

## **ORGANIC FARMING: THE NEED OF GREEN ECONOMY**

**TAWINDER KAUR**

Assistant Professor, Department of Economics, SGGS College, Chandigarh, India

### **ABSTRACT**

Green Economy is the need of today as it results in improved human well being while reducing environmental risks and ecological scarcities. But, Green Revolution in the post-independence era has shown the way for self sufficiency in food, but sustaining agricultural production against finite natural resources demands a shift from 'resource degrading' chemical agriculture to 'resource protective' organic agriculture This paper is an attempt to analyses the need of organic farming for having benefits of green economy as leads to conservation of natural resources, improved soil fertility and water quality, prevention of soil erosion etc with special reference to India. Further it explains major constraints in adopting large scale organic farming and the prospects that are available in a country like India and also some suggestive measures to promote organic agriculture in India

**KEYWORDS:** Organic, Agriculture, Farming, Problems and Prospects

### **INTRODUCTION**

The modern system of farming, it is increasingly felt, is becoming unsustainable as evidenced by declining crop productivities, damage to environment, chemical contaminations, etc. The necessity of having an alternative agriculture method which can function in a friendly eco-system while sustaining and increasing the crop productivity is realized now. Organic farming is recognized as the best known alternative to the conventional agriculture. The global organic agriculture area is 37 million hectare and the organic area in India is 0.77 million hectare including certified forest areas<sup>2</sup>. Policy makers are also promoting organic farming for restoration of soil health and generation of rural economy apart from making efforts for creating better environment.

#### **Green Economy**

Green economy is that economic system which increases human well being over the long term while maintaining natural capital and environment resources so that future generations do not face significant environment risks and ecological scarcities. Green economy activities include organic agriculture, renewable energy building, ecotourism, waste management and recycling etc. Our concern here is about maintaining green revolution through Organic farming.<sup>5</sup>

#### **Organic Agriculture**

Earlier traditional farming practices prior to the 20<sup>th</sup> century were generally regarded as organic. some people are of the idea that the use of organic manures and natural methods of plant protection instead of using synthetic fertilizers /pesticides are organic farming.<sup>8</sup> But the most recognised definition of organic agriculture is as "Organic Agriculture is a unique production management system which largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, food additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection".<sup>5</sup> However, Organic is not only about replacing inputs, which is the starting point of the process rather it is based on the four principles of organic farming as advocated by International Federation of Agriculture Movement (IFOAM );

- Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible.
- It should be based on living ecological system and cycles, work with them, emulate them and help sustain them.
- It should build on relationships that ensure fairness with regard to the common environment and life opportunities.
- It should be managed in a precautionary and responsible manner to protect the health and well being of current and future generations and environment.<sup>5</sup>

### **Objectives of the Paper**

The objective of the paper is to know about the need and importance of organic farming in India. Further it analyses the major constraints and prospects of organic farming in India. The concluding part attempts to propose some suggestive measures pertaining to the promotion of organic farming for having a green economy.

### **Methodology**

This paper is based on secondary data collected from various published sources like books, periodicals, research articles, reports prepared by government agencies and also the official websites of national and international institutes.

### **Scenario in Indian Economy**

India is mainly an agricultural country, where agriculture contributes to about 13.7 percent in gross domestic product (GDP) and supports over 56 percent of the nation's population for livelihood.<sup>1</sup> Modern agricultural farming practices along with irrational use of chemical inputs over the past four decades have resulted in not only loss of natural habitat balance and soil health but have also caused many hazards like soil erosion, decreased groundwater level, soil salinization, pollution due to fertilizers and pesticides, ill effects on environment, reduced food quality and increased the cost of cultivation, rendering the farmer poorer year by year. In other words, local indigenous farm techniques have been wiped out and replaced by the modern techniques, resulting in an unviable and unsustainable farm enterprise.<sup>11</sup> So, for having sustainable agriculture the principle of organic cultivation is attracting farmers world over due to its various advantages over modern agricultural practices. As organic agriculture is productive and sustainable.<sup>10</sup>

Organic farming appears to be one of the options for sustainability. Starting of organic agriculture in India in 1900 by Sir Albert Howard, a British agronomist in North India, Development of Indore Method of aerobic compost (Howard, 1929), Bangalore method of anaerobic compost (Archarya, 1934), NADEP Compost (ND Pandari Panda, Yeotmal, 1980) initiated organic agriculture.<sup>8</sup>

The year 2000 is a very important year for India from an organic point of view. The four major happenings were made during the year 2000. The National Agricultural Policy (2000) recommended promotion of traditional knowledge of agriculture relating to organic farming and its scientific upgradation. The Department of Agriculture and Cooperation (DAC), Ministry of Agriculture constituted (2000) a Taskforce that recommended promotion of organic farming. The Ministry of Commerce launched the National Organic Programme in April 2000 and Agricultural and Processed Food Products Export Development Authority (APEDA) is implementing the National Programme for Organic Production (NPOP). Under the NPOP, documents like National standards, accreditation criteria for accrediting inspection and certification agencies, Accreditation procedure, inspection and certification procedures have been prepared and approved by National Steering Committee (NSC).<sup>8</sup>

The progress of organic agriculture in India is very slow. The major emerging area is 42,000 ha under certified

organic farming during 2003-04 the organic agriculture grew 29 fold during the period up to 2008-09. By march 2011, India had brought more than 4.43 million ha area under organic certification process, out of this cultivated area accounts for 0.77 million ha, while remaining 3.65 million ha was wild forest harvest collection area.<sup>4</sup> On a global level, the organic agricultural land area increased by three percent compared with 2010.

The countries with the most organic agricultural land are Australia (12 million hectares), Argentina (3.8 million hectares) and the United States (1.9 million hectares). The highest shares of organic agricultural land are in the Falkland Islands (35.9 percent), Liechtenstein (29.3 percent) and Austria (19.7 percent). The countries with the highest numbers of producers are India, Uganda and Mexico.<sup>9</sup> Also the domestic consumption is marginal and is concentrated in the metropolitan cities in the country and most of the organic production is used to meet the demand for exports.<sup>7</sup>

**Table 1: Growth of Area under Organic Management**

Years	Area in ha. Under Organic Certification Process	
	Cultivated (Organic+ In Conversion)	Wild Harvest
2003-04	42000	NA
2004-05	76000	NA
2005-06	1,73,000	NA
2006-07	5,38,000	24,32,500
2007-08	8,65000	24,32,500
2008-09	12,07,000	30,55,000
2009-10	10,85,648	33,96,000
2010-11	7,77517	36,50,000

**Source:** Organic Farming Newsletter 2012

Also as per the information provided by Apeda Ministry of Commerce details of various organic products exported to different countries was as follows for the year 2010-11

- Export Quantity - 69837 MT.
- Value of export quantity -Rs. 699 cores (USD 157.22 million)
- Top Exported products - oilseeds, cotton and textiles, processed food,
- Basmati rice, tea
- Export Destination:
- **EU:** 44 percent by volume; 52 percent by value
- **Canada:** 22 percent by volume; 14 percent by value
- **US:** 19 percent by volume; 17 percent by value
- **Asia:** 13 percent by volume; 15 percent by value

As per the study conducted by organic trade association of india (OTA) presented at Biofach 2012 at Nuremberg Germany, total value of organic produce in india during 2011-12 is expected to be around Rs. 8575 crores, out of which marketable surplus was worth Rs. 4550 crores.<sup>4</sup>

### Importance of Organic Agriculture in India

Organic agriculture has made a credible performance during the past ten years. Both, the 11<sup>th</sup> plan document on organic sector and the report of the National Commission on farmers have recommended it as a tool for second green revolution in the country in particular for agro-eco zones comprising rain fed areas, hilly areas and areas experiencing ecological backlash of green revolution. The importance of organic agriculture can be made clear as follows:<sup>4,5</sup>

- Organic Agriculture can become low cost sustainable option of farming in the country, particularly by the small farmers in rain fed areas and helps improve their food and income security.
- It can help to maintain the long term fertility of soils
- It can further help to avoid all forms of pollution that may result from conventional agricultural techniques.
- It gets mainstreamed and helps achieve ecological and economic sustainability of Indian Agriculture in general i.e. clean water, environment and helps preserve bio-diversity.
- It helps to reduce the use of fossil energy in agricultural practice to a minimum.
- To make it possible for agricultural producers to earn a living through their work and develop their potentialities as human being.
- It helps produce and supply adequate safe and nutritious food to the producers and consumers of the nation.
- Besides this environmental benefits, health aspects and farmers empowerment are other important factors influencing farmers shift to organic agriculture.
- It becomes a foreign exchange earner for the country and India is able to take at least 3 percent share of global organic market.
- It will further lead to organic agriculture becoming an agribusiness and provide employment opportunities also.

### Constraints

Since organic farming is seen today as the best option to attain sustainability in the crop production. However there are several problems in adopting large scale organic farming in India. The most important constraints 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. The main constraints are as follows:<sup>7,10</sup>

**Lack of Awareness:** Use of bio-fertilizers and bio-pesticides requires awareness and willingness on the part of the farming community. But awareness about these is very minimal.

**Lack of Financial Support:** Unlike countries like Germany, no financial support from the government is available in India for farmers who opt for organic farming.

**Inadequate Supporting Infrastructure:** In spite of the adoption of National Policy for Organic Production (NPOP) during 2000, the state Govts. are yet to formulate policies and a credible mechanism to implement them. The certifying agencies are inadequate, the recognized green markets are non-existent, the trade channels are yet to be formed and the infrastructure facilities for verification leading to certification of the farms are inadequate.

**Shortage of Biomass:** The small and marginal cultivators have difficulties in getting the organic manures compared to the chemical fertilizers, which can be bought easily if the farmers have the purchasing power. But on

the other hand they have to produce the organic manure which could be get lost in the fields as it is very difficult to collect them and put them to use.

**High Input Costs:** Traditionally the small and marginal farmers in India have been practicing some sort of organic farming. But this is becoming more and more difficult as the cost of these inputs are rising and are now higher than those of industrially produced chemical fertilizers and pesticides.

**Inability to Meet the Export Demand:** The demand for organic products is high in advanced countries like USA, EU and Japan. Also the US consumers and the upper classes in India are ready to pay a premium price of 60 to 100 percent for the organic products. The market survey done by the International Trade Centre (ITC) during 2000 indicates that the demand for organic products is growing rapidly in many of the world markets while the supply is unable to match it.

**Marketing Problems of Organic Inputs:** Bio fertilizers and bio pesticides are yet to become popular in the country. There is lack of marketing and distribution network for them because the retailers are not interested to deal in these products as the demand is low. Higher margins of profits for chemical fertilizers and pesticides for retailing, heavy advertisement campaigns by the manufacturers and dealers are the other major problems affecting the market for organic inputs in India.

**Low Yields:** In many case the farmers experience some less in yields on discarding synthetic inputs on conversion of their farming method from conventional to organic.

**Problem of Marketing:** A major constraint of organic agriculture in India is the absence of linkages between the farmers and markets and absence of support and subsidies from the governments 7, 10.

It is evident from the above constraints that an appropriate policy framework is yet to be laid down by the government.

## PROSPECTS

India has the potential to become a major organic producing country given the international demand for our farm products, different agro-climatic regions for the cultivation of a number of crops, the size of the domestic market and above all the long tradition of using environment friendly farming and living 3, 10, 11.

- Indian agriculture should be able not only to maintain but also must strive to increase the production of food grains. As availability of organic infrastructure, minimum efforts for conversion due to low use of chemical farming methods can be progressively introduced specially in rain fed, tribal, north-east and hilly regions of India which are largely practicing the traditional farming methods.
- India is endowed with various types of naturally viable organic form of nutrients across different regions of the country which will be helpful in organic cultivation of crops.
- A strategy to present sudden and substantial yield losses is to convert to organic production in phases to reduce the risks during the initial years This will also address the problem of not having enough organic manure to meet all our agricultural needs.
- Organic farming requires over 15 percent more labour power than conventional farming and hence provides rural job opportunities in countries like India where labour as well as the cost involved is not a constraint.

- Simple technologies with low input use have been developed for dry farming and they can be transferred to the farms for organic cultivation. The resulting increase in productivity and sustainability of production will increasingly contribute to the betterment of the economic conditions of the dry land farming community.
- Several alternatives for supply of organic soil nutrients like vermin-composts and bio-fertilizers exist. Vermin-composting and bio-fertilizer manufacturing can be further undertaken to increase the supply of organic manure to meet the demand.
- In dry lands, there is over-exploitation of natural resources mainly due to inappropriate production enhancing technologies. Adoption of organic farm practices can help to ameliorate these conditions.

### **Suggestive Measures**

Indian agricultural system is under a transition stage. The increasing demand for organic produce has created new opportunities. Following are some suggestive measures to promote organic farming are as follows:

- Standardization of mechanism or methods for organic farming practices.
- Government should promote research laboratories and made policies for the support of organic farming.
- Financial support should be provided by the government during the conversion period
- Inspection and certification of organic products should be done on the priority basis.
- Awareness of the benefits of organic agriculture along with the ill effects of the conventional system should be designed.
- Organizes various seminars and workshops for dissemination of information.
- The states and union territories of India should submit the proposal for organic certification only for those areas that have been covered earlier under adoption of organic farming.
- Marketing arrangements should be tied up for the certified organic produce.
- Introduction of core course on the concepts and the practices in organic farming in the curriculum of undergraduate and post-graduate programmes at different State Agricultural Universities and other research institutes.
- Expert groups, comprising of eminent agricultural as well as social scientists and progressive farmers may be constituted for visiting farms of successful farmers associated with organic farming practices.
- Linkages among the farmers, processors, traders and consumers should be created to support organic farming.
- Training programs for producers and certification agencies should be designed.
- Improving the quality of research and development.
- To set up a research institution aimed at improving different aspects of organic production.
- Promotion of Indian organic products at international fairs and promotional programs in the media (e.g. video films) should be done.

### **CONCLUSIONS**

The farmers of India have been practicing eco-friendly agriculture for centuries. Even now many small and

marginal farmers use local renewable resources and manage self-regulated ecological and biological processes. India can enjoy a number of benefits from organic farmers, major among them being conservation of natural resources, improved soil fertility and water quality, preservation of soil erosion, preservation of biodiversity, generation of rural employment, improved household nutrition, local food security and reduced dependence on external inputs. But organic farming has been neglected in policy making as less government assistance is given for the promotion of organic agriculture, as it exists for the conventional agriculture in the form of subsidies, extension services and official research. So, it is sure that with proper encouragement and by taking advantage of the diverse soil and climatic conditions organic farming will progress tremendously in India.

## REFERNCES

1. GOI, (2010): union budget and economic Survey, <http://www.indiabudget.nic.in>
2. [http://www.organic-world.net/fileadmin/documents/yearbook/2012/fibl-ifoam-2012-statistics-2012-02-15\\_.pdf](http://www.organic-world.net/fileadmin/documents/yearbook/2012/fibl-ifoam-2012-statistics-2012-02-15_.pdf)
3. Pimentel, D., Happerly, P., Hanson, J., Douds, D., Seidel, R. (2005): Enviornmental, Energetic, and Economic comparisons of organic and conventional farming system. *Bio-science*, 55,pp.573-582
4. Yadav, a. k., “status of organic agriculture in india 2010-11”*Organic farming newsletter* vol 8(2) june 2012 pp 11-13, <http://www.ncof.dacnet.nic.in>
5. Pratap, Tej, “Organic Agriculture –The Possible Future” *Organic farming newsletter* vol 8(2) june2012 pp3-, <http://www.ncof.dacnet.nic.in>
6. <http://www.bhu.ac.in>
7. <http://www.nabard.org>
8. Bhattacharyya, P. And Chakraborty, G., “*Indian Journal of Fertilizers*, vol1(9), Dec 2003, pp 115, pp118
9. <http://www.fibl.org/en/themen/themen-statistiken.html>
10. Sharma,Kuldeep., Pradhan, Sudhir. “Organic Farming: Problems and Prospects”, *Yojana* vol 55, jan 2011, pp 68-70
11. <http://www.ageconsearch.umn.edu>

