

# Impact of Contract Farming on Economic Status of the Farmers Practicing Contract Farming

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**N. Harish**

*Lecturer in Economics, Adarsha PU College, Bangalore, Karnataka, India*

## Abstract

*This article focused on the economic impact of contract farming on respondents who are involved in contract farming. The various economic indicators of impact on contract framers are discussed. The study was conducted in two districts of Karnataka state viz., Bangalore Rural and Tumakuru. Two taluks each from each district, Tumakuru and Gubbi taluks from Tumakuru district and Nelamangala and Doddaballapura taluks from Bangalore Rural district were selected. Total three crops were selected purposively, namely Gherkin, Watermelon, Tomato. The respondents were selected based on simple random sampling techniques; the sample size was Gherkin 35, Tomato 35, Watermelon 10 and non-contract farmers 20 from each taluks of two districts.*

**Keywords:** Contract Farming, Occupation, Land holding, Irrigation, Income, Savings, Investment, etc.,

## Introduction

As a result of market liberalization and globalization, Indian agriculture in recent years created a situation in which the small farmers find difficulty in participating in the market economy. Because of this there will be continuation of migration of population to urban. The government has m encourage the farmers by promoting various income generating activities. But, such attempts have not performed to the expected level due to lack of proper forward and backward linkages. Contract farming is an exciting way of giving the power of scale to the small farmers, transferring corporate management skill to agriculture field, providing assured markets for the produce, reducing the transaction costs involved in the value chains of the commodities and of ensuring vertical integration through forward and backward linkages. In this regard, a study has been made to know the impact of contract farming on economic status of the practicing farmers.

## Research Gaps

- The studies such as Sahana.S, Nanjappa D & Vasanthi.C-2017, MRK. Murthy S, Bindumaduri-2013, have not focused on the role of government in uplifting the economic and social status of contract farmers in earlier literature.
- Some studies like Manjunath et.al-2016, MRK.Murthy & Bindumaduri-2013, Nivedita et.al-2013, not focused the role of farmers in contract farming and not focused on companies' drawbacks, ignored farmers welfare.
- Most of the studies like MD.Barkatur Rehman-2007, Dr.Manas Chakrabarti-2015, only focused general issues of contract farming, neglected to focus cost- returns and socio-economic impact of contract farming.
- The studies such as Sahana.S-2013, Varun Milani-2016, have not focused economic analysis, constraint and problems of contract farming.

### Limitations of the Study

- Micro level study, as it covers only two districts, four taluks in Karnataka State.
- The study focuses on contract farming only in the selected study area and only for three crops.
- Contract farmers and non contract farmers are only respondents, for the study.

### Occupation of Respondents

The occupational structure of contract farmers and non contract farmers are discussed here. Occupation is one of the important economic indicator and also income indicator of the respondent. To lead a better life, to fulfill all needs and to maintain family there is a need of income.

**Table 1 Occupation of the Respondents**

Occupation		Tumakuru		Bangalore Rural		Total		Test Statistics		
		No	%	No	%	No	%	Chi-Square	df	p value
Contract Farming	Agriculture & allied activities	139	86.88	141	88.13	280	87.50	0.414	3	0.937
	Self-business	15	9.37	15	9.37	30	9.38			
	Salary/Pension	6	3.75	4	2.50	10	3.13			
Non-Contract Farming	Agriculture & allied activities	32	80.00	33	82.50	65	81.25	2.215	3	0.529
	Self-business	4	10.00	4	10.00	8	10.00			
	Salary/Pension	4	10.00	3	7.50	7	8.75			

Source: Primary Data (Field Survey).

It is clear from that Table 1 majority (87.50 per cent) of contract farming respondents are engaged with agriculture and allied activities, in Tumakuru district majority (86.88 per cent) and in Bangalore rural district majority (88.13 per cent) of contract farming respondents are engaged in agriculture and allied activities. Majority (81.25 per cent) of non contract farming respondents are engaged in agriculture and allied activities, in Tumakuru district majority (80.00 per cent) and in Bangalore rural district majority (82.50 per cent) of non contract farming respondents are engaged in agriculture and allied activities. Less (3.13 per cent) of contract farming respondents are salary/pension holders, and less (8.75 per cent) of non contract farming respondents are also same category. The p 0.937 and p 0.529 values obtained by chi square test clearly indicates that, members involved in various

occupations across two districts under contract farming are independent and the same is seen in case of non contract farming. Majority of them 80 per cent of the farmers both contract and non contract farmers are engaged in agriculture and allied activities for the survival of the life. This is true across the districts. This indicates that agriculture is main occupation of respondents.

### Size of Land holding

Agriculture assets to the farmers are one of the good indicators of their financial position. Agricultural assets comprise of physical farm assets, irrigation and livestock possessing. Almost all of the farmers owned livestock. The details size of land holdings are given in Table-2.

**Table 2 Size of Land Holding of the Respondents**

Particulars		Tumakuru		Bangalore Rural		Total		Test Statistics		
		No	%	No	%	No	%	Chi-Square	df	p value
Contract Farming	Marginal	5	3.12	8	5.00	13	4.06	2.815	3	0.421
	Small	88	55.00	74	46.25	162	50.62			
	Semi-Medium	52	32.50	48	30.00	100	31.25			
	Medium	15	9.38	30	18.75	45	14.07			

Non-Contract Farming	Marginal	2	5.00	6	15.00	8	10.00	0.561	3	0.905
	Small	15	37.50	12	30.00	27	33.75			
	Semi-Medium	20	50.00	18	45.00	38	47.50			
	Medium	3	7.50	4	10.00	7	8.75			

**Source:** Primary Data (Field Survey)

It is also evident that, majority (50.62 percent) of contract farming farmers are belongs to small farmers. In Tumakuru district majority (55.00 percent) and Bangalore rural district (46.25 percent) of contract farming respondents belongs to small farmers' category. Majority (31.25 percent) of non contract farming respondents belong to semi medium category, in Tumakuru district majority (50.00 percent) and in Bangalore rural district majority (45.00 percent) of non contract farmers belongs to semi medium farmers. The p 0.421 and p.0905 values obtained by chi square test clearly indicates that, the size of land holdings across two districts under contract farming are independent and the size of land holdings across two districts

under non -contract farming are independent. Thus majority of the contract farmers have owned small of land holding and same is true in case of non contract farmers and across the districts also. It is a clear indication that small and semi-medium farmers are involved in contract farming as they need sustainable income.

### Sources of Irrigation

Irrigation is one of the most important inputs for farm activities. The agriculture is mainly depending upon rain, rain is seasonal in nature. To sustain and regular agricultural activities, there is a need of good irrigational facilities. In this regard source of irrigation of the respondents is depicted in Table-3.

**Table 3 Sources of Irrigation of Respondents**

Particulars		Tumakuru		Bangalore Rural		Total		Test Statistics		
		No	%	No	%	No	%	Chi-Square	df	p value
Contract Farming	Canal	0	0.00	0	0.00	0	0.00	4.855	2	0.088
	Open Well	30	18.75	45	28.13	75	23.44			
	Bore Well	84	52.50	81	50.62	165	51.56			
	Tank	0	0.00	0	0.00	0	0.00			
	Other	46	28.75	34	21.25	80	25.00			
Non-Contract Farming	Canal	0	0.00	0	0.00	0	0.00	1.401	2	0.496
	Open Well	12	30.00	8	20.00	20	25.00			
	Bore Well	22	55.00	27	67.50	49	61.25			
	Tank	0	0.00	0	0.00	0	0.00			
	Other	6	15.00	5	12.50	11	13.75			

**Source:** Primary Data (Field Survey)

With regard to sources of irrigation, it is observed in Table 4.7 that, majority (51.56 percent) of contract farmers and majority (61.25 percent) of non contract farmers are using bore well as main source of irrigation. In Tumakuru district 52.25 per cent and in Bangalore rural district 50.62 per cent of contract farmers are using bore wells as main source of irrigation. In Tumakuru district majority (55.00 percent) in Bangalore rural district majority (67.50 percent) of non contract farmers are using

bore wells as main irrigation source. The p 0.088 and p 0.496 values obtained by chi square test clearly indicates that, the sources of irrigation across two districts under contract farming are independent and the sources of irrigation across two districts under non-contract farming are independent. Thus, major source of irrigation in study area is bore well in case of contract and non contract farming across the districts. This result has resembled with national level trends.

### Annual Income of Respondents

Income is very important to lead a life and engage agricultural activities. The farmers are getting their

income from various sources. The income from agriculture, animal husbandry and total income of the respondents is in Table - 4.

**Table 4 Annual Income of Respondents**

Indicator	Particulars	District		Test Statistics		
		Tumakuru	Bangalore Rural	Independent sample t test	df	p value
Agriculture	Contract Farming	1,59,378	1,58,646	1.169	398	.243
	Non Contract Farming	1,58,575	141111			
	Average	1,592,17.37	1,55,138.97			
Animal Husbandry	Contract Farming	38,708	39,805	-.806	398	.421
	Non Contract Farming	34,276	36,495			
	Average	37,821.88	39,142.87			
Total Income	Contract Farming	1,98,086	1,98,451	.703	398	.482
	Non Contract Farming	1,92,851	1,77,606			

Source: Primary Data (Field Survey)

The average annual income from agriculture of contract farmers and non contract farmers in Tumakuru district is 1,59,217 and Bangalore rural district is 1,55,138. The p .243 value obtained from independent sample t test clearly indicates that, difference between the average total income of agriculture between Tumakuru and Bangalore rural districts is statistically insignificant. The average annual income from animal husbandry of contract farmers and non contract farmers in Tumakuru district is 37,821 and Bangalore rural district is 39,142. The p .421 value obtained from independent sample t test clearly indicates that, difference between the average total income of animal husbandry between Tumakuru and Bangalore Rural districts is statistically significant. The annual

total income of contract farming respondents in Tumakuru district is 1,98,086 and non contract farming respondents is 1,92,851 and in Bangalore rural district annual total income of contract farming respondents is 1,98,451 and non contract farming respondents is 1,77,606. The p .482 value obtained from independent sample t test clearly indicates that, the difference between the average total income of all sources between Tumakuru and Bangalore Rural districts is statistically insignificant.

### Material Possession

The material possession includes, Farm Power, Agriculture Implements and other. This is discussed in Table 5.

**Table 5 Farm Power Material Possession**

Indicator	Particulars	Before	After	Test Statistics		
				Paired Sample 't' test	df	p value
No. of Draft animals	Tumakuru	.51	1.51	-17.833	159	.000
	Bangalore Rural	.54	1.58	-17.088	159	.000
	Grand Mean	.53	1.53	-24.683	319	.000
No. of Power tillers	Tumakuru	.47	1.47	-16.107	147	.000
	Bangalore Rural	.52	1.46	-16.846	150	.000
	Grand Mean	.49	1.47	-23.277	298	.000
No. of Tractors	Tumakuru	.53	1.00	-10.622	126	.000
	Bangalore Rural	.48	1.00	-12.467	143	.000
	Grand Mean	.50	1.00	-16.371	270	.000

Source: Primary Data (Field Survey)

Table 5 indicates that, farm power material possession of respondents. The average number of draft animals in Tumakuru district before contract farming was .51 and after contract farming is 1.51. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of draft animals before and after joining contract farming in Tumkur district differs significantly. The average number of draft animals in Bangalore rural district before contract farming is .54 and after contract farming is 1.58. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of draft animals before and after joining contract farming in Bangalore Rural district differs significantly. The average number of draft animals of respondents, Grand Mean value obtained before contract farming from both the districts is .53 and grand mean values is 1.53 after contract farming by applying test statistics. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of draft animals before and after joining contract farming in both districts differs significantly. Thus, the possession of draft animals has improved drastically after contract farming.

Table 5 also indicates that, number of power tillers, Tumakuru district before contract farming is .47 and after contract farming is 1.47. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of draft animals before and after joining contract farming in Tumkur district differs significantly. The number of power tillers in Bangalore rural district before contract farming is .52 and after contract farming is 1.46. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of power tillers before and after joining contract farming in Bangalore Rural district differs significantly. The number of power tillers of respondents, Grand Mean value obtained before contract farming from both the districts is .49 and grand mean values is 1.47 after

contract farming by applying test statistics. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of power tillers before and after joining contract farming in both districts differs significantly. The possession of power tiller after contract farming has improved drastically due to change in technology.

The data depicted in table 5 indicates that, the number of Tractors in Tumakuru district before contract farming is .53 and after contract farming is 1.00. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of tractors before and after joining contract farming in Tumkur district differs significantly. The number of Tractors in Bangalore rural district before contract farming is .48 and after contract farming is 1.00. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of tractors before and after joining contract farming in Bangalore Rural district differs significantly. The number of Tractors of respondents, Grand Mean value obtained before contract farming from both the districts is .50 and grand mean values is 1.00 after contract farming by applying test statistics. The p .000 value obtained by Paired Sample 't' statistics test indicates that, the average number of tractors before and after joining contract farming in both districts differs significantly. The possession of tractor has improved significantly after contract farming due to increase in income and requirement of farming.

### **Investment and Savings**

In this section investment and savings of respondents are discussed. The investment and savings are very important to respondent to do their farming activities and to fulfill their needs. Savings is considered to be one of the major determinants of economic status. Saving is the remaining part of earning and expenditure. Present saving level decides the future expenditure and lifestyle.

**Table 6 Investment and Savings Details of Respondents**

Indicator	Tumakuru	Before						After					
		Bangalore Rural		No		Total		Yes		No		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Savings out of total income	Tumakuru	4	2.50	156	97.50	160	100.00	146	91.25	14	8.75	160	100.00
	Bangalore Rural	0	0.00	160	100.00	160	100.00	141	88.13	19	11.88	160	100.00
Insurance for the family member	Tumakuru	30	18.75	130	81.25	160	100.00	147	91.88	13	8.13	160	100.00
	Bangalore Rural	25	15.63	135	84.37	160	100.00	153	95.63	7	4.38	160	100.00
Investment in private equity funds	Tumakuru	0	0.00	160	100.00	160	100.00	7	4.38	153	95.63	160	100.00
	Bangalore Rural	0	0.00	160	100.00	160	100.00	3	1.88	157	98.13	160	100.00
Investment in purchasing land	Tumakuru	0	0.00	160	100.00	160	100.00	4	2.50	156	97.50	160	100.00
	Bangalore Rural	0	0.00	160	100.00	160	100.00	2	1.25	158	98.75	160	100.00
Investment in purchasing house	Tumakuru	0	0.00	160	100.00	160	100.00	4	2.50	156	97.50	160	100.00
	Bangalore Rural	0	0.00	160	100.00	160	100.00	9	5.63	151	94.38	160	100.00

**Source:** Primary Data (Field Survey)

The various indicators like Savings out of total income, Insurance for the family member, Investment in private equity funds, Investment in purchasing land and Investment in purchasing house used to understand investment and savings of the respondents in the study area. This is clear from Table 6.

It could be observed from the Table 6 that the, savings out of total income of respondents in Tumakuru district before contract farming is 2.50 percent and 97.50 percent of respondents was not done savings. After contract farming savings out of total income of respondents is 91.25 percent done savings and 8.75 percent of respondents were

not done savings. It indicates that, after contract farming in the Tumakuru district savings out of total income are improved. It was in Bangalore Rural district before contract farming no one respondent done savings out of total income, and after contract farming 88.13 percent of respondents done savings and 11.88 percent of respondents were not done savings out of total income.

The data depicted in Table 6, insurance for the family member of respondents in Tumakuru district before contract farming 18.75 percent of respondents was done insurance and 81.25 percent was not done insurance for the family member. After contract farming is 91.88 percent of respondents were done insurance and 8.13 percent were not done insurance for the family members. It indicates that, after contract farming in the Tumakuru district insurance for the family member was improved. It was in Bangalore rural district before contract farming 15.63 percent of respondents was done insurance and 84.37 percent were not done insurance for the family member. After contract farming 95.63 percent of respondents done insurance and 4.38 percent of respondents were not done insurance for the family member. It indicates that, after contract farming in the Bangalore Rural district insurance for the family member was improved.

Table 6 indicates that, the investment in private equity funds of respondents in Tumakuru district before contract farming the respondents was not done investment in equity. After contract farming is 4.38 percent of respondents were done investment and 95.63 percent were not done investment in private equity funds. It indicates that, after contract farming in the Tumakuru district investment in private equity funds was little improved. It was in Bangalore rural district before contract farming the respondents was done investment in equity. After contract farming 1.88 percent of respondents done investment and 98.13 percent of respondents were not done investment in private equity funds. It indicates that, after contract farming in the Bangalore Rural district investment in private equity funds was little improved.

Result presented in Table 6 indicates that, the investment in purchasing land of respondents in Tumakuru district before contract farming

the respondents was not done investment. After contract farming is 2.50 percent of respondents were done investment and 97.50 percent were not done investment in purchasing land. It indicates that, after contract farming in the Tumakuru district investment in investment in purchasing land was little improved. It was in Bangalore rural district before contract farming the respondents was done investment in purchasing land. After contract farming 1.25 percent of respondents done investment and 98.75 percent of respondents were not done investments in purchasing land. It indicates that, after contract farming in the Bangalore Rural district investment in purchasing land was little improved.

Data in Table 6, investment in purchasing house of respondents in Tumakuru district before contract farming the respondents was not done investment. After contract farming is 2.50 percent of respondents were done investment and 97.50 percent were not done investment in purchasing house. It indicates that, after contract farming in the Tumakuru district investment in investment in purchasing house was little improved. It was in Bangalore rural district before contract farming the respondents was done investment in purchasing house. After contract farming 5.63 percent of respondents done investment and 94.38 percent of respondents were not done investments in purchasing house. It indicates that, after contract farming in the Bangalore Rural district investment in purchasing house was little improved.

## Conclusion

The material possession, investment and savings, annual income was increased compared to before and after contract farming. The contract farming is helpful to increase the standard of life of the farmers.

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#### Author Details

**Dr. N. Harish**, Lecturer in Economics, Adarsha PU College, Bangalore, Karnataka, India,  
**Email ID:** hariniki14@gmail.com