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EMPLOYMENT ON ORGANIC AND CONVENTIONAL AGRICULTURE: A CASE STUDY OF ERODE DISTRICT IN TAMIL NADU

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ABSTRACT

A case study mainly focused on employment of organic and conventional agriculture. The study is based on data for 2011-12 collected from 30 organic farming and 30 conventional sample households from the Erode district of Tamil Nadu. The sugarcane variation level is low in both farming systems. In the case of sugarcane, employment generation under organic agriculture is around 12 mandays more per acre. The variation levels are nearly same and are low. The difference in average employment is statistically significant at 1 per cent level. The organic farming sample households have been found younger and more educated having larger landholdings and better resources. The organic farming is labor intensive, but its cost of cultivation is lower due to saving on chemical fertilizers, irrigation, seeds and agrochemicals. The yield on organic farmer has been reported lower but it is more than compensated by the price premium received and yield and profit stability observed on the organic farming.

KEYWORDS: Conventional, employment, livelihood, livestock, organic.

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INTRODUCTION

There are several studies relating to sustainable agriculture and transition from modern agriculture to organic agriculture. However, not many studies are available on the economic aspects of organic agriculture. Howard and Albert (1940) draw attention to the destruction of soil and deals with the consequences of it. It suggests methods to restore and maintain the soil fertility. The study contains a detailed deposition of the famous Indore method of maintaining soil health. The reasons and sources of the erosion of soil fertility and its effect on living things are discussed. The criticism of the agriculture research and examples of how it had to be carried out to protect soil and its productivity are discussed in detail. Rajendran and Basavaraj (2005) in their study note that in the era of modernization, it is difficult to refuse to adopt different modern farming methods and techniques and at the same time, it is not possible to completely give up the IKS merely for the reason that they are easily adoptable at local level. In fact the economic, environment and social consequences of modern farming have been widely addressed in the recent past and the literature favoring sustainable agricultural development. As a consequence, low external input sustainable agriculture, ecological farming and organic farming are being advocated across the globe. In this context the Indigenous Knowledge System (IKS) proves to be some solace, but strategy. Not much attention has been given to this important issue and timely intervention will help solve the marketing problems. In this connection the filed experiences in Erode, Thanjavur district and elsewhere reveal that though the spread of organic farming is found as slow, it has much advantage like environment sustainability, crop diversity, economic viability and technical feasibility. Though it is an exploratory exercise, the sample farms are highly skewed.

Gandhimathy B, C Tholkappian and S Rajendran (2010) in their study on "Pesticide Application and its Adverse Impact on Health and Environment: Evidences from Kerala" observe that the increase the yield levels and production in agriculture. At the same time it should not be compromised with environmental loss and human cost. In the present case it is very clear that the banned pesticide has been used without any precautionary measures. Consequently, the entire biotic and abiotic

system has been severely expressed. Local communities are helpless. Proper assessment, rigorous monitoring and environmental implications of synthetic chemicals should be ascertained will before allowing for large scale use. More significantly, the long term implications on the human health and environment need to be studied scientifically for sustainable development.

OBJECTIVE

- To estimate the magnitude of employment generation under organic farming compared to conventional ones.

RESULTS AND DISCUSSION

Average employment generated per acre under organic and conventional farming systems and establishes the relationship between the type of farming systems and the employment generated. Statistical tools such as regression, co – efficient of variation and Z test were employed here. Average number of days of employment created per acre under organic and conventional agriculture and its variation for different crops is calculated and presented. Many micro level studies on the certain of employment in agriculture shows that organic farming system favors more labor as compared with conventional-modern-farming system. As the empirical studies reveal that this is mainly due to the fact that collection of local resources and application of the same for crop enables to absorb more biological labor power. Average employment and variation under organic and conventional agriculture in Erode district is presented in table 1.

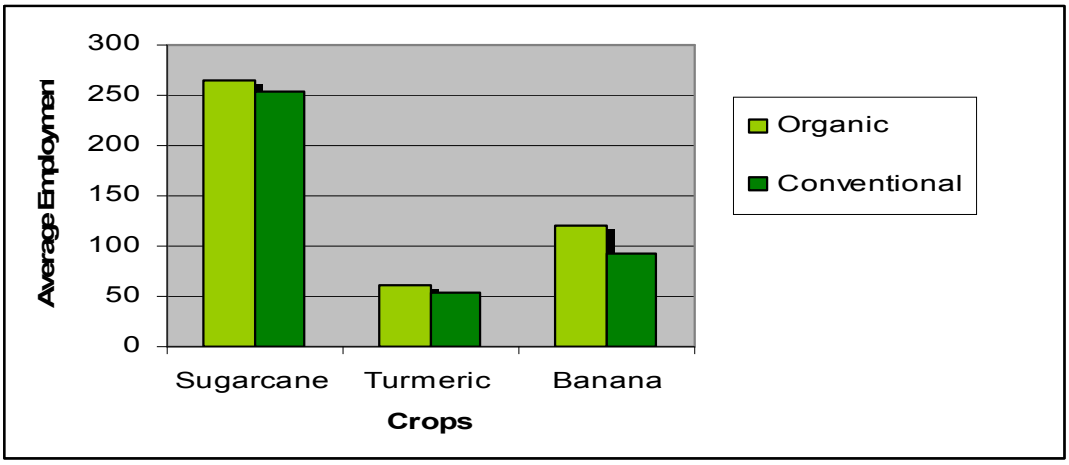
TABLE 1: EMPLOYMENT AND ITS VARIATION UNDER ORGANIC AND CONVENTIONAL AGRICULTURE

Crop	Average Employment (Mandays/acre)		Co-efficient of Variation		'Z' Test
	Organic	Conventional	Organic	Conventional	
Sugarcane	264.54	252.79	11.22	13.05	4.18*
Turmeric	60.24	54.24	50.17	46.45	7.97*
Banana	120.4	92.62	18.42	17.12	3.18*

Note: * indicate 1 per cent level of significance

The case of Sugarcan, organic agriculture generated nearly 12 mandays more per acre in organic system as compared to conventional system. But the variation is two narrow for organic and conventional agriculture. But the mean difference is statistically significant at 1 per cent level of significance. The sugarcane variation level is low in both farming systems. In the case of turmeric, employment generation under organic agriculture is around 12 mandays more per acre. The variation levels are nearly same and are low. The difference in average employment is statistically significant at 1 per cent level. Similarly banana farm under organic farming employed 120 mandays per acre and it was 92 days under conventional agriculture. The differences significant at 1 per cent level. The difference at 1 per cent level of all crops, banana gives for employment for more labor days. Organic agriculture employed relatively more labor days in the sample households.

GRAPH 1: AVERAGE EMPLOYMENT AND VARIATION UNDER ORGANIC AND CONVENTIONAL AGRICULTURE



CONCLUSION

Organic agriculture generates more employment. There is a significant difference in the employment generated under organic and modern farming systems in the case of sugarcane, turmeric and banana. The study showed that ecological farming is an integrated system of farming and livestock. Organic farmers shall keep livestock for the supply of farm yield

manure, though many are depending on outside sources of farm yield manure to supplement. Very few modern farmers own livestock. Majority of the ecological farmers have invested on agriculture in the farm of pump sets, tractors and other agricultural implements while very few of the modern farmers own these implements. Initiatives from the state, civil societies and scientists for promoting organic farming will improve this sector. Due to health, economic and environment reasons, people demand more of chemical for food items. This is more evident from the data for global level. Middle income households in domestic market also look out for such products. Hence comprehensive and continuous efforts must be intimated on this right direction.

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