Awareness, Attitude and Training Needs of Farmers about Recommended Practices in Watershed Development Programme

D.P. Rai[1] and K. Singh[2]

1. Lecturer (Agril. Ext.), 2. Lecturer (Horticulture), M.G. Chitrakoot Gramoday Vishwavidyalaya, Chitrakoot, Satna (M.P.)
Corresponding author Email: drdprai_mgcgv@rediffmail.com

ABSTRACT

The study in the district of Satna of Madhya Pradesh focused on level of awareness, attitude and training needs for farmers about recommended practices in watershed areas. 16 recommended practices pertaining to watershed management and 14 areas of training were identified. Total of 80 farmers of 4 villages comprised the sample. Majority of farmers were having partial level of awareness (60.00%), so far as attitude is concerned the level was more favourable (43.75%). Results indicated that good association exists between three categories of socio-economic status and training needs with significant value of ?2 = 17.57 at 5% level with 4 df. Crop planning, water conservation technique and irrigation and water management were highly demanded areas for training.

Key words : *Awareness; Attitude; Training needs; Watershed management;*

Approximately 170 m ha land in India is classified as degraded land, the majority falling in undulating semi-arid areas where rainfed farming is practiced (Farrington and Lobo, 1997). National Watershed Development Project for Rainfed Areas may rightly be called as a people movement with its twin approach of area development based upon watershed management and sustainable integrated farming system. Soil and water are two basic resources for agricultural and overall prosperity of the Nation. The conservation of soil and water through different measures is also important (Singh, 1993). Madhya Pradesh is having a large rainfed area and is more impoverished due to continuous leaching, erosion, erratic distribution of rainfall and crop management. All these factors contributed to low productivity levels in the state. Keeping this in view, the Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India started a scheme in the VIII Five Year Plan named the National Watershed Development Project for Rainfed Areas. Under this scheme, identified micro-watersheds are taken up for intensive development through group of beneficiaries. Looking to the need of farmers for watershed resources, a study was conducted to see the level of awareness and their attitude in order to identify the areas of training needs with following objectives.

1. To find out the socio economic status of the farmers of watershed area.
2. To find out the level of awareness and attitude of farmers about recommend practices in watershed area.
3. To find out the training needs of the farmers and to know the extent of its possible association with socio-economic status of the farmers.

METHODOLOGY

The present study was conducted in Mili Watershed Project Majhgawan of district Satna (M.P.).Out of 8 watershed projects in district, Majhgawan watershed area was selected purposely due to being a model watershed in the district. It covers 8 villages out of which 4 villages were selected randomly with the help of random number table. From the comprehensive list of farmers of 4 villages, 20 farmers from each village were selected randomly. Thus, 80 farmers were included in this study. The data was collected with the help of a pre-tested structured schedule through direct interview. The statistical methods used for analysis of data were frequency distribution, percentage distribution, score range, rank order and ?2 test.

RESULTS AND DISCUSSION

For socio-economic status 15 variables were used and categories on the basis of pooled score in Table 1.

The Table 1 show that majority of respondent (56.25%) had low socio economic status whereas, only 18.75% belonged to high socio -economic status.

Table 1. Distribution of the respondents
according to their socio economic status (N=80)

S.No.	SES (Score range)	No	Percentage
1.	Low status (up to 15)	45	56.25
2.	Medium status (16-30)	20	25.00
3.	High status (31 to 45)	15	18.75

To know the awareness level inventory of the farmers, 16 improved practices as recommended by Rajiv Gandhi Watershed Management Mission (M. P.) regarding watershed development technology were selected. The score obtained on each practices was pooled and total scores obtained by an individual respondent has been considered to determine the level of awareness. The awareness has been categorized as incomplete level of awareness i.e. (score 1-16), partial level of awareness (score 17-32) and complete level of awareness (score 33-48).

The data presented in Table 2 revealed that the majority of respondents (60%) had partial awareness where as a very low proportion (15%) is having complete level of awareness. Thus, it can be concluded that only 25% of respondents had incomplete awareness regarding recommended watershed practices.

Table 2. Percentage distribution of respondents according to their awareness level of farmers with respect to recommended practices in watershed area (N=80)

S. No.	Awareness level (Score range)	No	Percentage
1.	Incomplete (1-16)	20	25.00
2.	Partial (17-32)	48	60.00
3.	Complete (33-48)	12	15.00

Table 3. Level of awareness of farmers regarding watershed practices (N=80)

S. No.	Watershed practices	Level of awareness						Mean value	Rank
		Complete (Score=3)		Partial (Score=2)		Incomplete (Score=1)			
		No.	%	No.	%	No.	%		
1.	Contour cultivation	08	10.00	48	60.00	24	30.00	1.80	VII
2.	Strip-cropping	10	12.50	40	50.00	30	27.50	1.75	VIII
3.	Inter-cropping	06	7.50	35	43.75	39	48.75	1.59	IX
4.	Mixed-cropping	24	30.00	36	45.00	20	25.00	2.05	I
5.	Pasture management	15	18.75	42	52.50	23	28.75	1.90	IV
6.	Cover cropping	07	8.75	32	40.00	41	51.25	1.57	X
7.	Deep ploughing	12	15.00	46	57.50	22	27.50	1.87	V
8.	Crop rotation	10	12.50	18	22.50	52	65.00	1.47	XII
9.	Contour bunding	18	22.50	46	57.50	16	20.00	2.02	II
10.	Afforestation	06	7.50	18	22.50	56	70.00	1.38	XIV
11.	Treatment of drainage line	09	11.25	26	32.50	45	56.25	1.55	XI
12.	Gully control	04	5.00	14	17.50	62	77.50	1.28	XVI
13.	Conservation of wasteland	14	17.50	40	50.00	26	32.50	1.85	VI
14.	Water harvesting	21	26.25	39	48.75	20	25.00	2.01	III
15.	Plantation of vegetative checks of runoff	05	0.6.25	27	33.75	48	60.00	1.46	XIII
16.	Wind erosion control	03	3.75	19	23.75	58	72.50	1.31.	XV

From Table 3 it is evident that a fair level of awareness was observed for mixed cropping and contour bunding with the mean score value 2.05 and 2.02 respectively. Whereas, the low levels of awareness were observed for wind erosion control and gully control having respective mean score value as 1.31 and 1.28. Similar finding has been reported by Singh (1993)

The level of attitude of an individual is responsible for measuring the favourableness and unfavourableness towards watershed programme. To measure the attitude of farmers towards watershed programme a scale containing 17 statements comprising 12 positive and 5 negative statements was used. The scale was administered on 5 point scale as strongly agrees, agree, undecided, disagree and strongly disagree with declining respective

scores from 5 to 1. Scores obtained by individuals were categorised into three attitudinal categories namely more favourable, favourable and less favourable and the frequencies obtained are given in Table 4.

Table 4. Distribution of respondents according to the extent of their attitude towards the watershed development programme N-80

S.No.	Category (Score range)	No	Percentage
1.	Less favourable (Less than 46)	20	25.00
2.	Favourable (47- 76)	25	31.25
3.	More favourable (77 and above)	35	43.75

Table 5. Distribution of farmers according to the opinion with respect to different area of training needs (N=80)

S. No.	Training area	Training needs						Mean value	Rank
		More needed=3		Partial needed=2		Less needed-1			
		No.	%	No.	%	No.	%		
1.	Soil & water conservation	50	62.50	25	31.25	5	6.25	2.56	V
2.	Inter-cropping	32	40.00	35	43.75	13	16.25	2.24	VIII
3.	Cropping sequence	30	31.50	28	35.00	22	27.50	2.10	IX
4.	Pasture management	15	18.75	25	31.25	40	50.00	1.69	XIII
5.	Agricultural planning according to land capability	55	68.75	20	25.00	5	6.25	2.63	IV
6.	Water conservation tech.	65	18.25	10	12.50	5	6.25	2.75	II
7.	Crop planning	70	87.50	7	8.75	3	3.75	2.84	I
8.	Seed rate	20	25.00	45	56.25	15	18.75	2.06	XI
9.	Manures & fertilizers	35	43.75	30	37.50	15	18.75	2.25	VII
10.	Plant protection	18	22.50	32	40.00	30	37.50	1.85	XII
11.	Irrigation & water mgt.	62	77.50	14	17.50	4	5.00	2.73	III
12.	Alternative land use	55	68.75	10	12.50	15	18.75	2.50	VI
13.	Grain storage	25	32.00	36	45.00	19	23.75	2.08	X
14.	Fruit production	7	8.75	26	32.50	47	58.75	1.50	XIV

Table 4 indicates that 43.75% had more favourable attitude and the respondents who co-opined the favourable attitude regarding watershed programme were 25.00%. Thus, it may be concluded that majority of respondents are having positive attitude towards the watershed programme.

In order to identify the area of training needs, 14 different training areas were observed. 3 point scale was used and scores were assigned as 3, 2 and 1 for more needed, needed and less needed respectively. On the basis of calculated mean score value for different training areas rank order was decided (Table 5).

On the basis of data presented in Table 5 it is clear that the areas of training needs which were highly demanded by the farmers were crop planning, water conservation technique and irrigation and water management ranked 1st, 2nd and 3rd respectively. Here it is necessary to recall that the awareness of the farmers about the practices related to the areas mentioned above, as reported in this study might be the reason for their demand in training needs in the respective area. It is otherwise also important to note that while imparting training to watershed beneficiaries these areas ought to be considered. Ulrade (1992) also reported similar findings.

Table 6. Association between socio economic status and training needs of the respondents

S. No.	Socio-economic Status	Intensity of training requirement		
		Less needed	Needed	More needed
		(1-15)	(16-30)	(31-45)
1.	Low (upto 15)	5	6	34
2.	Medium (16-30)	6	8	6
3.	High (31-45)	5	6	4

X^2 cal. = 17.57, Significant at 5% level with df. =4

Table 6 revealed the segregation of opinion of the respondents belonging to different socio -economic status about the training needs. The significant value of ?2 suggests that the training needs as demanded by the respondents are associated with their socio-economic status.

CONCLUSION

It may be concluded from the findings of the study that majority of farmers belonged to low socio economic status and having partial level of awareness and more favourable attitude towards watershed development programme. Highly demanded areas for training were crop planning, water conservation technique and irrigation and water management and significant association was found between socio economic status and training needs.

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