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Original Research Article

Knowledge of Farmers towards Different Activities of Agricultural Technology Management Agency (ATMA) in East Champaran District of Bihar

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A B S T R A C T

Agricultural Technology Management Agency (ATMA) was registered as an autonomous institution and at it is implemented in all the 38 districts of the state. The concept of ATMA envisages a paradigm shift from "top-down" to "bottom-up" in planning and implementation of agriculture development programmes. The present study was conducted in East Champaran district of Bihar to assess the level of knowledge towards the different activities of ATMA. Results revealed that Majority of beneficiaries have Medium level of knowledge(58.3 %) followed by High (26.6 %) level of Knowledge while about 48.4 % of non - beneficiaries had medium level of knowledge followed by low (33.3%) level of knowledge about different activities of ATMA.

Keywords

Knowledge, ATMA, Beneficiaries, Non-beneficiaries

Introduction

The Indian agriculture is at the turning point today. The agricultural growth has powerful leverage effects on the rest of the economy and all the three basic objectives of economic development of the country, viz. poverty alleviation, output growth, and price stability is best contribute by the growth of the agricultural sector (Agnihotri *et al.*, 2018).

Agricultural Technology Management Agency (ATMA) is a registered society responsible for more effective and efficient dissemination of available agricultural technologies at district level. It has linkage with the extension-related activities of ICAR institutes, including KVKs, research organizations line departments, NGOs and the private sector associated with agricultural development at the district and block levels . The Agricultural Technology Management Agency (ATMA) is the flagship programme for agricultural extension reforms in India. Agricultural technology management agency (ATMA) at district level was pilot tested under innovations in technology dissemination (ITD) component of World Bank funded national agricultural technology project (NATP) with effect from November, 1998 to 2004. It was implemented as a pilot in seven states *viz*., Andhra Pradesh,

Maharashtra, Bihar, Himachal Pradesh, Jharkhand, Orissa and Punjab covering 4 districts in each state (Sahu *et al.*, 2013).

Organization of training programmes for farmers and other stakeholders is one of the most important activities of ATMA. Training is vital and necessary to induce motivation, create confidence and increase the efficiency of a farmer. It is a process by which desire, ideas, positive attitude, knowledge and skills are inculcated and reinforced. It is an important part of any developmental activity. The present study was conducted to assess the level of knowledge of beneficiaries and non- beneficiaries towards the different activities in east Champaran district of Bihar.

Materials and Methods

This study was carried out in East Champaran district of Bihar state. East Champaran district has been divided into twenty one (27) blocks. Out of the twenty seven blocks of East Champaran district, Motihari block were selected randomly and from each block six villages were randomly selected for the study. From each village, two types of farmers that is Beneficiaries and Non beneficiaries were selected in equal number from each selected village. The size of sample was 120. 60 belongs to beneficiaries category and rest 60 belongs to Non beneficiaries category. The obtained results were analyzed in the form of frequency, percentage, mean and standard deviation.

Results and Discussion

The finding revealed socio-economic status of the respondents in Table 2 indicated that majority of the ATMA beneficiaries 71.5 per cent had medium level of socio-economic status, followed by 16.3 per cent of the beneficiaries had high level of socio-economic status and only 11.2 per cent were having low level of socio – economic condition. Whereas, the maximum 66.6 per cent of the non-beneficiaries had medium level of socio-economic status followed by 20.0 per cent non-beneficiaries had low level of socio-economic status and 13.4 per cent were taking the high level of socio-economic status.

The finding revealed that Knowledge of the respondents about ATMA Table 3. The table indicated that majority of the ATMA beneficiaries 78.3 per cent had medium level of knowledge about ATMA programme, followed by 11.7 per cent of the beneficiaries had high level of knowledge about ATMA programme and only 10.0 per cent were having low level of knowledge about ATMA programme. Whereas, the maximum 51.6 per cent of the non-beneficiaries had medium level of knowledge about ATMA programme followed by 48.4 per cent non-beneficiaries had low level of knowledge about ATMA programme.

Regarding Training in Table 2 indicated that majority of the ATMA beneficiaries 56.6 per cent had medium level of knowledge about training programme, followed by 36.6 per cent of the beneficiaries had high level of knowledge about training programme and only 6.8 per cent were having low level of knowledge about training programme. Whereas, the maximum 48.4 per cent of the non-beneficiaries had medium level of knowledge about training programme followed by 30.0 per cent non-beneficiaries had low level of knowledge about training programme and about 21.6 per cent of non-beneficiaries had high level of knowledge about training.

Regarding Knowledge of the respondents about Demonstration in table 3 indicated that majority of the ATMA beneficiaries 48.3 per cent had medium level of knowledge about

demonstration programme, followed by 28.3 per cent of the beneficiaries had high level of knowledge about demonstration programme and about 23.4 per cent were having low level of knowledge about demonstration programme. Whereas, the maximum 43.3 per cent of the non-beneficiaries had medium level of knowledge about demonstration programme followed by 38.4 per cent non-beneficiaries had low level of knowledge about demonstration programme and about 18.3 per cent of non-beneficiaries had high level of knowledge about demonstration.

Regarding Knowledge of the respondents about Exposure visit in table 3 indicated that majority of the ATMA beneficiaries 60.0 per cent had medium level of knowledge about exposure visit, followed by 21.7 per cent of the beneficiaries had high level of knowledge about exposure visit and about 18.3 per cent were having low level of knowledge about exposure visit. Whereas, the maximum 48.4 per cent of the non-beneficiaries had medium level of knowledge about exposure visit followed by 36.6 per cent non-beneficiaries had low level of knowledge about exposure visit and about 15.0 per cent of non-beneficiaries had high level of knowledge about exposure visit.

Table.1 Distribution of the respondents according to their socio- economy characteristics

S.No.	Variables	Categories	Beneficiaries f(f%)	Non-beneficiaries f(f%)
1.	Education	Illiterate	7(11.7%)	8(13.3%)
		Primary(up to 5th class)	11(18.3%)	23(38.4%)
		Secondary(5th to 10th)	12(20%)	7(11.7%)
		High School(11th & 12th)	26(43.3%)	17(28.3%)
		Graduation	4(6.7%)	5(8.3%)
2.	Occupation	Agriculture	60(100%)	58(96.6%)
		Animal Husbandry	16(26.6%)	19(31.6%)
		Poultry	0(0 %)	2(3.3%)
		Labour	9(15%)	15(25%)
		Horticulture	32(53.3%)	8(13.3%)
		Business	12(20%)	7(11.7%)
3.	Family Type	Nuclear Family	46(76.6%)	41(68.3%)
		Joint Family	14(23.4%)	19(31.7%)
4.	Land Holding	Marginal(Less than 1 hec.)	28(46.6%)	31(51.7%)
		Small(1-2 hec)	18(30%)	15(25%)
		Semi medium(2-4 hec)	8(13.4%)	9(15%)
		Medium(4-10 hec)	6(10%)	5(8.3%)
5.	Social Participation	Member in no organization	0(0 %)	40(66.6%)
		Member in one organization	38(63.4%)	13(21.6%)
		Membership in two or more than two organization	22(36.6%)	7(11.8%)

Table.2 Distribution of the respondents according to their socio- economy status

S. No.	Categories	Beneficiaries (n=60)	Non-beneficiaries (n=60)	Total (n=120)
1.	Low (up to 13)	7(11.2%)	12(20.0%)	19(15.8%)
2.	Medium (14 to 30)	43(71.5%)	40(66.6%)	83(69.2%)
3.	High (above 30)	10(16.3%)	8(13.4%)	18(15.0%)
	Total	**60**	**60**	**120**

Mean = 21.7 S.D. = 8.1

Table.3 Distribution of respondents according to their level Knowledge about ATMA

S.no.	Different activities of ATMA	Level of Knowledge of Beneficiaries			Level of Knowledge of Non-beneficiaries		
		Low f (f%)	Medium f (f%)	High f (f%)	Low f (f%)	Medium F (f%)	Low f (f%)
1	About Programme	6(10.0%)	47(78.3%)	7(11.7%)	29(48.4%)	31(51.6%)	0(0%)
2	About Training	4(6.8%)	34(56.6%)	22(36.6%)	18(30.0%)	29(48.4%)	13(21.6%)
3	About Demonstration	14(23.4%)	29(48.3%)	17(28.3%)	23(38.4%)	26(43.3%)	11(18.3%)
4	About Exposure Visit	11(18.3%)	36(60.0%)	13(21.7%)	22(36.6%)	29(48.4%)	9(15.0%)
5	Overall knowledge	9(15.0%)	35(58.3%)	16(26.6%)	20(33.3%)	29(48.4%)	11(18.3%)

Table.4 Relationship between socio-economic characteristics and knowledge of beneficiaries and non-beneficiaries

S.No.	Characteristics	"r" value(beneficiaries)	"r" value(Non-beneficiaries)
1	Education	0.2456**	0.2316**
2	Occupation	0.1872*	0.1784*
3	Family type	0.3681**	0.1811*
4	Land Holding	0.1164NS	0.0173NS
5	Social Participation	0.4678**	0.1108NS

Regarding overall Knowledge of the respondents in table indicated that majority of the ATMA beneficiaries 58.3 per cent had medium level of overall knowledge, followed by 26.6 per cent of the beneficiaries had high level of overall knowledge and about 15.0 per cent were having low level of overall knowledge. Whereas, the maximum 48.4 per cent of the non-beneficiaries had medium level of overall knowledge followed by 33.3 per cent non-beneficiaries had low level of overall knowledge and about 18.3 per cent of non-beneficiaries had high overall level of knowledge. Similar finding is also reported by Sahu (2011).

It is clearly seen from the table that for beneficiaries Education, Family type and Social participation are significant with

knowledge at 0.01 level of probability while occupation is significant at 0.05 level probability. In case of non-beneficiaries education is significant at 0.01 level of probability while occupation and family type at 0.05 level of probability. Land holding is non-significantly associated with both beneficiaries and non-beneficiaries while social participation is non-significant for non-beneficiaries. Similar finding is also reported by Arya *et al.,* (2012) and Agnihotri *et al.,* (2018).

Conclusion

Based on the results presented above, it could be concluded that majority of ATMA beneficiaries and non-beneficiaries had medium level of socio-economic status. Regarding knowledge, majority of the ATMA beneficiaries and non-beneficiaries had medium level of overall knowledge. Education, Family type and Social participation are significant with knowledge at 0.01 level of probability while occupation is significant at 0.05 level probability. In case of non-beneficiaries education is significant at 0.01 level of probability while occupation and family type at 0.05 level of probability. Land holding is non-significantly associated with both beneficiaries and non-beneficiaries while social participation is non-significant for non-beneficiaries.

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