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Economic Sustainability through Farmers Interest Groups and their Linkage with Institutional Agencies — An Evidence from Karnataka

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Abstract

For improving production and marketing of agricultural produce, group approach can act as a panacea. In this endeavour, the present study carried out in the Raichur district, has reported the impact of formation of commodity-specific Farmers Interest Groups (FIGs) for pigeonpea and sweet orange crops. After formation of FIGs, several production and marketing interventions were carried like capacity building, awareness generation, knowledge enhancement, institutional linkage development, etc. The impact of FIG for pigeonpea has revealed the total additional benefit to farmers due to savings in cost and additional net returns from output share amounted, on an average over 2 years of 2010-11 and 2011-12, to ₹ 23,991 per farmer or ₹ 5,756 per acre. The impact of FIG for sweet orange has shown additional benefit of ₹ 7899 per ton (78.50%) over the private dealers of Bangalore market and ₹ 8456 per tonne (89.50%) over pre-harvest contractors by selling through Safal institutional market. Therefore, promotion of FIGs and their linking to institutional agencies for input supply, output marketing and technology transfer would result in improvement in livelihood of farmers, leading to economic sustainability. Therefore, the study has suggested to bring out a comprehensive policy with institutional framework and adequate incentives for promotion of FIGs for agricultural and horticultural crops in the country.

Key words: Farmers interest groups, sustainability, pigeonpea, sweet orange, institutions, market linkages, Karnataka

JEL Classification: Q13, P 32, Q18

Introduction

Due to demographic pressure and diversion of land to non-farm uses, the average size of holding in India is declining very fast, making a large number of farm households dependent on economically unviable agriculture. The small and marginal farmers now constitute about 70 per cent of farming households in the country (*Agricultural Census Report*, 2006). It has made proper and timely delivery of inputs and technical services very difficult. Moreover these are supply driven with little care for demands from the field. Due to inadequate research-extension-farmers linkages, there has been low adoption of innovations and improved technologies in farmers' field.

In India, most farmers have only small marketable surpluses and therefore, they have to sell their produce in the local markets at low prices immediately after the harvest. The costs on procurement/purchase of inputs and availing of technical services are high for small and marginal farmers. Thus, a strategy was needed to increase their bargaining power in purchase of inputs and sale of produce. This was the basic idea behind organizing of cooperative marketing societies

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in the country, but their success is limited to a few cases only (Acharya and Agarwal, 2004).

Under these circumstances, there is a need to organize the farmers for availing the benefits of better technology for the agricultural production. On the other hand, the market for agricultural products is highly competitive which limits the farmers as a price taker. In this regard, the group approach can act as a panacea for improvement in production and marketing of agricultural produce. In this endeavour, the present study was conducted to address the production and marketing problems of farmers in general and of small and marginal farmers in particular with the following objectives;

- To promote commodity-specific farmers interest groups through participatory approach for interventions in production, processing, marketing and financing of the farmers,
- To develop forward and backward institutional linkages of farmers interest groups, and
- To assess the impact of group approach in production, processing marketing and financing on income of farmers.

Data and Methodology

For study, the Raichur district was purposively chosen which represents a backward region of the Karnataka state. From the selected district, commodity groups were formed with the help of faculty of the Department of Agricultural Economics, UAS, Raichur. To identify the problems faced by the farmers, a survey was conducted on the existing production technology, marketing practices, processing, etc. Based on the survey and group meetings, following commodity-specific farmers groups were constituted in the selected villages: (i) Pigeonpea Growers Group (PGG), and (ii) Sweet Orange Growers Group (SOGG). After formation of these groups, technological and marketing interventions were carried out on the participatory approach during 2010-11 and 2011-12. The impact of commodity groups in the production, marketing and income of farmers was assessed based on with and without group approach.

Formation of Farmers' Interest Groups

Two Farmers' Interest Groups (FIGs) were formed, one on pigeonpea and other one sweet orange. The Pigeonpea Grower Group was formed by selecting 60 pigeonpea growers from the villages of Marched and Neelgal in the Raichur and Devadurga taluks, respectively of Raichur district in view of the highest area of selected crop in these taluks. Similarly, Sweet Orange Growers Group was formed by selecting 30 sweet orange growers from the village of Appanadoddi in Raichur district considering concentration of area under sweet orange. The opinions of local leaders, local institutions/organizations, extension personnel and officers of the State Department of Agriculture and Horticulture were also considered while forming the FIGs.

The various activities were carried out for awareness generation and knowledge building about the "Farmers Interest Groups (FIGs)" and utility of these groups to the farmers. Further, several production and marketing programmes on collective approach were planned through participatory approach and implemented over the two-year period 2010-11 to 2011 -12. The important production and marketing interventions carried were:

(1) Capacity building and empowerment of farmers with series of group meetings, workshops, exposure visits to generate awareness about utility of group approach.

(2) Formulation of market-led cropping and production plan through participatory approach with scientists and extension workers of UAS, Raichur and State Department of Agriculture / Horticulture.

(3) Introduction of a wilt resistant pigeonpea variety (TS-3R) in the village with wilt endemic area.

(4) Demonstration of recommended production and protection technologies such as seed treatment with *Rhizobium*, *Trichoderma* and PSB of bio-fertlizers, bio-pesticides based IPM, mass / collective application of pesticides with machines, etc.

(5) Delivery of agro advisory services through voice SMS to all the members of the groups regularly.

(6) Establishment of linkages with institutional or established markets for input and output marketing.

Results and Discussion

Structure, Goals and Management of Farmers Interest Groups

The structure and organization of the FIGs were different from the traditional cooperative institutions and their management. In India, the cooperative societies established as economic institutions usually turn out to be political institutions. To make FIGs the economic institutions and serve the farmers, a different structure with different nomenclature of positions was perceived. Accordingly, a Convenor, instead of President / Chairman; Co-Convenor instead of Vice-President / Vice-Chairman, Accounts Keeper instead of Treasurer, etc. were operationalized. Further, FIGs were not registered under the Cooperative Societies Act, instead were registered under 'Associations' to evolve them as economic institutions. Group actions were initiated in procurement of inputs, production, financial matters and output marketing management. The main goals perceived for FIGs are: (i) savings in procurement of inputs, (ii) enhancement in productivity and production, (iii) realization of better output price, etc. However, representation in the form of e*x-officio* members from UAS, Raichur and Department of Agriculture/ Horticulture in the Management Body was made for smooth functioning and to facilitate technological and marketing interventions.

Capacity Building and Empowerment of Farmers

The capacity building of farmers was undertaken to enhance the capabilities of group members. The activities included: improvement in the soft skill development (trained in procedures, organizing and recording of proceedings of group meetings) for conducting meetings and overall management of the group. Orientation about benefits of formation of FIGs by experts/experienced farmers and exposure visits to best farms/ processing units/markets. In addition, various training programmes both on-farm and off-farm on technological aspects of crop production activities were organized by the University of Agricultural Sciences, Raichur

Technological Intervention

The interventions as decided on participatory approach were implemented successfully by the entire group members mainly because interventions were need-based, scientific and practically feasible to adopt. It was interesting to note that the technological interventions introduced among group members had a demonstration effect on the neighbouring farmers also.

Marketing Intervention and Institutional Linkage

Group marketing was promoted in order to reap the benefit of collective bargaining power in marketing of the produce. Further, market intelligence was also provided to the farmers through ICT- enabled measures regularly. FIGs were linked to UAS Raichur, Department of Agriculture/Horticulture for procurement of quality seeds and 100 per cent farmers availed of the facility. Similarly, Cooperative Marketing Federation was linked to FIGs for the supply of inputs, including chemical fertilizers of which about 80 per cent of the farmers availed the benefit. For procurement of quality micronutrients, pesticides and bio-inputs, etc. at reasonable price. FIGs were linked directly to the manufacturing agencies/companies and nearly 70 per cent farmers availed the benefit of this institutional arrangement.

It is worth noting that the major problem of marketing of sweet orange was addressed by arranging institutional linkages with the SAFAL market Bangalore and HOPCOMS, Bangalore and Raichur.

Impact of FIGs on Farmers' Income

To assess the impact of FIGs on production, productivity and famers' income from the selected crops, before and after approach was adopted and the details are discussed in the following section.

Pigeonpea Growers Group (PGG)

The wilt incidence is predominant in the Raichur district with an estimated effect of about 20 per cent annually. The yield reductions due to wilt have been reported up to 50 per cent (Ryan, 1981). It indicates the economic importance of development of wilt-resistant pigeonpea varieties. The UAS, Raichur, has developed a wilt-resistant pigeonpea variety, TS-3R, which was introduced among the members of FIGs also. About 80 per cent of the farmers adopted the recommended plant nutrients and plant protection management practices.

The impact analysis of collective action of farmers through FIG (Table1) in pigeonpea has revealed that

Table 1. Benefits to FIG in pigeonpea through technological and marketing interventions

Particulars	2010-11 Amount (₹)	2011-12 Amount (₹)	Average over 2 years (₹)
		Savings in cost of cultivation	
a) Per farmer	4,700	3,816	4,258
b) Per acre	1,253	753	1,003
c) Per quintal	246	215	231
		Additional net returns	
a) Per farmer	25,150	14,317	19,733
b) Per acre	6,680	2,826	5,941
c) Per quintal	1,310	807	1058
		Total additional benefit	
a) Per farmer	29,850	18,133	23,991
b) Per acre	7,933	3,579	5,756
c) Per quintal	1,556	1,022	1,289

there was not only reduction in cost of cultivation due to savings in costs of input but also getting additional returns because of adoption of recommended package of practices and institutional linkage with APMC and *Dal* mills for output marketing. The total additional benefit from savings in cost and additional net returns from output amounted, on an average, to ₹ 23,991/ farmer, of ₹ 5,756/ acre over two years of 2010-11 and 2011-12. Thus, it may mention that the savings as well as benefits to the farmers during 2011-12 were lower than in 2010-11 mainly because of drought like situation in 2011-12.

Sweet Orange Growers Group

Sweet orange is grown over an area of 900 hectares in the Raichur district. The productivity of sweet orange in Raichur district is well above the state and national average. But, the problems faced by the sweet orange growers in marketing are serious as they are not familiar with any other marketing channel of sweet orange and sell through pre-harvest contractors. A very few farmers also sell through private dealers in Bangalore and Hyderabad markets (Figure 1). Realizing this problem, the University of Agricultural Sciences, Raichur, formed a farmers' interest group of sweet orange

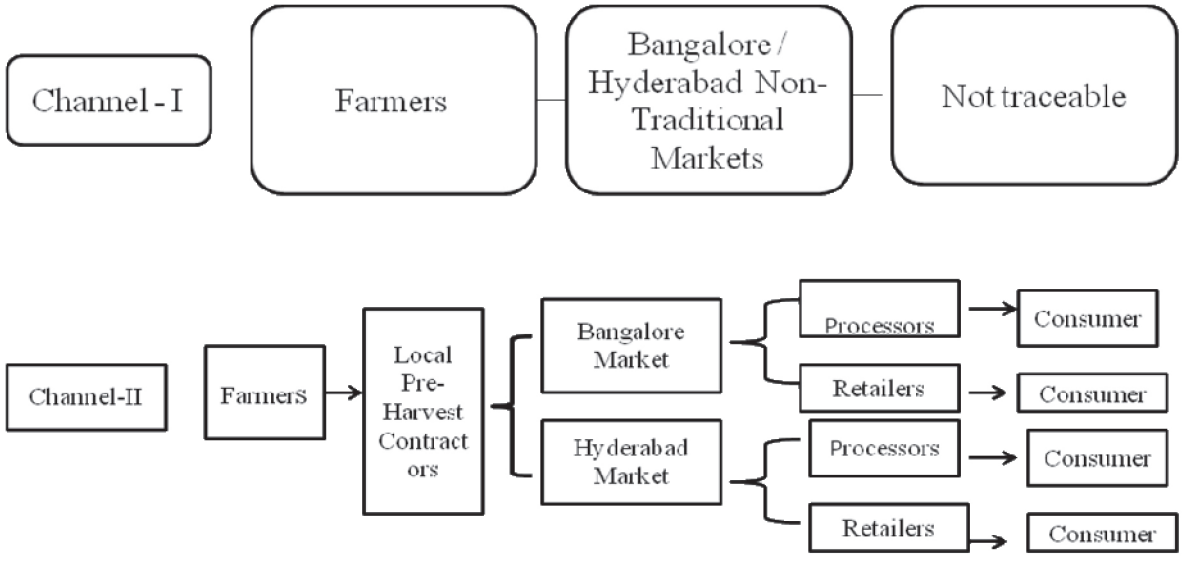

Figure 1. Existing marketing channels of sweet orange in Raichur District

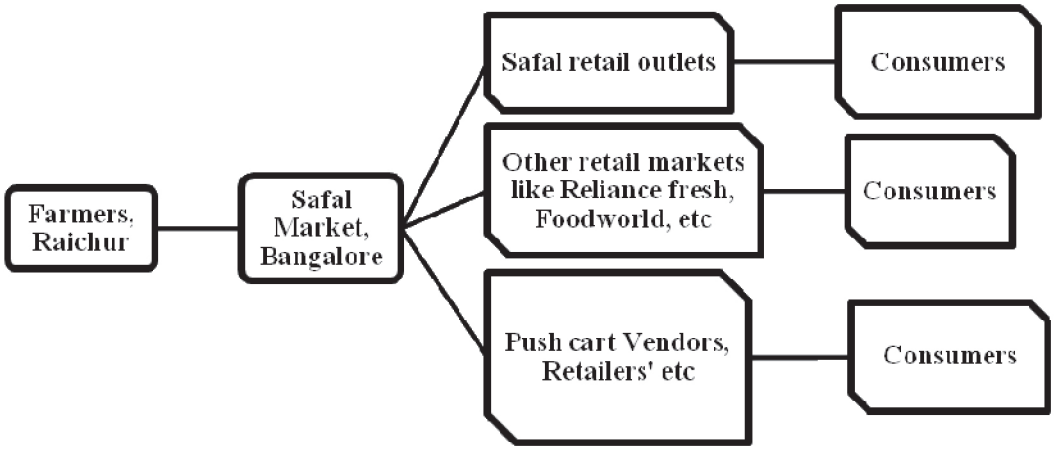

Figure 2. New institutional marketing channel /linkage introduced for sweet orange in Raichur district

growers, locally christened as "Raichur District Mosambi Growers Group" to address this problem through collective action. Since the formation of the group, UAS has provided technical information and has also tried to link the member-farmers to the institutional market "Safal", Bangalore. In this direction, University invited the marketing officers of Safal market to visit farmers' field and also provided training to the farmers regarding the quality specifications of sweet orange to be supplied to the Safal market. The University also provided opportunity to the sweet orange growers to understand the auction system, payment procedure, grading, etc. followed in Safal market, Bangalore, by arranging an exposure trip.

The new institutional market channel of sweet orange growers to Safal market, Bangalore, has been found highly profitable to farmers (Figure 2). Sweet orange growers obtained additional benefit of ₹ 7899/ tonne (78.5%) than from the private dealers in the Bangalore market and ₹ 8,456/tonne (89.5%) over the pre-harvest contractors by selling through Safal institutional market. This amounted to per acre additional profit of ₹ 47,394/- and ₹ 50,736/-, respectively.

The marketing cost, gross returns and net returns from the sale of sweet arrange through Safal market and Regulated fruits market are given in Table 3. A look at Table 3 reveals that additional benefit of ₹ 6,775 per tonne and ₹ 40,650 per acre was accrued to the farmers due to institutional linkage for production and marketing of sweet orange.

Conclusions and Policy Options

The study has concluded that formation of commodity-specific Farmers Interest Groups (FIGs) has been highly beneficial to farmers. After realizing the benefits of FIGs, the beneficiary members were more active in participation, meetings and adoption of

Table 2. Marketing practices in Safal market vis-à-vis other existing markets for sweet orange

Particulars	Safal Market, Bangalore	Private dealers, Bangalore
Commission / Service charges (%)	3.50	10.0
Deduction (kg/tonne)	30.0	100.0
Grading charges (₹ /kg)	0.10	—
Transaction cost (₹ /tonne)	—	150.0
Storage facility	Farmer can store up to 15 days without paying any charges	No facility
Payment procedure	Direct NEFT transfer to farmers' A/c or RDMBG A/c	Cash payment

Table 3. Economics of sweet orange marketing in Safal and regulated market systems

Sl. No.	Particulars	Safal market, Bangalore	Regulated market, Bangalore	% Change in Safal over regulated market
1	Commission / service charges (₹ /tonne)	632	1215	-92.25
2	Transportation cost(₹ /tonne)	2170	1750	19.35
3	Grading cost (₹ /tonne)	100	—	100.00
4	Deduction/Soot charges (₹ /tonne)	592	1350	-128.04
5	Transaction cost (₹ /tonne)	—	150	-150.00
6	Total marketing cost			
	a) ₹ /tonne	3494	4465	-27.79
	b) ₹ / acre	20964	26790	-27.79
7	Market price (₹ /tonne)			
	A–Grade	22000	20000	9.09
	B–Grade	13000	12000	7.69
8	Gross returns			
	a) ₹ /tonne	19304	13500	30.07
	b) ₹ / acre	115824	81000	30.07
9	Net returns			
	a) ₹ /tonne	15810	9035	42.85 (₹ 6775)
	b) ₹ / acre	94860	54210	42.85 (₹ 40,650)

improved technologies. The behavioural changes among selected farmers through group approach in terms of qualitative and quantitative aspects such as use of improved seeds, fertilizer applications, pesticide use, harvesting and marketing of produce have depicted a positive trend.

The promotion of FIGs and their linking to institutional agencies for input supply, output marketing and technological services delivery would result in improvement in livelihood of farmers, leading to economic sustainability. Therefore, there is a need to bring out a comprehensive policy with institutional framework and adequate incentives for promotion of FIGs for agricultural and horticultural crops in the country.

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