

FACTORS AFFECTING FARMERS' ATTITUDE TOWARDS INDIGENOUS WATER HARVESTING PRACTICES IN BIKANER DISTRICT OF RAJASTHAN

H. R. Pannu*, J. P. Lakhera**, J. P. Yadav*** and K. C. Jeengar****

ABSTRACT

Water is a major natural resource which is limiting factor in the development of agricultural production. Therefore, it is necessary to adopt the water management technology for utilizing the available water resource. Water is the most precious commodity in the arid region due to prevalence of unfavourable hydrometeorological condition. In north western Rajasthan, particularly in Bikaner district, the quantity of water available from various sources such as surface water and ground water are not sufficient even for drinking purpose. People have been depending on rain water harvesting structure (RWH) in the form of small ponds (Nadis) reservoirs, underground tank (Tanka), khadins etc. The present study was conducted in purposively selected Bikaner and Kolayat Panchayat Samities of Bikaner district. A sample of 120 peoples and 12 Tanka owners were drawn randomly from five selected villages of two identified panchayat samities which were having maximum number of Indigenous Water Harvesting Practices. There were so many factors in which the attitude is an important variable which affect the adoption of indigenous water harvesting practices among the farmers. It was observed that independent variables viz., age, level of education, caste and social participation were significantly associated with attitudes of respondents regarding Indigenous water harvesting practices.

INTRODUCTION

In Rajasthan, the quantity of water available from surface and ground are in short supply even for drinking purpose. Rajasthan is the biggest state of the country having nearly ten per cent of total geographical area of India but has only 1.18 per cent of country's water resources. In Rajasthan, the traditional method of rain water harvesting can be one of the appropriate answer to solve the problems of the perennial water scarcity for drinking purpose. A traditional method of water harvesting called rain water harvesting structures (RWH) (Nadis), reservoirs, under ground tanks (Tankas), Khadins etc are useful alternative source. This study is being proposed to assess the indigenous water harvesting practices (IWHP) followed by the people, their attitude and knowledge in adoption of IWHPs. There are so many factors which contribute in framing the positive or negative attitude as well as enhance or retard the knowledge level of people and

directly influence the adoption of indigenous water harvesting structures. Therefore, the association between selected personal characteristics of respondents with their level of attitude and level of knowledge about Indigenous Water Harvesting Practices was measured.

RESEARCH METHODOLOGY

The research was conducted in Bikaner district of Rajasthan, which has the maximum number of indigenous water harvesting structure like Tanka and Talai among all the districts of Rajasthan. A sample of 120 respondents and 12 tanka owners drawn from five villages of two selected panchayat samities namely i.e. Bikaner and Kolayat of district Bikaner, having higher number of indigenous water harvesting structure (TANKA) were selected. The independent variables namely age, education, land holding, caste and social participation were selected to study their relationship with attitude of farmers which influence adoption of indigenous water harvesting structure.

* Research Scholar, Department of Extension Education, S.K.N. College of Agriculture, Jobner, Jaipur.

** Professor, Directorate of Extension Education, S.K.R.A.U., Bikaner.

*** Professor, Department of Extension Education, S.K.N. College of Agriculture, Jobner, Jaipur.

**** Research Scholar, Department of Extension Education, S.K.N. College of Agriculture, Jobner, Jaipur

RESULTS AND DISCUSSION

Relationship between selected variables and level of attitude of respondents towards Indigenous water harvesting practices.

The data incorporated in Table 1 shows that the calculated chi-square value was 6.12, which indicates significant relationship between attitude of respondents about Indigenous Water Harvesting Practices and age group at 5 per cent level of significance. Thus, the null hypothesis H_0 was rejected and alternative hypothesis was accepted. It means age of respondents exerted a significant effect on the level of attitude. Similarly, there is significant relationship between educational level and attitude of respondents about Indigenous Water Harvesting Practices at 1 per cent level of significance. Thus, the null hypothesis H_0 was rejected and alternative hypothesis was accepted. It means educational level of respondents effect highly significantly on the at-

titude level of the respondents. The study of table 1 reveals that calculated chi-square value was 0.24 of the respondents, which was less than their tabulated value at 5 per cent level of significance. Thus, the null hypothesis H_0 which asserts that there is no significant relationship between farmers attitude and their land holding was accepted. This reveals that there is no association between attitude land holding of respondents. The caste states of respondents was found to significantly affect the level of attitude of respondents towards WHPS. The data incorporated in Table 1 indicated that the calculated chi-square value was 7.79 of the respondent, which was significant at 5 per cent level of significance. Thus, the null hypothesis was rejected and alternative hypothesis was accepted, which asserts that there is significant relationship between social participation and the level of attitude of respondents about Indigenous Water Harvesting Practices.

Table 1: Relationship between selected independent variables and level of attitudes of respondents towards Indigenous Water Harvesting Practices n=120

Particulars	Level of attitudes			Total	Chi square
	Favourable	Neutral	Unfavourable		
1. Age group					
Young age	3 (1.74)	10 (14.25)	6 (3.01)	19	6.12*
Middle age + old age	8 (9.26)	80 (75.75)	13 (15.99)	101	
2. Education					
Can read and write	4 (1.19)	6 (9.75)	3 (2.06)	13	9.52**
Primary to middle+ Above middle	7 (9.81)	84 (80.25)	16 (16.94)	107	
3. Land holding					
Small farmers	1 (0.64)	5 (5.25)	1 (1.11)	7	0.24 NS
Medium + Big farmers	10 (10.36)	85 (84.75)	18 (17.89)	113	
4. Caste					
Lower caste	4 (3.30)	21 (27.00)	11 (5.70)	36	9.16*
Middle caste + Higher caste	7 (7.70)	69 (63.00)	8 (13.30)	84	
5. Social participation					
Low social participation	6 (2.50)	20 (21.00)	2 (4.43)	28	7.79*
Medium + High social participation	5 (8.43)	70 (69.00)	17 (14.57)	92	
Over all	11	90	19	120	

*Significant at 5% level, ** Significant at 1% level, NS- Non-significant

CONCLUSION

It was concluded that the selected independent variables *viz.*, age, level of education, caste and social participation were significantly relationship with attitudes of respondents Indigenous Water Harvesting Practices.

REFERENCES

Chauhan , J., Singh,A.K., Sharma., Meena.,B.S. and Singh,R.P. 2009. "Implication of watershed in bringing change in the cropping system and its productivity." *Ind. Res. J. of Ext.Edn.*,9 (1):14-16

Rathore, R.S. and Kalla, P.N. 2002. "Attitude of beneficiaries towards NWDP in tribal area of Southern Rajasthan". *Raj. J. Ext. Edu.*, 10.

Sisodia, S.S. and Sharma, C. 2006. "Attitude of women beneficiaries towards watershed development programme". *Raj. J. Extn. Edu.* 14 : 132-133.

□□□

Received : July, 2013
Accepted : January, 2014