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Impact of self help group financing on agricultural production - An empirical analysis in Salem District of Tamilnadu

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The small and marginal farmers constitute 80% of the operational holdings and cultivate nearly 36% of the area in India. Due to their small holdings, they are disadvantageously placed with respect to their access to technology, capital, credit and other institutional support. Hence to cater for the credit need of the weaker sections such as small and marginal farmers, the Self Help Group linkage programme was introduced in 1992 by the National Bank for Agriculture and Rural Development. The idea of introducing the Self Help Group programme was initiated from the successful experiences of other countries. The linkage programme under National Bank for Agriculture and Rural Development aims to reach those outside the network of formal credit, improve living standards of poorer sections of rural society and achieve high deposit – credit mobilisation and recovery of loans. The number of self help groups linked with banks had increased from 255 in 1992-1993 to 1609586 in 2008-2009. In this backdrop, many studies had attempted to study the impact of microfinance on economic condition of the poor. The findings of the study showed that marginal and small farmers were the beneficiaries of self help group. The farmer members of self help group were able to allocate the farm inputs efficiently. Additional amount of credit could increase the farm production of marginal and small farmers.

Key words: Self Help Group, marginal, farmers, programme.

INTRODUCTION

Agriculture contributes 14% to the Indian Economy. It provides employment to more than 50% of the population. The farm income is only a seasonal income; hence the farmers are in need of credit. The farmers in India need credit to meet both short term and long term expenses. The earlier studies had established the relationship between the farm credit and agricultural production (Coleman, 1999; Pallavi and Ramkumar, 2002; Pitt et al., 1998; Basu and Srivastava, 2005). In 1935, the Reserve Bank of India was established which set up agricultural department. It advised the State Government, Central Government and Co-operatives about the agricultural finance and coordinates the financial activities of the Reserve Bank in relation to agricultural credit. After independence, various policy measures such as the setting up of Agricultural

Refinance Corporation in 1963, All India Rural Credit Review Committee, nationalization of commercial banks in 1969, Lead Bank Scheme, setting up of Regional Rural Banks in 1975 and establishment of NABARD in 1982 were undertaken to improve the flow of agricultural credit (Agarwal et al., 1997).

The above policy measures increased the flow of institutional credit to the agricultural sector. The issue of institutional credit had increased from Rs. 8.18 billion in 1971-1972 to Rs. 2459.76 billion in 2008-2009. The co-operative banks played a dominant role in the distribution

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of agricultural credit till the year 2005-2006. From 2006-2007 onwards, the commercial banks were dominant in the disbursement of agricultural credit (Hand Book of Indian Economy, 2012). The small and marginal farmers constitute 80% of the operational holdings and cultivate nearly 36% of the area in India. Due to their small holdings, they are disadvantageously placed with respect to their access to technology, capital, credit and other institutional support (Annapoorani and Gandhimathi, 2012).

Hence to cater for the credit need of the weaker sections such as small and marginal farmers, the Self Help Group linkage programme was introduced in 1992 by the National Bank for Agriculture and Rural Development. The idea of introducing the Self Help Group programme was initiated from the successful experiences of other countries. The linkage programme under National Bank for Agriculture and Rural Development aims to reach those outside the network of formal credit, improve living standards of poorer sections of rural society and achieve high deposit – credit mobilisation and recovery of loans (Samapti and Gautam, 2005).

The number of self help groups linked with banks had increased from 255 in 1992-1993 to 1609586 in 2008-2009. The bank loan through self help group and the refinance assistance had also shown an increasing trend. The bank loan was amounted to Rs.122.54 billion in 2008-2009 through self help group. The amount of refinance availed through National Bank for Agriculture and Rural Development was Rs. 26.20 billion in 2008-2009 (Hand Book of Indian Economy, 2009). The spread of the Self Help Group–Bank Linkage Programme in different regions has been uneven with Southern States accounting for the major chunk of credit linkage (Ambigadevi and Gandhimathi, 2012).

In this backdrop, many studies had attempted to study the impact of microfinance on the economic condition of the poor. The attention of studies on the impact of Self Help Group Programme on financial inclusion in agricultural sector and agricultural production is very limited. Hence the present study attempted to analyse the impact of Self Help Group financing on farm production with the following specific objectives:

1. To study the cropping pattern and size of land holding of farm households of self help group.
2. To assess the working performance of Self Help Group among farmers.
3. To identify the factors determining formation of Self Help Group.
4. To assess the impact of Self Help Group financing on farm production.

The following null hypotheses were tested to fulfill the objectives:

1. The socio economic profile of farmers is independent

from the formation of Self Help Group.

2. There is no relationship between farm production and farm inputs of Self Help Group and Non-Self Help Group borrowers.

METHODOLOGY

The data for the study were purely primary in nature. For the present study, Salem district was selected. It is one of the districts endowed with dry agricultural land. Multi stage random sampling technique was used to select the sample. In Salem district, there are 21 community development blocks. In the first stage, among 21 community development blocks, Thalaivasal block was selected as it is one of the agricultural intensive blocks. In Thalaivasal block, Manivizhundhan is one of the agricultural intensive villages where 110 Self Help Groups and micro finance institutions are functioning. Hence, Manivizhundhan village was selected in the second stage. The state bank of India was identified as the bank for Self Help Groups for that village. Hence the State Bank of India was selected in the third stage as the financial institution linked with Self Help Group. Through state bank of India, 110 Self Help Groups were identified as the functioning groups in the village. In the fourth stage, from 110 groups, ten groups are selected as they are very successful in the Self Help Group financing. From ten groups, 50 Self Help Group members who were the borrowers were selected randomly. Finally, 50 non members and non borrowers of Self Help Groups were selected. Thus, the sample size in the present study was one hundred. The period of the study was confined to 2011-2012. The survey was conducted in the month of December, 2012.

To identify the factors determining the farmers to join in the Self Help Group, logistic regression analysis was used. The Cobb-Douglas productions of both Self Help Groups and Non-Self Help Groups were estimated to catch the impact of Self Help Group financing on agricultural production. The following forms of the logistic regression equation were estimated in the present study.

Logistic regression analysis

In the present study, logistic regression analysis was used to identify the factors determining the adoption of kcc. The following form of the equation was estimated in the logistic regression analysis:

$$G^* = YZ + \sum$$

Where,

G = Probability of farmer joining in the Self Help Group.

Y = Parameter co-efficient.

Z = Age of the farmer (in years), Education of the farmer (Illiterate = 0, Primary = 2, Secondary Education = 3,

Table 1. Cropping pattern of SHG and non-SHG borrowers (Area in hectares).

Crops	Self Help Group borrowers (Area in hectares)	Percentage	Non-Self Help Group borrowers (Area in hectares)	Percentage
Brinjal	7.60	11.5151	3.60	3.2491
Tapioca	16.80	25.4545	30.40	27.4368
Turmeric	26.80	40.6060	47.20	42.5992
Sugarcane	14.80	22.4242	29.60	26.7148
Total	66.00	100	110.80	100

Source: Field Survey.

Table 2. Size of land holding of SHG borrowers and non-SHG borrowers (Area in hectares).

Size of farmers	Size of land holders	
	Self Help Group Borrowers	Non-Self Help Group Borrowers
Marginal	17.1	7.0
Small	25.2	14
Medium	28.3	77.1
Semi medium	0	15.2
Total	70.6	113.3

Source: Field Survey.

Higher Secondary = 4, College = 5); Caste (MBC = 1, BC = 2); Secondary Occupation (0 = No sub-occupation, 1 = Sub-occupation); Size of land holding (in hectares), Consumption expenditure (in Rs), Farm Capital expenditure (in Rs), Farm assets (in Rs).

Cobb–Douglas production function

The form of the Cobb-Douglas production function estimated in the study was:

$$\log y = \beta_0 + \beta_1 \log X_1 + \beta_2 \log X_2 + \beta_3 \log X_3 + \beta_4 \log X_4 + \beta_5 \log X_5$$

Y = Value of production (in Rs)

X1 = Land holdings (in hectares)

X2 = Seeds (in Rs)

X3 = Wages (in Rs)

X4 = Fertilizers/pesticides (in Rs)

X5 = Hiring expenses on farm machineries and farm equipments (in Rs).

RESULTS AND DISCUSSION

Cropping pattern

Cropping pattern shows the area under each crop. The cropping pattern determines the availability of credit in the study area. The farmers in the study area cultivate Brinjal, Tapioca, Turmeric and Sugarcane. These crops are the major crops. Table 1 shows the cropping pattern in the study area.

Table 1 show that the turmeric dominated in the cropping pattern of Self Help Group borrowers. It alone accounted to be 40.61%. Next to this crop, the Tobacco dominated in the cropping pattern. It accounted for 25.45% in the case of Self Help Group borrowers. In the case of Non-Self Help Group farmers, the turmeric was the dominant crop in the cropping pattern. It alone accounted to be 42.5992%. The Tapioca was the next dominant crop in the cropping of Non-Self Help Group farmers. The Brinjal was the least important crop in the cropping pattern of both Self Help Group and Non-Self Help Group farmers.

The size of land holding of both Self Help Group and Non-Self Help Group borrowers is shown in Table 2. The table shows that the average size of land holding of marginal farmers was accounted to be 17.1 ha, small farmers as 25.2 ha, and medium farmers as 28.3 ha in the case of Self Help Group borrowers. In the case of Non-Self Help Group farmers, the size of land holding of marginal farmers was accounted to be 7.0 ha, small farmers as 14 ha, medium farmers as 77.1 ha and semi medium farmers as 15.2 ha. The total size of land holding of Non-Self Help Group farmers was higher than the Self Help Group borrowers.

Functioning of self help groups

Year of joining the self help group

The Self Help Group borrowers had joined in the group in different time periods. The number of members who joined in different time periods is shown in Table 3. In the

Table 3. Farmer category wise distribution of farmers joining in self help groups (Number).

Farmers category	2006	2007	2008	2009	2010
Marginal	5	3	6	6	1
Small	4	6	6	1	0
Semi Medium	3	2	5	2	0
Medium	0	0	0	0	0
Total	12	11	17	9	1

Source: Field survey.

Table 4. Farmer category wise distribution of the system of selecting group leaders in self help group (Number).

Farmers category	Election	Nomination	Informal selection
Marginal	9	12	0
Small	8	9	0
Semi Medium	4	6	2
Medium	0	0	0
Total	21	27	2

Source: Field survey.

Table 5. Farmer category wise distribution of bank accounts among self group and non-self group borrowers (In number).

Farm category	Self Help Group Borrowers					Non-Self Help Group Borrowers				
	SBI	PNB	IOB	KVB	IB	SBI	PNB	IOB	KVB	IB
Marginal	21	0	0	0	0	3	1	0	1	3
Small	17	0	0	0	0	1	5	1	2	0
Semi Medium	12	0	0	0	0	8	12	3	6	1
Medium	0	0	0	0	0	0	2	1	0	0
Total	50	0	0	0	0	12	20	5	9	4

Source: Field survey. Note: SBI - State Bank of India; PNB - Punjab National Bank; IOB - Indian Overseas Bank; KVB - Karur Vysya Bank; IB - Indian Bank.

year, 2008, the highest number of borrowers had joined in the group. It was numbered around 17 members. It was followed by 12 members in 2006 and 11 members in 2007. Only one member had joined the group in the year 2010.

Selection of leaders in the group

Minimum of 10 members and maximum of 20 members in a group is a condition for forming a self help group. Among the members, the group leader is selected based on election, nomination and informal selection. Table 4 shows the method of selection of group leaders among different categories of farmer borrowers.

Table 4 shows that among marginal farmers, nine group leaders were selected based on the election. In case of small farmers, eight leaders were selected based

on the election. Through nomination, 27 group leaders were selected. If a particular member is educated and able to understand the financial transactions, that particular person would act as a leader. It is called informal selection. Only two leaders were selected based on the informal selection. The above facts show that the highest number of leaders was selected based on the nomination.

Distribution of bank accounts across banks

The Self Help Group and the Non-Self Help Group borrowers had to maintain accounts with banks. An analysis was made to assess the number of accounts of Self Help Group and Non-Self Help Group borrowers with different banks. Table 5 shows the distribution of number of accounts of Self Help Group and Non-Self Help Group

Table 6. Farmer category wise distribution of members attending meeting (In number).

Farm category	Self Help Group Borrowers	
	All	Few
Marginal	13	8
Small	12	5
Semi Medium	8	4
Medium	0	0
Total	33	17

Source: Field Survey.

Table 7. Discussions in the group meetings.

Factors discussed	High preference (In number)	Low preference (In number)	Percentage	
			High preference	Low preference
Savings	22	9	44%	18%
Credit lending	19	12	38%	24%
Repayment issues	19	15	38%	30%
Income generating activities	19	8	38%	16%
Marketing of products	15	10	30%	20%
Education of children	15	13	30%	26%
Local political issues	15	9	30%	18%
Social issues	12	19	24%	38%
Local development problems	6	24	12%	48%
Health and sanitation	10	29	20%	58%

Source: Field survey.

borrowers.

All Self Help Group borrowers had maintained accounts with State Bank of India. But the Non-Self Help Group farmers had maintained accounts in different banks. Among Non-Self Help Group farmers, 12 semi medium farmers had maintained accounts with Punjab National Bank. It was the highest number, followed by State Bank of India. None of the marginal farmers had accounts with Indian Over Seas Bank.

In total, 20 Non-Self Help Group borrowers had maintained accounts with the Punjab National Bank followed By Karur Vysya Bank.

Self help group meetings

The Self Help Group meetings are held once in a month. All the members have to attend the meeting. Sometimes, all the members are not able to attend the meetings. Table 6 shows the number of members attending the meeting in the study period.

Among the marginal farmers, 13 members had attended the meeting regularly. Only 8 of the marginal farmers had responded that they were not able to attend

the meeting regularly. Similarly, 12 small farmers and 8 semi medium farmers had attended the meetings regularly. Only 5 and 4 borrowers of small and semi medium farmers were not able to attend the meetings regularly.

Discussions in the group meeting

In the meetings of the Self Help Group, the discussions on the issues on savings, credit lending, repayment issues, income generating activities, marketing of products, education of the children, local political issues, social issues, local development problems and health and sanitation are made. Table 7 shows the discussions in the group meeting among the members.

The table shows that 44% of the farmer borrowers had given the highest preference for the savings, 38% for the credit lending, 38% for repayment issues, and 38% for income generating activities and so on in the discussion. Only 18% of the farmers for savings, 24% for lending and 30% of the farmers for repayment issues had given the least importance in the discussions. It shows that the group members had given the highest preference for all

Table 8. Farmer category wise distribution of decision making within the self help group (In number).

Farm category	Self Help Group Borrowers		
	Group leader	All together	Promoting agency
Marginal	6	11	4
Small	3	10	4
Semi Medium	3	7	2
Medium	0	0	0
Total	12	28	10

Source: Field survey.

issues.

Decision making

The decision making is an important component of Self Help Group. Table 8 shows the decision making of the farmers. The table shows that 11 marginal farmers, 10 small farmers and 7 medium farmers had responded that all the members jointly together took decisions. Out of the total 50 borrowers, 12 farmers had responded that the group leader took decisions. But 28 borrowers had viewed that all the members jointly took a decision in the group. Sometimes the group leader took a decision at their benefit and did not consider the group benefit. In such cases, the Self Help Group Promoting agency interfered in the decision making. In the present study, 10 borrowers had responded that the promoting agency took decisions.

Benefits of self help group in agriculture

The benefits of the Self Help Group were hypothesised as able to meet the short term cultivation expenses, long term agricultural expenses, to fulfill the credit gap in the bank credit, to meet the unexpected expenses in the group, to cultivate all the lands, to meet the consumption expenses, to repay the institutional agricultural loan, to meet the consumption loan and to repay the other loan. The opinion of the members of Self Help Groups and the perception of the non Self Help Group borrowers pertaining to the above said benefits were obtained. The opinion of the farmers is shown in Table 9.

The highest percentage of the farmers had viewed that they were able to meet the short term expenses through Self Help Group financing in agriculture in the case of Self Help Group borrowers. It was accounted to be 32% of the Self Help Group borrowers. Next highest percentage of the preference was observed for meeting the long term expenses in agriculture among Self Help Group borrowers. Only the least percentage of Self Help Group borrowers had given the highest preference for the repayment of agricultural loan and to meet consumption loan. The Self Help Group borrowers were able to meet

the unexpected expenses and to cultivate all the lands through joining in the Self Help Group.

Among the Non-Self Help Group borrowers, the highest percentage of the farmers perceived that they would be able to meet the consumption expenses if they had joined in the Self Help Group. But they did not believe that they would be able to avail the consumption loan. Next to this, they also perceived that they would be able to fulfill the credit gap if they were in the Self Help Group.

Factors motivating the farmers to join in the self help group

The factors such as the friends, relatives, etc., were expected as the motivating factors to join in the self help group. Table 10 shows the factors motivating the farmers to join in the self help group.

Among marginal farmers, 10 farmers responded that they had joined the group due to their relatives. Self motivation made another 10 marginal farmers to join in the group. Among small farmers, 8 farmers were motivated by relatives and 7 by self motivation. In total, 24 farmers were motivated by themselves, 22 farmers by the relatives and only 4 farmers by friends. It shows that the highest number of farmers was motivated by themselves.

Factors determining the joining of farmers in the self help group: Logit regression analysis

The factors such as the age of the farmer head, caste and secondary occupation of the farmer head, size of land holding, consumption expenses, capital expenses and farm assets were hypothesised as the factors determining the farmers to join in the Self Help Group. The above said factors were put in to the logistic regression analysis. The results of the logistic regression analysis are shown in Table 11.

The estimated logistic regression coefficients show that the education of the farmer head, caste, consumption expenses and size of land holding were statistically significant at 1% level. Among the above factors, education of the farmer head and consumption expenses

Table 9. Benefits of self help group financing in agriculture.

Factors discussed	No. of members				Percentage			
	High preference		Low preference		High preference		Low preference	
	SHG	NON-SHG	SHG	NON-SHG	SHG	NON-SHG	SHG	NON-SHG
Able to meet the short term expenses in agriculture	32	15	9	18	32%	15%	9%	18%
Able to meet the long term expenses in agriculture	22	15	11	17	22%	15%	11%	17%
Able to fulfill the credit gap in the bank credit	19	20	11	14	19%	20%	11%	14%
Able to meet the unexpected expenses	13	18	9	10	13%	18%	9%	10%
Able to cultivate all the lands	20	14	9	16	20%	14%	9%	16%
Able to meet the consumption expenses	11	23	17	13	11%	23%	17%	13%
Able to repay the agriculture loan	9	16	24	20	9%	16%	24%	20%
Able to meet the consumption loan	9	14	31	22	9%	14%	31%	22%
Able to repay the other loan	16	15	28	20	16%	15%	28%	20%

Source: Field survey.

Table 10. Farmer category wise distribution of factors motivating farmers to join in self help group (Number).

Farm category	Friends	Relatives	Self
Marginal	1	10	10
Small	2	8	7
Medium	1	4	7
Semi medium	0	0	0
Total	4	22	24

Source: Field survey.

had positive relationship with the joining of farmers in the Self Help Group. It implied that if the education of the farmer head and consumption expenses increases, the probability of farmers joining in the Self Help Group could also be more. The additional level of education and consumption expenses could increase the probability of farmers joining in the Self Help Group. The probability of farmers joining in the Self Help Group was more if they were belonging to the Most Back Ward community and vice versa. But the size of land holding had negative

relationship with the probability of joining in the Self Help Group. It implied that if the size of land holding was less, the probability of farmers joining in the self help groups was more. The factors such as age of the farmer head, secondary occupation, capital expenses and farm assets were statistically insignificant to determine the joining of the farmers in the Self Help Group.

The estimated equation pertaining to the Self Help Group was statistically significant at one percent level. It implied that all the selected factors were statistically

Table 11. Factors determining the farmers to join in the self help groups - Logistic regression analysis.

Variable	Logistic Co-efficient	Wald	Exp (B)	Significant level
Age	0.105	2.925	1.110	Insignificant
Education	1.227	12.483	3.412	Significant at 1% level
Caste	2.044	8.186	7.723	Significant at 1% level
Secondary occupation	-1.270	3.370	0.281	In significant
Size of land holding	-1.425	0.014	3.71	Significant at 1% level
Consumption expenditure	4.310	11.212	74.440	Significant at 1% level
Capital Expenditure	0.168	0.003	1.183	Insignificant
Farm Assets	0.606	1.290	1.834	Insignificant
Constant	-68.693	3.907	0.000	Significant at 5% level
Chi Square		74.593		Significant at 5% level

Source: Estimation based on field survey.

Table 12. Cobb-Douglas production function for self help group borrowers.

Variable	Regression co-efficient	't' value	Level of significance
Constant	11.391	9.860	Significant at 1% level
Size of land holdings	-0.679	2.829	Significant at 1% level
Seeds	-0.022	-2.200	Significant at 5% level
Wages	0.005	0.290	Insignificant
Fertilizer/pesticides	0.063	2.113	Significant at 5% level
Hiring expenses on farm machineries	0.068	0.433	Insignificant

Source: Estimation based on field survey.

significant to determine the formation of Self Help Group by the farmers. It could be identified from the significant Chi – Square value. The classification results also revealed that 90% of the farmers were correctly classified as the members of Self Help Group. It also indicated better fit of the model.

Impact of self help group financing on production function

The production function of Self Help Group borrowers and Non-Self Help Group farmers were estimated to identify the efficiency in the allocation of farm inputs in agricultural production. The farm inputs such as size of land holding, seeds, labour, fertilizers, pesticides and the hiring and maintenance expenses on farm inputs were regressed on farm production. The form of the production function specified in the study was Cobb Douglas production function. The Cobb-Douglas production function of Self Help Group and Non-Self Help Group farmers were estimated. The results of the production function of Self Help Group borrowers are shown in Table 12.

The production function coefficients of size of land holdings, seeds and fertilizers and pesticides were statistically significant. Among the above factors, only the

coefficients of fertilizers and pesticides were positive. It shows that if the amount of fertilizers and pesticides increases, the farm production of Self Help Group borrowers could be increased. But the increase in the size of land holdings and seeds could not contribute to additional production. It shows the inefficiency in the allocation of size of land holding and seeds in the farm production of Self Help Group borrowers. The sum of input coefficients of production function was -0.565. It shows the diminishing returns to scale in the production function of Self Help Group borrowers. It reveals that the Self Help Group borrowers could be able to allocate the farm resources efficiently with additional amount of credit and finance. The production function of Non-Self Help Group farmers is shown in Table 13.

The input coefficients of seeds, fertilizers, pesticides and hiring/maintenance expenses on farm machineries and equipments were statistically significant to determine the farm production. But the co-efficient of fertilizers and pesticides alone was positive. It indicates that the additional units of fertilizers and pesticides could contribute to additional production. But the co-efficient of seeds and hiring and maintenance expenses on farm machineries and equipments were negative. It shows that the additional units of seeds and hiring expenses on farm equipments could not contribute to additional farm

Table 13. Cobb-Douglas production functions for non-self help group farmers.

Variable	Regression co-efficient	't' value	Level of significance
Constant	14.792	3.990	Significant at 1% level
Size of land holdings	0.582	1.757	Insignificant
Seeds	-0.030	-2.507	Significant at 5% level
Wages	-0.056	-1.902	Insignificant
Fertilizer/pesticides	0.682	2.564	Significant at 5% level
Hiring expenses on farm machineries	-0.555	-2.101	Significant at 5% level

Source: Field survey.

Table 14. Problems faced by self help groups.

Factors discussed	Strongly agree (Number)	Disagree (Number)	Neutral (Number)	Total
Non co-operation among the members	31 (62)	7 (14)	12 (24)	50 (100)
Absence of continuity in the members	21 (42)	14 (28)	15 (30)	50 (100)
Problem through microfinance institution and agency	23 (46)	10 (20)	17 (34)	50 (100)
Breaking of groups	12 (24)	18 (36)	20 (70)	50 (100)
No price for the products	22 (44)	18 (36)	10 (60)	50 (100)
No payment by all the members in the groups	16 (32)	23 (46)	11 (61)	50 (100)
No equal participation of all the members	22 (44)	22 (44)	6 (56)	50 (100)
Absence of regular income	16 (32)	25 (50)	9 (59)	50 (100)
Total	163	137	100	400 (800)

Figures in parentheses indicate percentages to row total.

production. It indicates inefficient allocation of resources pertaining to seeds and hiring expenses on farm equipments for Non-Self Help Group farmers.

The Self Help Group borrowers had negative input co-efficients only for two factors such as seeds and size of land holding. But the Non-Self Help Group farmers had negative input co-efficients for three inputs such as seeds, wages and hiring expenses on farm machineries.

It reveals better allocation of inputs for Self Help Group borrowers than the Non-Self Help Group farmers. The additional amount of credit to the Self Help Group farmers had contributed to additional production.

Problems of self help groups

The problems of the Self Help Group borrowers were listed such as no co-operation in the group, absence of continuity in the group, problems due to micro finance institution and agencies, breaking of groups, no price for the products, no payment by all the members in the group and no equal participation of all the members. The opinion of the Self Help Group borrowers was collected and is shown in the Table 14.

Table 14 shows that the highest percentage of the borrowers had the problem of non cooperation among the group members. Around 62% of the Self Help Group

borrowers had strongly agreed this problem. The problem through micro finance institution was strongly agreed by 46% of the borrowers. No equal participation of all the members was strongly agreed by 44% of the Self Help Group borrowers. Absence of regular income as a problem was disagreed by 50% of the Self Help Group borrowers. It shows that 50% of the Self Help Group borrowers had regular income.

Conclusion

To conclude, the turmeric dominated in the cropping pattern of Self Help Group borrowers. It alone accounted to be 40.61%. In the case of Non-Self Help Group farmers, the turmeric was the dominant crop in the cropping pattern. It alone accounted to be 42.5992%. The total size of land holding of Non-Self Help Group farmers was higher than the Self Help Group farmers. It was on account of the higher number of farm households in Self Help Group was marginal and small farmers. Highest percentage of farm households had viewed that they were able to meet short term and long term farm expenses in agriculture. The additional level of education and consumption expenses could increase the probability of farmers joining in the Self Help Group. The probability of farmers joining in the Self Help Group was more if they

were belonging to Most Back Ward community and vice versa. But the size of land holding had negative relationship with the probability of joining in the Self Help Group. It implied that if the size of land holding was less, the probability of farmers joining in the self help groups was more. The additional amount of credit to the Self Help Group farmers had contributed to additional production. The main important problem of the Self Help Group borrowers was the non cooperation among the members.

REFERENCES

- Agarwal KP, Puhazhendri V, Sathyasai KJS (1997). Gearing rural credit for twenty-first century. *Agri. Eco. Res. Rev.*, 23(2): 157-164.
- Ambiga D, Gandhimathi (2011). Impact of Micro Finance on Financial Inclusion in India in *Social Resolutions* Edited by Sitalakshmi T, Ananthavijayakumari GD, Bakthavatchalu P, Ramalingam,S, Zubaidunisa, SM, and Asgari SM, Suji Ranoje Publication, Chennai: 9-20.
- Annapoorani R, Gandhimathi S (2012). Inter-state disparities in the use of Kisan credit card scheme: an empirical analysis. *Int. Econ. Fin. J.*, 6(2): 257-271.
- Basu P, Srivastava P (2005). Scaling-up Microfinance for India's Rural Poor. World Bank Policy Research. Working Paper No. 3646. World Bank. Washington DC: pp. 1-27.
- Coleman BE (1999). The Impact of Group Lending in Northeast Thailand. *J. Dev. Econ.*, 60(1): 105-141.
- Hand book of Indian Economy (2011). Reserve Bank of India. Bombay
- Pallavi C, Ramkumar (2002). Micro credit and rural poverty: an analysis of empirical evidence. *Economic and Political Weekly*. 37(10): 955-965.
- Pitt MM, Khandker SR (1998). The Impact of Group-based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter?". *J. Pol. Econ.*, 106(5): 958-996.
- Samapti G, Gautam G (2005). Microcredit for Income Generation: The Role of Rosca. *Econ. Pol. Weekly*, 40(14): 1.