Need of "Organic Farming and Organic Business Management" for Sustainable Environment and Green Business Development

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Abstract

Present paper highlighted the emergence of Organic Agriculture/Organic Farming and Organic Business Management with Food quality and safety are the two important factors that have gained ever-increasing attention in general consumers. Conventionally grown foods have immense adverse health effects due to the presence of higher pesticide residue, more nitrate, heavy metals, hormones, antibiotic residue, and also genetically modified organisms. Moreover, conventionally grown foods are less nutritious and contain lesser amounts of protective antioxidants. In the quest for safer food, the demand for organically grown foods has increased during the last decades due to their probable health benefits and food safety concerns. Organic food production is defined as cultivation without the application of chemical fertilizers and synthetic pesticides or genetically modified organisms, growth hormones, and antibiotics. The popularity of organically grown foods is increasing day by day owing to their nutritional and health benefits. Organic farming also protects the environment and has a greater socio-economic impact on a nation. India is a country that is bestowed with indigenous skills and potentiality for growth in organic agriculture. Although India was far behind in the adoption of organic farming due to several reasons, presently it has achieved rapid growth in organic agriculture and now becomes one of the largest organic producers in the world. Therefore, organic farming has a great impact on the health of a nation like India by ensuring sustainable development.

Organic International Movement

Organic farming and Organic Business Management is not new to India but it lost its essence due to the era of Green Revolution during the time of crisis and moreover, the Green Revolution was important then but now Organic Revolution is vital. "The health of the soil, plant and man is one and indivisible" said by Sir Albert Howard, father of modern organic agriculture, as stated by him it is true that along with soil our health quality has also receded over the decades and also proves that "Healthy Soil=Healthy Food=Healthy People" said by J I Radole. Organic farming is nature's own system following the rules of nature for self-sustainability and the principles in

organic farming are the principle of health, ecology, fairness and care i.e. with the concept of 'live and let live' showing a positive effect on the ecosystem. Presently, India ranks 9th in terms of World's Organic Agricultural land, producing a variety of different products in different zones and 1st in terms of the total number of producers (IFOAM, 2019). By adopting the concept and principles of organic farming, the ultimate produce obtained is pesticide-free, environment friendly, reduce the risk of chronic disease risk and safer than conventional products. Organically cultivated foods are raised with manure and compost, weeds, pests & diseases are controlled manually by natural methods. Whereas, animals are organically fed & healthily raised, free from hormones and GMO. The organic production in India comes under two management heads, they are National Programme on Organic Production (NPOP) and Participatory Guarantee System-India (PGS-India). A total of 3.566 million ha area is under the organic certification including cultivated and wild harvest area in 2018-19 (APEDA, 2019) and among all the states Madhya Pradesh has the highest area under organic certification. Indian organic market has the highest growth in the organic food sector, followed by textile, beauty and personal care. The market is projected to grow at a CAGR of over 23 per cent by 2023 (Tech Sci Research Pvt ltd report) with the help of Governmental policies along with an increase in organic cultivation area. The present Indian market is estimated at INR 40,000 million (APEDA, 2019). The demand for organic products is highest in metropolitan cities. The emerging trends in this area are: growing demand for organic food, evolving online marketing platforms, increasing creative investment and start-ups. . Also, there is increasing research and development to mount organic daily use things from traditional knowledge to avoid dumping of chemical waste into the landfill and there-by creating a healthy green India. Growing demand for organic food is due to the increase in disposal income at urban along with the Government supports, innovative technologies & investments and these factors are the drivers for organic farming and its marketing. These drivers provide immense potential and scope for the Indian organic sector but there are many challenges faced at producers, processors and consumer level and this can be solved by the organized working of organics promoting agencies at all levels to get on a smooth track. The regulatory framework for promoting and balancing the organic sector bodies in India are Agricultural and Processed Food Products Export Development Authority (APEDA), National Programme on Organic Production (NPOP), Participatory Guarantee System-India (PGS-India) and Food Safety and Standards Authority of India (FSSAI). Also, Government initiatives are engaged in regulatory the promotion of organic farming, the initiatives are National Mission on Sustainable Agriculture (NMSA), Paramapragat Krishi Vikas Yojana (PKVY), Rashtriya Krishi Vikas Yojana (RKVY), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oilseeds & Oil Palm (NMOOP), Network Project on Organic Farming of Indian Council of Agricultural Research (ICAR), and National Project on Management of Soil Health and Fertility (NPMSH&F). From basic knowledge of organic sector in India, the study was confined only to Bengaluru city in Karnataka and the objectives of the study were:

1. To identify the demand for organic products among the urbanites, to study on the organization/ institutes supporting organic farming and
2. To study the perception of organic farmers on organic farming and organic certification.
3. To identify and analyze the organic farmer's perception of organic farming and organic certification, Bengaluru, Karnataka.

To achieve these objectives, primary data was collected from respondents (urbanites and farmers) and service providers of organizations/institutions according to the framed objectives.

The objective of the study covers all the important sectors of organic farming i.e. consumers, organization and producers and it also brought the potential, opportunities and constraints in the organic sector of the district. Consumer sector showed a higher demand for the need of an organic product for the better health and environment, but the problem for affording the organic products was its high cost, mistrust on the products, lack & improper information on organic products and low supply. And a large number of them did not have kitchen/home garden because of inadequate home space and busy schedule in their daily routine. Tackling the problem of high cost and easy availability will solve the other concerning issues. The organization/institute work, study showed that government, private companies, government-recognized societies, federations and NGOs have well-established their respective targets and objectives for organic industry expansion and improvements. However after examining these sectors in the report, it was found that they would have performed much better if all sectors had collaborated and combined in a coordinated way reaching all directions. Some of the NGOs and private start-ups in the district are supporting urban organic terrace & kitchen gardening and organic daily lifestyle products by providing service, training and research & development. The final objective which was carried out from producer point at the district, it presented the perception of the organic farmer in farming & certification and found that most of the organic farmers had a sound knowledge and awareness on both i.e. organic farming and certification. Training from different agencies has helped them in better farming and also found that the cost of cultivation is low in organic farming. The other reasons for adopting are family attitude, soil fertility status, environmental protection and quality food production. The current serious problem faced by them is the dearth of labors, as organic farming is labor intensive and also followed by the other major problems such as weed management and marketing of the produce. The other problems are irrigation, pest & diseases, uncertified inputs and low output, but the farmers tackle these problems themselves by adopting appropriate traditional methods of organic farming. Most of the farmers have formed groups/sanghas to get group organic certification as it incurs lower cost than individual certification and it also helped them in the marketing of their produce. The overall study showed that organic farming is in its nascent stage of development and has more scope and potential for development. Efficient working and implementation of all the organizational/institutional projects by integrating all the sectors shall increase the profit of the organic farmers and also afford a common man to buy organic products and this overall leads to a healthy sustainable ecosystem.

Organic Agriculture/Organic Farming

Green Revolution in India was a transformation period, where Indian Agriculture got converted into an industrial system by the adoption of modern methods and technologies. This brought a dramatic increase in the production and productivity of all crops in India. But this was a short period of success and later showed unpleasant effects on natural resources (soil, water, biodiversity and human health). Soil erosion, sanitization, etc. have led to degradation of soil and the use of HYV and intense use of agro-chemical have exploited and polluted the water resources. Many fauna and flora are extinct and in a state of endangerment. Platinum toxic, i.e. residual harmful pesticides and other chemicals, poses a significant health danger in our food and drinking water. The long way use of Green Revolution trend in our Agriculture has started effecting the Agricultural production and productivity. The increasing population needs a greater rate of food production and in a healthy way without affecting the balance in the ecosystem. This

problem has brought many challenges to farmers, scientists and extension personnel to increasing food production with sustainability. To solve these challenges, organic farming has been opted by scientists, farmers and Government. The awareness and knowledge about organic farming are much needed among both producing and non-producing population. Because based on the market requirements of organic food, supply can be made for the betterment of farmers, consumers and ecosystem as a whole.

Concept of Organic Farming

"Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed of using synthetic materials, to fulfil any specific function within the system"(FAO/WHO Codex Alimentarius Commission, 1999). Organic farming has a long way of life and a tradition in our Indian farming system over centuries, it's not a new concept. Organic farming has its own system in controlling pest and diseases in raising the crop and livestock, by avoiding the use of different synthetic chemicals or gene manipulation. There are different types of organic farming are followed in a diverse climate of the country, like forest produce by default fall under this category. Organic farming among all different kind of farming system is gaining more attention due to the positive effect on the ecosystem. Also, organic farming is labour intensive, this increases rural employment and long term improvement in the quality of the resources.

Sustainable Business Strategy

The four strategies of organic farming are as follows:

Principle of health

Health is the wholeness and integrity of living systems i.e. maintenance of physical, mental, social and ecological well-being. Organic Farming should sustain and improve the quality of the health of soils, plants, animals and humans. This principle points out that, healthy soil produces healthy crops that nurture the health of animals and people. In particular, organic farming is required to produce high quality, nutritious food that enhances health and well-being. To achieve this, organic farming should avoid the use of fertilizers, pesticides, animal drugs and food additives that may have adverse health effects.

Principle of ecology

Organic farming should be based on the ecological system and cycles, working with them in a sustained manner, i.e. organic farming should root up with ecological systems within a specific production environment. For example, crops with living soil; animals in its farm ecosystem; fish and marine organisms with the aquatic environment, etc. Organic farming has to attain ecological balance through a well-designed farming system, by the establishment of habitats and maintenance of genetic and agricultural diversity. Those who produce, process, trade, or consume organic products should protect and benefit the environment including landscapes, climate, habitats, biodiversity, air and water.

Principle of fairness

Fairness is nothing but equity, respect, justice and supervising of the common world, both among people and their relationship with other living beings. Similarly, organic farming should ensure fairness with the environment, life and all level of practices. It should also contribute food sovereignty, reduce poverty and also reduce social cost.

Principle of care

Organic farming should be done in a responsible manner and with precautionary care to protect the health and well-being of present, future generation and the environment. Organic farming should be able to prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones, such as genetic engineering. Decisions taken should reflect the values and needs of all who might be affected, through transparent and participatory processes.

Organic Business Management

Organic is something which is not “artificial” or “synthetic”, a natural origin or produced matter which doesn’t affect any form of life in the ecosystem. And coming to organic food; they have organically grown food without the use of chemical-based fertilizer, pesticides and also not genetically modified and irradiated. To consider any food as organic whether plant or animal-based, it has to be fed and grown with organic matter along with a condition of welfare to the ecosystem. Food grown in kitchen gardens can be considered organic to some extent with the use of natural fertilizer and pesticides.

Farmers grow organic food with certified organic products, using renewable resources and with a view to conserving soils and water in order to improve environmental quality for future generations under strict government authorized practice and regulation. Also, the companies are to be certified under government, following the rules and regulations to process and market the organically cultivated food products by farmers.

Organically grown Food Products	**Conventionally grown Food Products**
Grown with manures and compost	Grown with synthetic and chemical fertilizers
Weeds controlled by crop rotation, hand weeding, mulching and tillage	Weeds controlled by chemical herbicides.
Pests are controlled using bird, traps and naturally derived pesticides	Pests are controlled with synthetic pesticides
Organically raised meat, dairy and egg	**Conventionally raised meat, dairy and eggs**
Livestock are given all organic, feed are free from hormone and GMO	Livestock is given all organic feed that are free from hormones and GMO
Disease is prevented by natural methods like clean housing, rotational grazing and healthy diet	Antibiotics and medications are given to prevent livestock disease.
Livestock have access to outdoors	Livestock may or may not have access to outdoors

People view on organic food: “We are what we eat”, our health both physically and mentally is based on what we eat and live. Organic food products are the best to eat for a healthy lifestyle and the common philosophy among us these days are “Can’t hurt, might help” which is increasing the demand for the consumption of organic food products. And also there are people still in confusion whether organic food is healthy or not compared to conventional food produces. There are several factors affecting the decision for purchase and consumption of organic food products like lack of awareness, quality and quantity availability as per requirement, the etiquette of buying food and low nutritional knowledge. Consumer’s income also plays an important role, usually higher-income family prefer to go with organic food products and also age factor i.e. lower age group prefer and willing to pay more for organic food (Sushil Kumar and Ali J, 2011). In the year 2016, the global organic food market stood at $110.25 billion. It was projected to have growth at a Compound Annual Growth Rate (CAGR) of 16.15 per cent in value terms, during 2017 – 2022 to reach $ 262.85 billion by 2022. The Indian organic Market is distributed across food and drink sectors, health and wellness, cosmetics and personal care, and textile industries. The highest growth is observed in the organic food segment, followed by textile, beauty and personal care. Indian organic food market is projected to grow at a CAGR of over 23% by 2023, on an account of favourable government policies supporting organic farming coupled with a rising land area under organic cultivation (Tech Sci Research Pvt ltd report). The current domestic market in India is estimated at INR40,000 million which is likely to increase by INR1,00,000 million - INR1,20,000 million by 2020 (APEDA, 2019). Export of Indian organic products has increased by 17% between 2015-16 and 2016-17. Indian organic food exports were estimated at US$299 million during 2015-16 with a total volume of 263,688 MT. The major export destinations were the US, European Union, Canada and New Zealand. Oilseeds comprised half of India’s overall organic food export, followed by processed food products at 25% (APEDA, 2019). In India, the majority of the demand comes from tier 1 cities. Private Companies are witnessing notable increased growth and demand from metro cities with the entry of several new players in the organic food market such as Conscious Foods, Sresta, Eco Farms, Organic India, Navdanya Morarka Organic Foods to name a few.

World Level Initiatives and Contributions of India

International Federation of Organic Agriculture Movements (IFOAM) - Organics International, an NGO founded in 1972 and headquartered in Bonn, Germany. It is the worldwide umbrella organization for organic agriculture movement with more than 750 members 127 countries. The organization works with a mission “Leading change, organically” and the vision is “Worldwide adoption of ecologically, socially and economically sound system” on the basis of Principles of Organic Agriculture. The organization carries out different activities in order to maintain the organic farming standard along with organic accreditation and certification service. For tackling

the challenges of food and farming system, the organization has focused on 3 areas and they are Supply (enabling capacity development for sustainable production), Raising Awareness (through campaigning and resource centre for organic communications) and Policy & Guarantee (promote and provide support). On World Food Day (October 16, 2019), IFOAM has launched a campaign called Honest Food, aiming to inspire citizens to make a better choice of their food by highlighting the benefits of organic, local, seasonal and fair food on people and the planet Presently, India ranks 9th in terms of the world's organic agricultural land and 1st in terms of the total number of producers (IFOAM, 2019). India is the home for 30 percent of the total organic producers in the world, accounting 2.59 percent i.e. 1.5 million hectares of the total (57.8 million hectares) organic cultivation area (World of Organic Agriculture 2018 report). But also, most of our organic farmers are struggling due to poor policy measure, inadequate knowledge, increasing input cost and lack of market knowledge (ASSOCHAM report, 2018). Organic farming is yet to taste the success; Sikkim, country's first organic state, a survey by Centre for Science and Environment, based in Delhi found that Sikkim is not complemented with an increase in the availability of organic manure and access to it. Sikkim is on its way to the real success of best state organic farming by using the requisite management practices. IFOAM through a campaign like Honest Food and Government of India are with many schemes, programmes and project for encouraging farmers and consumers towards organic farming and organic food.

Conclusion

There has been significant increase in the area under certified organic farming during the last 10 years. With less than 42,000 ha under certified organic farming during 2003-04, the area under organic farming grew by almost 25 fold, during the next 5 years, to 1.2 million ha during 2008-09. It is evident from limited short-term research findings that many crops respond better to organic management particularly after an initial conversion period of 2-3 years. Organic farming can significantly contribute to improving the livelihoods of small holders as it generates higher incomes and involves less risk.

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