



Constraints in the Adoption of Organic Farming Practices by the Farmers in Krishnagiri District of Tamil Nadu

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Abstract

Green revolution in India has witnessed a jump in agricultural production with the introduction of high yielding varieties of various crops and by following intensive cultivation practices with the use of fertilizers, pesticides and other inorganic inputs. Organic agriculture is a holistic food production system works with the sustainable use of locally available natural resources. The need to adopt a comprehensive approach for the promotion of organic agriculture by taking cooperation of all stakeholders, environmental friendly technologies, marketing infrastructure and financial support environmentally friendly for quality and quantity organic food production. An environmentally sustainable system of agriculture like organic agriculture will be able to maintain a resource balance, avoid over exploitation of resources, conserving soil natural quality and soil health and biodiversity. Biological research into soil and soil organisms has proven beneficial to organic farming. Varieties of bacteria and fungi break down chemicals, plant matter and animal waste into productive soil nutrients. In turn, they produce benefits of healthier yields and more productive soil for future crops. Keeping in mind the study was undertaken to assess the constraints faced by the farmers in the adoption of organic farming practices in Krishnagiri district of Tamil Nadu state. Results indicated that among the physical constraints, the foremost physical constraints expressed by vast majority of the respondents was inundation due to labour scarcity (80.00 per cent). Among the communication constraints, the foremost communication constraints expressed by most of the respondents where lack of training (85.00 per cent).

Keywords: Constraints, Adoption, Organic Farming Practices, Farmers

Agriculture in developing countries must undergo a significant transformation in order to meet the related challenges of achieving food security and responding to climate. Projections based on population growth and food consumption patterns indicate that agricultural production needs to increase by at least 70 percent to meet demands by 2050. Most estimates also indicate that climate change is likely to reduce agricultural productivity, production stability and incomes in some areas

that already have high levels of food insecurity. In this scenario organic farming is thus considered to achieving future food security.

Organic farming "is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additives. To the maximum extent feasible, organic agriculture systems rely upon crop rotations, crop residues, animal manure, legumes, green manure, off-farm

organic wastes, mechanical cultivation, mineral bearing rocks, and aspects of biological pest control to maintain soil productivity, tilt, to supply plant nutrients, and to control insects, weeds, and other pests” (USDA, 1980).

Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including bio-diversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using wherever possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system.

Organic farming system in India is very old and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by the use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio fertilizer) to release nutrients to crops for increased sustainable production in an eco friendly pollution free environment. Some of organic farming practices are (i) application of bio-fertilizer like *rhizobium*, *azospirillum*, BGA, etc., (ii) green manure like *sunhemp*, *daincha*, (iii) vermicompost (vi) crop rotation, mixed farming, (v) FYM application (Ajithkumar 2000).

METHODOLOGY

The present study was undertaken to assess the constraints faced by the farmers in the adoption of organic farming practices in Krishnagiri district of Tamil Nadu state. A sample size of 120 respondents were fixed for the study considering the limitations of time and other resources of the student researcher. List of farmers in the ten selected villages were obtained from the office of the Assistant Director of Agriculture, Bargur. A total number of 120 respondents were identified from the selected 10 villages by using proportionate random sampling method. The constraints faced by the farmers during the adoption of organic farming practices were listed during the pilot survey. The constraints were

classified under four sub-headings namely physical constrains, communication constraints, personal constraints and socio-economic constraints. A well structured interview schedule was used for the collection of data.

FINDINGS AND DISCUSSION

This section deals with the constraints as experienced by the farmers for their non-adoption of organic farming practices in crop cultivation.

In accordance with the objectives, the constraints experienced by the respondents in the adoption of organic farming practices are presented under four heads namely, (a) physical constraints, (b) communication constraints, (c) personal constraints, (d) socio-economic constraints, The results are presented in Table 1.

Table 1: Constraints faced by the farmers in the adoption of organic farming practices (n=120)

Sl. No.	Constraints	Per cent	Rank
(I) Physical constraints			
1	Labour scarcity	80	I
2	Non-availability of inputs	78	II
3	Poor quality of inputs	70	III
4	Lack of advanced planning about the purchase and application	67	IV
(II) Communication constraints			
1	Lack of training on organic farming	85	I
2	Inability to attend training programmes	85	II
3	Lack of information from change agents	81	III
4	Weak extension service	76	IV
5	Details given by change agents could not be understood	40	V
(III) Personal Constraints			
1	Lack of knowledge to identify bio-agents	88	I
2	Not convinced with the practices	79	II
3	Lack of knowledge to identify pest and diseases	75	III
4	Difficulty in using organic manure	66	IV
(IV) Socio-economic constraints			
1	Lack of credit facilities	81	I
2	High cost of labour	60	III
3	High rate of interest	44	IV
4	High costs of inputs	83	II

Physical constraints

Regarding the physical constraints, labour scarcity (80.00 per cent) was the primary constraint expressed by most of the respondents and ranked first followed by the non availability of inputs (78.00 per cent), poor quality of inputs (70.00 per cent) and planning about the purchase and application inputs (67.00 per cent).

Agriculture labourers being seasonal, there is a shortage of labour during peak season. The migration of the labour from agriculture to other occupations and to other sectors has also contributed the labour problem. Hence, majority of the respondents have ranked it as the most serious constraint. The findings derived from the findings of Sathish Kumar (2015).

Communication constraints

Lack of training on organic farming (85.00 per cent) was the most seriously felt communication constraints expressed by majority of respondents followed by inability to attend training programmes (85.00 per cent), lack of information from change agents (81.00 per cent), week extension service (76.00 per cent) and details given by change agent could not be understood (40.00 %). Lack of training was the most important physical constraint. Trainings on purely organic farming were less.

Only few trainings were conducted by state department of Agriculture in the village itself, majority of the programmes were held at distance places and also involvement in field operations due to lack of labour, coincidence of training with peak season etc., would have made it difficult for majority of the respondents to attend the training programmes.

Lack of information from the change agent was the major communication constraint. Majority of the respondents expressed that they did not come across any extension worker from the government development department. Lack of adequate staff and their occasional visits to the villages would have made the respondents to report this as one of the major constraints.

Personal constraints

Lack of knowledge to identify bio-agents (88.00 per cent) was the foremost personal constraints

expressed by majority of the farmers followed by the constraints such as not convinced with the practice (71.00 per cent) and lack of knowledge to identify the pest and diseases (75.00 per cent) were the personal constraints reported.

Majority of the respondents had lack of knowledge on the bio-control agents and no proper orientation by way of training have been given for their benefit. Organic farming depends more on the locally available practices with the use of locally and freely available raw materials and inputs. Organic approaches took greater gestation periods and with hidden benefits. So, the yield of crops may reduce and given a great economic to them. So, they are not having conviction about the organic farming practices.

Organic farming inputs like organic manure, green manure, green leaf manure are required in large quantities, when compared to chemical fertilizers and this creates the problem of difficulty in using organic manure by the trained organic farmers.

Socio-economic constraints

High cost of inputs (83.00 per cent) was the major socio-economic constraint followed by lack of credit facilities (81.00 per cent). High cost of labour (60.00 per cent) and high rate of interest (44.00 per cent) were felt as the socio-economic constraints by the respondents.

Most of the organic farmers who are in need of money for crop cultivation, obtained money from moneylenders and from big farmers only. Absence of adequate institutions like agricultural banks, co-operative society etc., and rigid rules regulations might be the reasons why farmers could not get money needed.

CONCLUSION

Among the physical constraints, the foremost physical constraints expressed by vast majority of the respondents was inundation due to labour scarcity (80.00 per cent). Among the communication constraints, the foremost communication constraints expressed by most of the respondents where lack of training (85.00 per cent). Among the personal constraints, the foremost personal constraints expressed by most of the respondents were lack of knowledge to identify bio-agent (88.00 per cent).

Among the socio-economic constraints, the foremost socio-economic constraints expressed by majority of the respondents was high cost of inputs (83.00 per cent). The effective utilization of mass media like radio, television, news paper and farm magazines is extent there for creating wider dissemination of the organic farming practices.

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