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Socio-economic Status and Attitude of Farmers of Santhal Pargana Division of Jharkhand, Eastern India - A Benchmark Analysis

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Authors' contributions

This work was carried out in collaboration between all authors. Author CVS designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author RR managed the analyses of the study. Author SS managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

A survey was carried out to study the socio-personal characteristics and attitude of farmers among 360 respondents of Jamtara and Dumka districts of Jharkhand state using a pre-structured interview schedule. Multi stage random sampling was used which covered Jamtara, Narayanpur, Dumka and Jama blocks. In each of these blocks, five villages were randomly selected. Among these village 18 farmers were selected on the basis of their land holdings as landless, marginal, small, medium and semi medium household. Analysis of data showed that majority of the farmers, engaged with agricultural occupation, were in the age group between 31 and 45 years. They owned one or two hectares of land and belonged to Schedule Tribes and educated just 'can read only'

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group and lived in nuclear type of family system. Status of the majority of the farmers may be described as medium in 'farm experience' and 'market orientation' but low in source of information utilized and scientific orientation. The study revealed that the variables viz., age, farm experience, land holding size and sources of information utilized had positive and significant association with the attitude of farmers towards improved practices of cultivation. Hence, attempts were needed to be made by the Government, Agricultural Universities, ICAR and other extension agencies for providing information on improved farming practices so that it could bring positive changes in their living and help in improving the socio-economic status of Jamtara and Dumka farmers.

Keywords: Socio-economic; attitude; rural farm community; Santhal Pargana division.

1. INTRODUCTION

State Jharkhand came into existence by the introduction of Bihar reorganization act on 15th November, 2000. Jharkhand is a landlocked state and an integral part of the north eastern portion of the Peninsular Plateau of India. Broadly, the region represents a landscape of undulating plateau dotted by hills and mountains. The state is famous for its rich mineral resources and forests which occupies more than 29% of the state's area. In fact, Jharkhand is a state which is always known for its resources, distinct culture as well as various forms of deprivation and exploitation. The reduced numbers of perennial rivers, depleting forest due to mineral and industrial exploitation are a matter of concern. Agriculture is the principal source of livelihood in the state with 66.66 percent of the population engaged in farming. The land use statistics suggest that in spite of large cultivable area i.e. 43%, only 28% is under cultivation which is below the national average of 47% [1,2]. The state receives an average annual rainfall of about 1200 mm, mainly from the south west monsoon. However, only about 25% of the water is retained and utilized and the rest is lost through run-off [3]. Irrigated area is only 10% of the net sown area (NSA) making the rain fed mono cropping zone to cover about 85%. The overall cropping intensity is 114% [4]. Jharkhand has notified 23,605 sq. km area (>30% TGA) under forests. In addition to agriculture, forests continue to be an important supplemental source of livelihoods for the rural communities. Jharkhand is comprised of the Chhotanagpur, Santhal Parganas and Hazaribag divisions of the undivided Bihar. State has a total geographical area (TGA) of 79,714 sq. km. Santhal Pargana is one of the divisions or commissionaires of Jharkhand with headquarters at Dumka. Presently, this administrative division comprises six districts : Godda, Deoghar, Dumka, Jamtara, Sahibganj and Pakur. Santhal Pargana derives its name from two words: "Santhal", a major tribe of India and "Pargana", a Persian word meaning "district". Jamtara is situated between 23°10′ and 24°05′ north latitudes and 86°30′ and 87°15′ east longitudes. According to the 2011 census, Jamtara district has a population of 790,207, sex ratio of 959 females for every 1000 males and a literacy rate of 63.73%. Dumka district has population 1,321,096, sex ratio of 974 females for every 1000 males, and a literacy rate of 62.54%. The human development status across districts of the Jharkhand differs significantly. There are highly developed districts such as Ranchi, Dandbad, Bokaro, Hazaribag and Ramgarh indicating better performance in terms of most of the development indicators ranging from urbanization to female literacy, while the least developed districts such as Jamtara and Dumka have shown poor performance in terms of development indicators like scio-economic condition, livelihood, female literacy, urbanization, electricity, sanitation and drinking water. In 2006, the government of Indian placed Jamtara and Dumka among the country's 250 most backward districts [5]. These are among the 21 districts in Jharkhand currently receiving funds from the Backward Regions Grant Fund Programme (BRGF). The planning commission reported that 10.40 million of rural people and 2.02 million of urban people of Jharkhand are below the poverty line (BPL). Majority of the households in rural areas are below poverty line and most of them belong to landless agricultural labours, marginal, small farmers and rural craftsperson. The incidence of poverty and unemployment is relatively more acute in rain fed farming areas. Therefore, there is an urgent need for taking appropriate policy correction and action for improvement of these indicators for the welfare of less or least developed districts. This will not only improve the well being of people residing in these districts but also enhance the overall development of the state. The study was aimed to understand water,

Table 1. Villages selected for the survey

Cluster	District	Block	Villages
C-1: Barakar sub-catchment	Jamtara	Jamtara	Charedih, Dahar Tola, Sawrimundu, Sinju Tola, Rupaidih
C-2: Barakar sub-catchment		Narayanpur	Rai Tola, Mandal Tola, Rampur, Bada Majhladih, Maira Tola
C-3:Mayurakshi sub-catchment	Dumka	Dumka	Karmatanr, Kodokicha-6, Kodokicha-7, Guhiyajori, Andipur
C-4: Brahmini sub-catchment		Jama	Bhounra, Palasi, Ragat, Karela, Gajhanda

poverty and livelihood issues of people in Jharkhand. An attempt was also made to analyse future scenario against the key drivers visualizing population growth in the state, which would have impact on the food demand supply. Lastly, the welfare of the people of a particular area cannot be measured by just one income indicator but it needs a combination of well being indicators. Keeping this in view the present study was undertaken to understand socio-economic status of farmers of Santhal Pargana division of Jharkhand, Eastern India.

2. METHODOLOGY

The present research study was incepted in Dumka and Jamtara district of Jharkhand state during the year 2012-14 under NAIP scheme. Multi stage random sampling was used covers 4 blocks: Jamtara, Narayanpur, Dumka and Jama. In each of these blocks, five villages were randomly selected. The data was collected from the selected villages by a multi-disciplinary team through a questionnaire covering all the household of the village supported with key informant group discussion. The questionnaire was complied in master sheet and farmers were stratified on the basis of their land holdings as landless, marginal, small, medium and semi medium household. A total 360 farmers were selected from 20 villages and four clusters as respondents for the purpose of study (Table 1). The exploratory and analytical research design adopted for this study and the data was analyzed by using appropriate statistical methods.

3. RESULTS AND DISCUSSION

It was observed that majority (51.7%) of the farmers engaged with agricultural occupation were in the age group between 31 and 45 years. They owned one to two hectares of land and belonged to Schedule Tribes community. Among these only 31.1% farmers were educated just 'can read only' and 76.9% were lived in nuclear type of family system. The annual income of the farmers was in the range of Rs.10, 000- 20,000 (Table 2). Similar findings have been previously reported by many workers [6,7,8,9]. Status of the majority (53.3%) of the farmers may be described as medium in 'farm experience' and 'market orientation' but low in source of information utilized and scientific orientation. Similar findings have been previously reported by earlier workers [10,11].

The results indicated that majority (44.4%) of farmers had low socio- economic status followed by medium (34.4%). Whereas, 21% farmers had high socio-economic status (Table 3). Overall low socio - economic status of the farmers may be due to various factors such as land typology, low motivational effect towards scientific orientation, Sources of information utilized and education based on observation and survey [12,13,14].

Association of the characteristics of farmers with their attitude was ascertained based on correlation analysis (Table 4). It is evident from data that out of eight variables studied five variables namely age, farming experience, size of land holding and sources of information utilized exhibited positive and significant association with the attitude of the farmers. The relationship between age and attitude of farmers had positive and significant association ($r = + 0.227$), whereas the variable farm experience had positive and highly significant association ($r = + 0.562$) with the attitude of the farmers towards improved package of practices of cultivation. It implied that with growing maturity in terms of age and gaining more farm experience, farmers' attitude towards cultivation tends to be more favourable. This may be due to the fact that with advancement in age, respondents might have gained sufficient farm experience, which would have led them to acquire positive attitude towards cultivation.

Table 2. Socio-economic and personal characters of farmers (N-360)

Variables	Group/Categories	No. of respondents	Percent
Age	Up to 30 years	145	40.3
	31 to 45 years	157	43.6
	Above 45 years	58	16.1
Cast	High Caste	34	9.4
	Backward Caste	124	34.4
	Schedule Caste	69	19.2
	Schedule Tribes	133	36.9
Size of land holding	Below 1 ha	13	3.6
	1- 2 ha	151	41.9
	2- 3 ha	128	35.6
	3-4 ha	52	14.4
	Above 4 ha	16	4.4
Family type	Single	277	76.9
	Joint	83	23.1
Education	Literate	79	21.9
	Can read only	112	31.1
	Primary	85	23.6
	Middle	53	14.7
	High School/ Intermediate	31	8.6
	Graduate	0	0
Occupation	Labour	43	11.9
	Caste occupation	47	13.1
	Business	62	17.2
	Agriculture	186	51.7
	Service	22	6.1
Annual Income	Up to Rs. 5000	16	4.4
	5,000- 10,000	22	6.1
	10,000- 15,000	84	23.3
	15,000- 20,000	167	46.4
	20,000- 25,000	37	10.3
	25,000- 30,000	18	5
	Above Rs. 30,000	16	4.4
Farm Experience	Low	72	20
	Medium	192	53.3
	High	96	26.7
Sources of Information Utilized	Low	214	59.4
	Medium	108	30
	High	38	10.6
Scientific Orientation	Low	235	65.3
	Medium	115	31.9
	High	10	2.8
Marketing Orientation	Low	106	29.4
	Medium	159	44.2
	High	95	26.4

Table 3. Overall socio- economic status of the farmers (N-360)

Socio- economic status	No. of farmers	Percent
High status	76	21.1
Medium status	124	34.4
Low status	160	44.4

Size of land holding had positive and highly significant relationship (r = +0.387) with the attitude of the farmers. Farmers having relatively bigger farm size had greater degree of favourable attitude towards improved practices of cultivation. This may be due to the fact that cultivators having large farm size were eager to expand the net cultivated area of their land under cultivation which in turn might have helped them

to get equipped with more knowledge, skill, etc. and brought about desired changes in their attitude towards adopting improved package of practices of cultivation. The relationship between sources of information utilized and attitude was positive and highly significant (r = +0.449). Farmers having higher level of use of the information sources possessed more favourable attitude towards improved package of practices of cultivation. This may be due to the fact that with increase in utilization of information sources, respondents might have been exposed to the latest information about improved methods of cultivation, various sources of availability of inputs, improved crop management practices, marketing information etc; which intern might have brought about a favourable attitude in them towards adopting improved package of practices of cultivation.

Table 4. Association of the characteristics of farmers with their attitude

S. no.	Variables	Correlation coefficient 'r'
1.	Age	0.227*
2.	Education	-0.050NS
3.	Farm Experience	0.562**
4.	Size of land holding	0.387**
5.	Annual Income	0.131NS
6.	Sources of Information Utilized	0.449**
7.	Scientific Orientation	0.104NS
8.	Marketing Orientation	-0.006NS

**Significant at 0.05% level, ** Significant at 0.01% level of probability, NS – Non significant*

4. CONCLUSION

The present study revealed that the variables viz., age, farm experience, land holding size and sources of information utilized had positive and significant association with the attitude of farmers towards improved practices of cultivation. The findings of the present study have several practical implications in Jamtara and Dumka district of Jharkhand endowed with tremendous natural resources has a great potential to enhance the crop productivity. Therefore, strategic measures may be taken up so that farmers may be motivated to gain access of relevant information with respect to the innovative practices and undertake positive steps towards entrepreneurial ventures which may be helpful in establishing agro-based enterprises for socio-economic development of the farming community.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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