Introduction

Sustainable development has caught the imagination and action all over the world for more than 3 decades. Sustainable agriculture is necessary to attain the goal of sustainable development. According to the Food and Agriculture Organization (FAO), sustainable agriculture "is the successful management of resources for agriculture to satisfy changing human needs while maintaining or enhancing the quality of environment and conserving natural resources".

Organic farming is one of the several approaches found to meet the objectives of sustainable agriculture. Many techniques used in organic farming like inter-cropping, mulching, and integration of crops and livestock are not alien to various agriculture systems including the traditional agriculture practiced in old countries like India. However, organic farming is based on various laws and certification programmes, which prohibit the use of all synthetic inputs, and the health of the soil is recognized as the central theme of the method. (Agricultural & Processed Food Products Export Development Authority)

Problems, Constraints

The most important constraint felt in the progress of organic farming is the inability of the government policy making level to take a firm decision to promote organic agriculture. Unless such a clear and unambiguous direction is available in terms of both financial and technical supports, from the Centre to the Panchayath levels, mere regulation making will amount to nothing.

a. Fertility Management in Organic Farming

Feeding the soil with manure or compost feeds the whole variety of life in the soil, which turns this material into food for plant growth. The Organic farmer must fertigate the
soil at the right time and in the right way to provide the best living conditions for the soil life and plant growth.

b. Convincing the Farmer

Organic farming is a bit expensive and involves constant expenditure. Most of the farmers are not able to afford the cost of organic farming. They continue to rely on chemical fertilizers owing to their cost friendliness. Organic seeds are costlier, take more time to grow and the storage of the final products is expensive too. Convincing the farmers to shift to organic farming is a challenge as it may have an immediate commercial impact on their income. To solve this a holistic and community-driven approach, like the “Swachh Bharat” for “Swachh Food” needs to be undertaken. Government involvement is also necessary to provide the security at a greater level.

c. Lack of Awareness

The use of bio-fertilizers and bio-pesticides requires awareness and willingness on the part of the farming community. Knowledge about the availability and usefulness of supplementary nutrients to enrich the soil is also vital to increase productivity. Attention on the application of composts/organic manure is also lacking. The organic matter is spread during the months when the right moisture level is absent on the soil. The whole manure turns into wastes in the process. The required operation is of course labor and costly, but it is necessary to obtain the desired results.

d. Output Marketing Problems

It is found that before the beginning of the cultivation of organic crops, their marketability and that too at a premium over the conventional produce must be assured. Inability to obtain a premium price, at least during the period required to achieve the productivity levels of the conventional crop will be a setback. It was found that the farmers of organic wheat in Rajasthan got lower prices than those of conventional wheat. The cost of marketing of both types of products was also the same and the buyers of wheat were not prepared to pay higher prices to the organic.

e. Marketing Problems of Organic Inputs

Bio-fertilizers and bio-pesticides are yet to become popular in the country. There is a lack of marketing and distribution networks for them because the retailers are not interested to deal with these products, as the demand is low. The erratic supplies and the low level of
awareness of the cultivators also add to the problem. 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.

f. Multiple Certification Systems

In India, the Agricultural & Processed Food Products Export Development Authority (APEDA) under the Department of Commerce, Ministry of Commerce, and Industry took the initiative to develop regulations for the export of organic produce, known as the National Programme for Organic Production (NPOP), in early 2000, based on the EU organic policy/regulations, but customizing it to meet Indian requirements. All organic exports from India must meet NPOP requirements. Thus, India has export regulations for organic products but, as of June 2017, there were no regulations governing organic food product standards and labels for the domestic market and imports. The Ministry of Agriculture and Farmer’s Welfare has also introduced the Participatory Guarantee System for India (PGS-India) with the National Centre of Organic Farming (NCOF) as the nodal agency, which lays down certain standards for organic produce but compliance with the standards laid down is voluntary, not mandatory. PGS-India is a self-certification process, established to encourage small and mid-sized farmers to take up organic farming and to promote organic farming in the domestic market on a large scale. lack of standards and clarifications regarding labeling and certification requirements for the domestic market and imports, leading to malpractices such as mixing organic with conventional produce. the lack of a nodal agency as exists in other countries, with several government agencies introducing piecemeal regulations in an uncoordinated manner. lack of uniform standards for organic inputsorganic supply chain, leading to product contamination and spoilage. The lack of a proper organic supply chain is felt more acutely in hilly, tribal, and remote places that have a high potential for organic farming, but have difficult terrain or underdeveloped infrastructure.

g. Disparity of Supply and Demand

Non-perishable grains can be grown anywhere and transported to any location but this is not the case with fruits and vegetables. It should be produced locally for which there should be willing companies, aggregators, and farmers around that area from where the demand is coming. But the demand comes from metros where there are no farmlands to produce organic fruits and vegetables. Smart transport and dedicated channels of supply are the solutions to this disparity.
h. Political and Social Factors

Agriculture in India is subject to political interventions with the objectives of dispensing favors for electoral benefits. Subsidies and other supports from both the Central and state governments, government-controlled prices of inputs like chemical fertilizers, the public sector units’ dominant role in the production of fertilizers, government support/floor prices for many agricultural products, supply of inputs like power and water either free of cost or at a subsidized rate, etc. The political system in a democracy like India is likely to evade the formulation of policies, which affect the interests of the voting blocs unless there are more powerful counter forces demanding changes.

Prospects of Organic Farming in Indian Agriculture

a. Objectives of Organic Farming

Sustainable use of natural resources, Reducing the Cost of Cultivation, Higher food safety, Improvement in Soil Health.

b. Components of Organic Farming

Agronomic Techniques, Organic Manures, Crop Residue, Bio waste, Bio fertilizers, Bio pesticides, vermicompost

c. Global Scenario

The Department of Commerce, Ministry of Commerce and Industry informed that as per a survey on certified organic agriculture carried out by FiBL-IFOAM (Research Institute of Organic Agriculture International Federation of Organic Agricultural Movement), around 69.8 million hectares of land in 181 countries have been certified as organic. The survey, namely, “The World of Organic Agriculture – Statistics and Emerging Trends 2019” had stated that around 1.4 percent of the total agricultural land of the countries under study is organic with Oceania having the largest area of organic agricultural land followed by Europe, Latin America, Asia, North America, and Africa. Apart from agricultural land, more than 42.4 million hectares in the world have been certified for wild harvest collection. The country with the largest agricultural land is Australia followed by Argentina and China. Also, as per the survey, till 2017 the total number of organic producers in the world was around 2.9 million.

d. Certification

Certification is being done under:

(I). National Programme on Organic Production (NPOP) or Third-Party Certification; and
(ii). Participatory Guarantee System (PGS-India). The standards prescribed by NPOP are mandatory for exports.

**NPOP or Third-Party Certification System of APEDA**

The Third-Party Certification of organic production processes was initiated by Government of India in 2001 under NPOP. A group of organic farmers (minimum of 25 and maximum of 500 farmers who possess land in the same geographical area) may apply for certification of their organic produce under the Third-Party Certification. The certification process is carried out by bodies accredited by NPOP. The certification bodies are presently 29 in number including 11 State Certification bodies with 7388 operators.

e. **Scope of India Organic Food Market**
   
   - Total exports quantity 614090 Tonnes
   - Total Export Value (INR) 5150 crore. Total Export Value (US$) 757 million

   2020- The India organic food market stood at a value of USD 849.5 million in 2020.

   2021 and 2026- The market is further expected to grow at a CAGR of about 20.5% in the forecast period of 2021 and 2026 to reach a value of about USD 2601 million by 2026.

f. **Cultivated farm area for the Year 2018-19**

   As on 31st March 2021 total area under organic certification process (registered under National Programme for Organic Production) is 4339184.93 ha (2020-21). This includes 2657889.33 ha cultivable area and another 1681295.61 ha for wild harvest collection. Among all the states, Madhya Pradesh has covered largest area under organic certification followed by Rajasthan, Maharashtra, Chhattisgarh, Himachal Pradesh, Jammu & Kashmir and Karnataka.

   During 2016, Sikkim has achieved a remarkable distinction of converting its entire cultivable land (more than 75000 ha) under organic certification.

g. **Production**

   India produced around 3496800.34 MT (2020-21) of certified organic products which include all varieties of food products namely Oil Seeds, fiber, Sugar cane, Cereals & Millets, Cotton, Pulses, Aromatic & Medicinal Plants, Tea, Coffee, Fruits, Spices, Dry Fruits, Vegetables, Processed foods, etc. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products, etc.
Among different states Madhya Pradesh is the largest producer followed by Maharashtra, Karnataka, Rajasthan, and Uttar Pradesh. In terms of commodities, Oilseeds are the single largest category followed by Sugar crops, Cereals and Millets, Tea & Coffee, Fiber crops, fodder, Pulses, Medicinal/ Herbal and Aromatic plants, and Spices & Condiments.

Conclusion

Let us earn the blessings of future generations by organic farming. Growing plants and trees using vermicompost so that in the coming years we shall have healthy fruits and vegetables leading to a rich life. Though we have been slow to cash in on the global situation, we have so far certified only less farms as organic. It is high time “not to panic but to organic.”Let us take a pledge to promote ‘global worming’ and to remember: “Nature provides a free lunch but only then if we know that we are the only caretakers of this planet.”

References: