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# Constraints perceived by the Farmers friends of Madhya Pradesh in implementation of agricultural technology management agency (ATMA)

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## Abstract

The present study was carried out during 2016-17 in the tribal districts of Madhya Pradesh state. This study was conducted in randomly selected 600 villages of four purposively selected blocks i.e. Mandla, Nainpur located in Mandla district similarly Dindori, Mehandwani located in Dindori district. The aim of this study to know the constraints in implementation of ATMA in tribal areas. A total of 300 farmer friends were selected randomly as respondents. The data collection was done by the use of interview schedule through personal interview. Data were analyzed with help of suitable statistical tools. Administrative constraints are concerned maximum of the respondents reported lack of staff at block level. In case the Dindori district few percentage of respondents were of the opinion that poor contact between farmers and agriculture officers as major constraints. Regarding socio-economic constraints maximum of the respondents reported lack of awareness among farmers about ATMA in both the district. Regarding infrastructural constraints, majority of respondents reported problem of electricity. In case the Dindori district highest percentage of respondents were of the opinion that lack of transport facilities to reach remote areas. It is evident from personal constraints the maximum respondents of both districts reported that additional work load on block level ATMA functionaries. As situational constraints are concerned the highest percentages of respondents were of the opinion that lack of irrigation facilities in both the districts, regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level to overcome the constraints for successful implementation of ATMA in tribal areas.

Keywords: ATMA, Constraints and Suggestions, Implementation, Farmer friend

## Introduction

The concept of ATMA was introduced in 1999 as an autonomous organization under the National Agricultural Technology Project (NATP) by providing flexible working environment with an objective of integrating research, extension and all other stake holders at the district level to support the farmer's needs and interest through an integrated approach of strategic plan. During the NATP, the National Institute for Agricultural Extension Management (MANAGE) was responsible for training senior and middle-level extension functionaries on the concepts and processes of ATMA. The block-to-village link has been formally institutionalized through a -farmer friend (FF) for every two villages, a progressive farmer directly engaged by the block technology manager. Additional personnel exclusive to the ATMA project have been assigned, including a state coordinator; faculty and supporting staff for the SAMETI at the state level; a project director, deputy project directors, and supporting staff at the district level (five employees per district); and one block technology manager and two subject matter specialists (SMSs) at the block level. Additional activities have been added to the ATMA cafeteria including farm schools. Farmer advisory committees (FACs) at state, district, and block levels will now provide advice to the administrative bodies at each level. As a registered society ATMA is responsible for technology dissemination at the district level. The concept of ATMA envisages paradigm shift from "top down" to "bottom up" in planning and implementation of agriculture development programmes (Prakash and Dipak De, 2008)<sup>[6]</sup>. The scientific study of technology transfer system is essential for making the future programme more effective. Keeping this in view the present study was under taken to identify the constraints faced by the farmer friends in implementation of ATMA in tribal areas.

## **Material and Methods**

The present study was carried out during 2016-17 in the tribal district of Madhya Pradesh. Mandla and Dindori district were selected. Out of total blocks in the districts, 2 blocks selected from each district purposively because maximum number of farmer friend are living in this block as compared to other blocks and proximity to Agriculture University and transfer of

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Ph.D. Scholar, Department of Extension Education, College of Agriculture, Jawaharlal Nehru Krishi Vishwa vidyalaya, Jabalpur (M.P.), India technology center. (2 villages = 1 farmer friend) total 150 villages were selected from each block, thus total 600 villages were selected randomly on the basis of maximum availability of respondents in the villages. From selected block (1 block = 150 villages =75 farmer friend) 75 respondents were selected randomly from each selected villages. Thus, the total 300 farmer friends were considered as respondent for this 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.

# **Results and Discussion**

# Table 1: Constraints perceived by the respondents inimplementation of ATMA

Table 1.1 shows the administrative constraints of the respondents as perceived by the implementation of ATMA in Mandla district. It is clear from the data that the majority respondents reported lack of staff at block level (59.33%), conservatism of block level officers (49.33%), demonstration are not conducted adequate and timely (42.66%), poor contact between farmers and agriculture officers (40%), lack of training and visit programme by ATMA (36%), lack of clarity role of farmer friend (20.66%) and lack of co-ordination among line departments (20%) as the major constraints.

In case the Dindori district highest percentage of respondents (36.66%) were of the opinion that poor contact between farmers and agriculture officers, followed by lack of coordination among line departments (34.66%), lack of clarity role of farmer friend (28%), lack of training and visit programme by ATMA (22.66%), conservatism of block level officers (19.33%), lack of staff at block level (16%) and demonstration are not conducted adequate and timely (12%) as major constraints.

Table 1.2 shows the socio-economic constraints of the respondents as perceived by the implementation of ATMA in Mandla district. It is clear from the data that the majority of the respondents reported lack of awareness among farmers about ATMA (47.33%), followed by lack of farmers among different ATMA groups (38%) and non adoption of various recommended practices (26.66%)

In case the Dindori district highest percentage of respondents (54.66%) were of the opinion that lack of awareness among farmers about ATMA, followed by lack of farmers among different ATMA groups (32%) and non adoption of various recommended practices (21.33%).

Table 1.3 shows the infrastructural constraints of the respondents as perceived by the implementation of ATMA in Mandla district. It is clear from the data that the majority of the respondents reported problem of electricity (47.33%), lack of transport facilities to reach remote areas (45.33%) and lack of processing industries (18.66).

In case the Dindori district highest percentage of respondents (53.33%) were of the opinion that lack of transport facilities to reach remote areas, problem of electricity (43.33%) and lack of processing industries (26%).

Table 1.4 shows the personal constraints of the respondents as perceived by the implementation of ATMA in Mandla district. It is clear from the data that the majority of the respondents reported additional work load on block level ATMA functionaries (41.33%), lack of interest (32.66%), lack of technical guidelines (21.33%), lack of information about tribal programmes under ATMA scheme (12.66%) and technologies skills are not developed through special training programme (11.33%).

In case the Dindori district highest percentage of respondents (38%) were of the opinion that additional work load on block level ATMA functionaries, technologies skills are not developed through special training programme (24%), lack of interest (21.33), lack of information about tribal programmes under ATMA scheme (18%) and lack of technical guidelines (12.66).

Table 1.5 shows the situational constraints of the respondents as perceived by the implementation of ATMA in Mandla district. It is clear from the data that the majority of the respondents reported lack of irrigation facilities (70%), inadequate and untimely supply of desired inputs (64%), low market price of agriculture produce (54%) and lack of market (12%).

In case the Dindori district highest percentage of respondents (74.66%) were of the opinion that lack of irrigation facilities, inadequate and untimely supply of desired inputs (54.66%), low market price of agriculture produce (48%) and lack of market (38.66).

As regards to suggestion given by the respondents to overcome the constraints in improve ATMA implementation, the findings are presented in the Table 2. The finding reveals that training to farmer interest group (FIG), BTT, SHG members should be improve (68%), followed by marketing support and processing facilities at FAC level should be establish (56%), co-ordination between line departments and famers should be encouraged (54%), District level training to block level officers about extension reform (52%), regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level (49.33%), training should be organized regularly (48%), organizing more exposure visit (41.33%), assess the problem of farmers and their solution at village level for better implementation of the programme (40%), farmer oriented activities i.e. exposure visit, training, demonstration, field days, kisan mela etc should be conduct regularly at village level (38%), SREP may be create new action proposal each year through block action plan (34.66%), an effective monitoring and evaluation mechanism is an essential component for the success of ATMA programme, required in to execution (33.33%), ranking and grading of FIG/WIG for improve compition for better result (32%), information should be provided by using mass communication method (28%), impact assessment of programme should be conducted to reforming the extension system (26.66%), there should be mechanism of granting rewards, incentives to good, progressive and achiever farmer (26%), NGO's for group formulation should be establish (24.66%), demonstration should be conducted in roadside farmers field (20%), proper mechanism should be provided for ensuring convergence of all activities of extension and the resource for which and being provided under different scheme (18.66%) and CD's on location specific technologies should be provided (12.66%).

# In case of Dindori

Majority training to farmer interest group (FIG), BTT, SHG members should be improve (64.66%), followed by marketing support and processing facilities at FAC level should be establish (50.66%), co-ordination between line departments and famers should be encouraged (46.66%), district level training to block level officers about extension reform

(42.66%), farmer oriented activities i.e. exposure visit, training, demonstration, field days, kisan mela etc should be conduct regularly at village level (41.33%), regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level (39.33%), impact assessment of programme should be conducted to reforming the extension system (38%), training should be organized regularly (36%), NGO's for group formulation should be establish (35.33%), proper mechanism should be provided for ensuring convergence of all activities of extension and the resource for which and being provided under different scheme (34%), assess the problem of farmers and their solution at village level for better implementation of

the programme (32.66%), SREP may be create new action proposal each year through block action plan (27.33%), organizing more exposure visit (26.66%), demonstration should be conducted in roadside farmers field (26%), there should be mechanism of granting rewards, incentives to good, progressive and achiever farmer (25.33%), information should be provided by using mass communication method (21.33%), CD's on location specific technologies should be provided (17.33%), an effective monitoring and evaluation mechanism is an essential component for the success of ATMA programme, required in to execution (12.66%) and ranking and grading of FIG/WIG for improve compition for better result (10.66).

S.	A lucitization Quantuminte Man				Dindori				
No.	Administrative Constraints	f	%	Rank	f	%	Rank		
1.	Lack of training and visit programme by ATMA	54	36.00	V	34	22.66	IV		
2.	Lack of staff at block level	89	59.33	Ι	24	16.00	VI		
3.	Lack of co-ordination among line departments	30	20.00	VII	52	34.66	II		
4.	Demonstration are not conducted adequate and timely	64	42.66	III	18	12.00	VII		
5.	Lack of clarity role of farmer friend	31	20.66	VI	42	28.00	III		
6.	Conservatism of block level officers	74	49.33	II	29	19.33	V		
7.	Poor contact between farmers and agriculture officers	60	40.00	IV	55	36.66	Ι		

 Table 1.1: Administrative constraints reported by the respondents in implementation of ATMA

Table 1.2: Socio-economic	constraints rer	ported by the re-	spondents in im	plementation of ATMA
	constraints rep	ported by the rea	spondentes in in	

S. No.	Socio- economic Constraints		Mandl	a	Dindori			
5. INO.	Socio- economic Constraints	f % Rank f				%	Rank	
1.	Lack of awareness among farmers about ATMA	71	47.33	Ι	82	54.66	Ι	
2.	Lack of farmers among different ATMA groups	57	38.00	II	48	32.00	II	
3.	Non adoption of various recommended practices	40	26.66	III	32	21.33	III	

Table 1.3: Infrastructural Constraints reported by the respondents in implementation of ATMA
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S. No.	Infrastructural Constraints		Mandl	a	Dindori			
5. INO.	Intrastructural Constraints	f	f % Rank f %				Rank	
1.	Lack of transport facilities to reach remote areas	68	45.33	II	80	53.33	Ι	
2.	Problem of electricity	71	47.33	Ι	65	43.33	II	
3.	Lack of processing industries	28	18.66	III	39	26.00	III	

Table 1.4: Personal	Constraints reported	by the respondents i	n implementation of ATMA

S. No.	Personal Constraints		Mandla			Dindo	ri
	rersonal Constraints	f % Rank		Rank	f	%	Rank
1.	Additional work load on block level ATMA functionaries	62	41.33	Ι	57	38.00	Ι
2.	Lack of technical guidelines	32	21.33	III	19	12.66	V
3.	Lack of interest	49	32.66	II	32	21.33	III
4.	Lack of information about tribal programmes under ATMA scheme	19	12.66	IV	27	18.00	IV
5.	Technologies skills are not developed through special training programme	17	11.33	V	36	24.00	II

Table 1.5: Situational	Constraints reported by	the respondents in in	nplementation of ATMA

S. No.	Situational Constraints		Mandla	L	Dindori			
5. INO.	Situational Constraints	f	f % Rank		f	%	Rank	
Е.	Situational Constraints							
1.	Low market price of agriculture produce	81	54.00	III	72	48.00	III	
2.	Inadequate and untimely supply of desired inputs	96	64.00	II	82	54.66	II	
3.	Lack of irrigation facilities	105	70.00	Ι	112	74.66	Ι	
4.	Lack of market	18	12.00	IV	58	38.66	IV	

## Table 2: Suggestions given by respondents to improve ATMA implementation

S.	Suggestions		Mandl	a	Dindori		
No.	Suggestions	f	%	Rank	f	%	Rank
1.	Information should be provided by using mass communication method	42	28.00	XIII	32	21.33	XVI
2.	Demonstration should be conducted in roadside farmers field	30	20.00	XVII	39	26.00	XIV
3.	Training should be organized regularly	72	48.00	VI	54	36.00	VIII
4.	Organizing more exposure visit	62	41.33	VII	40	26.66	XIII
5.	District level training to block level officers about extension reform	78	52.00	IV	64	42.66	IV
6.	CD's on location specific technologies should be provided	19	12.66	XIX	26	17.33	XVII

		r					
7.	Co-ordination between line departments and famers should be encouraged	81	54.00	III	70	46.66	III
8.	Regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level	74	49.33	V	59	39.33	VI
9.	Assess the problem of farmers and their solution at village level for better implementation of the programme	60	40.00	VIII	49	32.66	XI
10.	An effective monitoring and evaluation mechanism is an essential component for the success of ATMA programme, required in to execution	50	33.33	XI	19	12.66	XVIII
11.	Impact assessment of programme should be conducted to reforming the extension system	40	26.66	XIV	57	38.00	VII
12.	There should be mechanism of granting rewards, incentives to good, progressive and achiever farmer	39	26.00	XV	38	25.33	XV
13.	Proper mechanism should be provided for ensuring convergence of all activities of extension and the resource for which and being provided under different scheme	28	18.66	XVIII	51	34.00	Х
14.	Farmer oriented activities i.e. exposure visit, training, demonstration, field days, kisan mela etc should be conduct regularly at village level	57	38.00	IX	62	41.33	V
15.	Training to farmer interest group (FIG), BTT, SHG members should be improve	102	68.00	Ι	97	64.66	Ι
16.	Marketing support and processing facilities at FAC level should be establish	84	56.00	II	76	50.66	II
17.	NGO's for group formulation should be establish	37	24.66	XVI	53	35.33	IX
18.	Ranking and grading of FIG/WIG for improve compition for better result	48	32.00	XII	16	10.66	XIX
19.	SREP may be create new action proposal each year through block action plan	52	34.66	Х	41	27.33	XII

# Conclusion

From the above research works it can be concluded that the as administrative constraints are concerned maximum of the respondents reported lack of staff at block level. In case the Dindori district few percentage of respondents were of the opinion that poor contact between farmers and agriculture officers as major constraints. Regarding socio-economic constraints maximum of the respondents reported lack of awareness among farmers about ATMA in both the district. Regarding infrastructural constraints, majority of respondents reported problem of electricity. In case the Dindori district highest percentage of respondents were of the opinion that lack of transport facilities to reach remote areas. It is evident from personal constraints the maximum respondents of both districts reported that additional work load on block level ATMA functionaries. As situational constraints are concerned the highest percentages of respondents were of the opinion that lack of irrigation facilities in both the districts. The most important suggested that training to farmer interest group (FIG), BTT, SHG members should be improve, followed by marketing support and processing facilities at FAC level should be establish, co-ordination between line departments and famers should be encouraged, district level training to block level officers about extension reform, regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level, training should be organized regularly, farmer oriented activities i.e. exposure visit, training, demonstration, field days, kisan mela etc should be conduct regularly at village level, regular extension services should be available to create awareness and provide the technical knowledge about ATMA programme at village level, etc.

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