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Organic Farming for Sustainable Agriculture: Global and Indian Perspective

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ABSTRACT

Green Revolution in India has undoubtedly changed the scenario of food grain production. The food grain production in India has been doubled during post Green Revolution period with virtually no increase in the net cultivated area. This marvelous achievement in agriculture production was mainly due to the increased use of inputs like fertilizers, pesticides and farm machinery. As time went by, extensive dependence on chemical farming has shown its darker side. The land is losing its fertility and is demanding larger quantities of fertilizers. Pests are becoming resistant and warrant frequent sprays resulted in residues much above the safety levels and this brought to the attention of modern agriculture and paved the way for organic farming in India. The paper discusses the need for organic farming in India in the light of the experiences of other countries and analyses the factors and constraints in introduction of organic farming in India.

KEYWORDS : Organic Farming, Organic Production, Green Revolution, fertilizers, pesticide.

INTRODUCTION

Sustainable Development has caught the imagination and action all over the world for more than a decade. Sustainable Agriculture is necessary to attain the goal of Sustainable Development. Organic Farming is one of the several approaches found to meet the objective of Sustainable Agriculture. Organic farming is developing rapidly and is now practiced in more than 130 countries of the world. Globally, 37.2 million hectares of the agriculture land are managed organically (FIBO sample survey). India is a leading supplier of organic herbs, organic spices and organic basmati rice to the developed nations. The export realization during 2007-08 was 78 million registering a 200 percent growth over the previous year (FIBO sample survey). Though Organic farming is an inevitable phenomena, alone cannot feed the billion population of India. To ensure the food and nutritional security, it would be desirable to carefully delineate areas for organic farming. In India there is ample scope for pure organic farming in the rain fed areas where there is little or no use of fertilizers and agro chemicals. Green Revolution of India has undoubtedly changed the scenario. The food grain production in India has been doubled during the post revolution period with virtually no increase in net cultivated areas. This marvelous achievement in agriculture production was mainly due to the increased use of inputs like fertilizers, pesticides and farm machinery. As time went by, extensive dependence on chemical fertilizers showed its darker side. The land is losing its fertility and is demanding larger quantities of fertilizers. Pests are becoming resistant and warrant frequent sprays resulted in residues much above the safety levels. Further stringent standards for non-organic food in the European and US market have led to rejection of many Indian food consignments in the recent past and this brought to the ill effects of modern agriculture and paved the way for organic farming.

OBJECTIVES OF THE STUDY

(i) To understand the need for organic farming in India in the light of the experiences of other countries.
(ii) To assess and evaluate the factors which may facilitate the adoption of organic farming in the country.
(iii) To analyses the constraints 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), FIBL\FOAM survey, books and periodicals and newspaper reports is liberally used for the preparation of the paper.

Table 1: Top Ten countries in terms of percentage of organic area to the total agricultural land (2010)

Country	% share of agricultural land
Falkland (Malvinas)	35.9%
Liechctenstein	27.3%
Austria	19.7%
Sweden	14.1%
French Guiana	12.5%
Switzerland	11.4%
Estonia	10.5%
Czech Republic	9.4%
Latvia	9.0%
Italy	8.7%

***Source: FIBL\FOAM survey 2012, based on data survey from government, private sector and certifiers.**

AREA UNDER ORGANIC FARMING: GLOBAL STATISTICS

The main results of the latest *survey on certified o*rganic agriculture world-wide show (data end of 2011) showed that 37.2 million hectares of agricultural land are managed organically by 1.8 million producers.The regions with the largest areas of organically managed agricultural land are Oceania (12.2 million hectares or 33 percent of the global organic farmland), Europe (10.6 million hectares or 29 percent of the global organic farmland) and Latin America (6.8 million hectares or 23 percent of the global organic farmland) as shown in Table 1.On a global level, the organic agricultural land area increased by three percent as compared with 2010.

Table 2: Countries with largest area of organically managed land (2010)

Country	Area	Country	Area
Oceania	12.2	Asia	3.7
Europe	10.6	North America	2.8
Latin America	6.8	Africa	1.1

***Source: FIBL\FOAM survey 2012, based on data survey from government, private sector and certifiers. Area measured in million hectares.**

The highest shares of organic agricultural land are in the Falkland Islands (35.9 percent), Liechtenstein (27.3 percent) and Austria (19.7 percent) as shown in Table 2.**Table 2: Top Ten** countries in terms of percentage of organic area to the total **agricultural land (2010).**

According to FIBO survey of 2010, a total of 1.6 million organic producers (India (400'551), Uganda (188'625), Mexico (128'826)) and other countries was reported as shown in Table 3. More than three quarters of producers are located in developing and transition countries. The countries with the most producers are India, followed by Uganda and Mexico.

Table 3: Top Ten countries with largest number of organic producer (2010)

Country	Number	Country	Number
India	400,551	Peru	44,827
Uganda	188,625	Italy	43,096
Mexico	128,862	Turkey	41,087
Ethiopia	123,062	Spain	27,877

***Source: FIBL\FOAM survey 2012, based on data survey from government, private sector and certifier**

ORGANIC FARMING IN INDIA

Organic farming was practiced in India since thousands of years. In traditional India, the entire agriculture was practiced using organic techniques where the fertilizers and pesticides were obtained from plants and animal products. At that time organic farming was backbone of Indian economy. India's achievement in agricultural production after the Green Revolution has been exemplary and mainly due to the increased use of inputs like fertilizers, pesticides and farm machinery but scientist have realized that the Green Revolution with high input use has reached a plateau and now is sustained with diminishing return of falling dividends. The over use of pesticides resulted in residues much above the safety levels and leads to health and environment degradation. This brought to the attention of ill effects of modern agriculture and paved the way for organic farming. According to Agriculture and Processed Food Products Export Development Authority (APEDA), around 2.8 million hectare of land was under organic farms in 2007 which increased to 37.2 percent in 2011. Further, there are 15,000 organic farms in India. India therefore, is on the most important supplier of organic food to the developed nations.

STATUS AND SCOPE OF ORGANIC FARMING IN INDIA

According to Marwaha and Jat (2004), the organic farming probably is seldom practiced and there is dearth of data on comparative yield and economics of crops with pure organic farms versus intensive farming. Whatever little farming that is being practiced in India seems to be taken up mainly as a part of contract farming. Organic farming may be far from reality for three reasons. Firstly, the limited availability of organic sources; Secondly, for getting optimum yield, crop plants require nutrients in sufficient quantity and in readily available form. This could be best possible through fertilizers, and hardly through organic sources. Thirdly, for plant protection, the organic sources and biological methods that have been tried so far have not met with considerable success in the country. Madhya Pradesh took early lead in organic farming followed by Uttarakhand (declared as organic state) and other states. The 'Organic Farming Council of Punjab' established in 2006 is taking lead in promoting organic farming. An overview of organic agriculture in India has presented in Table 4 & figure1

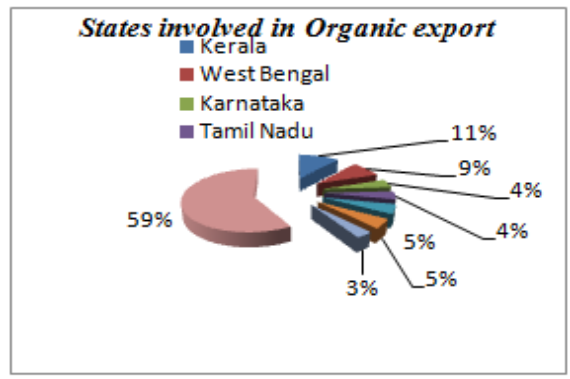
Table 4: An overview of Organic Agriculture in India (2004-05)

Organic Agriculture	Share
Area under certified (m ha)	2.5
Total Certified Products (tones)	1,15,238
Number of processing units	158
Accredited inspection &certifying agencies	11
Number of products exported	35

***Source: FIBL\FOAM survey 2012, based on data survey from government, private sector and certifiers.**

A survey was made on certified organic farms in the country to ascertain real benefits and feasibility of organic farming in comparison to conventional farming. The study conducted by Ramesh (2010) revealed that organic farming in spite of the reduction in crop productivity by 9.2 percent, provided higher net profit to farmers by 22.0 percent compared to conventional farming.

Figure1: States involved in Organic export



***Source: FIBL\FOAM survey 2012, based on data survey from government, private sector and certifiers.**

However, there should be overall improvement in soil quality in terms of various parameter viz. physical and biological properties indicating an enhanced soil health and sustainability of crop production in organic farming system.

CONSTRAINTS IN ORGANIC AGRICULTURE IN INDIA

The most important Constraint felt in the progress of organic farming in India is the inability of the government policy making levels to take a firm decision to promote organic farming. There are number of firms in India which grow vegetables, fruits, plantation crops, spices and tea organically export to other countries. Usually, farmers associated with big exporters do not worry about the sale of their products and their certification but small and marginal farmers harrowed lot. For exports, an aggressive strategy demanding free access needs to be adopted.

CONCLUSION AND SUGGESTIONS

It appears that India is lagging far behind in the adoption of organic farming. Following are some of the issues, which requires attention at the government policy making levels to spread organic agriculture:

- Substantial financial support by the government at the central, state as well as at local level is necessary to promote organic farming.
- Market Development for the organic produce is a crucial factor to promote domestic sale.
- The producer organization must be encouraged to get accredited for inspection and certification in accordance with NSOP. They can also have their own standards and even symbols. This may reduce the cost of certification besides the simplification of the process.
- A vigorous campaign to highlight the benefits of organic farming against the conventional system is essential to increase the awareness of farmers and consumers.
- Identification of crops for cultivation on the organic farm is important. The examples of Soyabean in Madhya Pradesh and Cotton in the rainfed areas could be kept in view in the process.

REFERENCES

[1]. Anil kumar Rathi, IC Karwasra and K.N. Rai,"Diversified Organic Farming: A Case Study of the successful farmers", Indian J Agril. Mktg., 17(3), pp 50-58, 2005. | [2]. Dahama A.K., "Organic Farming for Sustainable Agriculture", Agrobios(India), Rajasthan,2002. | [3]. Greele .C.2002. Organic Farming and Marketing in the D.S Economic Research services, USDA, Washington, D.C | [4]. Garg, R.B.L.,"Eco-Friendly Farming. Science Reporter", pp. 24-27,2006. | [5]. Handbook of Agricultur, ICAR publication, 2005."India came emerge as a major player in organic products" of The Hindu News Paper, Nov.29.2002. | [6]. www.organic-world.net | [7].www.fao.org |