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“Role of non–governmental organizations in promoting sustainable agriculture development in Karnataka”

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Non-government organizations as a third sector institutional framework are playing a crucial role in providing strong support to the development issues. They have an important role, especially where the government and private sectors are showing less interest. One of the main sectors is agriculture. It is observed that many countries across the world provide support for modern agriculture, mainly to increase the productivity for commercial purpose without considering the environment sustainability (Pingali, 2001). However, the concept of sustainability of agriculture is gaining moment from last few years. Though many steps have taken by the government, it is observed that government programs have not succeeded up to the mark. Hence NGOs are emerging as a new thrust for the sustainability of agriculture. Alternative to High External Input Agriculture, states and NGOs across the world are attempting to develop a framework called Low External Inputs and Sustainable Agriculture (LIESA) for promoting Sustainable Agriculture Development (SAD) and in India some agencies have done a significant achievement. Organic agriculture system, that is based on ecological principles and applying ecological practices to maintain soil fertility, is to manage crop and animal health and to keep soil and water in a good condition. The objectives of the study are firstly, to analyse the role of NGOs in promoting sustainable agriculture. Secondly, to find on what extent NGOs are promoting awareness programs and upgrading marketing facilities. For the present study, a few NGOs have been selected randomly for detailed investigation and relevant information was collected by personal visits. Some NGOs had involved successfully with organic farming system. But in this study, 4 NGOs were selected from three districts of Karnataka. The overall analysis of the study reveals that NGOs are very prominent in effective implementation of government programs towards sustainability of agriculture and in influencing awareness programs and marketing facilities.

Key words: Non-government organizations, agriculture, support organic agriculture system.

INTRODUCTION

Non – governmental organizations have emerged as an important element of contemporary Indian society and alike between in the grassroots and civil society. In the last one and half decade there has been a great deal of interest in the voluntary sector. NGOs in recent days have taken lion’s share in promoting and implementing different development activities and thereby declining the role of state in social welfare services. Non-government organizations as a third sector institutional framework are playing a crucial role in providing strong support to the development issues (Aurora et al., 1994; Rajendran, 2003). Organizations today, whether voluntary or government, are accepted fact of life. NGOs have an important role, especially where the government and private sectors are showing less interest. The NGOs

hitherto emerged in their traditional areas of health, sanitation, education, family planning, environment protection etc. The Government agencies engaged in this activity started co-opting and collaborating with NGOs. Non – governmental organizations have also significant and emerging role in meeting this goal.

Many sectors are underdeveloped even though the reform measures and programs by the government are due to ineffective implementation or lack of interest. In many developing countries, agriculture is still the engine for economic growth. It is observed that many countries across the world provide support for modern agriculture, mainly to increase the productivity for commercial purpose without considering the environment sustainability (Pingali, 2001). Modern agriculture

Table 1. Features for different farming systems.

Farming systems	Conventional	Traditional	Ecological (Organic)
Issues	Conventional	Traditional	Ecological (Organic)
Productivity	High	Low	High
Sustainability	Low	Moderate	High
Farm complexity	Simple	Complex	Complex
Environment diversity	Uniform	Diverse	Diverse
Production orientation	Market	Subsistence	Subsistence/market
Inputs – Seeds	HYVs	Local	Improved/Local
Synthetic inputs	High	Low	Nil

Source: Werf and Narayan, 1998.

technologies undoubtedly increased production and labour efficiency, but there are some drawbacks, which are concerned over low nutrition, poor taste, adverse effects on soil productivity, harm to the environment, decrease in water table, increase salinisation, pollution due to fertilizers and pesticides, genetic erosion, reduced socio economic values and similar effects on environment. Therefore, the concept of sustainability of agriculture is gaining momentum from last few years. The concept of 'Sustainability' has been discussed in Earth Summits 1992 and 2002. The Earth summit offered an opportunity for the global community to address key action on agriculture with a view to sustainability and reducing poverty and hunger, protecting biodiversity and access to resources for small farmers everywhere. Though many steps have been taken by the government, it is observed that government programs have not succeeded up to the mark. Hence NGOs are emerging as a new thrust for the sustainability of agriculture. Therefore, over the last few years, unsustainable agriculture systems are being transformed to sustainable agriculture system mainly for environment, economic, health and social considerations.

The sustainable agriculture system was reported to ensure food security and environment safety, and was complex in nature (Table 1). According to Reddy (1995), there are apprehensions regarding increasing productivity under organic farming and however, Nadkarni (1991) argued that there is an increasing cost under modern farming and hence suggested for a detailed and comprehensive study on the feasibility of organic farming across different agro – ecological situations.

Table 1 shows that conventional or modern agriculture system has limited advantages on issues like application of external inputs, such as fertilizers, pesticides and farm complexity as compared with ecological agriculture. Equally, while other aspects like sustainability are found to be high under ecological agriculture; it is quite low from the conventional or modern farming system.

During early days of human civilization, agriculture was subsistence and sustainable without external inputs; and subsequently improvement in science and technology

has taken agriculture to a more commercial level and consequently became unsustainable. Large scale external inputs were used to grow more food grains to meet the increasing population and for commercial purpose and land being an inelastic resource, it was needed to increase the productivity from a given parcel of land termed as High External Input Agriculture (HEIA). Such development took place more in developed countries and they had trade advantages and subsequently developing countries also followed it albeit the potential has not been tapped fully. However, across the world, agriculture is becoming more commercial and external input is extensively used with intensive cultivation practices. On the part of the state many supportive programs (including direct and indirect subsidies) were launched to protect agriculture in developed countries. Consequently modern and commercial agriculture system emerged and evaluation studies show that agriculture under this system has negative implications like uneconomical, environmental degradation and socially not adaptable and in the long run unsustainable (Rejinties et al.). Also the local knowledge system developed and practiced over generations, have been replaced by laboratory made agricultural packages. Alternative to HEIA, states, NGOs are trying to develop a framework (IFOAM, 2002) - Low External Input and Sustainable Agriculture (LEISA) - for promoting Sustainable Agriculture Development (SAD).

The Technical Advisory Committee of the Consultative Group on International Agriculture Research (TAC/CGIR, 1998) defines "sustainable agriculture is the successful management of resource for agriculture to satisfy changing human needs, while maintaining or enhancing the quality of the environment and conserving natural resources". Sustainable agriculture and Ecological agriculture aims at maintaining or enhancing the quality of the environment and conserving the resource and also ecological agriculture aims at completely avoiding the chemical inputs. Organic agriculture system is based on ecological principles and applying ecological practices to maintain soil fertility, to manage crop and animal health and to keep soil and water in a good condition. The third

sector agencies have been working in the lines of SAD in many parts of the world.

Status of organic farming in Karnataka

This state is bestowed with varied climatic and soil types spread across ten agro-climatic zones. The physical features of Karnataka include Coastal Plains, Western Ghats and Plateau enabling it to grow a variety of crops. The annual average rainfall of Karnataka being 1130 mm and moderate temperature provide ideal conditions to grow a variety of crops throughout the year. The state is also known for its excellence in horticultural crops and animal husbandry. In addition, many farmers of the state are pioneers in organic agriculture and have developed many different systems of cultivation through indigenous knowledge base. They have developed their own holistic mechanism for developing pest control agents to control pests and diseases.

The present movement silently taking place in Karnataka is not because farmers foresee a definite market for organically produced, but for production oriented reasons viz. reduction in the use of external inputs, improvement of soil fertility, lower soil degradation, biological pest control and protecting mother earth besides improving their economy. In this state, some farmers practice organic farming as a way of life. It is pertinent to mention that there are NGOs involved in organic farming. The awareness of affluent classes and urban societies on the use of organic foods is constantly growing in the state as well.

Karnataka State policy on organic farming

The Government of Karnataka was the first to frame the organic farming policy in India in the year 2004. In this policy, the following objectives are adopted:

1. To reduce the debt burden of farmers and to enable them to achieve sustenance (Swavalambana) and self respect (Swabhimana).
2. To enhance the soil fertility and productivity by increasing life in soil. To reduce the dependence of farmers for most of the inputs like seeds, manures and plant protection material by sourcing local natural resources thereby reducing the cost of cultivation.
3. Judicious use of precious water resources and maintenance of production level.
4. Improve farmer's income through production of quality produce.
5. To increase the food security by encouraging

traditional crops and traditional food habits.

6. To increase the rural employment opportunities to prevent migration to urban areas.
7. To facilitate farmer's Self Help Groups for most of their requirements.
8. To make the environment safe and pollution free and also to protect health of human beings and animals.
9. To equip the farmers to effectively mitigate the drought situation in rain fed and drought prone areas.
10. To bring about suitable institutional changes in teaching and research on organic farming.

Strategies for promotion of organic farming in Karnataka

The government of Karnataka adopts the following strategies for the promotion of organic farming under the Organic Farming Policy:

1. Integrated Approaches for Promotion of Organic Farming,
2. State Level Empower Committee for Promotion of Organic Farming,
3. Mini Mission on Organic Farming,
4. Krishika Samaj in Promotion of Organic Farming,
5. Self Help Groups (SHGs),
6. Farmers Co-operatives,
7. Formation of Farmers Company (FC),
8. Area approach/Commodity/Crop approach,
9. Mixed Farming, Soil and Water Conservation,
10. Assistance for Conversion and Certification,
11. Marketing of Organic Products,
12. Credit Facility,
13. Export Promotion,
14. Research and Development,
15. Training and Extension and Study Tours.

Organic village

Under organic farming policy, Government of Karnataka initiated a program called 'Organic Village/Site' during the year 2004 to 2005 with involvement of NGOs. Under this programme an area of 100 ha in each district would be converted to Model Organic Farm. Since several NGOs pioneered in popularizing Organic farming among farming community, the working committee decided to implement the programme in association with the NGOs. NGOs initiate the programme starting with sensitizing people about the concepts of organic farming through interactive sessions and group discussions. These programs facilitate the farmers to know about concepts of organic

Table 2. Particulars of selected NGOs in Karnataka.

Sl. No and location	Operating region	Organic farming related activities	Other activities
1(Mysore)	Mysore	Production, certification and marketing	-----
2(Mysore)	Mandya and Mysore	Production, certification and marketing	-----
3(Mysore)	Madkeri	Training programs	Eco-development and women help line.
4(Bangalore)	Mysore	Training programs	Health, Sanitation and rural development.
5(Mysore)	Mysore	Production, certification and marketing	-----

Brackets indicate the location of NGOs.

farming, preparation of Compost, preparation of Vermi compost, Green manure, and prevention of diseases in organic farming, principles of soil and water conservation, certification of organic farms, sales of organic products and discussion of other aspects related to organic farming.

Review of literature, research Issues and objectives

According to Rajendran (1994), the government of India initiated several programs to promote organic agriculture and was expected to involve volunteers from NGOs to train the stakeholders in organic agriculture. Njoroge (web based information) study noted that the many NGOs are currently involved in various organic farming training activities in Kenya and suggested to develop further into marketing processing and inspection and certification of organic products. Rajendran (2004) study noted that the third sector's (NGOs) active intervention made some dent with regard to LEISA in India. While a few studies have attempted to enlighten the role of NGOs especially in awareness programs and marketing with regard to organic farming. In this context, the study has two fold objectives. Firstly, to analyze the role of NGOs in promoting Sustainable agriculture. Secondly, to determine what extent NGOs are promoting awareness and upgrading marketing facilities.

METHODOLOGY

For the present study, 5 NGOs have been selected randomly for detailed investigation and relevant information was collected by personal visits. Under the Organic Farming Policy, the government of Karnataka is promoting organic farming with the help of NGOs under the programme of Organic Village. In fact, a number of NGOs involved in providing alternatives to promote SAD for HEIA. Thus the related NGOs would promote some useful reference in the alike issues of SAD. Table 2 depicts the details of selected NGOs from three districts of Karnataka.

The selected NGOs are located in one region and operate in different places. For instance, the first is located in Mysore and operates in the same district. Second NGO is located in Mysore, but operates both in Mysore and Mandya districts. The third NGO is located in Mysore and operates in the district of Madkeri. Fourth NGO is situated in Bangalore and has operating region in Mysore. Last NGO is situated in Mysore city and operates in the same city.

The first, second and firth NGOs concentrate exclusively on organic farming activities, but third and fourth NGOs concentrate on organic farming activities and other activities like Eco-development, Women Help Line, Health, Sanitation and Rural development. Recently, three days study camp on Zero Investment Eco-farming and Natural Farming was organized by the aegis of the Karnataka Rajya Raitha Sangha (KRRS) and Dalita Sangharsh Samiti (DSS) at Mysore's Kalamandira and information was collected by personal visit.

ANALYSIS AND DISCUSSION

Basically the selected NGOs (1st, 2nd and 5th – Table 2) were motivated to promote SAD in their areas of operation. These NGOs have staff, who are adequately trained in organic farming and some of them are agriculture graduates and highly motivated. These NGOs have their own organic farm, which involves active interaction like technical guidance among them. During the personal visit, it was observed that the a few NGOs (3rd and 4th– Table 2) have strong resource and support from the government of Karnataka and also more farmers converted from modern agriculture to organic agriculture with the help of these NGOs (3rd and 4th– Table 2).

The government of Karnataka is initiating a program in each district regarding 'Organic Village' with the help of NGOs. In each district, the government decided to handover about 100 to 140 ha to NGOs, which will be converted to organic farms. Already two districts (Madkeri and Mysore) have got land. Here, NGOs have started introducing farmers to sustainable – organic – farming system through interactive programs like group discussion, Conference, Seminars and Workshops. These programs facilitated the farmers to know about the concept of organic farming, preparation of Compost, preparation of Vermicopost, Green manure, prevention of diseases in organic farming, principles of soil and water conservation, certification of organic farms, sales of organic products and discussion of other aspects related to organic farming.

Similarly, one NGO (1st – Table 2) is involved in organizing organic farmers, where there will be active participation of farmers with traditional farm practice, undertake every aspects of 'learning by doing' principle for achieving SAD. The organic farms are certified based on particular aspects like soil condition, disuse of

fertilizers, pesticide and chemicals by NGO. This NGO facilitates marketing facility to certified organic farm products.

Another NGO (2nd – – Table 2) provide intensive training on LIESA, which leads to the achieve SAD of the interested farmers and encourages them. This NGO has its own organic farm, which is certified from SKAL – International agency. This NGO has working center in Mysore, and Mandya districts has taken up training programs like technical guidance, preparation of Compost, preparation of Vermicompost and other aspects related to organic farming and also provide marketing facilities.

A three days study camp on Zero Investment Eco-farming, and Natural Farming methods would provide some direction to the farming community, which was jointly organized by the Karnataka Rajya Raitha Sangha (KRRS) and Dalita Sangharsh Samiti (DSS) at Mysore's Kalamandira. Over 400 farmers from Mysore, Chamarajanagar, Coorg and Hassan districts participated in this camp. Here, successful farmer from Maharashtra participated and shared information on the natural farming system. Another organic farmer in Bannur village of Mysore district revealed that he got more yields and income from his small parcel of land, he explained the techniques that convert a modern farm into organic farm and the crop grown by this farmer was kept for exhibition.

It was observed that the NGOs' volunteers, Scientist and Officials take special interest in disseminating principles, techniques and methods of production under organic farming system. Largestical and support has been extended by the respective NGOs. Such techniques cover for a variety of crops and farming techniques. It was noted that the participating farmer are keen in understanding the advantages of organic farming. Notably it was confaced that a couple of farmers have already taken up organic cultivation.

SUMMARY AND CONCLUSION

The over all analysis of the study highlights that the third sector (NGOs) has an important role in promoting and implementing different development activities. NGOs are very prominent and effective in implementing Sustainable Agriculture Development programs. In recent days, the

demand for organic farming products are increasing day by day because of its high nutritive value, good taste and grown with organic nutrients. The government of Karnataka has set up a program like Organic Village.

This program is involved in promoting Sustainable Agriculture Development with the help of NGOs. These NGOs are very prominent in effective implementation of government programs towards sustainability of agriculture and in influencing awareness program and marketing facilities. The government should take more interest and improve organic farming with the help of NGOs. In this direction, the government should give support to NGOs.

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