

FACTORS AFFECTING VEGETABLE FARMERS' PREFERENCE TOWARDS ORGANIC FARMING

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INTRODUCTION

In most developing countries, agriculture plays a major role by being one of the most important sectors. Many farmers today believe that cultivating without agrochemicals is not possible. However, excessive dependence on synthetic fertilizer, pesticides and 'weedicides' can be extremely harmful and have resulted in health problems among living beings; they also can cause soil erosion, environmental pollution and loss of biodiversity. On the other hand, sustainable farming systems try to increase production while becoming a solution for most problems such as health hazards, increased input costs and environmental pollution

The suspected rise of threats of new diseases owing to consumption of agricultural products dependent on chemical fertilizer and pesticides etc., People are in the look out of alternative solutions. Buyers now seek safe food with minimum chemical applications or products certified as 'organic' food. To meet the new demand, some growers have shifted to organic agriculture; there is an advantage that such products fetch very high prices. As in other developing countries Sri Lanka too has identified the potential of organic products, and many growers are now shifting to organic farming.

Although organic agriculture is practiced in Sri Lanka to certain extent, it is important to look at the factors affecting on organic farming. It is necessary to identify why farmers get motivated to engage in organic farming, what factors influence their decision to engage in organic farming and, potentials of and constraints to organic farming and also policies of the government that contribute to organic farming

METHODOLOGY

Sampling frame was the entire community of vegetable farmers in the Tangalle D.S Division. Of which 117 vegetable farmers were selected as the research sample by using simple random sampling technique. Primary data were collected through pre tested interviewer administered questionnaire. Data were analyzed by using SPSS 16.0 and MS Excel 2010, Descriptive statistics, chi square test and binary logistic regression were used as data analyzing tools.

RESULTS AND DISCUSSION

Majority of the sample are male (78%) and most of them are in the age range between 41 years to 50 years. Most of the farmers are educated up to primary level. A logistic regression was performed to ascertain the effects of age, education, income, experience, gender, land area on the likelihood that participants' preference to engage in organic agriculture. According to table 1 male were 4.90 times more likely to engage with organic agriculture than females. While Income significantly affects likelihood of preference to engage with organic agriculture, increasing education level and cultivated land area were associated with a reduction in the likelihood of preference to engage with organic agriculture

When the education is getting higher farmers' willingness to engage in organic farming is reduced. This might be due to the fact that, educated farmers might be worried about the risk involved in organic farming including the demand for product, market, and price factors.

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They may not be much concerned about traditional approaches, instead, they may give priority to new ways of farming such as using synthetic chemical fertilizers, pesticides and herbicides and genetically modified organisms, modern agricultural machines etc. which come with modern technology that can give more yield within a short period of time. Further, in organic farming more labor has to be used for the management of the crops.

Income significantly affects likelihood of preference to engage with organic agriculture. When the income increases farmers may more likely to engage in organic agriculture. Compared to the lower income farmers, higher income farmers are ready to stand with organic agriculture because they are more stable in their economy than lower income farmers. So this creates a tendency for them to take more risks as their income is high. In relation to gender, males are more likely to engage in organic agriculture. Given the laborious work needed in management of organic farming females would not want to engage in organic farming. Male farmers are at an advantage with their social capital, and less of household chores to take care of organic farming enterprises. In the case of females they have to make a trade off with leisure time and work time. The care that the family members need has to be primarily looked after by the females.

When cultivated land area increases, farmers are less likely to engage in organic farming. Organic farming in large cultivation areas is difficult. It requires more manpower and time of his/her family. Management of crops in an extensive land is difficult. Thus, farmers with large cultivated land areas will not prefer to engage in organic farming. This will increase the cost of production as well as the risk.

When considering the risks involved the majority of the farmers (72 out of 117) believe that there is a high risk of engaging in organic farming and most of the farmers who believe high risk is in the age range of 36 to 50 years and most of the farmers who think that there is no risk in engaging with organic farming are belong to more than 50 years. When considering the awareness about existing market, 47% of farmers (55 out of 117) aware of the existing

Table 1. Logistic regression output for Farmers preference to engage in Organic farming

Variable	B	S.E	significance	Exp.(B)
Constant	2.501	1.957	0.201	12.194
Age	0.001	0.049	0.980	1.001
Education	-0.804***	0.310	0.009	0.447
Income	0.000***	0.000	0.010	1.000
Experience	-0.075	0.047	0.107	0.928
Gender(1)	1.589***	0.591	0.007	4.900
Area	-0.005***	0.002	0.007	0.995

market for organic vegetables while 24% of farmers (28 out of 117) are not aware and 29% of farmers (34 out of 117) have no idea about existing market for organic agricultural products. Farmers give more priority to health benefits and least priority to sustainable yield as potential factors. With respect to constraints, they prioritize the short supply of inputs but give the least priority to lack of knowledge. Most of the farmers (65.81%) have participated in the extension programs related to organic farming and quite a number of them (50 out of 117) participated in the extension programs more than once.

Table 2 shows the association between extension programs and preference to engage in organic agriculture. Chi square test was used to analyse the association between these 2 factors. Accordingly, there is an association between extension services and preference to engage with organic agriculture.

Table 2. Association between preference for organic agriculture and extension programs

Factor	value	df	p value
prefer to engage with organic agriculture versus participation in extension programs	12.242	1	0.0000

Table 3 shows the association between extension services and awareness in existing market. The chi square test was used to test the association between the dependent and independent variables separately. Accordingly there is an association between extension services and preference to engage in organic agriculture.

Table 3. Association between awareness in existing market and extension services

Factor	value	df	p value
Awareness in existing market versus extension services	6.529	2	0.038

There is an association between extension services and awareness of the existing market. When the farmer participation in extension services is high, their awareness of the market potential becomes greater.

CONCLUSIONS

The study concludes that among several socio economic factors farmers' preference to engage with organic agriculture depends on their income, educational level, gender and cultivated land area. Amongst that increasing the educational level and cultivated land area affect negatively to increased likelihood of preference to engage with organic agriculture. According to farmers' view health benefits is the most potential factor in organic agriculture while short supply of inputs stands for the most constraint factor and most of the farmers believe high risk is involving in organic farming. According to the study there is an association between extension services and farmers' awareness in existing market and also there is an association between extension services and preference to engage with organic agriculture.

RECOMMENDATIONS

It is recommended that increasing the awareness further the farmers would actively engage in organic agriculture. It may also be useful to create awareness among the consuming public regarding the benefits of consuming organic vegetables. Provision of physical and market infra-structure would help promoting the culture of organic farming among small farmers in the area.

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