



CONSTRAINTS IN THE ADOPTION OF ORGANIC FARMING PRACTICES AS PERCEIVED BY THE EXTENSION PERSONNEL IN KOLLI HILLS

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Abstract

Majority of the tribal farmers of Kolli hills are practicing organic agriculture in various forms. However they are experiencing a lot of constraints in the adoption of organic farming practices. An attempt has been made to identify the constraints in the adoption of organic farming practices by the tribal farmers of Kolli hills as perceived by the extension personnel in Kolli hills. Thirty extension personnel constituted the sample size. The constraints in the adoption of organic farming practices as perceived by extension officials in the descending order of importance are 'Rain fall failure / Climate change', 'Role of Agro based Industrialists', 'More pests and diseases attack', 'Negative attitude of commercial farmers towards organic agriculture', 'Negative attitude of elite and educated people', 'Fragmented land holdings', 'Poor yield / Poor income from agriculture', 'Poor marketing facilities' and 'Urbanization'. Based on the constraints, specific suggestions are made for researchers, policy makers and extension workers to promote organic agriculture.

Keywords: Organic Farming Practices, Constraints, Extension Personnel

Introduction

The primary feature of the organic farming is that it helps to protect the long term fertility of soils by maintaining organic matter levels, by promoting soil biological activities and careful mechanical intervention (Farrington and Martin, 1988; Chambers, 1990). It is found that organic agriculture aids for a pollution – free environment. Organic agricultural practices are eco-friendly. It is reported that organic agricultural practices serve for sustainable agricultural development (IRRI, 1978). Now there is a great awareness among farmers, scientists, policy makers and planners about the need for chemicals-free agriculture (Kanagasabapathi and Sakthivel, 2017). People have realized the significance of organic agriculture (FAO, 2008).

Kolli Hills has an average annual rainfall of 1200 mm. North-east monsoon is the major source of rainfall and there is more rainfall from August to November. Though major area comes under rainfed condition, wet lands also exist utilizing the spring water as a main source of irrigation. Deep fertile red loamy soil is prevalent with a unique climate of a tropical hill. A wide variety of crops are grown in various seasons. Paddy, wheat, tapioca, beans, samai, tenai, panivaragu, ragi, castor, varagu, mustard, coriander, citrus, banana, cardamom, pineapple, jack, guava and pepper are cultivated. Paddy is raised both under wet and dry conditions. In this context an attempt is made to study the constraints in

the adoption of organic farming practices as perceived by the extension personnel in kolli hills.

Materials and Methods

There are fourteen villages in Kolli Hills and all the villages were included for the study. Responses were obtained from the personnel working in Agriculture and other developmental departments. The extension personnel includes deputy directors, assistant directors, agricultural officers and field level extension functionaries. Structured Questionnaire was sent to the respondents for the collection of data. Responses were obtained from thirty respondents. The collected responses were tabled and suitable statistical tools were applied for the analysis.

Constraints refer to all the impediments expressed by the respondents in the adoption of organic agricultural practices. The respondents were asked to mention the constraints that limited the adoption of organic farming practices by the tribal farmers. The responses were content analysed and the constraints that emerged from the survey are presented as results.

Results and Discussion

Several constraints were observed by the extension officials that hinder the adoption of organic farming practices in the Kolli hills. The constraints as perceived by the extension officials are tabulated and furnished in Table 1.

Table 1. Constraints in the adoption of organic farming practices as perceived by the extension officials. (n = 30)

S. No.	Constraints	Number of Respondents	Percent	Rank
1.	Rainfall failure / climate change	24	80.00	I
2.	Role of Agro-based Industrialists	23	76.66	II
3.	More pests and diseases attack	22	73.33	III
4.	Negative attitude of commercial farmers towards organic agriculture	21	70.00	IV
5.	Negative attitude of elite and educated people	20	66.66	V
6.	Fragmented land holdings	18	60.00	VI
7.	Poor yield / Poor income from agriculture	14	46.66	VII
8.	Poor marketing facilities	13	43.33	VIII
9.	Urbanization	12	40.00	IX

1. Rainfall failure/Natural Calamities

The Table 1 reveals that 80.00 percent of the respondents reported that natural calamities like drought, rainfall failure, force the tribes shift the organic ways of cultivation of practice.

In Kolli Hills the drought in nineteen eighties and nineties affected the cultivation drastically. To overcome this, the tribes started felling the trees and sold them to people in plains. This resulted in reduction of rainfall and monsoon failure has become

regular event. This might have promoted extension officials to report natural calamities as a constraint.

2. Role of agro base industrialists

It is observed from the Table 1 that the influence of agro-based industrialists remains as a constraint in the adoption of organic farming practices according to three-fourth (76.66 percent) of the officials. The population growth, poor revenue from agriculture, the increased expenses in weddings, festivals, and other cultural activities force the tribes to look for other remunerative alternatives. This situation is very well exploited by the agro-based industrialists. The tribal farmers are encouraged to cultivate tapioca (*Manihot esculenta*) for which money is paid in advance by these agro industrialists. Tapioca has a good demand in the marketing in the plains because of its use as raw material in some of the small-scale industrial sectors.

This cultivation provides an immediate income but the introduction of the crop has a devastating (negative) effect on the traditional eco system. Because of the continuous cultivation of tapioca, the fertility status of the soil is becoming poor.

3. More pests and diseases attack

Another major constraint reported by majority of the extension officials (73.33 percent) is the increased pests and diseases attack in the recent days. Some farmers have started applying chemical pesticides and fungicides to control the pests and diseases attack and this control measure was found to be effective. Controlling the pests and diseases in the organic way needs the labourious process of preparing the neem-paste, neem extract and other similar methods. In this context the tribal farmers prefer inorganic farming practices like chemical pesticides and fungicides which are harmful to the crop and environment. Hence pest and disease attack has been reported as the major constraint in the adoption of organic farming practices by about three - fourth of the extension personnels.

4. Negative attitude of commercial farmers towards organic agriculture

It may be observed from the Table 1 that the next major constraint is the negative attitude of commercial farmers towards adoption of organic farming practices.

Seventy percent of the respondents remarked this as a constraint. The commercial farmers, with the intention of getting more and quick profit prefer to do inorganic farming instead of organic farming. They ignore the crop rotation practices, mixed cropping etc. and go for mono cropping of crops like tapioca which provides them quick returns. However many of these inorganic practices of commercial farmers are detrimental to the natural ecosystem and bio-diversity.

5. Negative attitude of elite and educated people

Negative attitude of elite and educated people is pointed out as another major constraint by about two-third (66.66 percent) of the extension officials. The elite and educated people are usually the role models in the eyes of tribal farmers.

These elite and educated people prefer other occupations, government service etc., instead of taking up agriculture. The other tribal farmers on seeing them prefer to educate their children and work in plains where they can get all infrastructural amenities instead of being in hills without such facilities. This affects their interest in agriculture particularly the labour intensive organic agriculture.

6. Fragmented land holdings

Fragmented land holdings is reported as a constraint by about three-fifth (60.00 percent) of the extension officials. Most of the tribal farmers have started taking up secondary occupations. The educated tribes prefer to take up government job in plains as they have better opportunities for Government jobs under the 'Reservation system'. Kolli Hills being a tourist

centre provides other remunerative employment opportunities. In this context the fragmented land holdings provide them little income and hence they do not prefer organic cultivation which is invariably a labour intensive process and provides them lesser income because of lesser land holding.

7. Poor yield/ Poor income from agriculture

The tribal farmers with their fragmented land holdings get lesser yield and ultimately lesser income when organic farming practices are adopted. Some of the tribal farmers without bothering about the environment apply chemical fertilizers and pesticides to get better yield and better income though it is not sustainable. They remain as models for the tribal farmers who practice organic agriculture. Hence these farmers who practice organic agriculture have a passion for modern agricultural means which provides them better income. This poor yield/income from organic agriculture is another major constraint in the adoption of organic farming practices.

8. Poor marketing facilities

Poor marketing facilities is a constraint reported by about slightly less than half (43.33 percent) of the extension officials. In general there is a great demand for organic products throughout the world. The marketing channels are not efficient to get better price for organic products. Beside, the middle men and brokers pay money in advance to the tribal farmers and get the product from them for lesser price and they get the better price by selling the organic products to the major commercial establishment and sellers in plains. Ultimately the tribal farmers are not able to reap the benefits of cultivating crops by organic means

Conclusion

The significance of organic agriculture should be taught to the tribal farmers. Steps should be made for the easy and efficient marketing of agricultural produce made through organic means. More numbers of extension workers with hill experience may be appointed. Such extension workers are likely to promote the adoption of organic farming practices. Special prizes, cash incentives and awards may be instituted for the farmers to take up organic farming practices. Regular trials and demonstrations on organic farming techniques should be arranged periodically to encourage the farmers to take up organic farming practices. The tribal farmers who take up organic farming practices should be made to feel proud of their practices. Demonstration may be organized for creating awareness among the tribal farmers about the ill effects of chemicals applied in the soil and water.

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