An Analysis of Socio-personal profile of ATMA trainers in South Bihar

Abstract

The present study was conducted in two selected districts of South Bihar, one from each Agro-climatic zone, namely, Bhagalpur and Nalanda. Training programmes conducted by two selected district Agricultural Technology Management Agencies (ATMAs) were analyzed for period of five years. The data was collected by the researcher ~~itself~~ by direct interview method with help of semi-structured interview schedule. Analysis of result obtained by interview of ATMA trainers depicts that majority of ATMA trainers were of middle age group. ATMA trainers were dominated by male members. As per educational qualification is concerned majority of ATMA trainers were educated up to master's level. The major discipline of the trainers was ~~found to be~~ Agricultural science with slight a smaller number of Animal Science. Majority of respondents were ~~having designation of~~ Assistant Professors or equivalent post. There was lack of highly experienced trainers as majority of ~~trainers~~ them ~~were having training~~ had experience of less than five years.

Key–words: ATMA, Agro-climatic Zone (ACZ), Trainers, Training Experience, Discipline, Animal Husbandry

Formatted: Font: Bold

Introduction

Agricultural Technology Management Agency (ATMA) is a registered society of key stakeholders involved in agricultural activities for the sustainable agricultural development in the district. ATMA is established at district level as an autonomous institution providing flexible working environment involving all the stake–holders in planning and implementation of extension activities. ATMA is a unique district level institution, which caters to activities in agriculture and allied sector adopting a farming system approach and convergence of programmes of related department.

Comment [41]: Add a reference

The livestock sector plays an important role in providing livelihood support to more than eight (8) crore rural households engaged in dairying. Value of output of milk is more than Rs. 7.72 lakh (one hundred thousand) crores (ten million) during 2018-19 at current prices which is more than the value of output of wheat and paddy together (Annual Report, 2020-21, Department of Animal Husbandry and Dairying, GoI). Contribution of livestock in GSDP of Bihar is 6.0 percent and in state Agriculture is 32 percent during 2019-20 (Economic survey, 2020).

Livestock sector is an integral part of agriculture, ~~and~~ contributes substantially to the national economy, and ~~also~~ plays a vital role in sustaining livelihood of the people. At present, productivity of almost all animal species in India is less than world ~~average which~~average, which

can be improved further by capacity building of the livestock farmers with help of suitable training programmes.

Training is one of the potent tools for bringing transformation in the working pattern of livestock farmers. Based on the principal of "Learning by doing", training provides capacity building in all aspects including animal husbandry. Training enhances the accuracy in working along with developing confidence in the people. A trainer plays a vital role in successful organization's ~~of~~ training programme and technology dissemination to the farmers.

Since ATMA is overall performing the coordination work of all the agricultural related work in the district and improving the capacity building of the farmers by providing training in the different fields, therefore it is necessary to know the socio-personal profile of ATMA trainers, so that trainings ~~could be~~would improve~~d~~ substantially for overall ~~improvement~~ enhancement of the animal husbandry sector.

Add objective of this study and how is this paper divided!!!

Methodology

The study was conducted in the state of Bihar. South Bihar has two Agro-climatic zones namely Zone-IIIA consisting of South East Alluvial Plain and Zone -III B consisting of South West Alluvial Plain (Dept~~t.,~~ of Agriculture, Govt. of Bihar). For the study, both Agro-climatic zones were considered for the sample. One district, from each Agro-climatic zone, was selected randomly. Accordingly, from Zone-III A, Bhagalpur district and from Zone- III B, Nalanda district were~~as~~ selected for the study purpose.

The ATMAs working in the two selected districts were~~as~~ analyzed for trainings conducted by them in animal husbandry sector for last 5 years. With the help of district ATMAs, 25 trainers were identified and selected who had provided training to the farmers in Animal Husbandry sector in during last 5 years. The data from trainers ~~was collected~~ gathered by direct interview method by the researcher ~~itself~~ with help of semi-structured interview schedule. Data analysis used descriptive statistics ~~and simple tests like mean, median, percentage~~ and t-tests. ~~were used to analyze the data~~.

Hejase et al. (2012) contend that informed objective decisions based on facts and numbers, real, realistic and timely information. In addition, Hejase and Hejase (2013) assert, "descriptive statistics deals with describing a collection of data by condensing the amounts of data into simple

Formatted: Space After: 0 pt

representative numerical quantities or plots that can provide a better understanding of the collected data" (p. 272). Therefore, frequencies, percentages and means were reported using tables for clarity.

Results and Discussion

Table ~~-~~1: Distribution of the ATMA trainers according to their age

Variable	Bhaglpur	Nalanda	Pooled
Age	N=25	N=25	N=50
Young	7(28)	5(20)	12(24)
Middle	12(48)	9(36)	21(42)
Old	6(24)	11(44)	17(34)

* Figures in parenthesis indicates percentage: frequency (%).

~~It is evident from table 1~~Table 1 shows that in Bhagalpur district ~~majority (~~48%~~)~~ of respondents were of middle age group followed by young (28%) and old (24%). In Nalanda district ~~majority (~~44%~~)~~ of the trainers were of old age followed by middle (36%) and young (20%). Pooled value of age of ATMA trainers of both districts depicts that majority (42%) of trainers were of middle age group followed by old age (34%) and young age (24%) respectively.

Formatted: Space After: 0 pt

Table -2 : Distribution of ATMA trainers according to their sex

Formatted: Space After: 0 pt, Line spacing: 1.5 lines

Variable	Bhaglpur	Nalanda	Pooled
Sex	N=25	N=25	N=50
Male	18(72)	20(80)	38(76)
Female	7(28)	5(20)	12(24)

* Figures in parenthesis indicates percentage

From Table ~~-~~2 it is evident that in Bhagalpur district ~~majority (~~72%~~)~~ of the trainers were male and 28~~%-percent~~ were female. In Nalanda district ~~the~~ a similar trend was observed where ~~majority (~~80%~~)~~ of trainers were male and ~~only~~ 20% ~~percent~~ trainers were female. Pooled data of both districts depict~~s~~ that ATMA trainers were dominated by male (76%) ~~members where 76 percent of the trainers were male~~ and ~~only~~ 24% ~~percent~~ ATMA trainers were female.

Table -3 : Distribution of ATMA trainers according to their Educational Qualification

Variable	Bhaglpur	Nalanda	Pooled
Qualification	N=25	N=25	N=50
BVSc&AH/BSc	5(20)	9(36)	14(28)
MVSc/MSc	15(60)	12(48)	27(54)
PhD / PDF	3(12)	2(8)	5(10)
Others	2(8)	2(8)	4(8)

* Figures in parenthesis indicates percentage

Table -3 ~~is showings~~shows distribution of respondents according to their educational qualification. Educational qualification of the trainer is very much detrimental for any short of training programme or capacity building programme. ~~It is evident from the table~~Table 3 shows that in Bhagalpur district ~~majority (~~60%~~)~~ of trainers had education up to master's degree followed by education up to graduation (BSc or equivalent, 20%), education up to doctoral (12%) and least 8~~% percent were having~~ had other qualifications like diploma etc. In Nalanda district ~~majority (~~48%~~)~~ of the trainers ~~were having education~~had up to master's degree followed by education up to graduation (36%), and equal number of trainers having qualification up to doctoral degree (8%) and other qualifications like diploma etc. Pooled value of both the districts depicts that ~~majority (~~54%~~)~~ of the trainers had qualification up to master's degree followed by graduation (28%), doctoral degree (10%) and least 8%~~%~~ ~~percent of the trainers~~ had other qualifications like diploma etc.

Table -4: Distribution of ATMA trainers according to their discipline

Variable	Bhaglpur	Nalanda	Pooled
Discipline	N=25	N=25	N=50
Animal Science	11(44)	8(32)	19(38)
Agricultural Science	8(32)	12(48)	20(40)
Social Science	3(12)	4(16)	7(14)
Home science	3(12)	1(4)	4(8)

* Figures in parenthesis indicates percentage

Discipline of trainers refers to subject of basic ~~qualification which~~qualification, which they obtained during their career. It is expected that for training in the field of animal husbandry, an expert in the subject of animal husbandry is the best choice. From ~~the~~ Table -4 it is evident that in Bhagalpur district ~~majority (~~44%~~)~~ of the trainers majored in ~~were belonging to~~ Animal

Science, followed by Agricultural Science discipline (32%), and an equal number of trainers of from (12%) from Social Science and Home Science respectively. In Nalanda district majority (48%) of the trainers were belongingmajored in to Agricultural Science discipline followed by Animal Science discipline (32%), Social Science discipline (16%) and least (4%) from Home Science discipline. Pooled value of both districts depicts that majority (40%) of the trainers were from Agricultural Science followed by Animal Science (38%), Social Science (14%) and Home Science (8%).

Table -5 : Distribution of ATMA trainers according to their designation

Variable	Bhaglpur	Nalanda	Pooled
Designation	N=25	N=25	N=50
Asstt. Professor/Asstt. Director/ Scientist / Equal	14(56)	10(40)	24(48)
Associate Professor/ Senior Scientist/ Deputy director	6(24)	4(16)	10(20)
Professor/ Principal Scientist/ Director/ Equivalent	2(8)	3(12)	5(10)
Others	3(12)	8(32)	11(22)

* Figures in parenthesis indicates percentage

It is evident from Table 5Table 5 shows that in Bhagalpur district majority (56%) of the respondents were of the rank of Assistant Professor or equivalent followed by rank of Associate Professor or equivalent (24%)–, other posts included (12%) and least were at the rank of Professor or equivalent (8%). In the Nalanda district Majority (40%) of the trainers were of the rank of Assistant Professor or equivalent followed by Other posts (32%), -Associate Professor or equivalent (16%), and Professor & equivalent (12%). On the other hand, pPooled value of both districts clearly depicts that majority (48%) of the trainers were at the rank of Assistant Professor followed by other posts (22%), rank of Associate Professor or equivalent (20%) Professor or equivalent (10%) It is evident from figure that trainers at the rank of Assistant Professor or equivalent were more engaged in training programmes related to animal husbandry sector.,, Tthe reason may be due to more availability of time to basic posts like Assistant Professor whereas resource persons at higher post like Professor or equivalent are havinghave more responsibility in their organization and are engaged in other activities, which result in less available time for attending training programmes for farmers.,, Aanother reason may be due to more involvement of contractual persons whichpersons, which are mainly at the post of Assistant Professor or equivalent.

Table-6 : Distribution of ATMA trainers according to their Training Experience

Variable	Bhaglpur	Nalanda	Pooled
Training Experience	N=25	N=25	N=50
Up to 5 Years	11(44)	8(32)	19(38)
5-10 Years	7(28)	9(36)	16(32)
10-15 Years	4(16)	5(20)	9(18)
More than 15 Years	3(12)	3(12)	6(12)

* Figures in parenthesis indicates percentage

~~It is evident from Table 6~~Moreover, Table 6 depicts that in Bhagalpur district ~~majority (~~44%~~)~~ of ATMA trainers ~~were having~~have training experience up to 5 years followed by 28% with experience up to 5-10 years ~~(28%)~~, 16% having experience up to 10-15 years, ~~(16%)~~ and 12% included trainers with experience of more than 15 years ~~was found only up to 12 percent~~. In Nalanda district ~~majority (~~36%~~)~~ of the ATMA trainers ~~were having~~have training experience of 5-10 years followed by 32% with experience up to 5 years ~~(32%)~~, 20% with experience up to 10-15 years, ~~(20%)~~ and least only 12% ~~percent~~ of trainers were having experience of ~~-~~ more than 15 years.

Pooled value of both selected districts shows that ~~majority (~~38%~~)~~ of the trainers ~~were having~~ had training experience up to 5 years followed by 32% with experience up to 5-10 years ~~(32%)~~, 18% with experience up to 10-15 years, ~~(18%)~~ and least 12% percent of the trainers with ~~were having~~ training experience of more than 15 years. ~~It is evident from the figures presented in~~Therefore, the ~~table 6 that~~ majority of trainers ~~were having~~had training experience of less than 5 years. For quality training, more experienced trainers are required. Therefore, ATMAs should try to engage ~~more experienced trainers~~trainers that are more experienced for their training programmes. The fact could not be denied that more experienced trainers are in general at higher posts which in turn having more official responsibility and therefore less available to act as a resource person for farmers training.

Summary & Conclusion

The result of the study depicts that in South Bihar ~~majority~~ 42% of ATMA trainers were of middle age group ~~(42%)~~. There was dominancy of male trainers (76%) in comparison to

female trainers (24%). As ~~per~~ for educational qualification, ~~is concerned majority~~54% of the trainers ~~were~~ had~~having~~ education up to master's degree ~~(54%)~~, ~~majority~~ 40% of resource person used for training of animal husbandry to farmers were from Agricultural science discipline ~~(40%)~~ with ~~slight less number (~~38%~~)~~ in Animal Science discipline. ~~Majority~~ 48% of trainers were at the post of Assistant Professor or equivalent ~~(48%).,~~ In fact, there was lack of resource persons at higher designation like professor or equivalent (10%). Training to farmers ~~were being~~was imparted by mainly less experienced (38%) trainers having training experience of up to 5 years only.

~~From the result of the study, it may be concluded~~In conclusion, ~~that~~ there is need of more involvement of female trainers. To improve the quality of trainings organized by ATMA more qualified (Doctoral or equivalent) trainers should be given preference.~~,~~ H~~h~~owever, there was constraints faced by ATMA for availability of the trainers with doctoral degree. It was observed that trainers from the Agriculture science discipline trained~~ing~~ in Animal Husbandry. ~~was provided mainly by the trainers from Agriculture science discipline.,~~ T~~t~~here should be specialized trainers from animal husbandry discipline for training to livestock farmers. However, it was also subject to availability ~~to~~ of resource persons from Animal Husbandry sector. ATMA should try to arrange resource persons from line department of Animal Husbandry or faculty from Bihar Animal Sciences University located in Patna. The study also reveals that there was less involvement of trainers with higher ~~designation~~ academic rank like Professor or equivalent posts, there is need to give more preference to experienced trainers to improve the quality of trainings. ATMA should put ~~his~~ effort to involve a greater number of trainers with more experience so that farmers should have higher benefits ~~of experience of trainers~~. There may be constraints of lack of experienced trainers, nevertheless that need can be fulfilled by ~~proving~~ approaching off-campus training to different institutes having faculty or scientists of Animal Science.

References **Review carefully the write up of references for consistency and matching the Journal's requirements**

Annual Report (2020-21)~~,~~ Department of Animal Husbandry and Dairying, GoI. https://dahd.nic.in>annual_report

Dixit V~~.~~ B~~,~~ Tripathi H~~.~~, ~~and~~ Sharma M L (2019) Assessing Impact of Training on Socio-Psychological Variables of Buffalo Owners, Indian Journal of Extension Education **55(2)** PP: 86-89

Economic Survey (2020), Finance department, Govt. of Bihar. https://state.bihar.gov.in>finance

Hejase HJ, Hejase AJ, Hejase HANJ (2012). Quantitative Methods for Decision Makers: Management Approach. Beirut, Dar Sader Publishers.

Hejase AJ, Hejase HJ (2013). Research Methods: A Practical Approach for Business Students (2nd edition). Philadelphia, PA, USA: Masadir Incorporated.

Hundal JS, Chahal US, Kansal SK, and Bhatti JS (2016). Role of training in changing knowledge level among dairy farmers of Punjab. Haryana Veterinary **55(2):** 220-223.

Sharma M, Sangwan SS, Singh SP, Gautam, Sarita (2016). Impact of Scientific dairy farming trainings on farmers knowledge about breeding and feeding practices. Haryana Veterinarian 55(1), 23-26. http://www.luvas.edu.in/.../5.pdf

J.Yoga J, Narasimhulu N,aidu, H. Philip, H, M. Asokhan, M, R. Balasubramanian R, and M. R. Duraisamy MR (2016). Constraints Faced by Stakeholders under Agriculture Technology Management Agency (ATMA), Journal of Extension Education, **(28) 4**, PP : 5768- 5774

Sharma Monika, Sangwan, S.S., Singh, S.P., Gautam and Sarita (2016) Impact of Scientific dairy farming trainings on farmers knowledge about breeding and feeding practices,

Haryana Vet. **55 (1),** PP. 23-26

****

Formatted: Indent: First line: 0", Space After: 8 pt, Line spacing: Multiple 1.08 li