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Technical gaps between the farmers in Rudauli block, Ayodhya district, Uttar Pradesh

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Abstract

The Study area Rudauli block, Ayodhya district is one of the blocks of Faizabad division (officially Ayodhya division). The Ayodhya region is divided into 5 tehsils, namely Sadar, Rudauli, Milkipur, Bikapur and Sohawal. and Rudauli, including 1272 villages. It is located in the central region of India and is a part of Uttar Pradesh. Its latitude and longitude are 26.77°N and 82.14°E respectively. Ayodhya is located on the banks of the sacred river Saryu at an altitude of 93 m (305 ft). The Northeastern Plains Zone (NEPZ) belongs to the agro-climatic zone. Its headquarters is in Ayodhya City. The average annual rainfall of Ayodhya District is 1067 mm. The region has a subtropical humid climate. The average temperature in summer is 320 degrees Celsius, and the average temperature in winter is about 160 degrees Celsius. 5 villages *viz*; Dasrathmau, Dullapur, Amaraigaon, Jalalpur and Mawai from Rudauli block of district Ayodhya were included in surveys. Hence, 5 villages from district had been selected. 20 households were further selected randomly from each sample village for detailed survey. A sample size of 100 farmers was selected. 100 respondents including 75 agroforestry adopters and 25 are non-adopters were finally selected for the study from each of the studied village. Finding the result from above blocks of Ayodhya district.

Keywords: Ayodhya district, Villages *viz*, Dasrathmau, Dullapur, Amaraigaon, Jalalpur and Mawai, Number of livestock, Milk production, Fodder consumption, Dung percentage

Introduction

Knowledge as a factor becomes more important because farmers know the reason why and how they should retain different tree species (Philip *et al.*, 2005) [3]. In farming aspect, knowledge includes the explex of practices and decisions made by local people and is based on experience passed from one generation to the next (Oudwater and Marti, 2003) [2]. This factor becomes more important because farmers should know the reason suitable and unsuitable for agroforestry practice. Knowledge of agroforestry and farm related activities is an important aspect in planning and management of farming practices done by the farmers. It is helpful in improving their knowledge and skills.

Another reason may be that with an increase of farming experience farmers may be able to make a better assessment of the differential benefits of agroforestry as stated by NKamleu and Mayong (2014) [1]. The experience, related to age of the farmer in both ways, long or short, can influences adoption in each way: positively or negatively. A nil or low level of experience makes a farmer less informed bout tree plantation with other crops hence affect negatively, while a medium or sufficient level of farming experiences or through other experiences whom he met with time hence influence positively. Some scholars linked the length of experience with the age of farmers, as an older age was linked with length of farming experiences and could positively influence the adoption of new agroforestry practices. It is expected that farmers with long years of experience have better managerial ability and tend to be more practical and hence, this finding is supported by Surendra and Mahesha (2015) [4].

Study Area

Rudauli, 26.75°N, 81.75°E, located 50 km west of Ayodhya District Headquarters. Its average elevation is 105 m (344 ft) above sea level. There are a total of 239 villages in Tehsil Rudauli, of which five villages from Dasrathmau, Dullapur, Amaraigaon, Jalalpur and Mawai were selected for the study. Hence, 5 villages from district had been selected. 20 households were further selected randomly from each sample village for detailed survey. A sample size of 100 farmers was selected. 100 respondents including 75 agroforestry adopters and 25 are non-adopters were finally selected for the study from each of the studied village.

Methods

In this study, Chi-square test was employed as an analytical method to test whether the explanatory socio-economic variables were related to adoption, or not. χ^2 is used when participants can be classified into different categories and can be used for any kind of variable. χ^2 test of independence was computed at 5 percent (α=0.05) level of significance.

Results

Training programs: Data pertaining to number of training programs attended by the farmers of selected villages of Rudauli block in Ayodhya district have been presented in Table 1.

Table 1: Number of training programs attended by farmers

Sl. No.	Villages	Low		Medium		Sufficient		Mean	Chi-square
		F	%	F	%	F	%		
1.	Dasrathmau	4	20.00	14	70.00	2	10	6.66	TV static = 15.97
2.	Dullapur	0	0	19	95.00	1	5.00	6.66	CV table (0.05) = 15.51
3.	Amaraigaon	2	10.00	18	90.00	0	0	6.66	X^2 statistic is significant at 5% level of significance
4.	Jalalpur	0	0	20	100.00	0	0	6.66	
5.	Mawai	4	20.00	13	65.00	3	15.00	6.66	
	Total	10	10.00	84	84.00	6	6.00		
	Mean	2.00		16.80		1.20			

It is evident from the Table 1 that minimum number of low types of training was attended by the farmers of Dullapur and Jalalpur villages while maximum number of low type training was attended by the farmers (4 each) in Dasrathmau and Mawai and Amaraigaon (2) villages of Rudauli block in Ayodhya district. It was also observed that maximum number of medium types of training was attended by the farmers in Jalalpur (20) followed by Dullapur (19), Amaraigaon (18), Dasrathmau (14) and Mawai (13) villages, however, maximum number of farmers attended sufficient number of trainings in Mawai (3) followed by Dasrathmau (2) and Dullapur (1) villages of Rudauli block in Ayodhya district. None of the farmers of Amaraigaon and Jalalpur villages attended sufficient training programs of Rudauli block in Ayodhya district.

X^2 analysis of results showed that the TV value 15.97 for training programs attended by the farmers is higher than CV value 15.51, confirming that the significant association between different types of training programs attended by the farmers of selected villages of Rudauli block in Ayodhya district.

Knowledge about related schemes and programs

A perusal of data on knowledge about related schemes and programs of different selected villages of Rudauli block in Ayodhya district have been presented in Table 2.

Table 2: Knowledge about related schemes & programs

Sl. No.	Villages	Low		Medium		Sufficient		Mean	Chi-square
		F	%	F	%	F	%		
1	Dasrathmau	3	15.00	9	45.00	8	40.00	6.66	TV static = 15.87
2	Dullapur	3	15.00	14	70.00	3	15.00	6.66	CV table (0.05) = 15.51
3	Amaraigaon	3	15.00	7	35.00	10	50.00	6.66	X^2 statistic is significant at 5% level of significance
4	Jalalpur	5	25.00	12	60.00	3	15.00	6.66	
5	Mawai	3	15.00	5	25.00	12	60.00	6.66	
	Total	17	17.00	47	47.00	36	36.00		
	Mean	7.20		9.40		3.40			

It was observed in Table 2 that farmers have less knowledge about the related schemes and programs implemented by the Government in all the villages (3 each) except Jalalpur (5) village of Rudauli block in Ayodhya district. Farmers have medium knowledge about the related schemes and programs implemented by the Government in Dullapur (14) followed by Jalalpur (12), Dasrathmau (9), Amaraigaon (7) and Mawai (5) villages, however, farmers have sufficient knowledge about the related schemes and programme implemented by the Government in Mawai (12) village followed by Amaraigaon (10), Dasrathmau (8), Dullapur (3) and Jalalpur (3) villages of Rudauli block in Ayodhya district.

Calculated x^2 TV occurred as15.87 which was higher than CV (15.51). It has indicated a significant association of knowledge about related schemes and programs with the adoption of agroforestry practices of Rudauli block in Ayodhya district.

Technical knowledge about agroforestry

Data pertaining to technical knowledge about agroforestry in different selected villages of Rudauli block in Ayodhya district have been presented in Table 3 and graphically depicted in Fig 1.

Table 3: Technical knowledge about agroforestry

Sl. No.	Villages	Low		Medium		Sufficient		Mean	Chi-square
		F	%	F	%	F	%		
1	Dasrathmau	3	15.00	6	30.00	11	55.00	6.66	TV static = 16.71
2	Dullapur	5	25.00	10	50.00	5	25.00	6.66	CV table (0.05) = 15.51
3	Amaraigaon	2	10.00	5	25.00	13	65.00	6.66	X^2 statistic is significant at 5% level of significance
4	Jalalpur	4	20.00	11	55.00	5	25.00	6.66	
5	Mawai	4	20.00	13	65.00	3	15.00	6.66	
	Total	18	18.00	45	45.00	37	37.00		
	Mean	7.40		9.00		3.60			

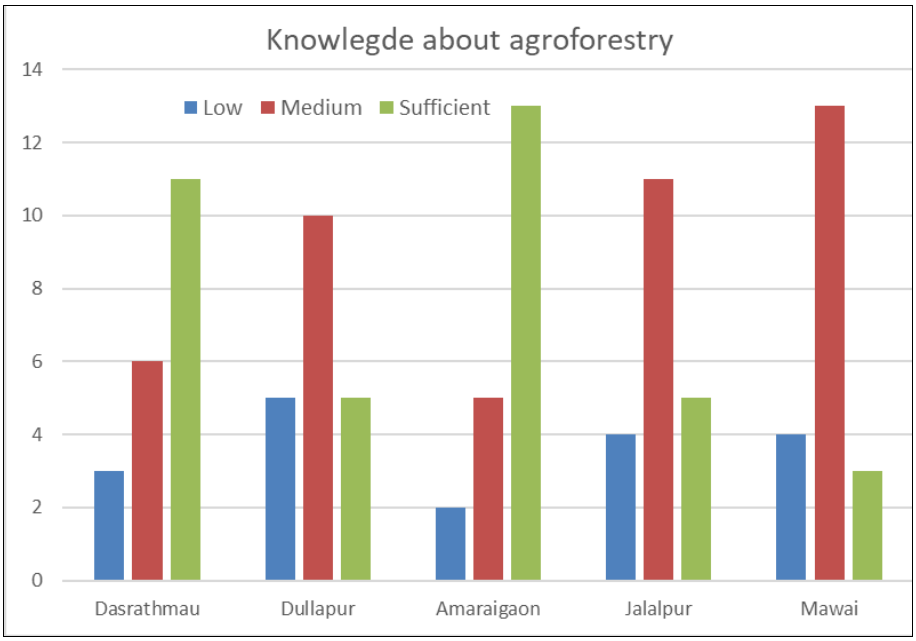

Fig 1: Knowledge about agroforestry.

Results revealed in Table 3 that the maximum number of farmers have low technical knowledge in Dullapur (5) followed by Jalalpur (4), Mawai (4), Dasrathmau (3) and Amaraigaon (2) villages, however, maximum number of farmers have medium technical knowledge in Mawai (13) followed by Jalalpur (11), Dullapur (10), Dasrathmau (6) and Amaraigaon (5) villages of Rudauli block in Ayodhya district. It was also observed that the maximum number of farmers have sufficient knowledge in Amaraigaon (13) followed by Dasrathmau (11), Jalalpur (5), Dullapur (5) and Mawai (3) villages of Rudauli block in Ayodhya district.

The x^2 test has shown higher TV (16.71) than CV (15.51) thus it is significant at 5% level of significance. It confirmed that various type of knowledge about agroforestry influences in different selected villages of Rudauli block in Ayodhya district.

Total farming experience of farmers

Data on total farming experience of farmers of different selected villages of Rudauli block in Ayodhya district have been presented in Table 4.

Table 4: Total farming experience

Sl. No.	Villages	Low		Medium		Sufficient		Mean	Chi-square
		F	%	F	%	F	%		
1.	Dasrathmau	2	10.00	8	40.00	10	50.00	6.66	TV static = 16.89
2.	Dullapur	2	10.00	14	70.00	4	20.00	6.66	CV table (0.05) = 15.51
3.	Amaraigaon	3	15.00	7	35.00	10	50.00	6.66	X^2 statistic is significant at 5% level of significance
4.	Jalalpur	6	30.00	3	15.00	11	55.00	6.66	
5.	Mawai	3	15.00	5	25.00	12	60.00	6.66	
	Total	16	16.00	37	37.00	47	47.00		
	Mean	3.20		7.40		9.40			

It is clear from the Table 4 that low farming experience was observed maximum number of farmers in Jalalpur (6) followed by Amaraigaon (3), Mawai (3), Dasrathmau (2) and Dullapur (2) of Rudauli block in Ayodhya district. Medium farming experience was observed maximum number of farmers in Dullapur (14) followed by Dasrathmau (8), Amaraigaon (7), Mawai (5) and Jalalpur (3), however, sufficient farming experience was observed maximum number of farmers in Mawai (12) followed by Jalalpur (11), Amaraigaon (10), Dasrathmau (10) and Dullapur (4) of Rudauli block in Ayodhya district.

X^2 test has further its significant association/dependency over farmers on total farming experience to adopt agroforestry as the calculated TV for x^2 (16.89 has been higher than CV of x^2 (15.51).

Conclusion

Minimum number of low type of training was attended by the farmers of Dullapur and Jalalpur villages while maximum number of low type training was attended by the farmers (4 each) in Dasrathmau and Mawai and Amaraigaon (2) villages, maximum number of medium type of training was attended by the farmers in Jalalpur (20) followed by Dullapur (19), Amaraigaon (18), Dasrathmau (14) and Mawai (13) villages, however, maximum number of farmers attended sufficient number of training in Mawai (3) followed by Dasrathmau (2) and Dullapur (1) villages of Rudauli block of Ayodhya district. None of the farmers of Amaraigaon and Jalalpur villages attended sufficient training programs in Rudauli block of Ayodhya district.

Farmers have less knowledge about the related schemes and programs implemented by the Government in all the

villages (3 each) except Jalalpur (5) villages, farmers have medium knowledge about the related schemes and programs implemented by the Government in Dullapur (14) followed by Jalalpur (12), Dasrathmau (9), Amaraigaon (7) and Mawai (5) villages, however, farmers have sufficient knowledge about the related schemes and programs implemented by the Government in Mawai (12) village followed by Amaraigaon (10), Dasrathmau (8), Dullapur (3) and Jalalpur (3) villages of Rudauli block of Ayodhya district.

Maximum number of farmers have low technical knowledge in Dullapur (5) followed by Jalalpur (4(, Mawai (4), Dasrathmau (3) and Amaraigaon (2) villages, however, maximum number of farmers have medium technical knowledge in Mawai (13) followed by Jalalpur (11), Dullapur (10), Dasrathmau (6) and Amaraigaon (5) villages and maximum number of farmers have sufficient knowledge in Amaraigaon (13) followed by Dasrathmau (11), Jalalpur (5), Dullapur (5) and Mawai (3) villages of Rudauli block of Ayodhya district.

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