Andhra Pradesh J Agril. Sci : 2(3): 184-189, 2016

PROFILE CHARACTERISTICS OF ANDHRA PRADESH MICRO IRRIGATION PROJECT (APMIP) BENEFICIARIES

T. MAHESH BABU*, T. LAKSHMI, P.V. SATHYA GOPAL, N. VANI AND S.V. PRASAD

Department of Agricultural Extension, S.V. Agricultural College, Tirupati - 517502, A.P.

Date of Receipt: 28-08-2016 Date of Acceptance: 03-09-2016

ABSTRACT

The study was conducted to know the profile characteristics of APMIP beneficiaries in Chittoor district of Andhra Pradesh over a randomly drawn sample of 120 APMIP beneficiaries and the results revealed that majority of the respondents were middle aged, high school educated small farm size, with medium farming experience, medium farming experience under MIS, extension contact, mass media exposure, innovativeness, training undergone, majority are having medium level of economic orientation, achievement motivation, social participation, scientific orientation, risk orientation, knowledge on MIS and adoption of critical management practices of MIS.

KEYWORDS: Profile characteristics, APMIP beneficiaries.

INTRODUCTION

Micro irrigation has revolutionized agriculture in many countries of the world. The essential characteristics of this system are frequent, slow and low volume application of water directly in the plant root zone or on the land surface beneath the plant. It is based on the fundamental concept of irrigation only at the root zone of the crop and maintaining the soil moisture near optimum level. Keeping in view the importance of irrigation water the government of Andhra Pradesh launched the Andhra Pradesh Micro Irrigation Project (APMIP) on 3rd November, 2003 with an objective of enhancing crop productivity by improving water use efficiency through Micro-irrigation systems for the benefit of the farmers. In order to create more awareness, diffusion and adoption of micro irrigation system the profile characteristics in terms of personal, socio-economic, psychological and situation play a pivotal role in planning any interventions and for taking up any capacity building programmes. So, a study was conducted to assess the personal and socio-psychological characteristics of APMIP beneficiaries.

MATERIAL AND METHODS

The study was conducted with an ex post facto research design to assess profile characteristics of APMIP beneficiaries in Chittoor district of Andhra Pradesh which was purposively selected, as APMIP was the frist special purpose vehicle on the micro irrigation in the country. Chittoor district was selected purposively. Chittoor district consists of 66 mandals out of which 3 mandals were selected based on highest area and beneficiaries were under the APMIP. From the each of selected Mandal eight villages were selected based on simple random sampling procedure. Thus, totally 24 villages were selected for the study. A total sample of 120 APMIP beneficiaries were selected through the simple random sampling procedure. After review of literature and consultation with experts as set of 16 personal, psychological and socio-economic variables were selected. The data was collected through a structured comprehensive interview schedule and analysed using mean and standard deviation for drawing meaningful interpretations.

RESULTS AND DISCUSSION

The APMIP beneficiaries were distributed into different categories based on their selected profile characteristics and the results were presented in the Table 1.

Age

Majority (59.20%) of APMIP beneficiaries were found in the middle aged followed by old (26.60%) and young age (14.20%) categories. A critical observation of the above findings indicated that a considerable percentage of the respondents are of middle age. The probable reason might be that the old aged respondents

*Corresponding author, E-mail: mahesh9491@gmail.com

Table 1. Distribution of respondents according to their profile characteristics.

(n=120)

S. No.	Category	Frequency	Percentage	Mean	S.D.
1.	**Age**				
1.	Young (<35 years)	17	14.20		
2.	Middle (36-55 years)	71	59.20		
3.	Old (>56 years)	32	26.60		
	Total	**120**	**100.00**		
2.	**Education**				
1.	Illiterate	4	3.33		
2.	Functionally literate	1	0.83		
3.	Primary school	16	13.33		
4.	Middle school	30	25.00		
5.	High school	50	41.68		
6.	College level	19	15.83		
	Total	**120**	**100.00**		
3.	**Farm size**				
	Marginal farmer	5	4.20		
	Small farmer	56	46.60		
	Medium farmer	41	34.20		
	Big farmer	18	15.00		
	Total	**120**	**100.00**		
4.	**Farming experience**				
	Low	31	25.80		
	Medium	61	50.80	23.78	13.09
	High	28	23.40		
	Total	**120**	**100.00**		
5.	**Farming experience under MIS**				
	Low	20	16.70		
	Medium	79	65.80	6.53	2.95
	High	21	17.50		
	Total	**120**	**100.00**		
6.	**Extension contact**				
	Low	21	17.50		
	Medium	79	65.80	10.89	3.39
	High	20	16.70		
	Total	**120**	**100.00**		
7.	**Mass media exposure**				
	Low	25	27.50		
	Medium	83	62.50	10.89	2.45
	High	12	10.00		
	Total	**120**	**100.00**		

S. No.	Category	Frequency	Percentage	Mean	S.D.
8.	**Innovativeness**				
	Low	23	19.17		
	Medium	71	59.16	36.75	3.43
	High	26	21.67		
	Total	**120**	**100.00**		
9.	**Training undergone**				
	Low	17	14.17		
	Medium	78	65.00	6.0	2.57
	High	25	20.83		
	Total	**120**	**100.00**		
10.	**Economic orientation**				
	Low	17	14.16		
	Medium	69	57.50	22.65	2.23
	High	34	28.34		
	Total	**120**	**100.00**		
11.	**Achievement motivation**				
	Low	17	14.17		
	Medium	76	63.33	20.98	1.97
	High	27	22.50		
	Total	**120**	**100.00**		
12.	**Social participation**				
	Low	8	6.66		
	Medium	101	84.17	13.41	3.49
	High	11	9.17		
	Total	**120**	**100.00**		
13.	**Scientific orientation**				
	Low	18	15.00		
	Medium	85	70.83	22.98	2.35
	High	17	14.17		
	Total	**120**	**100.00**		
14.	**Risk orientation**				
	Low	22	18.34		
	Medium	67	55.83	22.75	1.94
	High	31	25.83		
	Total	**120**	**100.00**		
15.	**Knowledge on MIS**				
	Low	18	15.00		
	Medium	71	59.17	14.77	2.96
	High	31	25.83		
	Total	**120**	**100.00**		
16.	**Extent of adoption of CMP of MIS**				
	Low	27	22.50		
	Medium	70	58.40	18.97	4.33
	High	23	19.10		
	Total	**120**	100.00		

#

were retired and they transfer their occupation to an elder son. The young generation didn't prefer agriculture as they turned towards IT, business and management professions. Similar finding was reported by Ghintala (2013).

Education

About 41.68 per cent of the APMIP beneficiaries were educated up to high school followed by middle school (25.00%), college level (15.83%), primary school (13.33%), illiterate (3.33%) and functionally literate (0.83%) respectively. From the above table it could be observed that majority of the APMIP beneficiaries were educated up to high school level. This trend might be due to the fact that majority of the respondents who constituted small and medium farmers could not go for higher education because of their financial problems and non-availability of higher educational facilities in their villages. The results are in tune with results of Thamban *et al.* (1999) and Ghintala (2013).

Farm size

From the table 1 it is evident that 46.60 per cent of the APMIP beneficiaries were small farmers followed by 34.20 per cent medium farmers, 15.00 per cent large were big farmers and 4.20 per cent of them were marginal farmers. Majority of the respondents were small farmers followed by medium farmers, big farmers and marginal farmers. APMIP was providing subsidy of 90 per cent to the farmers owning land upto 1-5 acres. Subsidy provided was less for the farmers who possess land acreage of more than five. Marginal farmers were facing financial constraints and they were resource poor so, they were not willing to adopt MIS. Hence most of the beneficiaries constituted were under the small farmers' category. This finding was in conformity with the finding of Katkar and Ahire (2006), and Ghintala (2013).

Farming experience

A little more than half (50.80%) of the respondents had medium farming experience followed by low (25.80%) and high (23.40%) levels of farming experience. This might be due to the fact that majority of the respondents belonged to middle age followed by old age group. Younger generation has not chosen farming as a profession and it was continued by their parents only. Many farmers were engaged in agriculture after their secondary or intermediate education. Hence most of the APMIP beneficiaries had medium farming experience. This result was in accordance with the results of Karpagam (2009).

Farming experience under MIS

Majority (65.80%) of the respondents had medium level of farming experience under micro irrigation system followed by high (17.50%) and low (16.70%) levels of farming experience under MIS. This trend might be that majority of the APMIP beneficiaries had medium level of farming experience under MIS. It is due to the fact that the drip irrigation is not a new technology to the study area. The present scheme was first started in the year 2000 as a pilot project in Chittoor district by Israel companies. The finding was in accordance with the results of Hanjabam (2014).

Extension contact

About 65.80 per cent of the respondents had medium extension contact followed by low (17.50%) and high (16.70%) levels of extension contact. The probable reason might be that most of the APMIP beneficiaries had regular contact with APMIP extension functionaries only, as the APMIP was the nodal agency for promotion and implementation of the Micro Irrigation Systems. The result was in tune with the results of Radhika (2007)).

Mass media exposure

Little more than two forth (62.50%) of the APMIP beneficiaries had medium level of mass media exposure followed by low (27.50%) and high (10.00%) level of mass media exposure respectively. This trend might be due to APMIP beneficiaries had regular access to newspapers, journals, television, mobiles and contacts with fellow APMIP farmers. This finding had drawn its support from the findings Ghintala (2013).

Innovativeness

Around two forth (59.16%) of the APMIP beneficiaries had medium level of innovativeness followed by high (21.67%) and low (19.17%) levels of innovativeness. This trend might be due to the fact that majority of the APMIP beneficiaries were of middle aged, middle level of education, medium extension contact and mass media exposure favored them to try for new technologies and were able to update their knowledge and skills time to time and ready to accept the new technologies in their farming they were receptive to new

ideas and were interested and enthusiastic to learn ways of farming which resulted in medium innovativeness. Similar findings were reported by Vinayakumar *et al.* (2013).

Training undergone

Majority 65 per cent of the APMIP beneficiaries had medium level of training undergone followed by high (20.83%) and low (14.17%) levels of training undergone. This might be due to the fact that APMIP beneficiaries attended most of the training programs organized by the APMIP extension functionaries and private agencies. As MIS is new technology APMIP beneficiaries felt training as an important component to adopt MIS. Similar finding was observed with the finding of Mohan and Reddy (2012).

Economic orientation

More than half (57.5%) of the APMIP beneficiaries had medium economic orientation followed by high (28.34%) and low (14.16%) levels of economic orientation. The possible reason for this trend might be that farmers still consider agriculture as a subsistence occupation and not looking it as commercially. As there is a narrow range of opportunities and avenues for improvement prevailing in the data. Hence this trend is expected. This finding was in line with the finding of Radhika (2007) and Karpagam (2009).

Achievement motivation

Majority (66.33%) of the APMIP beneficiaries had medium level of achievement motivation followed by high 22.50 per cent and low 14.17 per cent levels of achievement motivation respectively. Probably APMIP beneficiaries who were small and medium farmers having medium extension contact and mass media exposure also had medium achievement motivation. The findings were in tune with Vinayakumar *et al.* (2013).

Social participation

A great majority (84.17%) of the APMIP beneficiaries had medium level of social participation followed by high (9.17%) and low (6.66%) level of social participation respectively. The reason behind this may be that only a few social organizations are active in the villages that to affluent to the higher sections of the people in the villages and also the small and marginal farmers were not in reach of these social organizations present in the villages because most of the Indian farmers were small and marginal, more illiteracy, low economic standards etc. to prevent participation of social activities. This finding was in line with Karpagam (2009).

Scientific orientation

A little less than the three fifth (70.83%) of the APMIP beneficiaries had medium scientific orientation followed by low (15.00%) and high (14.17%) levels of scientific orientation respectively. It was learnt during the survey that majority of APMIP beneficiaries were in thirst of information on scientific technologies. Crops cultivated by them were more sensitive to weather and price fluctuations. The results derived support from the findings of Radhika (2007) and Karpagam (2009).

Risk orientation

More than half (55.83%) of the APMIP beneficiaries had medium level of risk orientation followed by high 25.83 per cent and low 18.34 per cent levels of risk orientation. This trend of results might be due to the reason that the majority of the beneficiary farmers were having medium level of profile characteristics like age, education, extension contact, mass media exposure and social participation. The results derives support from the findings of Katkar and Ahire (2006) and Karpagam (2009).

Knowledge on MIS

Three fifth (59.17%) of the APMIP beneficiaries had medium level of knowledge on MIS followed by high 14.67 per cent low and 15.00 per cent levels of knowledge on MIS respectively. This might be due to the fact that majority of the farmers were possessing education, extension contact, mass media exposure, innovativeness, training undergone and social participation all at medium level. Hence majority of the respondents were categorized under medium knowledge level. The results derived support from the findings of Katkar and Ahire (2006) and Jitarwal and Sharam (2007).

Extent of Adoption of CMP of MIS

More than half (58.40%) of the APMIP beneficiaries had medium extent of adoption of CMP of MIS followed by low 22.50 per cent and high 19.10 per cent levels of extent of adoption of CMP of MIS. Majority of the farmers had medium to high knowledge. This might be the reason for medium level of adoption. The results derives support

from the findings of Shashidhara *et al*. (2007) and Ghintala (2013).

CONCLUSION

The results showed that majority of the respondents belonged to middle age group having high school level of education with medium farm size and farming experience, extension contact and mass media exposure. Majority of the respondents had medium level of training undergone, had medium levels of innovativeness, economic orientation, achievement motivation, social participation, scientific orientation, risk orientation, knowledge on MIS, and extent of adoption of CMP of MIS. Hence there is immediate need to promote MIS, focusing more on imparting the need and importance MIS during the training programmes, demonstrtions, showing case studies, capacity building programmes and in farming planning interventions in agriculture.

REFERENCES

Ghintala, A. 2013. Knowledge and adoption of sprinkler irrigation system by the farmers of Banaskantha district of North Gujarat. *Indian Journal of Extension Education and Rural Development.* 21: 26-29.

Hanjabam, S. 2014. Analysis of the profile characteristics and attitude of the farmers, extent of and constraints in taking up precision farming in Kerala. An *International Journal of Humanities and Social Sciences.* 1(2):258-289.

Jitarwal, R.C and Sharam, N.K. 2007. Impact of drip irrigation technology among farmers in Jaipur region of Rajasthan. *Indian Research Journal of Extension Education.* 7 (2&3):88-89.

Karpagam, 2009. Impact of micro irrigation – A Socio-Technological analysis. *Ph.D. Thesis*. Tamil Nadu Agricultural University, Coimbatore.

Katkar, B.S and Ahire, M.C. 2006. A study of knowledge level of farmers regarding drip system of irrigation in Maharashtra. *International Journal of Agricultural sciences.* 2(1):148-150.

Mohan, K and Reddy, P.R. 2012. Profile characteristics of farmers under tank irrigation commands. *Karnataka Journal of Agricultural Science.* 25(3): 359-362.

Radhika, M. 2007. An analytical study on impact of Andhra Pradesh Micro Irrigation Project in Mahaboobnagar district of Andhra Pradesh. *M.Sc (Ag.) thesis*. Acharya N.G. Ranga Agricultural University, Hyderabad.

Shashidara, K.K., Bhemeemappa, A., Hirevenkanagoudar L.V and Shashidhar K.C. 2007. Adoption of drip irrigation management practices by the plantation crop growers. *Karnataka Journal of Agricultural Sciences.*20 (1): 79 - 81.

Thamban, C., Mathew, A.C and Sairam, C.V. 1999. Field level performance of micro irrigation system in Kasaragod district - a critical analysis. Central plantation crops research institute. Kerala.

Vinayakumar, H. M., Mahatabali, K. M., Sujaykumar, S., Ramanna, K.N and Gowda, G.V. 2013. Personal and socio-psychological characteristics of the beneficiary farmers of community based tank management project and their relationship with socio-economic status. *International Journal of Advanced Biological Research.* 3(2):184-187.