

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 7; July 2025; Page No. 466-469

Received: 09-04-2025
Accepted: 11-05-2025

Indexed Journal
Peer Reviewed Journal

Personal profile of ATMA (Agricultural Technology Management agency) beneficiaries

¹Narendra Kumar Choudhary, ²SS Sisodia, ³Rajeev Bairathi, ⁴GL Meena, ⁵KD Ameta and ⁶PB Singh

¹Research Scholar, Rajasthan College of Agriculture, Udaipur, Rajasthan, India

²Professor & Head, Department of Extension Education, Rajasthan College of Agriculture, Udaipur, Rajasthan, India

³Professor, Extension Education, Rajasthan College of Agriculture, Udaipur, Rajasthan, India

⁴Department of Economics, Rajasthan College of Agriculture, Udaipur, Rajasthan, India

⁵Department of Horticulture, Rajasthan College of Agriculture, Udaipur, Rajasthan, India

⁶Department of Genetics & Plant Breeding, Rajasthan College of agriculture, Udaipur, Rajasthan, India

DOI: <https://www.doi.org/10.33545/26180723.2025.v8.i7g.2162>

Corresponding Author: Narendra Kumar Choudhary

Abstract

Agricultural extension or agricultural advisory services comprises entire set of organizations that support people engaged in agricultural production and facilitate their efforts to solve problems; link to markets and other players in the agricultural value chain; and obtain information, skills and technologies to improve their livelihoods and field demonstration and field activities. Institutional mechanism in the form of Agricultural Technology Management Agency (ATMA) at district level was initially pilot tested under Innovations in Technology Dissemination (ITD) component of National Agricultural Technology Project (NATP) in seven states of the country during the period 1998 to 2004. With successful experimentation of project, the Government of India decided to launch the ATMA programme as a full-fledged scheme during 2005- 06. The present study was undertaken in Udaipur and Bhilwara districts of Rajasthan in each districts two ATMA block were selected on the maximum number of ATMA beneficiaries and each selected block four villages selected on the maximum number of ATMA beneficiaries total sixteen village will be selected for present investigation. Thus, the total 240 beneficiaries were selected for the study. It was observed that seven personal characters selected likes that age caste, social participation, size of land holding, education, annual income and occupation outlook was about ATMA beneficiaries.

Keywords: ATMA, profile, personal variable, knowledge, beneficiaries

Introduction

Agricultural extension services have, of late, gained more importance in the developmental agenda of the nation in the face of new challenges with which the agriculture sector is currently confronted. Agricultural extension or agricultural advisory services comprises entire set of organizations that support people engaged in agricultural production and facilitate their efforts to solve problems; link to markets and other players in the agricultural value chain; and obtain information, skills and technologies to improve their livelihoods Agriculture is the backbone of Indian economy and agricultural development is central to all strategies for planned development. The agricultural growth has powerful leverage effects on rest of the economy and all the three basic objectives of economic development of the country, viz. (Bolarinwa, K. K., & Fakoya, E. O. 2011) ^[1] output growth, price stability and poverty alleviation are best served by the growth of the agricultural sector. The central institutional innovation that emerged to address these system problems was the Agricultural Technology Management Agency or “ATMA” model that was introduced at the district level. ATMA aims to integrate

extension programs across state level departments, link research and extension activities in a district and decentralize extension decision making through participatory planning (Patel *et al.*, 2018) ^[6]. With successful experimentation of project, the Government of India decided to launch the ATMA programme as a full fledged scheme during 2005- 06. (Suresh *et al.* 2022) ^[10]. The Agricultural Technology Management Agency (ATMA) (Dwivedi *et al* 2007) ^[3] is a government initiative designed to promote agricultural development and improve the livelihoods of farmers by facilitating the adoption of modern agricultural technologies. The scheme is operationalised through the ATMA that encourages the organisation of farmer groups and farm schools for promoting farm technologies. (Suresh *et al.* 2022) ^[10]. Agricultural Technology Management Agency (ATMA) is an endeavour to accelerate the process of organization and management reforms which would increase overall efficiency of the research and extension activities through introduction of decentralized planning, active participation of farmers in the planning process through group approach (Kaur *et al.*, 2021) ^[4].

Methodology

The study were conducted in Southern Rajasthan which consists of two districts, namely; Udaipur and Bhilwara of the Rajasthan is selected on the basis of maximum number of ATMA beneficiaries. In each districts two ATMA block were selected on the maximum number of ATMA beneficiaries and each selected block four villages selected on the maximum number of ATMA beneficiaries and lastly selected village on 15 beneficiaries were selected randomly from each selected village. Thus, a total of 240 beneficiaries were selected for present investigation from these 16 selected villages of two districts. Ex-post-facto research design used in the present study. According to Robinson (1976)^[7], an Ex-post-facto design as a systematic empirical inquiry in which the independent variables have not been directly managed because they have already occurred or they are inherently not manageable. Further, he stated that

Ex- post-facto studies based on deducing theories and with an identified behavioural phenomenon in explored conditions under which a phenomenon occurs.

Results and Discussion

Personal profile of ATMA beneficiaries

In this section, result related to personal profile of ATMA beneficiaries viz., age, caste, education, annual income, occupation, social participation, land holding have been presented in subsequent tables.

Age

To get an insight, ATMA beneficiaries as per their age were grouped into three categories on the basis of mean and standard deviation. The distribution of ATMA beneficiaries in each category is given.

Table 1: Distribution of ATMA beneficiaries according to age

S. No	Age	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	Young	20 (<year 35)	16.67	20 (<year 38)	16.67	40 (<year 36.4)	16.67
2.	Middle	79 (year 35-52.2)	65.83	84 (year 38-55.6)	70.00	163 (year 36.4-54)	67.92
3.	Old	21 (>year 52.2)	17.50	16 (> year 55.6)	13.33	37 (>year 54)	15.41
Total		120	100	120	100	240	100

(Udaipur mean 43.6 SD 8.6, Bhilwara mean 46.8 SD 8.8, Total mean 45.2 SD 8.8)

Table 1 indicates that majority of ATMA beneficiaries (67.92%) were of middle age. Whereas, 16.67 per cent ATMA beneficiaries were of young age and remaining 15.41 per cent ATMA beneficiaries possessed old age.

The same information when further examined at district level, table 1 shows that 65.83 per cent ATMA beneficiaries

of Udaipur district and 70.00 per cent ATMA beneficiaries of Bhilwara district were of middle age. While, 16.67 per cent ATMA beneficiaries of Udaipur and Bhilwara district were young beneficiaries and remaining i.e. 17.50 per cent of Udaipur district and 13.33 per cent of Bhilwara district belonged to old age.

Table 2: Distribution of ATMA beneficiaries according to income

S. No	Income	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	Low	22 (Less than Rs. 252812.6)	18.33	17 (Less than Rs. 229292)	14.17	39 Less than Rs. 240849.2)	16.25
2.	Medium	77 (Rs. 252812.6-478854)	64.17	90 (Rs. 229292-497958)	75.00	167 (Rs. 240849.2-488609.2)	69.58
3.	High	21 (More than Rs. 478854)	17.50	13 (More than Rs. 497958)	10.83	34 (More than Rs. 488609.2)	14.17
Total		120	100	120	100	240	100

(Udaipur mean-Rs. 365833.3, SD-113020.7, Bhilwara mean-Rs. 363625, SD-134333, Total mean- Rs. 364729.2, SD-123880)

The table 2 indicates that majority of ATMA beneficiaries (69.58%) belonged to medium income group. Whereas, 16.25 per cent ATMA beneficiaries were low income earners and remaining 14.17 per cent ATMA beneficiaries belonged to high income group.

The same information when further examined at district level, table 2 shows that 64.17 per cent ATMA beneficiaries of Udaipur district and 75.00 per cent ATMA beneficiaries

of Bhilwara district belonged to medium income group. While, 18.33 per cent ATMA beneficiaries of Udaipur district and 14.17 per cent ATMA beneficiaries of Bhilwara district were in low income group and remaining ATMA beneficiaries 17.50 per cent of Udaipur district and 10.83 per cent ATMA beneficiaries of Bhilwara district belonged to high income group.

Table 3: Distribution of ATMA beneficiaries according to Caste

S. No	Caste	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	SC	5	04.17	5	04.17	10	04.17
2.	ST	19	15.83	18	15.00	37	15.42
3.	SBC	4	03.33	13	10.83	17	07.08
4.	EWS	5	04.17	10	08.33	15	06.25
5.	OBC	65	54.17	63	52.50	128	53.33
6.	General	22	18.33	11	09.17	33	13.75
Total		120	100	120	100	240	100

Note: f- frequency % per cent

The data presented in table 3 indicate that majority of ATMA beneficiaries (53.33%) were of Other Backward Class. 15.42 per cent were Schedule Tribe and 13.75 per cent were from General Caste, 07.08 per cent were of Special Backward Caste, 06.25 per cent were Economical Weaker Section caste. Only 04.17 per cent were Schedule Caste. The same information when further examined at district level, table 3 shows that majority of ATMA beneficiaries (54.17%) in Udaipur districts 52.50 per cent were of Other Backward Class in Bhilwara districts whereas, 15.83 per cent Schedule Tribe beneficiary in

Udaipur and 15.00 per cent beneficiary belonged to Bhilwara district, around 18.33 per cent beneficiary of General Class of Udaipur and 09.17 per cent beneficiary were from Bhilwara district, after their 03.33 per cent beneficiary of Special Backward Class of Udaipur and 10.83 per cent beneficiary were of Bhilwara district. Only 04.17 per cent beneficiary were of Schedule Caste of Udaipur and 04.17 per cent beneficiary belonged to Bhilwara district, respectively.

Table 4: Distribution of ATMA beneficiaries according to Occupation

S. No	Occupation	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	Agriculture / Dairy	59	49.17	60	50.00	119	49.58
2.	Agriculture + Business	49	40.83	41	34.17	90	37.50
3.	Agriculture + Service	12	10.00	19	15.83	31	12.92
Total		120	100	120	100	240	100

Note: f- frequency % - per cent

The data presented in table 4 indicate that majority of ATMA beneficiaries (49.58%) were having Agriculture / Dairy whereas, 37.50 per cent had Agriculture + Business and 12.92 per cent were Agriculture + Service. The same information when further examined at district level, table 4 shows that majority of ATMA beneficiaries (49.17%) of Udaipur district 50.00 per cent of Bhilwara district were performing Agriculture / Dairy whereas, 40.83 per cent

beneficiaries of Udaipur and 34.17 per cent beneficiaries of Bhilwara had Agriculture + Business and 10.00 per cent beneficiaries of Udaipur and 15.83 per cent beneficiaries of Bhilwara district had Agriculture+ Service.

About 50.00 per cent ATMA beneficiaries of both districts had agriculture and dairy occupation because agriculture is traditional occupation but it does not support family income so they also have joined service.

Table 5: Distribution of ATMA beneficiaries according to Education

S. No	Education	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	Can read only	5	04.17	6	05.00	11	04.58
2.	Can read and write	5	04.17	5	04.17	10	04.17
3.	Primary	9	07.50	10	08.33	19	07.92
4.	Secondary	43	35.83	43	35.83	86	35.83
5.	Higher Secondary	38	31.66	31	25.83	69	28.75
6.	Graduate	20	16.67	25	20.84	45	18.75
Total		120	100	120	100	240	100

Note: f- frequency % per cent

The data presented in table 5 revealed that majority of ATMA beneficiaries (35.83%) were educated upto "Secondary class" whereas, 28.75 per cent educated upto "Higher Secondary" and 18.75 per cent were "Graduates" after there 07.92 per cent educated upto "Primary class" and 04.58 per cent "Can read only". Only 04.17 per cent "Can read and write". The same information when further examine at district level, table 5 shows that majority of ATMA beneficiaries (35.83%) of Udaipur and Bhilwara districts were educated upto "Secondary" class whereas, 31.66 per cent beneficiaries of Udaipur and 25.83 per cent beneficiaries of Bhilwara district educated upto "higher

secondary" and 16.67 per cent beneficiaries of Udaipur and 20.84 per cent beneficiaries Bhilwara districts were studied upto "Graduation" after there 07.50 per cent beneficiaries of Udaipur and 08.33 per cent beneficiaries of Bhilwara district educated upto "Primary" 04.17 per cent of Udaipur and 05.00 per cent beneficiaries of Bhilwara district. "Can read only". Only 04.17 per cent beneficiaries of Udaipur and Bhilwara district "Can read and write".

Table summarise that most of ATMA beneficiaries of both districts educated upto "Secondary" and "Higher secondary" education.

Table 6: Distribution of ATMA beneficiaries according to participation in social activities

S. No	Social participation	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	No participation	43	35.83	40	33.33	83	34.58
2.	Member of one organization	71	59.17	44	36.67	115	47.92
3.	Member of more than one organization	3	02.50	1	00.83	4	01.67
4.	Office holder in such an organization	3	02.50	26	21.67	29	12.08
5.	Wide public leader	0	00.00	9	07.50	9	03.75
Total		120	100	120	100	240	100

Note: f- frequency % per cent

The data presented in table 6 states that majority of ATMA beneficiaries (47.92%) were “Member of one organization” whereas, 34.58 per cent “No participation” in any organization and 12.08 per cent “Office holder in social organizations” after there 03.75 per cent were “Wide public leaders”. Only 01.67 per cent “Member participated in more than one organization”. The same information when further examine at district level, table 6 shows that majority of ATMA beneficiaries (59.17%) of Udaipur district 36.67 per cent of Bhilwara district were “Member of one

organization” whereas, 35.83 per cent beneficiaries of Udaipur and 33.33 per cent beneficiaries of Bhilwara district had “No participation in any social organization”, 2.50 per cent beneficiaries of Udaipur district and 21.67 per cent beneficiaries of Bhilwara district were “Office holder in social organization”, 07.50 per cent beneficiaries were “Wide public leaders”. 2.50 per cent beneficiaries of Udaipur district and 0.83 per cent beneficiaries of Bhilwara district were “Member of more than one social organization”.

Table 7: Distribution of ATMA beneficiaries according to size of Land holding

S. No	Size of Land holding	Udaipur (f) (n ₁ =120)	%	Bhilwara (f) (n ₂ =120)	%	Total (f) (n=240)	%
1.	Marginal farmers (less than 1 ha)	0	00.00	7	05.83	7	02.92
2.	Small farmers (1-2 ha)	13	10.83	12	10.00	25	10.42
3.	Semi-medium farmers(2-4ha)	38	31.67	28	23.33	66	27.50
4.	Medium farmers (4-10 ha)	58	48.33	41	34.17	99	41.25
5.	Large farmers (more than 10 ha)	11	09.17	32	26.67	43	17.91
	Total	120	100	120	100	240	100

Note: f- frequency % per cent ha- hectare

The data presented in table 7 indicate of majority of ATMA beneficiaries (41.25%) were “Medium farmers” having land size 4-10 ha whereas, 27.50 per cent beneficiaries were “Semi medium farmers” land size 2-4ha and 17.91 per cent beneficiaries were “Large farmers” having land more than 10ha after there 10.42 per cent beneficiaries were “Small farmers” land size 1-2ha and 02.92 per cent beneficiaries “Marginal farmers” having land size less than 1ha. The same information when further examine at district level, table 7 shows that majority of ATMA beneficiaries (48.33%) of Udaipur districts 34.17 per cent beneficiaries of Bhilwara district were “Medium land holders” whereas, 31.67 per cent beneficiaries were “Semi medium farmers” of Udaipur and 23.33 per cent beneficiaries were of Bhilwara district and there 10.83 per cent beneficiaries were “Small farmers” of Udaipur and 10.00 per cent were from Bhilwara district after that 09.17 per cent beneficiaries were “Large farmers” of Udaipur and 26.67 per cent large farmers were from Bhilwara districts, Only 05.83 per cent beneficiaries “Marginal farmers” belonged to Bhilwara districts.

This finding is supported by Choudhary *et al.* (2022) [2] Were revealed that the majority of maximum number of ATMA beneficiaries (46%) had marginal category of farmers (having up to 2.50acre 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.

Summary and Conclusion

It was observed that its were indicates that majority of ATMA beneficiaries (67.92%) were of middle age. It was found that indicate that majority of ATMA beneficiaries (53.33%) were of Other Backward Class. Study showed that majority of ATMA beneficiaries (69.58%) belonged to medium income group. The majority of ATMA beneficiaries (49.58%) were having Agriculture / Dairy. The revealed that majority of ATMA beneficiaries (35.83%) were educated upto “Secondary class”. It was observed

states that majority of ATMA beneficiaries (47.92%) were “Member of one organization”. It showed that overall indicate of majority of ATMA beneficiaries (41.25%) were “Medium farmers” having land size 4-10 ha.

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