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"Is Organic Farming Successful? A Case Study of Ernakulam District"

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ABSTRACT

As our population continues to grow, our imperative extends beyond merely stabilizing agricultural production to increasing it sustainably. Scientists recognize that the 'Green Revolution,' reliant on high input usage, has reached at extreme and is now yielding diminishing returns. Therefore, maintaining a natural balance becomes imperative. In this context, it is increasingly pertinent to consider alternatives. The practice of organic farming system focuses on cultivating the land and growing crops in a manner that sustains soil health and vitality. Organic farming achieves this by utilizing organic waste materials such as crop residues, animal manure, and farm waste, as well as biological inputs like beneficial microbes (biofertilizers). These components work together to release nutrients gradually to crops, promoting sustainable production within an eco-friendly and pollution-free environment.

Keywords:, Crop residues, Green Revolution, organic farming

INTRODUCTION

Organic farming is a safe, sustainable farming system, producing healthy crops without damage to the environment. It avoids the use of artificial chemical fertilizers and pesticides on the land, relying on developing a healthy, fertile soil and growing a mixture of crops. In this way, the farm remains biologically balanced, with a wide variety of beneficial insects. Organic farming is a system with the broad principle of "live and let live", which was recognized nationally and internationally. Organic farming considerably reduces external inputs by controlling pests and diseases naturally, with both traditional and modern methods, agricultural yields and disease resistance improved.

As per the definition of the USDA (United States Department of Agriculture) study team on organic farming "organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection".

The vast popularity and scientific acceptance of organic farming is first taken place in western world, especially in USA and Germany. The first initiative was in Germany, by Rudolf Steiner and his book "Spiritual Foundations for the Renewal of Agriculture", published in 1924. It led to the popularization of sole farming concept called Biodynamic Agriculture. The labeling of the produce from biodynamic farms as 'Demeter' certified came into use. The British botanist, Sir Albert Howard studied traditional farming practices in Bengal, India and considered such practices as superior to modern agricultural practices which is described in the book "An Agricultural Testament", published in 1940 emerged as the origin of modern organic farming.

The Indian agrarian system was traditionally organic as the Indian farmers were used environmental-friendly organic techniques, where the fertilizers, pesticides, etc were obtained from plant and animal products. But in between 1950s and 1960s to overcome food scarcity, the government adopted Green Revolution program. The widespread reliance on chemical fertilizers and pesticides has led to deterioration of soil fertility, loss of biodiversity, contamination of water etc. The continuous application on chemicals on soil demanded application of larger quantities of fertilizers to get sustained output. Pests are becoming immune requiring the farmers to use stronger and costlier pesticides. This led to increased cost of cultivation which pulled the Indian farmers in debt trap and there by increased farmer suicide. This created a positive shift towards organic farming in India.

Kerala with rich endowments for cultivation of wide variety of agricultural and horticultural crops specifically spices, plantation crops, medicinal plants etc is an ideal destination for promotion of organic farming due to the changing

preferences worldwide towards organic and eco-friendly products. There are a number of ongoing initiatives in Kerala, primarily driven by progressive farmers. An initiative to make the state of Kerala fully organic has begun with the formulation of a draft policy in 2003. 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.

SIGNIFICANCE OF THE STUDY

Agriculture is an inevitable part of any economy. In order to feed the growing population, agriculture and farmers should be retained in every society. But many economies forget that agriculture is an essential part of the economy and they give importance to industrialisation process. Priority and growth of agriculture were mislaid during the last two decades. But now a days there is a trend towards organic farming because it is free from synthetic pesticides, chemical fertilizers etc.

OBJECTIVES OF THE STUDY

1) To explore the potential for organic farming to contribute to food security in the area
2) To identify the challenges and constraints faced by organic farmers in implementing sustainable practices

METHODOLOGY

The present study was based on both primary and secondary data. The different journals, books etc. constitute the secondary source of data. The primary data have been collected from Kavalangadu Grama Panchayat, Ernakulam District, Kerala. For this study, 100 samples of different categories of farmers were collected..

Detailed information is collected from the organic farmers by using mailed questionnaire method and telephone interview. A questionnaire is prepared which constitute schedules relating to the total land area of fruit and vegetables owned by farmers, preservation of soil, monthly income of the organic farmers, use of organic fertilizers etc. Collected data are analyzed and interpretations are made by using percentage method.

ANALYSIS AND RESULT

Kavalangadu Grama Panchayat is situated in the Kochi–Madurai- Dhanushkodi road, Nellimattom. This is one of the successful Panchayat in Kothamangalam block in implementing organic farming. Using the methodology stated in chapter one, study was based on both primary and secondary data. For this study, I collect the information about the possibilities of Organic Farming and the issues related to this scheme from 100 samples of different categories. Collected data are analyzed and interpretations are made by using percentage method. This is shown below:

Table: 1 GENDER PROPORTION

GENDER	**NUMBER OF RESPONDENTS**
Male	72
Female	28
Total	**100**

Source: Survey data

From the above table it can be observed that out of the respondents 64% are male and 36% are females.

Table: 2 NUMBER OF YEARS IN ORGANIC FARMING

NUMBER OF YEARS IN ORGANIC FARMING	**NUMBER OF RESPONDENTS**
Less than 5 years.	28
5 years to 10 years.	16
10 years to 15 years	22
15 years to 20 years	20

More than 20 years.	14
Total	100

Source: Survey data

From the above table it can be observed that 20% of the farmers have less than 5 years of experience in organic farming, 12% have 5 years to 10 years of experience, 24% have 10 years to 15 years of experience, 28% have 15 years to 20 years of experience and 16% of the farmers have more than 20 years of experience in organic farming.

Table: 3 Total Land Area Of Fruit And Vegetable Owned By The Farmers

LAND AREA	NUMBER OF RESPONDENTS
Less than 20 cent	14
20 cent to 40 cent	25
40 cent to 60 cent	27
60 cent to 80 cent	20
80 cent to 1 acre	9
More than 1 acer	5
Total	100

Source: Survey data

From the above table 12% of the respondents have only less than 20 cents of land area of fruit and vegetable, 30% of the respondents have 20 cent to 40 cent of land area, 20% have land area of 40 cent to 60 cent, 14% have 60 cent to 80 cents, 18% have 80 cent to 1 acres of land and only 6% have land area of more than 1 acer in Kavalangadu Grama Panchayat.

Table: 4 Monthly Income Of The Respondents

MONTHLY INCOME	NUMBER OF RESPONDENTS
Less than Rs10000	21
Between Rs10000 & Rs30000	42
Between Rs30000 & Rs 50000	27
Above Rs 50000	10
Total	**100**

Source: Survey data

As it is evident from organic farming, the above tables 12% of the respondents earn monthly income of less than Rs10000 from organic farming, 54% have income ranging between Rs10000 and Rs 30000, 24% have income ranging between Rs30000 and Rs50000 and 10% of the respondents earn an income more than Rs50000.

Table: 5 Preservation of Soil Fertility

SOIL FERTILITY	NUMBER OF RESPONDENTS
Fertilization	60
Crop Rotation	19
Inter Cropping	21
Total	**100**

Source: Survey data

From the above table 64% of the respondents preserve the soil fertility through fertilization, 16% through crop rotation and 20% through inter-cropping.

Table: 6 Fertilizers Mostly Used By the Respondents

FERTILIZERS USED	NUMBER OF RESPONDENTS
Chemical fertilizers	12
Organic fertilizers	88
Total	**100**

Source: Survey data

From the above table it can be observed that 88% of the respondents are using organic fertilizers and only 12% of the respondents are using chemical fertilizers for fertilizing the fruits and vegetables in Kavalangadu Grama Panchayat.

Table: 7 Mostly Used Organic Fertilizer By The Respondents

ORGANIC FERTILIZER USED	NUMBER OF RESPONDENTS
Livestock Manure	48
Poultry Manure	18
Green Manure	25
Others	9
Total	**100**

Source: Survey data

From the above table it can be observed that, 48% of the respondents are using Livestock manure for fertilizing the soil, 18% of the respondents are using Poultry manure, 25% of the respondents are using Green manure and only 9% of the respondents are using other manures like compost, kitchen waste, tree leaves etc. for fertilizing the soil.

Table: 8 Market For The Output

MARKET FOR OUTPUT	NUMBER OF RESPONDENTS
Directly to consumers.	46
Retailers	26
Through middlemen	17
Others	11
Total	**100**

Source: Survey data

From the above table 46% of the respondents have marketing directly to consumers, 26% are marketing through retailers, 17% are marketing through middle men and the remaining 11% are looked for other market forms for marketing their outputs.

Table:9 Major Products Produced By The Respondents

PRODUCTS	**NUMBER OF RESPONDENTS**
Vegetables	65
Fruits	26
Others	9
Total	**100**

Source: Survey data

From the above table it can be observed that, 65% of respondents are cultivating vegetables like ladies finger, cabbage, cauliflower, pea, brinjal, pumpkin etc., 26% of the respondents are cultivating fruits like banana, rambutan, mangosteen etc. From this we can inference that majorities of people cultivate vegetable because it can use for their daily consumption.

Table: 10 Difficulties Faced In Organic Farming

DIFFICULTIES	**NUMBER OF RESPONDENTS**
Climatic conditions	41
Lack of suitable seeds	19
Pests and diseases	21
Lack of knowledge	13
Others	6
Total	**100**

Source: Survey data

From the above table it can be observed that, 41% of the respondents faced difficulties due to climatic conditions, 21% of the respondents faced the problem of pests and diseases, 13% face lack of knowledge, 19% faced the difficulty of getting suitable seeds for cultivation and the remaining 6% faced other difficulties like shortage of funds, weeds etc..

CONCLUSION

From the study, we could find that, Organic Farming is a source of income generation for the people in Kerala especially in Kavalangadu Grama Panchayath and could improve the income status also.Organic farming not only helps preserve more natural habitat areas but also encourages birds and other natural predators to live happily on farmland, which assists in natural pest control. It also provide employment opportunities for the people in rural areas especially for women.

The organization that aims to empower women is “Kudumbashree” it has carried the message to every nook and corner of the state and pushed nearly three lakh women into organic farming.

But, one of major disadvantage of organic farming is that, the farmers have no clear idea about the farming techniques used in organic farming so there is a need to create better awareness about the importance of Organic farming through print media and Government channels. Hence it can be concluded that the status of Organic Farming in Kerala especially in Kavalangadu Grama Panchayath increases and it also increases the income of the Organic Farmers also.

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