

## **Contract Farming of Sugarcane in Tamil Nadu**

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### **ABSTRACT**

A study was conducted on contract farming in sugarcane in Thanjavur district of Tamil Nadu during April-May, 2005. The data collected from 100 randomly selected sugarcane contract farmers revealed that assured price, credit, market, inputs, technology and reduced risk were perceived as the major motivating factors for contract farming in sugarcane. The farmers are highly satisfied with assured returns, risk reduction, timely availability of critical inputs including technical guidance, arrangement of credit and transport facility under various dimensions of contract farming. The factors such as delay in making contract, lifting produce at field, unloading the produce at factory and payment, inadequate field visit, falling ground water level and partiality towards big farmers were felt by farmers as major constraints in contract farming. Arrangement and supply of inputs in time, regular field visit and interaction with stakeholders to sort out the problems are the some of the suggested measures to further improve the performance of contract farming.

Over the years, assured procurement of crops at minimum supportive price has increased their production. However, this has created imbalances in the supply and demand of agricultural commodities, putting strain on natural resources. A slight increase in production of some of the crops leads to price crash in the absence of proper storage and processing facilities. Small land holders are normally reluctant to adopt new technologies because of the possible risks and costs involved. They are more likely to adopt new practices when they can rely on external resources for material and technological inputs. Having insulated from market risk, the focus of farmers shifts from prices to returns per acre. With a buyer in sight, the reliance of farmers on middlemen is almost eliminated. The entry of private sector under set rules and regulations can strengthen the existing marketing system and infrastructure facilities. In contract farming, a processing unit purchases the harvest of independent farmers under certain pre-negotiated terms and conditions on price, quantity, quality and input supply.

Sugarcane crop is in contract farming arrangement with sugar factories for very long time. Hence, a study on performance of contract farming under sugarcane will help to gain more knowledge and understanding and thereby assist in formulating appropriate policy measures. The present study was conducted with an objective of ascertaining the factors contributory to contract farming.

### **METHODOLOGY**

The study was conducted in Pattukottai and Peravurani taluks of Thanjavur districts in Tamil Nadu during April-May, 2005. The EID Parry Pvt. Ltd., a private sugar company started a factory at Kurumbur in Pudukottai district in 1999. A sample of 100 farmers who entered into agreement for contract farming in sugarcane with the company was randomly selected for investigation relating to the objectives of the study. A simple tabular analysis was carried out to interpret the results.

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## RESULTS AND DISCUSSION

### Factors contributing to prefer contract farming in sugarcane

The respondents were asked to indicate the factors that motivated them to enter into sugarcane contract farming. The results are indicated in Table 1. The table clearly reflects many advantages being obtained in contract farming. These incentives motivated the farmers to become assured sugarcane growers. The tail end region of the Kaveri Mettur Canal in Thanjavur and Pudukottai districts of Tamil Nadu were not getting the regular and adequate water supply owing to monsoon failure and poor storage in the earthen dam. In recent years, occurrence of drought and its effects also significantly affected the agriculture in the delta. The profitability of rice based cropping system is fast declining over the years, forcing the farmers to think about alternate cropping in the delta region.

**Table 1. Factors contributing to prefer contract farming (N = 100)**

motivating factors	Number	%
Assured price (Rs. 75/tonne during 2004-05)	85	85.00
Assured institutional credit (Rs. 4000/acre)	72	72.00
Assured market	70	70.00
Quality inputs in time	64	64.00
Reduce the risk	58	58.00
Get viable technologies	44	44.00
Assured transport facilities	40	40.00
Get effective buy-back	19	19.00
Scope for alternate cropping	13	13.00
Labour scarcity area		
Get more leisure time	12	12.00
Less management work		
Minimise labour problems	12	12.00
Have a better standard of living	9	09.00
Gain social respect	6	06.00

Many of the primary agricultural cooperatives societies have become defunct mainly due to mismanagement and wrong policy options of the ruling

governments. There is no steady market for produces of the farmers. The scarcity of labours and high wages during peak agricultural seasons also forced the farmers to look for crop diversification and alternate cropping. The commitment of the company to buy the crop at the contract price and its ability to ward off the competitors due to its size and scale of operations were the factors that contributed to the continued good relation between the company and the farmers.

### Performance of sugarcane contract farming

Contract farming performance refers to the efficiency with reference to farming, extension, market, economic and social benefits by comparing with the standards already set. The items pertaining to above aspects that could possibly represent the performance were presented to respondents and their responses were recorded as more satisfied, satisfied and least satisfied in a three-point continuum. The scores of 3, 2 and 1 were assigned accordingly.

**Table 2. Distribution of respondents according to performance of contract farming (N = 100)**

Items	Mean score	Rank
<b>Farming dimension</b>		
Minimum production risk	2.78	I
Assured income	2.63	II
Increased farm mechanisation	2.30	III
Assured production	2.27	IV
Learning new skills	1.87	V
Less water requirement comparing to paddy	1.55	VI
Overall mean score	2.23	
<b>Extension dimension</b>		
Timely availability of quality inputs	2.85	I
Regular technical guidance	2.69	II
Awareness about appropriate technology	2.65	III
Motivation by field officers	2.05	IV
Overall mean score	2.56	
<b>Market dimension</b>		
Assured price and ready market	2.78	I
Reduction in price risk	2.51	II



Overall mean score	2.64	
<b>Economic dimension</b>		
Reliable income	2.73	I
Adequate financial support	2.71	II
Elimination of middlemen	2.69	III
Immediate settlement of money	2.30	IV
Better standard of living	2.27	V
Getting transport arrangement	1.78	VI
Possibility for credit diversion to meet other expenses	1.63	VII
Less labour requirement compared to other crops	1.55	VIII
Overall mean score	2.21	
<b>Social dimension</b>		
Increased employment at village level	2.69	I
Coordination among farmers	2.46	II
Social recognition	2.00	III
More progressiveness	1.78	IV
More awareness about legal aspects	1.63	V
Awareness to adopt eco-friendly technologies	1.42	VI
Availability of more leisure time	1.27	VII
Overall mean score	1.89	

The data reported in Table 2 reveal that farmers were highly satisfied with respect to reduced production risk, assured returns, timely availability of critical inputs such as sugarcane setts, fertilizers, etc., regular technical guidance, adequate financial assistance from nationalised banks and transport facility for sending the harvested produce under various dimensions. The farmer is freed from market hassles as the company takes delivery of cane at the farm gate. No alternative use and the missing local market ensured that the farmer supplied the produce to the firm. Since the company started its operations only in 1999, it is able to satisfy the farmers' requirements quite well. Many farmers felt that if the present area is further expanded without increasing the crushing capacity at factory level, the performance under various dimensions as listed in the table is likely to decline. Already farmers in this region had a bitter experience of supplying cane to a cooperative sugar

factory situated at Kurunkulam near Thanjavur and was cultivating cane in some villages. The major problems attributed by the farmers for the above failure were delay in cutting orders, cutting orders not on priority basis, poor extension service, delaying of loan and payment, poor understanding with banks, split payment, low rate offered by the factory (Rs.720/tonne) and poor tie-up with transport owners and factory for loading and unloading of the harvested cane. Realising the above cited reasons, BID Parry company planned its activities in such a way that better performance of contract farming will result in higher satisfaction and increased prosperity to farmers. Glover and Kusterer (1990) advocated that the availability of alternative source of income is one of the important conditions for the success of contract farming management. The farmers get an access to new technology and services which otherwise might be outside their reach. The farmers could readily accept the new technology introduced by the company such as soil specific fertilizers (CO-86032 in sandy and sandy loam, COM-88121 in clay loam and COV-92102) in problem soils, improved method of planting, raised bed planting, channel irrigation, disease control, intercropping and fertilizer application.

#### Problems perceived by farmers in contract farming

The various problems encountered by contract farmers are presented in Table 3. Delay in supply of inputs like setts and fertilizers and delay in financial assistance will deprive the opportunity of farmers to plant setts in time and timely carrying out of field operations. Infrequent visit of field staff despite repeated requests from farmers through telephone will demotivate the farmers to future agreements. Exploitation of the farmers by the company would result in breakdown in supplies jeopardizing the investments made. Similarly, farmers should not be tempted by occasional spurt in prices in the open market and honour their commitment in the contract which will be beneficial in the long-run.

Farmers also reported that the ground water level has gone down from 30 feet in 1999 to 100 feet in 2000. The number of borewells has increased and loan is not arranged by the company for making borewell. Farmers are of the opinion that the contract farming is more beneficial to farmers as they have resources like sufficient land, labour, capital, vehicle etc. The company is also reported to have attracted big farmers due to their higher credibility and investment capacity.

**Table 3. Perceived problems of sugarcane contract farmers (N = 100)**

Problems	Number	%
<b>Administrative problems</b>		
Delay in supply of inputs	14	14.00
Inadequate field visit	12	12.00
Delay in making contract	8	08.00
Delayed payment for the produce	7	07.00
Frequent changes in field staff	3	03.00
<b>Financial problems</b>		
Delay in arranging financial assistance	30	30.00
High cost of cultivation	12	12.00
High transport cost	8	08.00
<b>Technological problems</b>		
Prevalence of pest and diseases	63	63.00
Unpleasant to work in sugarcane field due to physical strain	38	38.00
Threat of pest menace	3	03.00
Supply of poor quality inputs	3	03.00
<b>Resource problems</b>		
Inadequate irrigation potentiality	32	32.00
Shallow ground water table	30	30.00
Seasonal labour scarcity	17	17.00
Low soil fertility	16	16.00
Inadequate electrical supply	12	12.00
Inadequate transport facility	8	08.00
<b>Marketing related problems</b>		
Marketing orders not in time	16	16.00
Delay in lifting produce from field	9	09.00
Delay in unloading the produce	8	08.00
Management partial towards small farmers	3	03.00

### Implications of findings

The study has brought out number of observations which are significant for the Indian agriculture in the coming days as crop diversification is being emphasised by different stakeholders including the Government of India. Contract farming is an answer to imperfections in the market for agricultural commodities. The company is interested in reducing the transaction cost which can be achieved by contracting with small number of large farmers. The small farmers can form informal commodity associations of 25-30 farmers and deal as a group with the company. Despite the best efforts of the farmer if the crop is not meeting the quality standards, it should be made binding on the company to take the responsibility. The government should create an enabling environment for contract farming to thrive by providing proper legal framework, infrastructure facilities like roads, warehousing facilities etc.

Timely supply of inputs and credit help the farmers to grow the crop in season and obtain better yield. Adequate field visit of extension staff is essential to provide timely technical guidance and motivate the farmers to get higher yield. In the world of market driven economy, consumers and suppliers cannot be taken as independent entities as they form an integral part of the supply chain management. If the supply chain is not managed properly, the delivery chain is automatically affected, resulting in customer dissatisfaction and lost business. The alternate cropping and crop diversification schemes should be given adequate focus by government in the Cauvery delta region to enhance the soil fertility and prosperity of farmers. In contract farming, there should be a tripartite agreement between farmers, company and extension wing of the Government which will prevent the exploitation of the farmers and violation of the agreement by the company. An effective legal system is urgently required to solve problems arising out agreements.

### CONCLUSION

Most of the small and marginal farmers in India lack both reliable and cost efficient inputs such as quality seed, fertilizer, working capital, mechanisation services, extension advice and guaranteed and profitable markets for their output. Well-organised contract farming does however provide both backward and forward linkages and would appear to offer an important way in which small producers can do farming in a commercial manner.