

A study of agricultural development of Saora Tribes in Bolangir district of Orissa state

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ABSTRACT

The characteristics namely, education, size of family, occupation, annual income, size of land holding, social participation, socio-economic status, extension contact and aspiration exhibited positive and statistically significant correlation with the knowledge level and adoption of recommended agricultural practices. However, traditions and beliefs about agriculture were negatively significant with knowledge and adoption of recommended agricultural practices. Age showed non-significant correlation with knowledge level and adoption of recommended agricultural practices.

INTRODUCTION

Tribal development is a constitutional obligation of India. The constitution has not only made specific provisions of protecting tribals, who are 8 per cent of total population spread over 500 development block but also has imposed the constitutional obligation of regular review of performance and development effect directly to the president of India. Tribes in India, have their unique features that differ from each other in terms of their respective structural and historical specificities. The tribal communities though treated as a community but represent the original fabric of Indian society and its cultural heritage. Tribals are mainly depending on agriculture, forest and live stock. Agriculture development and tribal development is closely related with each other since agriculture is basic factor for the progress of tribals. Studies on tribal development before and even after independence revealed that tribals have facing problems such as land alienation indebtedness, poverty etc. Orissa State is largest in tribal population after Madhya Pradesh and Maharashtra and largest in number of tribal concentration. Saora tribe is second largest tribes in Orissa having a glorious past. The investigation was undertaken with the following : to study the agricultural development of Saora tribal farmers by developments departments and to find out the co-relation between socio-economic

characteristics and the level of knowledge and extent of adoption of recommended agricultural practices.

METHODOLOGY

The present investigation was conducted in Khaprakhol block of Bolangir district of Orissa comprising 132 villages having predominately tribal area. Ten villages were selected randomly from the list of Saora Tribal farmers employing 'n' method of random sampling. The data were collected from the sampled respondents with the help of specially designed inter view schedule. The information was also collected by using the participant observation method by the investigators.

RESULTS AND DISCUSSION

The findings obtained from the present study are presented below:

From Table 1 it is observed that cent per cent of the respondents cultivated paddy as their main crop. 48 per cent respondents grew other cereals viz., millets (Ragi, maize) and 21.50 per cent respondents grew cotton. 17.50 per cent, 28.50 per cent and 23.00 per cent respondents cultivated sugarcane, vegetables and groundnut, respectively, in *Kharif* season. 34.00 per cent, 39.50 per cent, 31.50 per cent respondents cultivated paddy, pulses and groundnut, respectively in *Rabi* season.

Key words :
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development,
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Table 1 : Cropping pattern followed by the respondents

Sr. No.	Crops	Number	Per cent	Cropped area (ha)	Average yield (q/ ha)	Varieties
1.	Kharif					
	Paddy	200	100.00	235	30 q/ ha	Halat, Yajat Swarna, Jaya, Mehere, Local
	Millets (Ragi maize, etc.)	96	48.00	53	15 q/ ha	Local
	Cotton	43	21.50	71 ha	135 kg/ha	Local, Laxmi Jyoti, Krishna
	Sugarcane	35	17.50	23 ha	30-40 ton/ha	Local Co- 421, Co- 1053
	Vegetables (tomato, gourds etc.)	57	28.50	14 ha	-	Local
	Groundnut	46	23.00	19	6 q/ ha	Local, Kisan Smuti
2.	Rabi/ Dalua					
	Paddy	68	34.00	93 ha	-	Parijat, Swarna, Annapurna
	Pulses (green gram, black gram, horse gram, arhar)	79	39.50	47 ha	-	Local
	Groundnut	63	31.50	23 ha	6 q/ ha	Local
	Vegetables	37	23.50	12 ha	-	Local

Livestock position of the respondents:

Total livestock on the tribal farms included draft animals, calves, heifers, goat, sheep and poultry birds. Table 2 presents the information regarding the livestock held by the respondents.

From Table 2 it is observed that majority of the respondents had draft animals and backyard small poultry with hen/ cocks. It was found that 53.50 per cent and 57.00 per cent of the respondents had a pair of draft

animals and hen/ cocks, respectively. Only 12.00 per cent of them had either 3 or more animals for draft purpose while 31.50 per cent had milch animals for milk purpose. One third (33.50 per cent) respondents had goat and 12.50 per cent had sheep's. Majority (73.00 per cent) of the respondents had domesticated birds including hen (57.00 per cent), duck (9.50 per cent), pigeon and parrot (6.50 per cent).

Marketing of agricultural produce :

The information regarding the marketing of agricultural produce by the tribal farmer respondents is presented in Table 3.

The data given in Table 3 reveal that 23.50 per cent of the respondents were selling their farm produce to traders, 9.00 per cent to tribal Co-op. Society dealer in the village itself. 44.00 per cent respondents were found to sale their agricultural produce to traders at weekly bazaar, 11.50 per cent sold to traders at block place. It was found that 7.50 per cent respondents were selling their farm produce to dealer at block place.

The data from Table 4 point out that due to the guidance of extension workers (VLWs, VEWs, JAOs) and taking participation and benefits of various agriculture development programme, it resulted into increase in the

Table 2: Distribution of the respondents by their livestock position per household

Sr. No.	Animals/Birds	Number	Per cent
1.	Draft animals (bullocks + he buffalo):		
	Upto 2 animals	107	53.50
	3 and above animals	24	12.00
2.	Milch animals	63	31.50
3.	Other animals :		
	Goat	37	33.50
	Sheep	25	12.50
4.	Birds :		
	Poultry (hen)	114	57.00
	Duck	19	9.50
	Pigeon /Parrot	13	6.50

Table 3: Distribution of the respondents by their marketing of agricultural produce

Sr. No.	Marketing centre	Agencies					
		Traders		Tribal Co- op. Society (dealer)		Other farmers	
		Number	Per cent	Number	Per cent	Number	Per cent
1.	Village itself	47	23.50	18	9.00	68	34.00
2.	Weekly bazaar	88	44.00	-	-	-	-
3.	Block	23	11.50	14	7.50	-	-

Table 4: Distribution of respondents by their activities undertaken by them for agricultural development and social welfare

Sr. No.	Activities undertaken	Number	Per cent
1.	Used and purchase of new improved farm implements	24	12.00
2.	Land leveling and bunding	31	15.50
3.	Digging well, and fitting electric pump	37	18.50
4.	Purchased of new farm land	21	10.50
5.	Use of improved agriculture technology	41	20.50
6.	Grading of farm produce before marketing	19	9.50
7.	Cultivation of cash crop	17	8.50
8.	Fruit crop cultivation	9	4.50
9.	Good facilities for children due to agriculture development	49	24.50
10.	Help to friends/ relatives for their agriculture development	39	19.50

income of the respondents. Due to the additional income they followed various agriculture development activities.

It was observed that among these 12.00 per cent of the respondents purchased and used new improved farm implements, 15.50 per cent of the respondents undertook land leveling and bunding, 18.50 per cent farmers dug well and fitted electric pump. However, 10.50 per cent, 20.50 and 9.50 per cent of the respondents purchased new farm land, increased the use of proved agriculture technology and carried out grading of farm produce before marketing respectively. About 8.50 per cent cultivated cash crops and 4.50 per cent cultivated fruit crops along with their traditional crops. Due to the various agriculture development activities they had increased the level of income. So, 24.50 per cent of them created good facilities for their children and 19.50 per cent of them helped friends /relatives for their agriculture development.

Table 5 indicates that there was negative and non-significant relationship between age and level of knowledge about recommended agricultural practices of main crops among respondents. There was positively and highly significant correlation between education and knowledge level of improved agricultural practices. Highly significant relationship existed between the size of family and knowledge level of the respondents about the improved agricultural practices. Also there was positive and highly significant relationship between occupation and level of knowledge, Hence, the hypothesis that knowledge level

Table 5: Relationship between level of knowledge of recommended agricultural practices and independent variables

Sr. No.	Independent variables	Correlation Coefficient (r)
1.	Age	-0.077 NS
2.	Education	0.390**
3.	Size of family	0.329**
4.	Occupation	0.301**
5.	Annual income	0.568**
6.	Size of holding	0.479**
7.	Social participation	0.179**
8.	Social economic status	0.374**
9.	Extension contact	0.213**
10.	Traditions and beliefs about agriculture	-0.235**
11.	Aspiration	0.176**

* and ** indicate significance of values at P=0.05 and 0.01, respectively
NS – Non-significant

of recommended agricultural practices was related to their occupation. From Table 5, it is observed that there was positive and highly significant relationship between the annual income and level of knowledge about recommended agricultural practices by the respondents so it was assumed, that the respondents belonging to higher income groups may have more knowledge about recommended agricultural practice.

A highly significant and positive correlation was observed between size of land holding and knowledge level of recommended agricultural practices of the respondents. The correlation between socio-economic status and knowledge level of recommended agricultural practices of main crops cultivated by the respondents was found to be positively and highly significant. There was positive and significant relationship between social participation and level of knowledge about recommended agricultural practices by the respondents. Also there was statistically highly significant relationship between extension contact of the respondents and their level of knowledge about recommended agricultural practices. The level of recommended agricultural practices of main crop cultivated by respondents was found to be negatively and highly significant. There was positively significant relationship between the aspiration and level of knowledge about recommended agricultural practices by the respondents.

The respondents who had more annual income higher socio-economic status and their social participation, have more cosmopolite contact might have more aspiration about their children and agriculture. The hypothesis of aspiration was related with their knowledge level about recommended agricultural practices and is accepted.

Table 6: Relationship between adoption of recommended agricultural practices and independent variables

Sr. No.	Independent variables	Correlation Coefficient (r)
1.	Age	-0.053 NS
2.	Education	0.314**
3.	Size of family	0.189**
4.	Occupation	0.311**
5.	Annual income	0.412**
6.	Size of holding	0.427**
7.	Social participation	0.169**
8.	Social economic status	0.204**
9.	Extension contact	0.242**
10.	Traditions and belief about agriculture	-0.238**
11.	Aspiration	0.146*

*and **indicates significance of value at P=0.05 and 0.01, respectively
N S – Non-significant

The data in Table 6 indicate that the relationship between the independent variables namely, education, size of family, occupation, annual income, socio-economic status, social participation, extension contact and aspiration was positive and significant, while correlation between traditions and belief about agriculture with adoption was negative and significant whereas age was non significant with adoption of recommended agricultural practices. The correlation between age and adoption level of improved agricultural practices was found to be non-significant. This means age has no influence towards the adoption of recommended agricultural practices. It can be seen that there was positive and statistically significant correlation between education of the respondents and their

adoption of recommended agricultural practices. Thus, it is concluded that the respondents who had low of education might have low adoption level. There was positive and statistically significant relationship between size of family and adoption level and also positive and significant correlation between occupation and adoption level. It was observed that there was positive and statistically highly significant correlation between annual income and adoption and size of land holding and adoption of recommended agricultural practices of the respondents. Borse (1998) and Bhople *et al.* (1998) have also conducted this type of investigation in tribal communities.

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