CORRELATES OF RAINFED AGRO-TECHNOLOGICAL KNOWLEDGE

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INTRODUCTION

The importance of rainfed farming in Indian economy is well known. Of the total cultivated area of 143 million hectare, 108 million hectares of land is under rainfed agriculture. Nearly 42 per cent of food grain production and 75 per cent of pulses and oilseeds production comes from rainfed areas (Patel et.al., 1983). The agricultural production in these areas can be increased by adopting improved rainfed agro technology. The primary requirement for this is that the farmers should have perfect knowledge about rainfed agro technology. Knowledge is a pre requisite to beneficial use of the technology. It helps an individual to relate it to his needs in terms of profitability and productivity.

Taking this in view, the present research study was conducted with following specific objectives.

1 To assess the level of knowledge of beneficiary and non beneficiary farmers of National Watershed Development Project for Rainfed Area (NWDPRA) with respect to rainfed agro technology.

2 To ascertain the association between level of knowledge of rainfed agro-technology and selected independent characteristics of beneficiary and non beneficiary farmers of NWDPRA.

METHODOLOGY

The research study was conducted in Junagadh district of Gujarat State. This district was purposively selected due to the fact that the district represents the low rainfall group and having larger rainfed area in Saurashtra.

Four talukas of Junagadh district were selected randomly by lottery method. Two village viz. one from watershed area and one from area adjoining to watershed were randomly selected. Thus, in all eight villages were selected. As many as 90 beneficiary farmers were selected by proportionate random sampling method from four watershed villages. The equal numbers of non-beneficiary farmers were also selected from the four villages from area adjoining to watershed. Thus, a total of 180 farmers constituted the sample of this study.

A knowledge test to measure the knowledge of farmer respondents about rainfed agro technology was developed, standardized and used for the purpose.

RESULTS AND DISCUSSION

Level of knowledge

The perusal of the data in Table-1 indicates that 54.44 per cent of beneficiaries had medium level of knowledge, whereas 25.64 per cent and 8.89 per cent had high and low level of knowledge about rainfed agro technology respectively.

In case of non-beneficiaries 77.33 per cent had medium level of knowledge whereas 5.56 per cent had high and 21.11 per cent

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Table 1: Level of knowledge of beneficiaries and non-beneficiaries with respect to rainfed agro technology

Category of farmers	Level of knowledge	No.	Per cent
BFs (N=90)	Low (<49.00)	08	20.00
	Medium (49.00 - 80.96)	49	61.11
	High (>80.96)	23	18.89
NBFs (N=90)	Low (<49.00)	19	14.44
	Medium (49.00 - 80.96)	66	74.45
	High (>80.96)	05	11.11

Mean of Knowledge Index = 64.98, S. D. = 15.98, C. V. = 24.59
Z value = 4.429** ** Significant at 1 per cent
Note: Expected index for both the category (beneficiaries and non-beneficiaries) ranged from 0 to 100.
BFs = Beneficiary farmers NBFs = Non-beneficiary farmers

had low level of knowledge about rainfed agro technology.

The comparison of mean knowledge index of beneficiaries and non-beneficiaries indicated that the beneficiaries had higher knowledge of rainfed agro technology as compared to non-beneficiaries (Z=4.429**). This might due to the fact that guidance provided to beneficiaries by experts during their visits might have helped them in increasing the knowledge of rainfed agro technology.

Correlates of knowledge

From the data presented in Table-2, it can be observed that there was a positive and highly significant association between knowledge level of beneficiaries about rainfed agro technology and their education, social participation, employment status, cropping intensity, extension participation index, training received, level of attitude and

Table 2: Correlates of knowledge of beneficiaries and non-beneficiaries with respect to rainfed agro technology

Sr. No.	Characteristics	'r' value	
		Beneficiaries (N=90)	Non-beneficiaries (N=90)
1.	(X_1) Age	-0.1956^{NS}	0.1028 ^{NS}
2.	(X_2) Eduction	0.4129**	0.3257**
3.	(X_3) Size of land holding	0.1370 ^{NS}	0.2188*
4.	(X_4) Herd size	0.1714 ^{NS}	0.2423*
5.	(X_5) Social participation	0.3323**	0.2299*
6.	(X_6) Employment status	0.3216**	0.3438**
7.	(X_7) Irrigation potentiality	0.2655*	0.2421*
8.	(X_8) Cropping intensity	0.3124**	0.1879 ^{NS}
9.	(X_9) Production	0.2151*	0.3522**
10.	(X_{10}) Overall modernity	0.0406 ^{NS}	0.0966 ^{NS}
11.	(X_{11}) Extension participation index	0.3464**	0.3412**
12.	(X_{12}) Training received	0.4193**	0.3194**
13.	(X_{13}) Level of attitude	0.3765**	0.0348 ^{NS}
14.	(X_{14}) Adoption index	0.8638**	0.5770**

* Significant at 0.05 level ** Significant at 0.01 level NS = Non significant

adoption index. The irrigation potentiality and production had positive and significant association with the level of knowledge of the beneficiaries. Though, size of land holding, herd size and over all modernity had non-significant association with their level of knowledge but age had non-significant and negative association with their level of knowledge.

In case of non-beneficiaries, positive and highly significant association with their level of knowledge about rainfed agro technology was observed with education, employment status, production, extension participation index, training received and adoption index. Significant and positive association was observed with size of land holding, herd size, social participation and irrigation potentiality. Contrarily, their age, cropping intensity, overall modernity and level of attitude had non-significant but positive association with their level of knowledge. These finding were supported by Rakholia (1996).

CONCLUSION

The findings of the study indicated that the beneficiaries had higher knowledge of rainfed agro technology as compared to non-beneficiaries. Further, the education, employment status, extension participation, training received and adoption index had positive and highly significant association with the level of knowledge about rainfed agro technology of both the beneficiaries as well as non-beneficiaries.

It can be concluded from the findings of the study that local extension agency should concentrate on extending training to the farmers about improved rainfed agro technology.

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