IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

FACTORS INHIBITING ORGANIC FARMING IN KERALA AND TAMIL NADU STATES: AN EXPLORATORY ECONOMIC ANALYSIS

V. Kumar* & D. Murugan**

*Associate Professor, Department of Economics (on Deputation), Annamalai University, Annamalai Nagar - 608 002

**Associate Professor, Department of Economics (on Deputation),, Annamalai University, Annamalai Nagar - 608 002

Abstract

This study has made an attempt to identify the major factors inhibiting the farmers in organic farming in Kerala and Tamil Nadu states. It is seen that the practice of organic farming is gaining momentum in India and a large number of farmers are switching over from inorganic farming to organic farming. It is evident the note that in India, Kerala and Tamil Nadu are the major states where there are a large number of farmers more from inorganic farming to organic farming but at the same time, there are certain factors which inhibit the farmers to involve in the practice of organic farming. In view of this, this study has made an attempt to comparatively analyse the major factors inhibiting the farmers in organic farming and inorganic farming in Kerala and Tamil Nadu States.

Key Words: Organic farming, Conventional farming, per acre value of output.

I. Introduction and Background

Green Revolution introduced in Indian agriculture in the mid sixties paved way for important technological changes and led to an unprecedented rise in crop yields and land productivity in several parts of the country (Bhattacharya and Chakraborthy, 2005). At the same time, it resulted in over application of inorganic inputs such as fertilizer and plant protection chemicals (Banarjee 2010).

As a whole, the post green revolution period is threatening the sustainability of Indian agriculture and raising a serious concern about receding ground water level in many agriculturally prosperous areas,

deterioration of soil fertility, decline in factor productivity, low diversity of production system and increasing cost of production (Chhonkar; 2005). In addition, these problems altogether are leaving agriculture as an economically unviable enterprise for farmers (Save and Sanghavi 1991). On notes that indiscriminate use of chemical pesticides to control various insect pests and crop diseases over the years has destroyed many naturally occurring effective biological control agents with an increase in resistance of insect pests towards as a result of over use of the chemical pesticides (Kasthuri 2007; Ramesh et al., 2005; Pandey and Singh 2012 and Pandey and Pandey 2009). The occurrence of multi-nutrient deficiencies and overall decline in the productive capacity of the soil have been widely reported due to non-judicious use of fertilizer (Ramesh et al., 2008). A very sharp observation which is to be made here is that by adopting the Green Revolution, the Indian farmers are not only experiencing loss in agricultural production and productivity but also they have lost the traditional natural eco-friendly indigenious knowledge of cultivation (Ramesh et al., 2005). With the background, the modern-day agriculture gave birth to organic farming. It is a farming system 'which avoids using synthetic chemical fertilizer, pesticides and solely depends on the use of on-farm and off- farm crop residues, organic wastes, animal manures, green manures and crop rotations. (Lotter 2003; Padel 2001: Ramesh et al., 2010; Menon 2008; Chhonkar 2003, Bhattacharya and Chakraborthy 2005). It mainly incorporates legumes and is highly helpful for biological pest control to maintain soil productivity (Padel 2001); Albert Howard 1940 and Fukuoka 1978 (Howard 1940; Fukuoka 1978). It is a means of giving back to nature as what has been taken from it. By and large, the term organic refers to the farm as living organisms.

It is noticed that at global level, 24 million hectares are under organic farming. Presently, a major part of this area is located in Australia containing 10 million hectares under organic farming, followed by Argentina 3 million hectares and 1.2 million hectares are under organic farming in Italy. In the case of Asia, the countries like China, India and Japan are the largest organic producers. As far as Indian experience in organic farming is concerned, there are 37050 hectares under organic farming and the land area under organic farming is currently increasing (Sika et al., 2005; Singh 2006). One may notice that India produces a wide variety of organic crops such as grains, tea, coffee, soy, honey, spices, cereals, fruits and vegetables. Similarly, it is seen that Tamil Nadu is one of the agriculturally prosperous states and it has encouraging agro-climatic conditions. The practice of organic farming is also coming up in the state as an alternate to convential agriculture.

It is seen that various organic inputs are used in the practice of organic farming viz., farmyard manure, vermin compost, green leaves, green manures, neem cake, cow dung, poultry manure, wood

ashes, groundnut husk, paddy husk, sugarcane trash, molasis, clusterbean, oilcake, press and other natural manures (Ghosh 2004). It is imperative to note that there are a large number studies on organic farming at national level and international level on organic farming and they covered diverse perspectives such as opportunities and constraints in organic farming in vegetable cultivation (Pandey and Sing 2012), technical efficiency in organic farming (Madav 2007), sustainable agriculture through organic farming (Lampkin 1994), current status of organic farming in India (Bhattacharya and Chakraborty 2005) and organic farming in rainfed agriculture (Ramesh 2008).

In this context, the present study deviates from previous studies in the domain of organic farming by making an exploratory analysis to identify the major factors inhibiting organic farming in Kerala and Tamil Nadu States.

II. Methodology

This study is exploratory in nature and it is based on both primary data. The primary data relating to the pattern organic and inorganic input use in agricultural production, organic resource availability and constraints experienced by the farm households have been collected by using a well-structured interview schedule from the study region.

As far as the survey design of the study is concerned, it is based on four stage sampling incorporated at four different stages so as to acquire accurate information by the field of enquiry in Tamil Nadu viz., selection of a district in Tamil Nadu State, selection of blocks in the selected district, selection of a few villages from the blocks selected and selection of organic and inorganic farm households from the selected villages by using random sampling method. In selection of the district, the number of organic farmers has been considered as a prominent indicator. The same indicator has been used to select the blocks from the district. The crucial stage in the sampling process is the selection of farm households in the villages selected from the selected blocks. In aggregation, 222 farm households have been selected and interviewed for the present study. Out of total farmer respondents, them, 113 farm households are organic and the remaining 109 are inorganic farm households. An important observation which is to be made here is that the selection of organic farm households in Sirkazhi block is supported by the institutions which are supporting and disseminating the organic farming practice and they are experimental group in the study. More importantly, by recalling method what has been observed is that they are practising the organic farming method for more than seven years. In addition, they have adopted Nammazhvar approach in their organic farming method.

III. Result and Discussion

This section enlightens the major factors inhibiting organic farming under paddy and turmeric cultivation in Kerala and Tamil Nadu states. The major inhibiting factors are labour shortage, non-availability of subsidy for organic farming, water for irrigation, price for organic products, marketing for organic products, awareness about organic farming and the role of Government in promoting organic farming.

Table 1 exhibits the major problem faced by the organic farmers in paddy and turmeric cultivation in Kerala and Tamil Nadu states. Regarding the major factors which are perceived to be inhibiting organic farming under paddy and turmeric cultivation in Kerala state, it is noticed that a majority 28.24 per cent of the organic farmers revealed that the price for organic products viz., paddy and turmeric is low and it is not remunerative for them. It is followed by 22.14 per cent who pointed out that there is lack of separate marketing facility for organic products, 13.74 per cent of them expressed the problem of labour shortage for agriculture, 10.69 per cent of them suggested that the awareness about organic farming and organic products is low in the study region, 9.16 per cent of them stated that role of Government is lacking in promoting organic farming in the state and the remaining 6.87 per cent of them expressed their concern about the non-availability of subsidy for organic farming. A similar trend has been observed in the case of paddy and turmeric cultivating organic farmers in Kerala state.

In the case of Tamil Nadu, a majority 25 per cent of them revealed that price for organic products is very low in Tamil Nadu, it is followed by 20.31 per cent who expressed that marketing for organic products is lacking, 12.50 per cent of them show that awareness about organic farming is inadequate. In addition to this, organic farmers expressed their concerns that the role of Government in promoting organic farming is inadequate and there is a decline in the availability of water for irrigation. A similar trend has been observed in the case of the major factors inhibiting organic farming in paddy and turmeric cultivation in Tamil Nadu.

Table 2 brings out the factors which are inhibiting the inorganic farmers to shift from inorganic farming to organic farming in Tamil Nadu and Kerala states. Regarding the factors inhibiting the inorganic farmers to shift from inorganic farming to organic farming, a majority of the farmers have reported that non-availability of subsidy for organic farming and the farmers also revealed that there is low price for organic products, shortage of labour for agriculture, decline in ground water level, inadequacy of awareness about organic farming and a few farmers reported that there is lack of the role of Government in promoting organic farming in the state. It could be observed from the results that the

inorganic farmers have aptly remarked that there is no adequate price for organic products, lack of marketing facilities and the role of Government in promotion of organic farming in Tamil Nadu state. If these inhibiting factors are overwhelmed, certainly the inorganic farmers will shift from inorganic farming to organic farming in paddy and turmeric cultivation in Tamil Nadu state.

With regard to the major factors which are inhibiting the inorganic farmers who are cultivating paddy and turmeric crop in Kerala state, it may be observed from the results that they are affected by the factors viz., labour shortage for agriculture, non-availability of subsidy for organic farming, inadequate price for organic farming, lack of marketing facility for organic products, inadequacy of awareness about organic farming and lack of the role of Government in promoting organic farming. One may observe that if these factors are not affecting the inorganic farmers to shift from inorganic farming to organic farming, a majority of them will shift.

Comparing the factors inhibiting the organic farmers in Kerala with that of Tamil Nadu, one may observe that the awareness about organic farming is high in Kerala and it is found to be low in Tamil Nadu. Further, a similar problem, that is, low price for organic products and lack of marketing facility have been reported by the organic farmers in Kerala and Tamil Nadu. If these problems are solved along with the role of Government in promoting organic farming, organic farming will flourish in Kerala and Tamil Nadu states.

TABLE -1

FACTORS INHIBITING ORGANIC FARMING UNDER PADDY AND TURMERIC CULTIVATION IN KERALA AND TAMIL NADU STATES

State	Inhibiting Factors	Organic Farming		Total
		Paddy	Turmeric	
Kerala	Labour Shortage	5 (8.06)	13 (18.84)	18 (13.74)
	Non-availability of Subsidy for organic agriculture	8 (12.90)	4 (5.80)	12 (9.16)
	Water for irrigation	4 (6.45)	5 (7.25)	9 (6.87)
	Low Price for Organic Products	18 (29.03)	19 (27.54)	37 (28.24)
	Marketing for Organic products	13 (20.97)	16 (23.19)	29 (22.14)
	Awareness about organic farming	9 (14.52)	5 (7.25)	14 (10.69)
	Role of Government in promoting organic farming	5 (8.06)	7 (10.14)	12 (9.16)
	Total	**62 (100)**	**69 (100)**	**131 (100)**
Tamil Nadu	Labour Shortage	7 (10.44)	10 (16.39)	17 (13.28)
	Non-availability of Subsidy for organic agriculture	6 (8.96)	9 (14.75)	15 (11.72)
	Water for irrigation	5 (7.46)	4 (6.56)	9 (7.03)
	Low Price for Organic Products	19 (28.36)	13 (21.31)	32 (25.00)
	Marketing for Organic products	15 (22.39)	11 (18.03)	26 (20.31)
	Awareness about organic farming	8 (11.94)	8 (13.11)	16 (12.50)
	Role of Government in promoting organic farming	7 (10.44)	6 (9.84)	13 (10.16)
	Total	**67 (100)**	**61 (100)**	**128 (100)**

Source: Primary data Figures in Parentheses denotes percentages

TABLE -2

VIEWS OF INORGANIC FARMERS OVER ORGANIC FARMING IN PADDY AND TURMERIC CULTIVATION IN KERALA AND TAMIL NADU STATES

State	Inhibiting Factors	Inorganic Farming		Total
		Paddy	Turmeric	
Kerala	Labour Shortage	10 (15.38)	12 (19.05)	22 (17.19)
	Non-availability of Subsidy for organic agriculture	14 (21.54)	15 (23.81)	29 (22.66)
	Water for irrigation	7 (10.77)	8 (12.70)	15 (11.72)
	Low Price for Organic Products	13 (20.00)	9 (14.29)	22 (17.19)
	Marketing for Organic products	12 (18.46)	8 (12.70)	20 (15.63)
	Awareness about organic farming	5 (7.69)	6 (9.52)	11 (8.59)
	Role of Government in promoting organic farming	4 (6.15)	5 (7.94)	9 (7.03)
	Total	**65 (100)**	**63 (100)**	**128 (100)**
Tamil Nadu	Labour Shortage	16 (24.24)	13 (20.31)	29 (22.31)
	Non-availability of Subsidy for organic agriculture	12 (18.18)	10 (15.63)	22 (16.92)
	Water for irrigation	6 (9.09)	8 (12.50)	14 (10.77)
	Low Price for Organic Products	13 (19.69)	11 (17.19)	24 (18.46)
	Marketing for Organic products	11 (16.67)	9 (14.06)	20 (15.38)
	Awareness about organic farming	5 (7.58)	7 (10.94)	12 (9.23)
	Role of Government in promoting organic farming	3 (4.55)	6 (9.38)	9 (6.92)
	Total	**66 (100)**	**64 (100)**	**130 (100)**

Source: Primary data

IV. Conclusion

In India, the practice of organic farming has been reviving and the Indian farmers are increasingly becoming aware of the positive effects of organic farming. Further, the practice has been on increase in Tamil Nadu and Kerala States. In view of this, there are a large number of studies focusing on various aspects of organic farming but the present study has focused on the major factors inhibiting organic farming practice in Kerala and Tamil Nadu States. In addition, it has also comparatively analysed the factors inhibiting organic

farming and inorganic farming in Kerala and Tamil Nadu States. The analysis of the study has covered the major factors stated by the farmers and they are the major constraints in organic farming inorganic farming in Kerala and Tamil Nadu States. In the case of organic farming, the major factors inhibiting organic farming and shortage of labour, non availability of subsidy for organic agriculture, scarcity of water for irrigation, low price for organic product, lack of proper marketing network for organic farming, lack of awareness about organic farming among the farming community and in adequacy of the role of Govt. in disseminating organic farming practice in Tamil Nadu and Kerala States. Besides, among the factors inhibiting, shortage of labour for agriculture is severe in both Kerala and Tamil Nadu States. In addition, the organic farmers in Kerala and Tamil Nadu states lack premium price and proper network for marketing for organic produce. By and large, if the Govts of Kerala and Tamil Nadu take adequate steps for dissemination, Organic marketing, premium price for organic products and create awareness about organic farming, the states Kerala and Tamil Nadu will become fully organic and the agricultural sectors of these states will be protected from all the adverse consequences of inorganic agriculture.

References

Bhattacharya, P. and Chakraborty, G. 2005. Current Status of Organic Farming in India and Other Countries, *Indian Journal of Fertilizer,* 1:111-123.

Cacek, Terry, Linda. and Langer, L. 2009. "The Economic Implications of Organic Farming". *American Journal of Alternative Agriculture*: 1-9.

Chhonkar, P.K. 2003. Organic farming: Science and Belief. *Journal of Indian Society of Soil Science,* 51(4): 365-77

Chhonkar, P.K. 2005. Organic Farming: Approaches and Possibilities in the Context of Indian Agriculture. *National Academy of Agricultural Sciences*, India.

Fukuoka. M., 1978. The one straw Revolution. New York Review Books, New York

Ganga Banerjee. 2010. "Economics of Banana Plantation under Organic and Inorganic Farming System". Working Paper, NABARD, Mumbai.

Ghosh, N. 2004. "Promoting Bio-Fertilizers in Indian Agriculture". *Economic and Political Weekly, December, 25: 5617-5625.*

Giles, J., 2004. Is oranic food better for us? Nature (London) 428, 796-797.

Goomez, K.A., Gomez, A.A., 1984. Statistical Procedure for Agricultural research. International Rice Research Institute. 2nd Hojh Wiley and Sons, NY, USA.

Goulding, K., Stockdale, E., Fortune, S. and Watson, C, 2000. Nutrient Cycling on Organic Farms. *Journal of Royal Agricultural Society of England*, 11: 5-75.

Howard, Sir Albert., 1940 . An Agricultural Testament, Research Foundation for Sciences, Technology and Ecology, New Delhi.

Kasturi., D. 2007. Towards a Smoother Transition to Organic Farming. *Economics and Political Weekly*.

Lotter, D., 2003. Organic Agriculture, *Journal of Sustainable Agriculture,* 21: 1-63.

Madav, A., 2007. Technical Efficiency in organic Farming: an Application on Italian Cereal Farms Using a Parametric Approach. Working Paper, National Institute of Agricultural Economics, 07100 Sassari, Italy.

Menon, M.K., 2008. Organic Agriculture and Market potential in India. *Agriculture today*: 54.

Padel, S. 2001. Conversion to Organic farming: A Typical Example of the Diffusion of an Innovation. *Sociologia Ruralis*, 41: 40-61.

Pandey, J. and Pandey, U., 2009. Accumulation of Heavy Metals in Dietary Vegetables and Cultivated Soil Horizon in Organic Farming System in Relation to Atmospheric Deposition in a Seasonality Dry Tropical Region in India. *Environmental Monitoring and. Assessment*. 148 (1-4). 61-74.

Pandey, J. and Singh, A. 2012., Opportunities and Constraints in Organic Farming: An Indian Perspective. *Journal of Scientific Research*, Banaras Hindu University, Varanasi, 56:47-72.

Pretty, J. 2005. The Pesticide Detox Towards a More Sustainable Agriculture Earth Scan, London, UK: 294.

Pulleman, M., Jongmans, A., Marinissen, J. Bouma, J., 2003. Effects of Organic Versus conventional arable farming on soils structure and organic mater dynamics in a marine loan in the Netherlands, Soil Use Manage, 19. 157-165.

Ramesh P., 2008: Organic Farming Research in Mathiya Pradesh Organic Farming in rain fed agriculture, Central Institute for Dryland Agriculture, Hyderabad: 13-17.

Ramesh P., Mohan Sigh, and Subba Rao. A., 2005. "Organic Farming: Its relevance to the Indian Context". *Current Science*, 88(4)

Ramesh P., Singh, A.B., Ramana, S. and Panwar, N.R., 2007: "Feasibility of Organic Farming: A Farmer's Survey in Central Madhya Pradesh." 55(4), February: 25-30.

Save. B. and Sanghavi, A.,1991. Economic Viability of Sustainable Agriculture. Spice India, October: 4.

Sikka,B.K., Vaidya, C.S.and Sharma, M.L. 2005. Problems and Potentials of Organic Farming in Western Himalaya Region of India. International Conference on Plasticulture and Precision Farming (Abstract Book), New Delhi: 359-360.

Singh, S.2006. Organic Cotton Supply Chain and Small Producers: Governance, Participation and Strategies. *Economic and Political Weekly:*41(42).