

## Socio-economic Impact Analysis of Contract Farming of Gherkin in Karnataka

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### ABSTRACT

Gherkin (*Cucumis anguria L.*) is an export-oriented vegetable (cucurbit) crop. Karnataka state accounts for almost 90 per cent of export of preserved gherkins. Its cultivation is largely driven through contract farming. The present study was undertaken with the specific objectives of (i) to analyze the socioeconomic impact of contract farming of gherkin on farmers and (ii) to study the perceptions of farmers about the socio-economic implications of contract farming of gherkin. The study was carried out in two randomly selected talukas, viz. 'Kunigal' and 'Sira' of purposively selected 'Tumkur' district of Karnataka state. The total sample size comprising 60 respondents (30 from each of the two selected taluka) who were drawn randomly from the list of gherkin contract farmers, provided by contracting companies, namely Global Green Contracting company and 'Reitzil' company. The socioeconomic impact was determined in terms of six broad aspects of consequences and socio-economic implications were explored on the basis of eight dimensions of change indicators. The data was collected through a pre-tested structured interview schedule. The overall analysis of socio-economic impact revealed that with the participation in gherkin contract farming, the farmers were able to improve their standard of living and status in the society. A large majority of respondents (81.70 %) reported about diversification of cropping system more than half, (53.30 %) of the respondents were able to repay their pending loans. All the respondents felt that gherkin contract farming provided employment opportunities to a large extent and thereby helps to check out migration/displacement. The finding emanating from study makes a strong case for promoting the model of contract farming of gherkin on a wider scale.

**Key words:** Contract farming, Gherkin, Impact analysis, Socio-economic implications.

### INTRODUCTION

Gherkin (*Cucumis anguria L.*) belonging to the family Cucurbitaceae is a vegetable crop, which has been introduced in India in the year 1989 for commercial production, mainly for exports. It is also known as pickling cucumber as the fruits are used for preparing pickles and are a common ingredient in hamburgers. Karnataka state accounts for almost 60 percent of gherkin production and leads in exporting preserved gherkins with a share of more than 90 per cent in total export. Gherkin cultivation in India is driven largely through contract farming. The lack of domestic marketing is one of the reasons for the success of gherkin contract farming. The contract farming offers advantages of reduced capital investment, reduced risk of price fluctuation, guaranteed returns and provision of technical assistance to the farmers. A sizable number of small and medium farmers are practicing contract farming of gherkin in Karnataka. Since impact of contract farming on farmers has not been studied adequately in India, the present study was planned and conducted to analyze the socioeconomic impact of contract farming on gherkin farmers and study the perceptions of farmers about the socioeconomic implications of contract farming of gherkin.

### METHODOLOGY

#### Sampling procedure

The study was conducted in purposively selected 'Tumkur' district of Karnataka state, owing to its large area under successful contract farming of gherkin. Out of the 10 talukas in the district, kunigal and Sira were selected randomly. A list of gherkin contract farmers was obtained from the two contracting companies namely 'Global Green Contracting Company' and 'Reitzil' company. By using simple random sampling technique, villages were selected in such a manner as to draw a sample of 60 respondents. The number of farmers selected from each of the two Talukas were 30, thus making the total sample size of 60 respondents.

#### Socio-economic impact

The socio-economic impact of the gherkin contract farming was determined/measured in terms of consequences experienced by the respondents after selling the harvested produce from their farms. A list of consequence items was prepared with reference to six broad aspects of consequences, namely farm, material possession, living standards, economic, house, family and social changes. The respondents were asked to react to each of the items as 'Yes' or 'No'.

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### Perceptions about socioeconomic implications

In order to gain a deeper understanding of the impacts, the perceptions of farmers about the socio-economic implication of contract farming of gherkin were explored. The perceptions were studied in terms of 10 selected dimensions/factors. The responses of the respondents were recorded on an inventory of statements based on the specific socio-economic change indicators.

### Research design, data collection and analysis

The study followed *ex-post facto* research design. The data were collected from the respondents through a pre-tested structured interview schedule. The data were tabulated, processed and analyzed through application of simple statistical techniques like frequency, percentage *etc.*

## RESULTS AND DISCUSSION

### Socio-economic impact of contract farming on gherkin farmers

Different dimensions/indicators of socioeconomic impact among farmers as a result of contract farming of gherkin. The (table 1) showed that a large majority of the respondents felt that the contract farming of gherkin resulted in improvements of existing lands (85.00%). The reason may be higher application of FYM and other fertilizers. Majority of the respondents reported no change in respect of indicators like 'leased out lands for cultivation' (98.33%), 'dug new well' (95.00%) and 'deepened the existing well' (83.33%). All the respondents did not experience any change in indicators like 'purchase of lands', 'leasing of the lands for cultivation' and 'purchase of tractor'. Higher income owing to gherkin contract farming helped the farmers in acquisition of household materials. A vast majority of respondents expressed that they purchased household appliances (73.33%), purchased new utensils (65.00%) and purchased new jewellery (53.33%).

The gherkin contract farming improved in the living standards of people in the study area. All respondents expressed about improvement in consumption of nutritious food, best education for their children and better health care to their family members. The overall analysis showed that the increase in living standards was relatively more than other types of changes. These changes are significant as they influence the quality of life of the people. Under economic changes, diversification of (81.67%) cropping system was observed in case of a large majority of respondents. More than half the respondents (53.33 %) were able to repay their old loans. It was observed that a fairly large proportion of the respondents (63.33%) modified their existing houses, but not even a

single farmer either purchased or constructed a new house.

Gherkin contract farming significantly changes social life of the respondents. All the respondents felt that there were positive changes in terms of increased extension agency contact. A vast majority of the respondents (96.67%) indicated that their communication skills improved; 93.33 per cent stated that they could gain the opinion leadership status; and 91.67 per cent of them opined that their organizational participation increased. Moreover, 88.33 per cent of the respondents reported increased in outside contacts, very few (1.67%) of the respondents stated that they subscribed to farm publications.

**Table 1: Socio-economic impact among farmers as a result of contract farming of gherkin**

**n=60**

S. No.	Aspects of consequences	Change indicators			
		Yes		No	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
<b>I. Farm changes</b>					
1	Purchased new land	00	00.00	60	100.00
2	Improved the existing land	51	85.00	09	15.00
3	Leased in land for cultivation	00	00.00	60	100.00
4	Leased out land for cultivation	01	01.67	59	98.33
5	Deepened the existing well	10	16.67	50	83.33
6	Dug new well	03	05.00	57	95.00
7	Purchased new implements	25	41.67	35	52.33
8	Purchased new tools / equipments	13	21.67	47	78.33
9	Purchased new tractor/ tyre cart	00	00.00	60	100.00
10	Purchased additional livestock	10	16.67	50	83.33
<b>II. Material changes</b>					
1	Purchased new utensils	39	65.00	21	35.00
2	Purchased household appliances	44	73.33	16	26.67
3	Purchased new jewelry	32	53.33	28	46.67
4	Purchased new vehicles	04	06.67	56	93.33
5	Purchased TV, radio, phone, VCD, etc.	30	50.00	30	50.00
<b>III. Changes in living standards</b>					
1	Improvement in education to children	60	100.00	00	00.00
2	Improvement in health care	60	100.00	00	00.00
3	Improvement in consumption of nutritious food	60	100.00	00	00.00
4	Improvement in clothing	51	85.00	09	15.00
5	More expenditure on religious and others	02	03.33	58	96.67

### Perceptions of farmers about the socioeconomic implications of contract farming of gherkin.

The data on perceptions of farmer respondents on socio-economic implication of gherkin contract farming revealed that all the respondents felt that constant gherkin farming provided employment opportunities to a great extent. It was observed that the gherkin farming provided

employment opportunities mainly during harvesting and staking period. A few respondents (3.33%) stated that small-scale displacement and migration as a result of contract farming of gherkin.

All the respondents felt that the gherkin farming did not have any impact on the local price of foods like rice, wheat *etc.* A vast majority of the respondents (98.33%) indicated that gherkin farming was more prestigious than other types of crop cultivation. It also led to improvement in the education of their children. All the respondents felt that the gherkin farming adversely affected the health of the people mainly during pesticide spray and that the women were more affected during harvesting, weeding and staking stages and it led to the problem of headache and fever. However, a small proportion of the respondents (16.67%) stated that children faced vomiting problems while working in gherkin fields. Interesting all the respondents felt that there was no conflict among the villagers due to contract farming of gherkin.

**Table 2: Perception of respondents on socio-economic implications of gherkin contract farming (n=60)**

Sl. No.	Socio-economic factors	Categories	Change indicators	
			Frequency (f)	Percentage (%)
1.	Employment opportunity	a. Yes to a larger extent	60	100.00
		b. Very little	-	-
		c. Not at all	-	-
2.	Displacement /migration	a. Large scale displacement and migration	-	-
		b. Some are displaced and migrated	-	-
		c. Some displaced and no migration	02	3.33
		d. No displacement and no migration	58	96.66
3.	Local price of foods like rice/ wheat	Yes/no		No
		If yes, to what extent		
		a. To unaffordable limits	-	-
		b. To affordable limits	-	-
4.	Prestige	a. Gherkin farming	59	98.33
		b. Paddy cultivation	-	-
		c. Others	01	1.66
5.	Health	a. Adversely affected	60	100.00
		b. No impact	-	-
6.	Women	a. Most affected	-	-
		b. Affected more during harvesting and weeding time	60	100.00
		c. Less affected	-	-
		d. Health problems (similarly for men during pesticide spray)	60	100.00
7.	Children	a. Provide education	60	100.00
		b. Help during gherkin farming (whenever they are free)	12	20.00
		c. Vomiting occurs when the children consume berries	10	16.66
8.	Conflicts	Yes/No	60 (No)	100.00
		If yes, frequency/ type		

\* Multiple Responses

**CONCLUSION**

The findings indicate that the contract farming of gherkin in Karnataka is a profitable proposition for the farmers. The farmers preferred to be engaged in contract farming of gherkin because of prestige factor and motive for higher economic returns. A significant proportion of the respondents was able to improve their home status, material possession, economic returns and farm status from gherkin farming. The overall impact analysis revealed that contract gherkin farming led to improve the living standards and socio-economic status of gherkin farmers. The gherkin contract farming has also helped in improving employment opportunities, communication skills, and leadership skills among the participating farmers. The study has proved the contract farming of gherkin to be more rewarding to the farmers than to other high-value commercial crops in Karnataka state. Hence, there is an imperative need for encouraging and promoting the model of contract farming of gherkin to other agro-ecological regions.

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