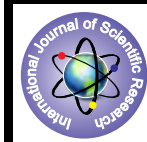


Contract Farming of Gherkin and Inclusive Growth: An Empirical Study in Davangere District of Karnataka



Economics

KEYWORDS :

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ABSTRACT

Contract farming is considered to be an institutional initiative undertaken to address the production and marketing problems faced by the farmers and also the procurement problems faced by the processing industries. Area under contract farming is growing over the years. This study made an attempt to ascertain empirical answer to the question; is the benefit of contract farming available to all sections of the society? This study is based on the primary data collected from 50 randomly selected contract farmers growing Gherkin for Green Agro Pack (GAP) Company and 50 randomly selected non-contract farmers. GAP has given preference to the farm families with adequate family labour as the Gherkin cultivation is a labour intensive operation. Chi-square results also proved the significant association between the size of family labour and inclusion in the contract farming. Contract farming observed to be inclusive as the ratio of small farmers as well as SC/ST farmers is relatively more.

1. Background

Diversification of Indian diets towards more and more of high value processed food products and increased export opportunity due to new economic policies increased the demand for high value processed food products. Demand-driven growth in high-value food production is expected to create significant income and employment opportunities for farmers. But production of high-value food commodities require more capital, quality inputs, improved technologies, and extension support, and smallholders face problems in accessing these (Key and Runsten, 1999). There is also an intense feeling that in the era of liberalization and globalization, small farmers are completely neglected and marginalized from high value agribusiness activities and hence unable to derive maximum benefits due to their fragmented and uneconomic size of holdings and inadequate access to external inputs and services (Chengappa, 2009).

On the one hand, the small and marginal farmers find it difficult to cultivate high value agriculture products on the other hand the procurement of raw materials with right quantity and quality, minimum cost and time poses a serious problem for the food processing industries. Contract farming is considered to be an institutional initiative undertaken in recent years to address the production and marketing problems faced by the farmers and also the procurement problems faced by the processing industries. Realising the importance of contract farming, Governments at different levels have been adopting the policies which supports the contract farming. As a result, the area brought under contract farming has been increasing over the decades.

In this background, researchable question are; are the benefit of contract farming available to all sections of the society? Is the contract farming system unbiased towards small and large farmers while selecting their contract partners? Similarly, is it unbiased towards SC/ST and the farmers belonging to the other categories? If answer to these questions is 'Yes', then we could consider that the growth promoted by the contract farming is inclusive in nature. This study made an attempt to ascertain empirical answer to these questions.

Birthal *et al.* (2005) found significant involvement of smallholders in contract farming of milk (56%) but not in poultry (32%). Roy and Thorat (2008) also found distribution of contract grape producers skewed towards lower end of land distribution. On the other hand, Kumar (2006) found only 15 percent contract farmers in Punjab are from the category of smallholders. No studies made the empirical assessment of inclusion of SC and ST families in contract farming. In this backdrop, this study

has been undertaken to assess the inclusion of SC/ST farmers as well as small and marginal farmers in the contract farming. Gherkin contract farmers having contract relationship with Green Agro Pack (GAP) Private Limited has been selected for this study.

2. Methodology

Contract farming in gherkin is specifically selected for this study as Karnataka state accounts for 90 percent of the gherkin export from India. Gherkin (baby cucumber) is a much sought after delicacy in the US and in Europe. Gherkin soaked in vinegar is consumed as a pickle or as a salad ingredient. Contract farming in this crop spread in many districts and this Gherkin revolution has turned many impoverished farmers into Lakhpathis. About 25 firms have selected Gherkin as a crop to cultivate under contract system. Green Agro Pack (GAP) Private Limited is one of the companies involved in contract farming in gherkin. It is 100 percent export oriented unit situated in Davangere taluk of Karnataka state. List of Davangere taluk farmers undertaking contract farming in gherkin through GAP has been collected. From this list ten villages in which contract farming in Gherkin is being widely under taken have been randomly selected. Fifty contract farmers in Gherkin have been randomly selected from the ten villages and such farmers are considered as included in contract farming or as contract farmers. List of farmers who have not undertaken contract farming in Gherkin has been prepared for all the ten villages selected for this study and such farmers are considered as not included in contract farming or as non-contract farmers. Comparison of profile of contract farmers with others is the main objective behind the selection of the non-contract farmers. Primary data on the socio-economic profile of the randomly selected farmers has been elicited by using a well-structured pre-tested schedule.

3 Results

General Manager and Extension officer of the company were consulted in order to ascertain the criterion used by them to choose their contract partners. GAP Company considers the following criterion while choosing the farmers for the contract farming in Gherkin; i) The soil of the land cultivated by the farmer should be suitable for growing the gherkin. The land cultivated by the farmer may be owned or leased in, ii) the farm should have irrigation facility. Irrigation facility may also be owned or leased in, iii) Gherkin cultivation is labour intensive. Therefore GAP Company gives preference to those families which have adequate family labour. Considering these criterions, in this section an attempt has been made to empirically verify the hypotheses formulated for this study.

Distribution of contract farmers and non-contract farmers across the different farm size category is given in table 1. Out of 50 randomly selected contract farmers 24, 42 and 34 percentage of contract farmers were from marginal, small and large size category. The corresponding figure for non-contract farmers is 30, 30 and 40 respectively. Distribution of contract farmers across the different farm size category is not much different from that of non-contract farmers. However, the ratio of marginal farmers in the sample group is relatively low compared to the ratio of marginal farmers in the overall farm households of the district. Marginal, Small and large farmers constitute 45.4, 30.4 and 24.2 percent of the total farm households of the district.

Table-1: Farm Size and Inclusion in Contract Farming

Sl. No	Farm Size	Inclusion in Contract Farming		
		Contract Farmers	Non-Contract Farmers	Total
1	Marginal Farmers (< 1 hectares)	12 (24.0)	15 (30.0)	27 (27.0)
2	Small Farmers (1 to 2 hectares)	21 (42.0)	15 (30.0)	36 (36.0)
3	Large Farmer (> 2 Hectares)	17 (34.0)	20 (40.0)	37 (37.0)
4	Total	50 (100.0)	50 (100.0)	100 (100.0)
	Chi-Squire χ^2	1.576		

Note: Figures in parenthesis are percentage to the respective column total

In order to test the significance of association between the farm size category and inclusion in contract farming chi-square value was calculated. Since calculated chi-square value (1.576) is less than the critical value (5.99) for 2 degrees of freedom at 5 percent probability level, the null hypothesis 'Inclusion in contract farming is independent of the farm size category'. Thus, it could be inferred that the GAP Company is not discriminating the farmers of different farm size category while choosing their contract partners.

Distribution of sample respondents between SC/ST and other caste is given in table 2. SC/ST farmers constitute 60 percent of randomly selected 50 contract farmers. Only 40 percent of the contract farmers belong to the other caste. The corresponding figure for the non-contract farmers is 36 and 64 percent respectively. Chi-square value was calculated to test the significance of association between the inclusion in contract farming and caste of the respondents. Since, calculated chi-square value (5.769) was found to be greater than the table value for 1 degree of freedom at 5 percent probability value (3.84), it is statistically significant. The percentage of SC/ST farmers selected for contract farming is relatively more. It might not be the deliberate attempt by the company but incidentally it might have happened as the company gives strong preference to the labour abundant families. It needs in-depth study based on larger sample size.

Table-2: Caste and Inclusion in Contract Farming

Sl. No	Caste	Inclusion in Contract Farming		
		Contract Farmers	Non-Contract Farmers	Total
1	SC/ST	30 (60.0)	18 (36.0)	48 (48.0)
2	Others	20 (40.0)	32 (64.0)	52 (52.0)
3	Total	50 (100.0)	50 (100.0)	100 (100.0)
4	Chi-Squire χ^2	5.769**		

Note: Figures in parenthesis indicate the percentage to total

** indicate significance at 5 percent probability level

Farm households have been classified into three groups based on the number of working age groups members actively working in the agriculture. The families with less than two working age group members of the family actively working in agriculture as small labour size family and similarly 3-4 working members involved in agriculture as medium and families with more than 5 family members working in agriculture as large labour size family. Distribution of contract and non contract respondents' household across these size categories is given in table 3. Small, medium and large family labour size household constitute 20, 48 and 32 percent of the total contract farmers' households. The corresponding figures for the non-contract farmers are 48, 36 and 16 percentages. It clearly shows that GAP Company is bias towards the families with more number of family labours working in agriculture while choosing their contract partners.

Table-3: Size of Family labours and Inclusion in Contract Farming

Sl No	Size of Family Labour	Inclusion in Contract Farming		
		Contract Farmers	Non-Contract Farmers	Total
1	Small (0-2)	10 (20.0)	24 (48.0)	37 (37.0)
2	Medium (3-4)	24 (48.0)	18 (36.0)	41 (41.0)
3	Large (5+)	16 (32.0)	8 (16.0)	22 (22.0)
4	Total	50 (100.0)	50 (100.0)	100 (100.0)
	Chi-Squire χ^2	9.288*		

Note: Figures in parenthesis indicate the percentage to total

* indicate significance at 1 percent probability level

The chi-square value calculated to test the significance of association between the inclusion in contract farming and the size of family labour found to be statistically significant at 1 percent probability level. Therefore, there is significant association between the inclusion in contract farming and the size of family labour. Thus, it could be inferred that GAP Company given preference to the families with more number of workers involved in agriculture.

4. Conclusion

Green Agro Pack (GAP) Company, Gherkin processing firm, prefer to choose the farm families which are being cultivating the land with suitable soil structure and adequate irrigation facilities as their contract partners. Farm families with adequate family labour will be preferred for this purpose as the Gherkin cultivation is a labour intensive operation. Chi-square results also proved the significant association between the size of family labour and inclusion in the contract farming. In the selection process, GAP, doesn't discriminate the farm families of different farm size category. However, the ratio of marginal farmers in the sample group is relatively low compared to the ratio of marginal farmers in the overall farm households of the district. Further, the percentage of SC/ST farmers selected for contract farming is relatively more. It might have been incidentally happened as the company gives strong preference to the labour abundant families.

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