



## CONSTRAINTS FACED BY THE EXTENSION PERSONNEL IN TRANSFER OF TECHNOLOGIES

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**Abstract-** The study was conducted in Kolhapur district of Maharashtra State to find out the constraints faced by the extension personnel in transfer of technologies and to know the suggestions for the improvement of their work performance. For the study 96 Agricultural Assistants were selected as respondents. A total of 67 constraints were listed down and measured the severeness on a three point continuum. They were also requested to give their valuable suggestions to overcome the constraints successfully and the frequency and percentage of each suggestion was worked out to identify the major suggestions of the respondents. It was observed that Agricultural Assistants were faced most severe constraints in Input supply, Administrative aspects, Social constraints and General constraints. Results also revealed that majority of Agricultural Assistants were facing medium level of constraints. A large majority of the Agricultural Assistants suggested to provide training on advanced technologies.

**Keywords-** Constraints, Agricultural Assistants, Suggestions, Transfer of technologies

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### Introduction

Agricultural Assistants are the grass root level functionaries under the Department of Agriculture. In the process of communication of agricultural technologies, the position of these village level functionaries are very crucial. Each Assistant has a jurisdiction of three to four villages and should carry out the activities of Agriculture, Soil and Water conservation and Horticulture, for average of 1000 farm families or 1500 ha area under cultivation. It may be clear that there will be some constraints, which are preventing the extension personnel in performing their job with full efficiency. Constraints are the reasons, causes or circumstances, which ultimately result in the poor performance of the extension personnel. Since Agricultural Assistants are extension personnel having direct contact with farmers, constraints faced by them are very significant. The information on the constraints faced by the Agricultural Assistants in discharging their duties and the suggestions to overcome those constraints will be helpful to the planners and administrators in general to provide a suitable environment for increasing the performance and satisfaction of Agricultural Assistants, thereby, contributing for agriculture development. In this background the present study was undertaken with the objectives to know the constraints faced by the extension personnel in transfer of

technologies and to know the suggestions for the improvement of their work performance.

### Materials and Methods

The research was conducted in Kolhapur district of Maharashtra State. Total sanctioned posts of Agricultural Assistants in Kolhapur district are 360. From this 25% Agricultural Assistants were selected randomly for the study. The 8 Agricultural Assistants were selected from each Tahsil. So the total sample size of the study was 96. Ex-post facto design of social research was used. The data were collected with help of interview schedule from the selected Agricultural Assistants. Constraints were measured by taking into consideration all the possible difficulties.

### Findings

#### Specific constraints faced by the Agricultural Assistants

The information on constraints faced by extension personnel in transfer of technologies were collected and analyzed. The results are presented in [Table-1].

**Table-1** Classification of the Agricultural Assistants according to the specific constraints

Sl. No.	Constraints	Severeness		
		Most severe	Medium severe	Not severe
I	Constraints related to Duty and work			
a)	Extension and Training			
1	Lack of training, related to job	17 (17.71)	55 (57.29)	24 (25.00)
2	Lack of farmers problem oriented researches	26 (27.08)	60 (62.51)	10 (10.41)
3	Lack of transport facilities for field visits	32 (33.34)	53 (55.21)	11 (11.45)
4	Insufficient duration of training programme	29 (30.21)	53 (55.21)	14 (14.58)

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5	Non-supply of training literature	21 (21.87)	61 (63.55)	14 (14.58)
6	Lack of practical skill during training	21 (21.87)	57 (59.37)	18 (18.76)
7	Untimely schedule of field visits	24 (25.00)	55 (57.29)	17 (17.71)
8	Insufficient funds for training	38 (39.58)	46 (47.91)	12 (12.51)
<b>b)</b>	<b>Management aspects</b>			
9	More span of control	36 (37.51)	52 (54.16)	8 (8.33)
10	Target oriented approach	37 (38.54)	51 (53.13)	8 (8.33)
11	Inadequate allowances	33 (34.37)	43 (44.79)	20 (20.84)
12	Non-cooperation from the linked departments	11 (11.45)	55 (57.29)	30 (31.26)
13	Absence of the contact farmers on the day of visit or coincidence of farm operation with the day of visit	22 (22.92)	61 (63.54)	13 (13.54)
14	Interfere of the local leaders	42 (43.75)	35 (36.46)	19 (19.79)
15	Pressure from the higher officers	13 (13.55)	40 (41.66)	43 (44.79)
<b>c)</b>	<b>Technical aspects</b>			
16	Non availability of latest agriculture literature	22 (22.92)	56 (58.33)	18 (18.75)
17	Lack of information on improved technologies within time	15 (15.62)	66 (68.75)	15 (15.63)
18	Non-availability of electronic equipments	30 (31.25)	53 (55.21)	13 (13.54)
19	Lack of technical skills to operate various audio visual aids	20 (20.84)	53 (55.21)	23 (23.95)
20	Lack of internet connection in the office	22 (22.92)	42 (43.75)	32 (33.33)
21	Lack of computer literacy	9 (9.37)	48 (50.00)	39 (40.63)
<b>d)</b>	<b>Input supply</b>			
22	Untimely input supply	66 (68.75)	23 (23.96)	7 (7.29)
23	Inadequate input supply	55 (57.29)	31 (32.29)	10 (10.42)
24	Higher cost of seeds, fertilisers and pesticides	67 (69.79)	23 (23.96)	6 (6.25)
25	Unavailability of biofertilisers	57 (59.37)	32 (33.34)	7 (7.29)
26	Difficulty in the distribution of inputs to the farmers	64 (66.66)	28 (29.17)	4 (4.17)
27	Increased demand for inputs	61 (63.55)	26 (27.08)	9 (9.37)
28	Risk in input supply	68 (70.83)	25 (26.04)	3 (3.13)
<b>e)</b>	<b>Administrative aspects</b>			
29	Delay in sanction of programme /activities	35 (36.45)	56 (58.34)	5 (5.21)
30	Large number of vacant posts	51 (53.13)	35 (36.46)	10 (1.41)
31	Diversified duties and assignments	43 (44.79)	47 (48.96)	6 (6.25)
32	No separate facility of office	60 (62.51)	22 (22.91)	14 (14.58)
33	Additional charge of another village	51 (53.12)	25 (26.05)	20 (20.83)
<b>f)</b>	<b>Financial aspects</b>			
34	Lack of sufficient pay	31 (32.29)	32 (33.34)	33 (34.37)
35	Untimely salary	11 (11.46)	38 (39.58)	47 (48.96)
36	Salary is very less as compared to the nature of work	27 (28.13)	38 (39.58)	31 (32.29)
37	Inadequate grants for programme/activities	36 (37.50)	40 (41.67)	20 (20.83)
38	Untimely grants for programme/activities	48 (50.00)	28 (29.17)	20 (20.83)

39	No compensation or incentives for additional work	60 (62.51)	17 (17.70)	19 (19.79)
<b>g)</b>	<b>Communication and human relations</b>			
40	Lack of communication skills	4 (4.16)	63 (65.63)	29 (30.21)
41	Inadequate audio-visual aids	17 (17.71)	55 (57.29)	24 (25.00)
<b>42</b>	Inadequate information about innovations	19 (19.79)	59 (61.46)	18 (18.75)
43	Lack of good communication with the village leaders	8 (8.34)	56 (58.33)	32 (33.33)
44	Unaware about the ICT in agriculture	17 (17.71)	47 (48.96)	32 (33.33)
45	Reluctance from the villagers in communication	30 (31.25)	55 (57.29)	11 (11.46)
46	Lack of time to establish good relations with farmers	14 (14.58)	58 (60.42)	24 (25.00)
<b>h)</b>	<b>Feedback mechanism</b>			
47	Lack of response from the farmers	14 (14.58)	65 (67.71)	17 (17.71)
48	No recognition for good work from the villagers	17 (17.71)	56 (58.33)	23 (23.96)
49	Unable to evaluate the feedback	21 (21.87)	53 (55.21)	22 (22.92)
50	Shyness of farmers	15 (15.63)	54 (56.25)	27 (28.12)
<b>II</b>	<b>Personnel constraints</b>			
<b>i)</b>	<b>Social constraints</b>			
51	Lack of time to participate in social programmes and village activities	21 (21.87)	53 (55.21)	22 (22.92)
52	Lack of time to participate in domestic /religious programmes	29 (30.21)	45 (46.88)	22 (22.91)
53	Non availability of residential quarters	70 (72.92)	13 (13.54)	13 (13.54)
54	Children's education suffered due to the stay in village	52 (54.17)	20 (20.83)	24 (25.00)
<b>J)</b>	<b>Physiological constraints</b>			
55	High tension due to mental and physical work	35 (36.45)	39 (40.63)	22 (22.92)
56	More farm and home visits	47 (48.96)	42 (43.75)	7 (7.29)
57	Body pains and illness due to continuous travelling	34 (35.42)	43 (44.79)	19 (19.79)
58	Always under tension due to political interference	28 (29.17)	37 (38.54)	31 (32.29)
<b>k)</b>	<b>General constraints</b>			
59	Less chance for promotion	58 (60.42)	27 (28.12)	11 (11.46)
60	In monsoon difficult to reach interior villages	50 (52.08)	27 (28.13)	19 (19.79)
61	Heavy loads of implementation of various schemes / projects	47 (48.96)	35 (36.46)	14 (14.58)
62	Lack of interest in the work	3 (3.12)	26 (27.09)	67 (69.79)
63	More distance from the hometown to the work area	13 (13.54)	47 (48.96)	36 (37.50)
64	No awards or rewards for good work	47 (48.96)	26 (27.08)	23 (23.96)
65	In natural calamities extra /additional work load which effect the routine work	68 (70.83)	24 (25.00)	4 (4.17)
66	Misuse of Right To Information Act (RTI)	54 (56.25)	31 (32.29)	11 (11.46)
67	Technical illiteracy among farmers	39 (40.63)	45 (46.87)	12 (12.50)
(Figures in parentheses indicates percentage)				

From [Table-1] It can be observed that Agricultural Assistants were faced most severe constraints in Input supply, Administrative aspects, Social constraints and General constraints.

**Extension and training** - As regards to the extension and training aspects non

supply of training literature (63.54 per cent) followed by lack of farmers problem oriented researches (62.50 per cent) were found to be more severe.

**Management aspects** - In case of management aspects the constraint interfere of the local leaders was found as most severe by 43.75 per cent of Agricultural

Assistants.

**Technical aspects** - Among technical aspects the constraint lack of information on improved technologies within time were stated by 68.75 per cent of Agricultural Assistants.

**Input supply** - In the set of constraints regarding the input supply aspects the constraint risk in input supply was reported by majority (70.83 per cent).

**Administrative aspects** - As regards to the administrative aspects, the constraint no separate facility of office were reported by 62.50 per cent of Agricultural Assistants as most severe one.

**Financial aspects** - In case of financial aspects the constraint which was reported as most severe by majority (62.50 per cent) of Agricultural Assistants was no compensation or incentives for additional work.

**Communication and human relations** - About the communication and human relations lack of communication skills were faced by 65.63 per cent of the Agricultural Assistants.

**Feedback mechanism** - As regards to the feedback mechanism 67.71 per cent of Agricultural Assistants encountered the constraint lack of response from farmers as medium severe.

**Social constraints** - About the social constraints, majority (72.92 per cent) of the Agricultural Assistants reported "non availability of residential quarters" as most severe one.

**Physiological constraints** - As regards to the physiological constraints more farm and home visits was found to be as most severe constraint as reported by 48.96 per cent of Agricultural Assistants.

**General constraints** - Among the general constraints extra or additional work load which affect the routine work during natural calamities was reported by 70.83 per cent of Agricultural Assistants as most severe.

#### Overall constraints faced by the Agricultural Assistants

The information about the overall constraints faced by the respondents were collected, tabulated and analyzed by giving scores as 3, 2 and 1 for each specific constraint based on their severeness. The respondents were categorized as mean  $\pm$  S.D. The results are presented in [Table-2].

**Table-2** Classification of the Agricultural Assistants according to their overall constraints

Sl. No.	Category	Respondents (N = 96)	
		Number	Percentage
1	Less (Up to 125 scores)	14	14.58
2	Medium (126 to 164 scores)	65	67.71
3	Severe (165 scores and above)	17	17.71
	<b>Total</b>	<b>96</b>	<b>100.00</b>
<b>Mean = 145</b>		<b>SD = 20</b>	

Results revealed that slightly more than two-third (67.71 per cent) of the respondents were having medium level of constraints, while 17.71 and 14.58 per cent of them had severe and low level of constraints respectively. It can be inferred that majority of Agricultural Assistants were facing medium level of constraints.

#### The suggestions for the improvement of their work performance

For the better job performance of Agricultural Assistants suggestions were obtained and presented in [Table-3].

**Table-3** Suggestions made by the Agricultural Assistants

Sl. No.	Suggestions	Respondents (N = 96)	
		Number	Percentage
1	Pre-seasonal and need based training	75	78.13
2	Training on advanced technologies	80	83.33
3	Training on ICT in agriculture	75	78.13
4	Interference of local leaders should be minimised	56	58.33
5	Number of meetings should be limited	53	55.21
6	Planning should be in time	46	47.92
7	Timely availability of new technologies	65	67.71
8	Availability of laptop	68	70.83
9	Recognition as technical grade	55	57.29
10	Timely and adequate availability of inputs	68	70.83
11	Designation should be Assistant Agricultural Officer	54	56.25
12	Involvement of young farmers	47	48.95
13	Evaluation as per work performance	50	52.08
14	Instead of Krishi Sevak they should be appointed as Agricultural Assistant from beginning	54	56.25
15	Timely promotion	65	67.71
16	Provision of the compensation or incentives for additional work	72	75.00

The [Table-3] indicates that large majority (83.33 per cent) of the Agricultural Assistants suggested to provide training on advanced technologies followed by equal number (78.13 per cent each) of Agricultural Assistants stated pre-seasonal and need based training and training on ICT in agriculture. About 75.00 per cent of Agricultural Assistants suggested that no burden of unnecessary and unrelated work and no additional work, if so compensation or incentives should be provided. The suggestions like availability of laptop and availability of inputs were given by nearly 71.00 per cent of respondents. Equal number (67.71 per cent each) of Agricultural Assistants suggested that timely availability of new technologies and timely promotion should be ensured. It is followed by the suggestion interference of local leaders should be minimized by 58.33 per cent of respondents. About 57.29 per cent suggested about the recognition as technical grade followed by the suggestion designation should be Assistant Agricultural Officer by 56.25 per cent of respondents.

#### Conclusions

**Personal and social characteristics of the Agricultural Assistants** : Majority of the respondents were from middle age group, male, having only the basic qualification i.e. Agriculture Diploma, moderately favourable organizational climate, having medium work experience, work load as overburden, medium level of exposure to training, medium level of information seeking behaviour, better job performance and medium satisfaction with their job.

#### The methods adopted by the extension personnel for transfer of technology:

Large majority of the Agricultural Assistants were used Farm and home visit method for transfer of technology followed by Mobile SMS and Farm school methods. This implies that they are more adapted to farm and home visits which was in use from so many years back as it is effective one. The use of Mobile SMS by a majority is due to the support given from the Department as well as the ease in the use of mobiles.

**Constraints faced by the Agricultural Assistants** : In case of overall constraints slightly more than two third of the respondents were having medium level of constraints. As regards to the specific constraints Agricultural Assistants were faced most severe constraints in Input supply, Administrative aspects, Social constraints and General constraints. Among these non availability of residential quarters, additional work load which affect the routine work during natural calamities and risk in input supply were found as the most severe ones.

#### Implications

On the basis of the findings of the study following action implications having

practical applicability and deserve attention of the planners, policy makers, administrators, extension agencies as well as extension workers are presented hereunder.

- 1) While studying the job performance of the sampled Agricultural Assistants, It was observed that majority of them had a better performance. Therefore, it appears that there is a need for improvement to make it best. Efforts to identify the additional factors and procedural difficulties hindering their performance have to be considered. The provision of regular guidance, required facilities and flexibility to take the decisions to some extent on the basis of field situations and encouragement by the higher authorities would help to boost up their morale will definitely result in a efficient job performance.
- 2) It is observed that majority of the Agricultural Assistants have medium information seeking behaviour which indicates the need to supply various latest agriculture literature on improved technologies well in advance *i.e.* before the season to the Agricultural Assistants and access to laptops with the free internet connection so that their field knowledge will be updated

**Conflict of Interest: None declared**

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