ANALYSIS OF SOCIO-ECONOMIC PROFILE OF THE ATMA BENEFICIARIES OF CHHATTISGARH

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Abstracts : The present study was carried out during 2011 in the Surguja district of Chhattisgarh state. This study was conducted in randomly selected 10 villages of three purposively selected blocks i.e. Ambikapur, Lundra, Surajpur located in Surguja district. The aim of this study to assess the socio-personal and socio-economic characteristics of the respondents. A total of 150 respondents including 100 beneficiary and 50 non-beneficiary farmers were selected randomly. The data collection was done by the use of interview schedule through personal interview. Data were analyzed with help of suitable statistical tools. The findings reveal that the majority of the beneficiary and non-beneficiary respondents were of middle age groups (36 to 50 years) having middle school and primary school level educated, residing in nuclear family system with small size of family (up to 5 members). Majority of beneficiaries had high level of social participation as compared to non-beneficiaries. Majority of the respondents were performing agricultural activities, however they were also engaged in 2 to 3 occupation. Majority of the respondents were having marginal land holding (up to 2.50 acre). Majority of the beneficiaries belonged to Rs. 30,001 to Rs. 50,000 (High category) annual income group as compare to non-beneficiaries earned Rs. 20,001 to Rs. 30,000 (Medium category). Majority of the respondents were taking short term credit facility extended by government organization.

Keywords : ATMA, Chhattisgarh, Socio-personal, Socio-economic characteristics

INTRODUCTION

ATMA is a society of key stakeholders involved in agricultural activities for sustainable agriculture development in the district. It is a focal point for integrating Research and Extension activities and decentralizing day-to- day management of the public Agricultural Technology System (ATS). It is a registered society responsible for technology dissemination at the district level. As a society, it would be able to receive and expand funds, entering into contracts and agreements and maintaining revolving accounts that can be used to collect fees and thereby recovering operating cost. The ATMA at district level would be increasingly responsible for all technology dissemination activities at the district level. It would have linkage with all the line departments, research organization, non-governmental organizations and agencies associated with agricultural development in the district. Research and Extension units within the project district such as ZRS or substations, KVK and the key line departments of Agriculture, Animal Husbandry, Horticulture and Fisheries, Forestry etc. would become constituent members of ATMA. Each Research-Extension (R-E) unit would retain its institutional identity and affiliation but programme and procedures concerning district-wise R-E activities would be determined by ATMA Governing Board (GB) to be implemented by its Management Committee (AMC).

Keeping this in view the present study was under taken to study the some selected socio-personal and socio-economic characteristics of the beneficiaries.

MATERIAL AND METHOD

This study was conducted in Surguja district of Chhattisgarh, during the year 2011. Chhattisgarh state has 18 districts out of which Surguja district was selected purposively because this district has got highest fund for the ATMA programme. From this district only three blocks i.e., Ambikapur, Lundra and Surajpur were selected purposively. From each selected block out of total villages, only 14 villages in Ambikapur, 12 villages in Lundra and 15 villlages in Surajpur block have been selected by Government of Chhattisgarh for carrying out the various activities under ATMA project. Out of these beneficiary villages, only 25 per cent villages in each block i.e. Rakeli, Darima, Nawanagar (Ambikapur), Lamgaon, Kot, Dorna (Lundra), Ajirama, Kalyanpur, Dwrikanagar and Jagatpur (Surajpur) were randomly selected (Total 10 villages) for the study. From each Farmers Interest Groups 10 tribal farmers were randomly selected those were beneficiaries of ATMA programme from each selected village as respondent. In this way, 30 farmers from Anbikapur, 30 farmers from Lundra and 40 farmers from Surjupur (30+30+40=100 beneficiary farmers) were selected to determine the impact of information sources in various activities of ATMA programme on socio-economic status of the farmers. The 5 non-beneficiary farmers were also selected from same village as non-beneficiary respondents (15+15+20=50). Thus, total of 150 (100 beneficiaries and 50 non-beneficiaries) farmers were selected as respondents for the present study. Respondents were interviewed through personal interview. Prior to interview, respondents were taken in to confidence by revealing the actual purpose of the study and full care was taken in to consideration to develop good

rapport with them. For the data collection well designed and pre-tested interview scheduled were used. Collected data were analyzed by the help of various statistical tools i.e. frequency, percentage, mean and standard deviation, etc.

RESULT AND DISCUSSION

Socio-personal characteristics of the respondents

Age, education, type of family, family size and social participation of ATMA beneficiary and non-beneficiary were considered as socio-personal characteristics of the respondents. These characteristics were analyzed and presented in Table 1.

Age of the respondents

The findings on age of the respondents were presented in Table 1. The majority of the (48%) ATMA beneficiaries belonged to middle age group (36 to 50 years), followed by 34 per cent respondents were under young age group (up to 35 years) and 18 per cent respondents were of old age group (above 50 years). Whereas, the majority of the (56%) non-beneficiaries belonged to middle age group (36 to 50 years), followed by 26 per cent respondents were under young age group (up to 35 years) and 18 per cent respondents were of old age group (above 50 years). Thus, it may be concluded that the majority of the respondents in the study area belonged to middle age groups who are the major beneficiaries of ATMA programme, followed by young age group and older age group. Shrivastava (1999), Rao (2001), Singh (2003), Kumar *et al.* (2007), Bharathi and Badiger (2009), Singh *et al.* (2009) and Bolarinwa and Fakoya (2011) also noted almost similar findings.

Education of the respondents

The data in Table 1 described that the majority of the ATMA beneficiaries (57%) were middle school level educated followed by 14 per cent were found under the category of primary school, 11 per cent respondents were illiterate, 10 per cent higher secondary level, 7 per cent high school level and only 1 per cent above higher educated. Whereas, the majority (64%) non-beneficiaries were primary school level educated followed by 10 per cent were illiterate, 8 per cent were found under the category of middle and high school level, 6 per cent higher secondary level and only 4 per cent above higher secondary level educated. Finally results clearly indicated that the majority of ATMA beneficiaries were having education up to middle school as compared to majority of non-beneficiaries were primary level educated. Singh *et al.* (2009) and Bolarinwa and Fakoya (2011) also observed almost similar findings.

Type of family

The data in Table 1 revealed that the majority (78%) of the ATMA beneficiaries belonged to nuclear family followed by 22 per cent come under the joint family. Whereas, the majority of (76%) non-beneficiaries belonged to nuclear family, followed by 24 per cent belonged to joint family as non-beneficiary respondents. Shrivastava (1999) also noted almost similar findings.

Table 1: Distribution of the selected respondents according to their socio-personal characteristics

Characteristics	Respondents			
	Beneficiary (n=100)		Non-Beneficiary (n=50)	
	Frequency	Percentage	Frequency	Percentage
Age				
• Young (up to 35 years)	34	34	13	26
• Middle (36 to 55 years)	48	48	28	56
• Old (above 55 years)	18	18	9	18
Education				
• Illiterate	11	11	5	10
• Primary (up to 5th class)	14	14	32	64
• Middle (6th to 8th class)	57	57	4	8
• High school (9th to 10th class)	7	7	4	8
• Higher secondary (11th to 12th class)	10	10	3	6
• Above higher secondary (>12th class)	1	1	2	4
Type of Family				
• Nuclear	78	78	38	76
• Joint	22	22	12	24

Family size				
• Small (up to 5 members)	63	63	27	54
• Medium (6 to 10 members)	35	35	20	40
• Large (> 10 members)	2	2	3	6
Social participation*				
• No membership	0	0	40	80
• Member of one organization	63	63	6	12
• Member of more than one organization	37	37	4	8

*Frequency based on multiple responses

Family size

The data regarding size of family Table 1 indicated that the majority (63%) of the ATMA beneficiaries had small family size (up to 5 members) followed by 35 per cent with medium family size (6 to 10 members) and 2.00 per cent belonged to large family size (above 10 members). The majority of the non-beneficiaries (54%) had small family size (up to 5 members) followed by 40 per cent with medium family size (6 to 10 members) and 6 per cent belonged to large family size (above 10 members). Gupta (1998) also noted almost similar findings.

Social participation

The data regarding social participation Table 1 shows that the majority of the ATMA beneficiaries (63%) had membership of one organization followed by 37.00 per cent beneficiaries who had members of more than one organization and it has been found that all the ATMA beneficiaries were participated minimum one organization. The majority (80%) of the non-beneficiaries not involved in any of the social organization, followed by 12 per cent non-beneficiaries had members of one organization and only 8 per cent had members of more than one organization. It clearly indicated that ATMA beneficiaries had high level of social participation as compared to non-beneficiaries. It means more participation in organization had towards active participation in ATMA or any programme. Singh *et al.* (2009) also noted almost similar findings.

Socio- economic characteristics of the respondents

The independent variables i.e. occupation, size of land holding, annual income and credit acquisition were considered as socio-economic characteristics of the respondents.

Occupation of respondents

Regarding involvement of respondents in various occupations, the data compiled in Table 2 shows that that the majority (96%) of the ATMA beneficiaries were involved in agriculture, followed by 79 per cent of the beneficiaries were involved in labour, while 22 per cent were involved in animal husbandry, 9 per cent of the beneficiaries had adopted business, 8 per cent were involved in horticulture and only 1 per cent beneficiaries had adopted other occupation with agriculture. Whereas, the 100 per cent of the non-beneficiaries were involved in agriculture, followed by 70 per cent of the non-beneficiaries were involved in labour, while 30 per cent were involved in animal husbandry, 6 per cent of the non-beneficiaries had adopt other occupation with agriculture, 4 per cent were involved in horticulture and only 2 per cent were involved in business.

Majority of the respondents (90%) in both the categories beneficiaries and non-beneficiaries were involved in 2 to 3 occupations including agriculture, whereas 9 per cent beneficiaries involved in one occupation followed by only 1 per cent beneficiaries involved in more than three occupations. In case of non-beneficiaries 10 per cent involved in one occupation and non-beneficiaries did not involved in more than three occupations. It indicated that due to lack of sufficient earnings from a single source such as agriculture, the respondents were engaged in other allied activities labour, animal husbandry, horticulture etc. This finding is supported by Shrivastava (1999), Kumar *et al.* (2007), Singh *et al.* (2009) and Bolarinwa and Fakoya (2011).

Table 2: Distribution of the respondents according to their involvement in various occupations

Particulars	**Beneficiary (n=100)**		**Non-beneficiary (n=50)**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Kind of occupation*				
Agriculture	96	96	50	100
Animal husbandry	22	22	15	30
Labour	79	79	35	70
Horticulture	8	8	2	4

Business	9	9	1	2
Others	1	1	3	6
Number of occupation				
Involved in on one occupation	9	9	5	10
Involved in 2 to 3 occupation	90	90	45	90
Involved in more than 3 occupation	1	1	0	0

*Frequency based on multiple responses

Land holding of respondents

The distribution of the respondents according to their land holdings are presented in the Table 3 the maximum number of the ATMA beneficiaries (46%) had marginal category of farmers (having up to 2.50 acre land holdings), followed by 44.00 per cent who belonged under small size of land holding (having 2.51 to 5 acre), 4.00 per cent of the beneficiaries were having medium size of land holding (5.1 to 10 acre) and land less farmer and only 2 per cent beneficiaries were big (above 10 acre) farmers. Whereas, the majority of the non-beneficiaries (48%) came under the marginal category of farmers (having up to 2.50 acre land holdings), followed by 44.00 per cent who belonged under small size of land holding (having 2.51 to 5 acre), 6 per cent non-beneficiaries had medium category of farmers (having 5.1 to 10 acre) and only 2 per cent of the non-beneficiaries came under the big farmers (having above 10 acre). This finding is supported by Dwivedi *et al.* (2007), Kumar *et al.* (2007) and Singh *et al.* (2009).

Table 3: Distribution of the respondents according to their size of land holding

Size of land holding	Beneficiary (n=100)		Non-beneficiary (n=50)	
	Frequency	Percentage	Frequency	Percentage
Land less farmer	4	4	0	0
Marginal (up to 2.50 acre)	46	46	24	48
Small (2.51 to 5 acre)	44	44	22	44
Medium (5.1 to 10 acre)	4	4	3	6
Big (above 10 acre)	2	2	1	2

Annual income of respondents

It is very difficult to assess the average annual income of each individual, as they are not maintaining any records. The attempt was made to collect the annual income of the respondents through discussion and interpretation from different angles. The distribution of the respondents according to their annual income is presented in Table 4. As regards to annual income the higher percentage of the ATMA beneficiaries (31%) were having their income ranging from Rs. 30,001 to Rs.50, 0000 (High category) per annum followed by 25 per cent of beneficiaries earned above Rs. 50,000 (Very high category) per annum, 23 per cent beneficiaries had their annual income in the range between Rs. 20,001 to Rs. 30,000 (Medium category) and 21 per cent had obtained income less than Rs. 20,000 (Low category).

Table 4: Distribution of the respondents according to their annual income

Annul income	Beneficiary (n=100)		Non-beneficiary (n=50)	
	Frequency	Percentage	Frequency	Percentage
Low (up to Rs. 20,000)	21	21	14	28
Medium (Rs. 20,001 to Rs. 30,000)	23	23	15	30
High (Rs. 30,001 to Rs. 50,000)	31	31	13	26
Very high (above Rs. 50,000)	25	25	8	16

Whereas, the majority of (30%) non-beneficiaries earned Rs. 20,001 to Rs. 30, 0000 (Medium category) per annum, followed by 28 per cent non-beneficiaries had obtained income less than Rs. 20,000 (Low category) per annum, 26 per cent had their annual income in the range between Rs. 30,001 to Rs. 50,000 (High category) and only 16 per cent non-beneficiaries had obtained annual income above Rs. 50,000 (Very high category).

The results clearly indicated that the majority of the beneficiaries belonged to Rs. 30,001 to Rs. 50,000 (High category) annual income group as compare to non-beneficiaries earned Rs. 20,001 to Rs. 30,000 (Medium category). This finding is supported by Bolarinwa and Fakoya (2011).

Credit acquisition of respondents

The findings regarding credit acquisition are presented in the Table 5. It is clear from this table that the majority of the ATMA beneficiaries (75%) acquired short term credit, followed by 18 per cent beneficiaries did not acquired credit, 4 per cent beneficiaries had taken long term loan and 3 per cent

beneficiaries had taken medium term loan. Whereas, the majority of (74%) non-beneficiaries acquired short term credit, followed by 18 per cent non-beneficiaries did not acquired credit. However, 6 per cent non-beneficiaries had taken long term loan and 2 per cent non-beneficiaries had taken medium term loan.

This indicated that beneficiaries were more aware to generate resources for development by availing loan facilities from banks and co-operatives.

Table 5: Distribution of the respondents according to availability of credit

Credit acquisition	Beneficiary (n=100)		Non-beneficiary (n=50)	
	Frequency	Percentage	Frequency	Percentage
Nil	18	18	9	18
Short term (6 to 15 months)	75	75	37	74
Medium term (15month to 5 years)	3	3	1	2
Long term (5 years to 20 years)	4	4	3	6

Regarding important sources and reason for acquiring credit the findings were tabulated in Table 6 showed that among credit users, the majority of the ATMA beneficiaries (53.66%) farmers acquired credit from co-operative societies, followed by 35.36 per cent beneficiaries acquired credit from nationalized banks. The share of non-institutional credit sources amongst the respondents were found quite low, while only 4.88 per cent beneficiaries had obtain credit from relatives, 3.66 per cent beneficiaries had obtain credit from friends/neighbours and only 2.44 per cent had obtain credit from money landers because majority of beneficiaries of ATMA were easily obtain the credit from institution. Whereas, the majority (51.21%) of the non-beneficiaries farmers acquired credit from co-operative societies, followed by 43.90 per cent non-beneficiaries acquired credit from nationalized banks and only 4.89 per cent non-beneficiaries had obtain credit from relatives.

Table 6: Distribution of the respondents according to their source and purpose of the credit

Particulars	Beneficiary (n=82)		Non-beneficiary (n=41)	
	Frequency	Percentage	Frequency	Percentage
Source of credit				
Nationalized bank	29	35.36	18	43.90
Co-operative society	44	53.66	21	51.21
Money lenders	2	2.44	0	0
Relative	4	4.88	2	4.89
Friends /Neighbours	3	3.66	0	0
Purpose of credit				
For agriculture purpose	63	76.83	35	85.38
Insecticide/ Feed	3	3.66	0	0
Domestic work	10	12.20	3	7.31
Others	6	7.31	3	7.31

As regard to purpose of credit, the majority of the ATMA beneficiaries (76.83%) farmers took credit for agriculture purpose like fertilizer, seeds etc., followed by 12.20 per cent beneficiaries had used their credit for domestic work, 7.31 per cent were taken loan for other purposes like tube well, purchasing of tractors and other agriculture implements and 3.66 per cent of the beneficiaries were also taken credit for the purchasing of insecticides and feeds for cattle. Whereas, the majority (85.38%) of the non-beneficiaries farmers took credit for agriculture purpose like fertilizer, seeds etc., followed by 7.31 per cent non-beneficiaries had used their credit for domestic work and other purposes like tube well, purchasing of tractor etc.

It could be concluded that 53.66 per cent beneficiary and 51.21 per cent non-beneficiary respondents had taken credit from co-operative society was the major agency of credit providing. As regard to purpose of credit, the majority of ATMA beneficiaries (76.83%) and non-beneficiaries (85.38%) farmers took credit for agriculture purpose like fertilizer, seeds etc.

Major crops and their area

Table 7: Distribution of respondents according to major crops grown along with their area

Crops	Beneficiary (n=100)			Non-beneficiary (n=50)		
	Number of farmers	Area		Number of farmers	Area	
		acre	%		acre	%

Kharif						
• Paddy	96	279.16	91.92	49	149.00	96.28
• Arhar	9	3.17	1.04	9	2.25	1.45
• Urd	5	2.30	0.78	3	0.85	0.54
• Sugarcane	9	14.29	4.70	2	1.50	0.98
• Others	12	4.75	1.56	3	1.15	0.75
Total cropped area		**303.67**			**154.75**	
Rabi						
• Wheat	62	110.35	58.70	32	54.00	48.32
• Sugarcane	15	15.52	8.27	7	7.75	6.93
• Lathyrus	12	19.00	10.10	6	17.00	15.21
• Gram	5	7.75	4.13	4	5.00	4.47
• Paddy	9	14.50	7.71	7	15.50	13.88
• Others	33	20.85	11.09	13	12.50	11.19
Total cropped area		**187.97**			**111.75**	

The data given in Table 7 indicates that in kharif season all the respondents were growing rice crops. Out of the total cropped area, 91.92 per cent area of beneficiaries and 96.28 per cent area of non-beneficiaries were found under rice crop. In addition to rice, 1.04, 0.78 and 4.70 per cent cropped area of beneficiary respondents was found under arhar, urd and sugarcane crops, respectively and remaining 1.56 per cent cropped area was found under other crops like vegetable, maize etc. Similarly, in case of non-beneficiaries 1.45, 0.54 and 0.98 per cent cropped area was found under arhar, urd and sugarcane crops, respectively and 0.75 per cent cropped area was found under other crops.

In rabi season, wheat was found as the most important crop cultivated on about 58.70 and 48.32 per cent cropped area of beneficiary and non-beneficiary respondents, respectively. Out of the total cropped area in rabi season, 8.27, 10.10, 4.13 and 7.71 per cent cropped area of beneficiaries were found under sugarcane, lathyrus, gram and paddy crops, respectively and remaining 20.85 per cent cropped area was found under other crops like vegetables. In case of non-beneficiary respondents 15.21 per cent cropped area was found under lathyrus crops followed by 13.88 per cent cropped area was paddy, others crop (11.19%) area, sugarcane (6.93%) area and 4.47 per cent cropped area was found under gram. The total rabi area of non-beneficiaries was far behind than the rabi area of ATMA beneficiaries may be due to non-availability of irrigation.

Marketing of agriculture produces

Distributions of the respondents according to their marketing of agriculture produces were presented in the Table 8. Before the ATMA programme was launched at the study area is 2004-05, the majority of ATMA beneficiaries (86%) were sold their agricultural produces to local shopkeepers, followed by merchant (83%), other (36%), mandi (3%) and only 1 per cent is unsure. After initiating the ATMA programme in 2010-11 sold their agriculture produce by the beneficiaries of the farmers to the co-operative society i.e. 79 per cent, followed by 55 per cent merchant, 39 per cent local shopkeepers, 28 per cent other, 8 per cent unsure and only 7 per cent were sold their agricultural produce in mandi.

Table 8: Distribution of the respondents according to their marketing of agriculture produce

Marketing of agriculture produce	**Beneficiary (n=100)**				**Non-beneficiary (n=50)**			
	2004-05		**2010-11**		**2004-05**		**2010-11**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
• Merchant	83	83	55	55	48	96	29	58
• Local shopkeepers	86	86	39	39	46	92	19	38
• Mandi	3	3	7	7	2	4	3	6
• Co-operative society	0	0	79	79	0	0	31	62
• Un sure	1	1	8	8	1	1	2	4
• Others	36	36	28	28	6	12	8	16

F – Frequency, %- Per cent

In case of non-beneficiary respondents regarding marketing of agricultural produce the majority of respondents (96%) sold to merchant, followed by 92 per cent local shopkeepers, 12 per cent others, 4 per cent in mandi and 1 per cent were unsure marketing of agricultural produces in 2004-05. The majority of 62 per cent non-beneficiaries were sold their agriculture produce in co-operative society, followed by 58 per cent merchant, 38 per cent local shopkeepers, 16 per cent others, 6 per cent in mandi

and 4 per cent were unsure for marketing of agricultural produces in the present year 2010-11.

It could be concluded from above data, before ATMA programme respondents were sold of agricultural produce to merchant, local shopkeeper and after ATMA programme selling of agricultural produce in co-operative society. Some respondents were selling of agricultural produce in others like local market, Kerta sugar factory etc. It appears that ATMA programme has considerable impact in the knowledge of market linkage of the ATMA beneficiaries, which ascertain the good selling of cost of the ATMA beneficiaries.

CONCLUSION

From the above research works it can be concluded that the majority of the beneficiary and non-beneficiary respondent in the study area belonged to middle age groups (36 to 50 years) and having education up to middle school as compared to non-beneficiaries were primary level educated and residing in nuclear family system with small size of family (up to 5 members). Majority of the ATMA beneficiaries had high level of social participation as compared to non-beneficiaries. Majority of the respondents were performing agriculture, however majority of them were also engaged in 2 to 3 occupation to support their livelihood. Further majority of the respondents were having marginal farmers (up to 2.50 acre). Majority of the beneficiaries were high annual income as compared to non-beneficiaries medium level annual income earnings. In the study area majority of the respondents were taking short term credit facility extended by government organization.

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