries. International Federation of Organic Farming Movements (IFOAM), books and periodicals and news paper reports is liberally used for the preparation of the paper.

The study highlights five key issues faced by organic farmers that are affecting their livelihood and income.

- First, the supply chain is underdeveloped and small and mid-sized farmers located in hilly regions and tribal belts find it extremely difficult to access the market. There is a shortage of pack houses and refrigerated vehicles, which leads to spoilage. 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. In addition companies mostly source from farmers in regions with a well-developed supply chain and only a few of them are sourcing from the Northeastern states and tribal belts, despite their high potential in organic farming. While the government is supporting organic product marketing through fairs and

exhibitions, it does not give farmers a steady market. In a number of cases, the middlemen take away most of the profits and farmers are not able to earn a premium price. Direct linkages to processors and retailers could have helped farmers to get a better price, but farmers lack the right linkages and hence have to depend on middlemen and mandis.

- Second, while the government is subsidising farmers under the Participatory Guarantee System (PGS) for India, which is a self-certification process supported through the PKVY scheme, these farmers are not allowed to export. In fact, the APEDA has made it mandatory to have a third-party certification for exports. This is despite the fact that globally more than 100 countries, mostly developing countries, recognise the PGS. Unless farmers under PGS India are allowed to export, they cannot earn the premium price. Therefore, ideally, farmers should have the right to decide where they want to sell the product—domestic market and/or export market—and the government policy should support the same.
- Third, as 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. A number of countries, such as the United Kingdom, have carefully designed subsidies to compensate for the yield loss during the conversion period. However, in India, there is no such subsidy. Further, a majority of the government budget and subsidies are targeted towards chemical-based inputs and, in many states, less than 2% of the budget is allocated to organic farming. Given India's low rank in Sustainable Developmental Goals Index (India has been ranked 116 out of 157 nations on the Sustainable Developmental Goals Index for the year 2017, even behind other developing countries such as Nepal, Iran, Sri Lanka, Bhutan and China), it is important for the government to allocate more funding to organic farming and sustainable agriculture practices. In the case of organic, the cost of laboratory testing and third-party certification is high and subsidy can definitely help. A number of states, such as Gujarat, Karnataka and Sikkim, have already set up their third-party certification bodies. Other states may also do the same.
- Fourth, there is a serious shortage of good quality organic inputs, which increases the risk of loss of yield. The available organic fertilisers are much below the required quantity, and there are a number of spurious players in the market too. Similarly, there is a shortage of good quality organic seeds. Some input companies have taken initiatives to go for third-party certification. However, there is need for a policy on input standardisation. Further, different varieties of crops are grown in different regions of the country, and they are faced with different issues related to pest infestation and soil quality. Hence, there is a need for more crop-specific and region-specific research and development (R&D) on organic inputs. In addition, farmers need access to equipment such as netting and poly houses to protect their crops against insects. Fruit flies have led to destruction of crops such as oranges in the state of Sikkim. Here, we can learn from the government of Bhutan, which provides equipment at subsidised rates—and the same can be replicated by Indian government as well.
- The fifth and the biggest challenge faced by organic farmers is the lack of an organic policy for the domestic market and imports. In the absence of regulation on labelling standard for organic production and logo, it is not possible to distinguish an organic product from a conventional product. This has led to fraudulent practices and genuine players are not getting the premium, which the consumers of organic products are willing to pay. While the absence of a policy makes it difficult to punish fraudulent players, the government cannot enforce punishment on the basis of a voluntary certification process. Therefore, it is opined that the certification process should be mandatory and the government should help farmers under PGS India to get the mandatory certification once their land is converted to organic.

With the increase in global health consciousness, organic food is set to knock every door and make its way in healthy kitchens worldwide. Converting these into organic has many challenges, however, from a broader perspective, these challenges can be met with proper counter-measures and government policies.

Organic farming, as a whole, is quite an expensive process that involves constant expenditure. This keeps it away from the reaches of a nominalised farmer on the grounds of affordability. One can easily bring up the instance of fertilisers and maintenance. Sewage sludge and chemical fertilisers might not be something one envisions in his produce, but conventional farmers find constant companions, owing to their cost-friendliness. Organic farmers abhor these inexpensive solutions, and to keep their crops natural, opt for compost and animal manure. Ethically-sourced products come hard on the pocket for farmers, leading to slower results over a tiresome period. Post-produce, storage takes up another set of expenses that is difficult for the farmers to cover. So the challenge is convincing farmers to shift to organic, which might result in an immediate commercial impact on their income. The solution is to support the change in a gradual manner. A holistic and community-driven approach, similar to the “Swachh Bharat” for “Swachh Food” needs to be undertaken.

Private players in the industry give the assurance in form of financial aids and confidence in form of apt organic farming training to the farmers that their losses will be compensated and their produce will be taken care of. However, the government involvement is a must to provide the security at a greater level.

Supply-Demand Disparity of Organic Food

When local demand is fulfilled by local supply, the disparity can be curbed. There is a demand-supply disparity. Grains can be grown anywhere and can be transported, as these are not perishable. This is how it happens in the case of conventional grains as well. 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. The government has made a certain framework to boost organic farming and to promote the same through fairs and exhibitions, but that does not help on the ground until there is a steady and sustainable market for organic produce. However, smart transport and dedicated channels of supply are the solutions to fill this gap. Ultimately, when you start having the pull from the market, the local growers also start taking note and shift towards organic. Once the local demand is fulfilled by local supplies, the supply-demand disparity is taken care of.

Shortage of organic seeds and inputs

Identification of organic seeds is a challenge too. Seeds and inputs are the main ingredients of agriculture. Both are highly regulated and governed by government policies. While the government provides subsidies for chemical fertilisers and pesticides, there is no such provision for organic inputs. Farmers are mainly dependent on their resources and the traditional methods and so, often use half-baked information. This may lead to heavy losses of crops and financial burdens on the farmers. The same is the situation is with seeds. The certification programme is available for the seeds, but there is no recognition for certified seeds. In fact, availability of certified organic seeds is a major issue in organic farming, hence most of the times the farmers are forced and advised to use the conventional seeds only, as they could be treated with chemicals. The government has to clear the policy path. It cannot continue to expand with the dealers in the untouched areas (natural, organic) for distribution of chemical fertilisers and pesticides and at the same time, encourage organic farming, without any dealer/distributor network or subsidy for organic inputs and seeds. A separate policy framework is needed for organic farming, covering seeds production and input supplies.

Confused certification framework

Consumers often can't identify truly organic products. With the advent of technology and health awareness throughout the world, Indians are also getting into the habits of healthy living, and that is responsible for the popularity of organic produce. Any agricultural product is consumer-centric. If consumers want something, the farmers will grow it. Consumer's trust is the key to organic produce as there is no straightforward method for the consumers to acknowledge if the product is genuine organic or not. The trust is developed with a proper regulatory framework, compliance with the requirements and communication of the same to the consumers. This is exactly what is missing in India. Until a few days ago, there was no policy or framework for organic food products to be sold in India. Anyone could sell anything, under the label of 'organic'. This created a lot of trust-deficit among the consumers.

Now that the FSSAI has come out with the Jaivik Bharat framework, it seems more like a knee-jerk reaction. The globally recognised third-party certification process is controlled by APEDA, whose mandate is about exports while FSSAI also recognises PGS which is valid only for the domestic market.

Rightly, certification has been made mandatory for anyone who claims their products as organic but has created a huge confusion among the farmers as well as the consumers. Farmers are agitated that they are being forced into the certification process, which they claim is costly. While in reality, most of the certification cost is taken care of by the private players. Government also provides various programmes through which the costs could be covered. Brands are confused on the regulations and the applicability of the same. Consumers are confused about which certification is the right one. The only answer is communication. Clear and frequent communication from the regulatory authority to all the stakeholders is a must. It is advised that the certification cost for organic produce should be waived off for marginal and small farmers. The government can regulate it at the centre and state levels as almost all the states have their own certification agencies accredited by APEDA.

Conclusion

Right from expensive organic farming methods, limited production, supply chain irregularity, storage and preservation to market competition, organic produce stays on a 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. The consumer needs to understand that ultimately he is bound to benefit from these superior products and should not mind paying extra. The government too needs to recognise that investments in and promotion of organic farming will reduce the health costs for the nation. Eventually, it will be a win-win situation for the farmer, consumer and the government.

Bibliography

- [1] Kaushik, KK, 1997, Sustainable Agriculture : Issues and Policy Implications, *Productivity*, 37(4), Jan-Mar.
- [2] Kumar Sarvana, V and Jain, DK, 2003, Marketing of Organic Products and Minor Forest Produce, *Indian Journal of Agriculture Marketing*, Conference Number Special.
- [3] Vasisht, AK and Singh, Chhotan, 1997, Growth in Agriculture Technology and Development, in *Ecological Agriculture And Sustainable Development*, Indian Ecological Society and Centre for Research In Rural Development, Chandigarh, pp. 512-520.
- [4] Pereira, Winin, 1996, Sustainability of Indigenous Agriculture, in Anon, *The Organic Source Book*, The Other India Press, Mapusa, Goa.
- [5] Prakash, TN, 2003, A Theoretical Framework To Promote Organic Produce Marketing in India, *Indian Journal of Agriculture Marketing*, Conference Number Special pp. 1-16.
- [6] Venugopal, K, Natarajan, K, Khan, HH and Ramamurthy, K, 1997, EcoFarming for Sustainable Cotton Production in the Dry Tracts of India, in *Ecological Agriculture And Sustainable Development*, Indian Ecological Society and Centre for Research in Rural Development, Chandigarh, pp. 589-599.
- [8] Rahudkar, WB and Phate, PB, 1992, Organic Farming: Experiences of Farmers in Maharashtra, in *Proceedings of National Seminar on Natural Farming*, Rajasthan College of Agriculture, Udaipur, 1992.
- [9] Rao, PS, 2003, Marketing of Organic Produce (Wheat), in *Rajasamand District of Rajasthan*, *Indian Journal of Agriculture Marketing*, Conference Number Special.
- [10] Rathi, Anil Kumar, Karwasra, JC and Rai, KN, 2003, Diversified Organic Farming : Case Study of a Successful Farmer, *Indian Journal of Agriculture Marketing*, Conference Number Special.
- [11] Santucci, Fabio Maria and Pignataro, Filippo, 2002, Organic Farming In Italy, Paper for the OECD Workshop on Organic Agriculture, Washington DC, September.
- [12] Veeresh, GK, 1999, Organic Farming Ecologically Sound and Economically
- [13] Sustainable, *Plant Horti Tech*, 1(3), Nov-Dec.