Chapter 13

Transition towards Organic Farming: Policies, Problems and Prospects

☆ *S. Jayasekhar, C. Thamban, K.P. Chandran and D. Jaganathan*

1. Introduction

In the recent past we have witnessed an overwhelming popularity and scientific acceptance of organic farming in the western world, especially USA, Germany and the Scandinavian countries. Organic agriculture is now practiced in almost all countries of the world, and its share of agricultural land and farms is growing. The market for organic products is growing, not only in developed countries but also in many other countries, including developing countries. As a matter of fact, organic agriculture is penetrating the farmlands of India as well. Of late, organic farming has certainly found acceptance among diverse categories of farmers operating in different parts of the country under varied agro-ecological and financial conditions.

However, the farmers had to face several problems while converting from conventional to organic farming which include non-receipt of premium price for these products and lack of storage facility (Lanting, 2007). Sanghi (2007) has argued that organic farming is an intensive process, limited mostly to resource-rich farmers, and the export market and depends heavily on external support systems for price, market intelligence and certification of produce, among others. Hence, he has concluded that the scope of coverage and social relevance of the organic farming is also limited. Organic agriculture is often termed knowledge based rather than input based agriculture (Das, 2007). The scenario of organic farming practices of seasonal crops is entirely different from plantation crops like tea, rubber coffee and coconut. The standard duration of conversion for annual crops is 24 months, whereas, in the case of plantation crops it extends up to 42 months. There arise some pertinent questions in this context i) what exactly is the operating environment of organic farming in the world and India? ii) is there any convergence between various programmes/projects envisaged by the institutions regarding the implementation of organic farming programmes? iii) how efficient and effective are the forward and backward linkages with respect to market/price support and assured premium prices? We attempt to answer these questions by reviewing the present state of affairs in these regard both internationally and nationally and also by taking up a micro level case study at Kasaragod district of Kerala which is already declared as an organic district.

2. Organic Agriculture: The World Scenario

According to the latest FiBL-IFOAM survey, 2015 on certified organic agriculture worldwide, nearly 43.1 million ha land is being certified as organic in 170 countries. The countries with the most organic agricultural land are Australia (17.2 million ha), Argentina (3.2 million ha), and the United States (2.2 million ha) (Figure 13.1). The countries with the most producers are India (650'000), Uganda (189'610), and Mexico (169'703). About a quarter of the world's agricultural land (11.7 million ha) and more than 80 per cent (1.7 million) of the producers are in developing countries. Most of this category of land is used for cereals including rice (3.3 million hectares), followed by green fodder from arable land (2.4 million ha), oilseeds (0.8 million ha), vegetables (0.3 million ha), and protein crops (0.3 million ha). Permanent crops account for seven per cent of the organic agricultural land, amounting to 3.2 million ha. The most important permanent crops are coffee (with more than 0.7 million ha, constituting almost one quarter of the organic permanent cropland), followed by olives (0.6 million ha), nuts and grapes (0.3 million ha each), and cocoa (0.2 million ha).

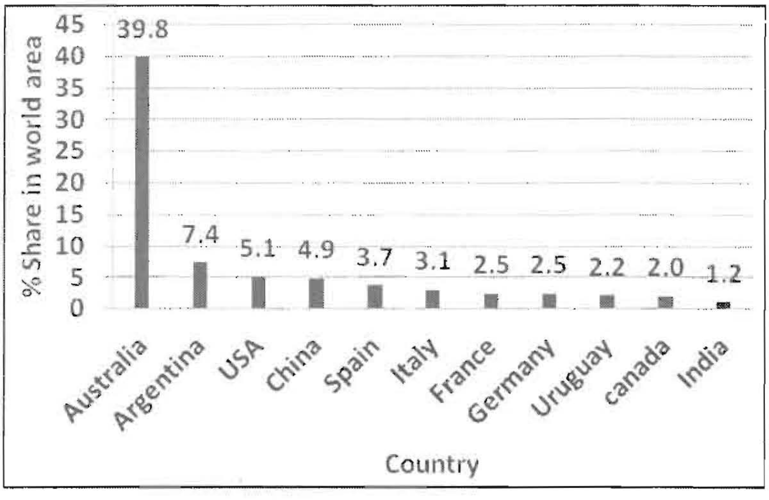

Figure 13.1: Countries with Largest Area of Organic Agricultural Land.

Global sales of organic food and drink reached 72 billion US dollars in 2013. Revenues have increased almost five-fold since 1999. Organic product sales have increased at a healthy rate over the last decade, and hopefully growth will continue in the coming years. Europe and North America generate over 90 per cent of global sales. Although Asia, Australasia, Latin America, and Africa have become important producers of organic agricultural crops, their markets for organic products remain small. In 2013, the countries with the largest organic markets were the United States (24.3 billion euros), Germany (7.6 billion euros), and France (4.4 billion euros). The largest single market was the United States (approximately 43 per cent of the global market), followed by the European Union (22.2 billion euros, 43 per cent) and China (2.4 billion euros) (Figure 13.2).

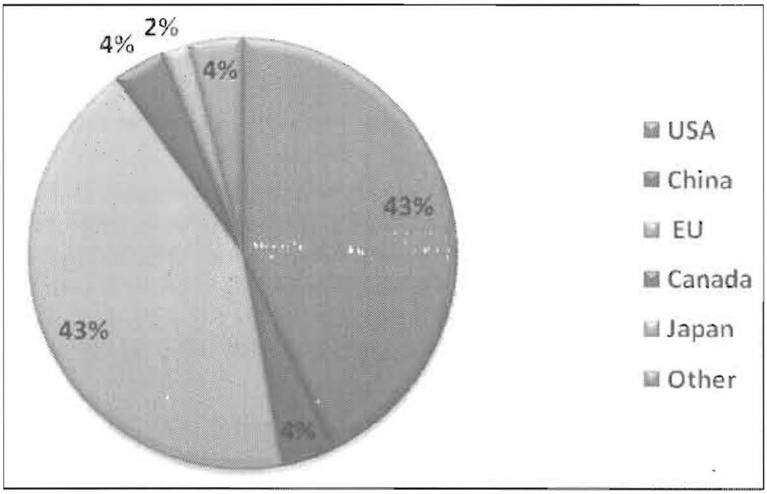

Figure 13.2: Global Market: Distribution of Sales Value of Organic Products by Countries.

The highest per-capita consumption was in Switzerland followed by Denmark, and Luxembourg (Figure 13.3). Liechtenstein, Austria, Sweden, Germany. US, Canada and Norway also made their entry into the top 10 consumers of organic products (per capita consumption).

3. Organic Agriculture: The Indian Scenario

Currently, India ranks 10th among the top ten countries in terms of cultivable land under organic certification. The certified area includes 15 per cent cultivable area with 0.72 million hectare and rest 85 per cent (3.99 million hectares) is forest and wild area for collection of minor forest produces. The total area under organic certification is 4.72 million Hectares (2013-14). India produced around 1.24 million tonnes of certified organic products which includes all varieties of food products namely Sugarcane, Cotton, Oil Seeds, Basmati rice, Pulses, Spices, Tea, Fruits, Dry fruits, Vegetables, Coffee and their value added products. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products *etc*. Among all the states, Madhya Pradesh has covered largest area

Global sales of organic food and drink reached 72 billion US dollars in 2013. Revenues have increased almost five-fold since 1999. Organic product sales have increased at a healthy rate over the last decade, and hopefully growth will continue in the coming years. Europe and North America generate over 90 per cent of global sales. Although Asia, Australasia, Latin America, and Africa have become important producers of organic agricultural crops, their markets for organic products remain small. In 2013, the countries with the largest organic markets were the United States (24.3 billion euros), Germany (7.6 billion euros), and France (4.4 billion euros). The largest single market was the United States (approximately 43 per cent of the global market), followed by the European Union (22.2 billion euros, 43 per cent) and China (2.4 billion euros) (Figure 13.2).

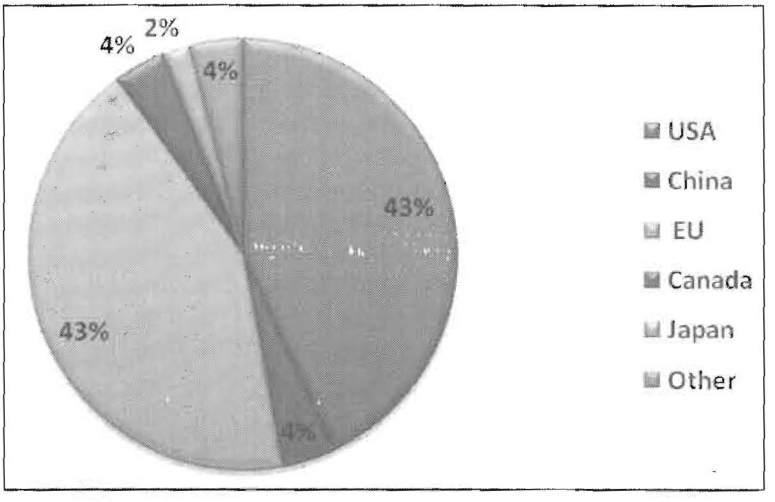

Figure 13.2: Global Market: Distribution of Sales Value of Organic Products by Countries.

The highest per-capita consumption was in Switzerland followed by Denmark, and Luxembourg (Figure 13.3). Liechtenstein, Austria, Sweden, Germany. US, Canada and Norway also made their entry into the top 10 consumers of organic products (per capita consumption).

3. Organic Agriculture: The Indian Scenario

Currently, India ranks 10th among the top ten countries in terms of cultivable land under organic certification. The certified area includes 15 per cent cultivable area with 0.72 million hectare and rest 85 per cent (3.99 million hectares) is forest and wild area for collection of minor forest produces. The total area under organic certification is 4.72 million Hectares (2013-14). India produced around 1.24 million tonnes of certified organic products which includes all varieties of food products namely Sugarcane, Cotton, Oil Seeds, Basmati rice, Pulses, Spices, Tea, Fruits, Dry fruits, Vegetables, Coffee and their value added products. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products *etc.* Among all the states, Madhya Pradesh has covered largest area

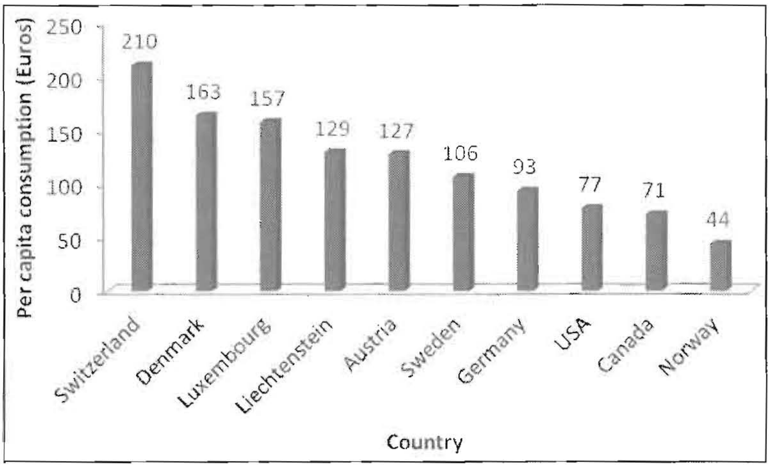

Figure 13.3: Top 10 Consumers of Organic Products (per capita consumption).

under organic certification followed by Himachal Pradesh and Rajasthan. The states of Uttarakhand and Sikkim have declared their states as 'organic states'. In Maharashtra, since 2003, about five lakh ha area has been under organic farming. Most of the area in the northeastern states is being used for organic farming. In Nagaland, 3000 ha area is under organic farming. States like Rajasthan, Tamil Nadu, Karnataka, Kerala, Madhya Pradesh, Himachal Pradesh and Gujarat are promoting organic farming vigorously.

Ministry of Commerce, Govt. of India launched the "National Programme on Organic Production" (NPOP) defining the National Standards for Organic Production (NSOP) and the procedure for accreditation and certification in 2000. India now has 30 accredited certification agencies for facilitating the certification to growers. For area expansion and technology transfer, Ministry of Agriculture launched a National Project on Promotion of Organic Farming (NPOF-DAC) and earmarked funds for setting up of organic and biological input production units, vermicompost production units and for organic adoption and certification under various schemes such as NHM (now MIDH), NMSA and RKVY. To empower farmers through participation in certification process and to make the certification affordable for domestic and local markets, Ministry of Agriculture has also launched a farmer group centric organic guarantee system under PGS-India programme.

India exported 135 products during 2013-14 with the total volume of 194088 MT including 16,322 MT organic textiles. Organic products are exported to US, European Union, Canada, Switzerland, Australia, New Zealand, South East Asian countries, Middle East, South Africa *etc.* Oil seeds - soybean (70 per cent) lead among the products exported followed by cereals and millets other than basmati (6 per cent), processed food products (5 per cent), basmati rice (4 per cent), sugar (3 per cent), tea (2 per cent), pulses and lentils (1 per cent), dry fruits (1 per cent), spices (1 per cent) and others. Domestic market is also growing at an annual growth rate of 15-25 per cent.

4. Organic Agriculture: The Kerala Scenario

There is rich potential for promoting organic farming in Kerala in the light that intensity of inorganic agriculture here is not that severe compared to that in other States in the country. This implies the positive side of agriculture in Kerala in terms of the already low levels of consumption of hazardous chemicals and, therefore, chances of redeeming farmers to organic agriculture are quite high. Realizing these facts, the State Department of Agriculture commenced organic farming promotional activities since 2002-03. In the following year, the Department set up a cell for Promotion of Sustainable Agriculture and Organic Farming. It has also launched two brands, namely 'Kerala Organic' and 'Kerala Naturals' to market organic farm produces (Balachandran, 2005).

Currently there are a number of certified organic farmers in the state, those cultivating cash crops such as spices, tea, and coffee, mainly targeting export market and also non-certified organic farmers who focus on food crops and biodiversity. All of them, whether certified or not, focus clearly on soil health improvement. Kerala also has an accredited organic certifying agency catering to the needs of the farmers. Some of the farming systems such as *Pokkali* and *Kaipad* cultivation, cultivation of *Jeerakasala* and *Gandhakasala* varieties of paddy in Wayanad and, homestead farming systems all over the state are default organic. Studies have established the economic viability and productivity of homestead farms in the State and elsewhere. Recently the Adat panchayath in Thrissur district has started organic cultivation of rice in an area of 2,500 acres, promoting integrated farming system, which is known as Adat model. Similarly Marappanmoola in Wayanad has another model organic farming system involving hundreds of farmers (GoK, 2008). Marketing of organic produce is also being experimented in many places like Organic Bazaar in Thiruvananthapuram, Eco-shops in Thrissur and Kozhikode and, Jaiva Krishi Sevana Kendram in Kannur. Self help groups of women are encouraged to undertake organic farming of vegetables in many panchayats of the state.

5. Looming Perplexity and Need for in-depth Studies

Government of Kerala envisages converting the state into an organic state in a phased manner through a gradual approach. A rapid, superficial shift could lead to failure jeopardizing the possibility of continuing with the vision on organic agriculture. Therefore, it is essential to generate knowledge on select areas to move forward to other regions with the organic farming agenda. The lessons from such exploratory studies are going to be crucial and can be generalized and applied to other regions where conditions are almost similar. Moreover, such studies would clarify the possibilities of organic farming in similar regions as well as generate information on specific problems and constraints that organic agriculture could face, and possible solutions. Considering the eco-climatic-cultural variations in Kerala's agriculture, so far there has not been any serious effort/study taken up to understand the regional dynamics of principles and practices of organic farming in the state. The micro-level in-depth study is of paramount importance, since it is almost impossible to derive a generic model of organic farming for the entire state. As of now indubitably there exists an asymmetric understanding and knowledge gap among the policymakers, farmers, institutional agencies and other stakeholders' regarding the implementation, adoption, economic viability and sustenance options of the organic farming. As a matter of fact if organic agriculture were to be recognized as a sustainable alternative, it would require enormous support from the state for its propagation and implementation.

6. Farmer's Perception and Field Level Reflections

Although majority of farmers were aware of the fact that Kasaragod is officially declared as an organic district they were not aware of the detailed concept and practice of organic farming with respect to the crops and enterprises they managed. The institutional void is evident from the fact that many of the farmers have not even heard about the government initiative in this regard. It assumes even more importance especially when government is gearing up to declare the entire state as organic. It was revealed that most of the farmers were aware about the extension programmes for popularizing organic farming implemented by the Department of Agriculture. However, only 56 per cent of the farmers have attended such awareness programmes. Further, about one third of the farmers (34 per cent) did not possess adequate knowledge about the organic farming practices recommended for the crops they cultivated. Majority (74 per cent) of the farmers were not aware about organic certification procedures and none of them obtained organic farming certification yet though 5 per cent of the farmers made some efforts for securing the same.

According to the farmers, major constraints in adopting organic farming included lack of knowledge about the organic farming practices recommended for the crops they cultivated, extension support to local market facility, non availability of quality organic inputs, high cost of inputs, lack of availability and high wage rate of labor, *etc.* the major hindrance is the underdeveloped or rather undeveloped market for organic products. Infact in the absence of a well evolved organic market and pegged up prices it would be very difficult to sustain the organic farming even though we attempt forced institutional measures. The empirical evidence reflects that as of now around 43 per cent farmers in the district apply organic nutrients (exclusively) and in the case of coconut 82 per cent farmers apply organic manures (Table 13.1). These figures indicate that the state intervention in this regard is in the right direction and in near future.

Major constraints as perceived by farmers in adopting the eco friendly organic methods of pest and disease management in crops were lack of knowledge about recommended practices, lack of availability of eco friendly organic pesticides and bio inputs, high cost of bio inputs and lack of extension support for adopting appropriate methods of pest and disease management. It is interesting to know that even though plant protection chemicals are banned in Kasaragod district, many farmers are able to get the chemicals from adjoining localities in the neighbouring district of Kannur and Dakshina Kannada districts of Karnataka.

After the commencement of the organic farming initiates by the government there is an increased awareness among the farmers regarding the ill effects of indiscriminate and unscientific use of chemical pesticides and the need to shift towards eco-friendly organic practices. However, majority of the farmers are not

Table 13.1: Crop-wise details of Nutrient Management Practices Adopted by Farmers

Sl.No.	Crop	Total No. of Farmers	Farmers Applying only Organic Manure		Farmers Applying only Chemical Fertilizers		Farmers Applying both Organic Manure and Chemical Fertilizers	
			No.	Per cent	No.	Per cent	No.	Per cent
1.	Coconut	50	41	82	0	0	9	18
2.	Arecanut	35	27	77	0	0	8	23
3.	Rubber	30	6	20	3	10	21	70
4.	Banana	30	2	7	0	0	28	93
5.	Rice	30	3	10	2	7	25	83
6.	Cucurbits	15	7	47	0	0	8	53
7.	Bhindi	10	2	20	0	0	8	80
8.	Cowpea	15	5	33	0	0	10	67
	Total	215	93	43	5	2	117	55

properly educated about the appropriate organic farming practices to be adopted for raising different crops. Further, the inputs recommended for crop and soil health management under organic system are not available in the required quality and quantity. This situation has given opportunities for unscrupulous elements to flood the market with products of questionable properties. Many a times the organic inputs supplied by various agencies are found to be inferior in quality. Farmers are of the opinion that a continuous and intensive quality control mechanism is required to prevent the exploitation by such elements.

Some farmers from the district procure the chemical pesticides from the neighbouring district i.e Kannur in the south and Mangalore town in the north when their crops are threatened with pests and diseases. According to these farmers they are forced to resort to this practice as there are no viable substitutes to manage pests and diseases to save the crops in the organic way, especially when the incidence is severe. The rationality/possibility of imposing restrictions on use of chemical inputs restricted to the farming community of a particular district while the same are freely available in the nearby localities of the adjacent district ie Kannur in the south and beyond Thalappady in the North in Dakshina Kannada district of Karnataka state is also quite debatable.

7. Conclusion

The shift to an organic region/state/district can be viewed as a complex process of transition which demands radical change in knowledge, skill and organizational pattern. It is more or less like participation in an alternative food chain and bears very high switch over cost. The major worry is the response time of the farmers and the effective formulation of alternatives by the institutional agencies. Moreover, farmers as of now are perplexed because of lack of concrete recommendations, and there exists an obvious apprehension on possible exploitation by intermediaries who supply the prohibited items at exorbitant prices. Although multitude of governmental programmes on organic farming is in pipeline, the air of ambiguity is very much prevalent regarding the implementation of various programmes. However, at the same time increasing health consciousness and increasing disposable income among Indians is ceaselessly increasing the demand for organic food. Therefore, strong national organic policy is the main need of the current position which will give an important place to organic farming addressing the current issues and obstacles. Government needs to do a meticulous and in-depth evaluation of the general picture of the organic sector policies, programmes and plans to understand how they affect the current organic sector. An action plan for the organic sector should be developed based on the analysis of the state of the sector, participatory consultations, a need evaluation and proper sequencing of the actions.

Selected References

Balachandran, V. (2005). Future in the Past: A study on the status of organic farming in Kerala. *Discussion Paper 82*. Kerala Research Programme on Local Level Development, Central for Development Studies, Trivandrum 111p.

Das Kasturi. (2007). Towards a smoother transition to organic farming, *Economic and Political Weekly*, **42**(24): 2243-2245.

FiBL- IFOAM Survey, (2015): Organic Agriculture Worldwide: Current Statistics, 2014 Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland.

Government of Kerala. (2008). *Kerala State Organic Farming Policy: Strategy and Action Plans*. 24p.

Sanghi, N.K. (2007). Beyond certified organic farming: An emerging paradigm for rainfed agriculture, *Proceedings of the National Workshop on New Paradigm for Rainfed Farming: Redesigning Support Systems and Incentives*, 27-29 September, IARI, New Delhi.

Lanting, H. (2007). Building a farmers owned company (Chetana) producing and trading fair trade–Organic products, Proceedings of the National Workshop on New Paradigm for Rainfed Farming, published by WASSAN, New Delhi.