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Original Research Article

Socio-Economic Profile of Tribal Dairy Farmers in Godda of Jharkhand

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A B S T R A C T

Jharkhand is traditionally known as the mineral (40%) rich state of east India with dance forest area, accounting for about 3.4% of the forest area in India. Jharkhand state has one of highest shares of Scheduled Tribe (ST-26.2%) population within a state. Other backward class, Scheduled Castes and STs together constitute more than 50 per cent of the state's population. Agricultural activitiesare counted as the main economic occupation of the state. About 75.95% of the population of the state is rural. The present paper examines the socio-economic condition of tribal dairy farmers in Godda district in Jharkhand and assesses the impact of development interventions by both the NGO and District Administration of the state. This exploratory study was conducted in the tribal populated districts of Jharkhand state. Case study methodology for the purpose of the present study has been deliberately chosen so as best understand and analyse the problem of tribal dairy farmers. There were selected 210 tribal dairy families of which are educated, awareness and empowerment by various NGO and various department of state Government of Jharkhand.

Keywords

Dairy farmers, Economic, Empowerment, Tribal

Introduction

Livestock plays a significant role in the rural economy of India. India is a vast and diverse country, which is also a home for over one-fourth of world's absolute poor. Dairy sector has generated an employment potential for most of the tribal community belongs to weaker section of the society (Senthil Kumar *et al.*, 2012). Thus, changes in the dairying environment have important implications for the small holder farmers and for poverty reduction (Meeta Punjabi, 2014). Among the social groups inIndia, Scheduled Tribes (ST) has the highest proportion of the poor. While they account for only 8 percent of the total population, they comprise 40 percent of the displaced population (CTDP, 2015). The population of Jharkhand is notable for the high proportion of Scheduled Tribes which constitute 26.2percent of the total state populace (CensusIndia, 2015). Indian dairy sector mainly comprises of millions of small and marginal farmers in dairying who own two to three animals and produce an average of 5 liters per day. Livestock development in general anddairy development activities in particular arekey components of pro-poor development strategies because livestock

distribution ismuch more equitable than land distribution. NDDB and government of Jharkhand collaterally runs various schemes for tribals which play an important role by generating self-employment through dairy in rural areas which in turn provides nutritious food to rural folks. Dairy farming could help to generate millions of livelihood in the state on one hand and ensure thequality and balanced nutritious food to thepublic on another hand. Jharkhand stateis still in primitive stage in dairy farming though the state has good number of cattle population compared to other leading milk producing states. Smallholder milk productivity is abysmally low and milk is not considered as major product. The cattlerearing system has been extensive grazing andlow input cost based. It is observed that therearing of livestock animals especially invillages has focus on draught power rather than milk (Sanjeev Kumar, *et al.,* 2014).

According to the 2011 census, the total population of Jharkhand is 3.30 crore with an average density is 414per sq. km. the state is pre dominantly rural with 75.95percent of the population living in villages, generally situated on hilly undulating plateau or small valleys.Shifting cultivation is the mainstay of the economy of tribal flock of the region since time immemorial and animal husbandry is an integral component of farming system practiced for livelihood and nutritional security (Moanaro et al., 2011). As of 2013, about 40.84% of rural population is below the poverty line, among the people living in urban areas 24.83% of them are below the poverty line. Jharkhand has a low literacy rate of 66.41 percent. Majority of the population in the state speaks local languages like Santhali, Ho, Kuduk, Khadiya, Bangla, but Hindi is the official language of the state (Kumar et al, 2017).Earlier research findings indicates that, tribal farmers possessed with low level of education (Srivastava, 1982), majority of the respondents had agriculture as primary occupation followed by labour and dairying (Pandey, 1996) and farmers had an average of 3.25 milch animals per household for their livelihood (Subramanian, 1992). Since, in-depth studyof profile characteristics of the tribal dairy farmers gives a clear-cut picture about the respondents' background, living condition, surroundings and belongings which in turn will help to bring appropriate policyimplications based on derived conclusions.The socio-economic profiling of the tribal farmers was carried out to get a precise understanding about the respondents towardsdairy farming and other allied activities. Inthe present exploratory study, twelve independent and two dependent variables have been taken into consideration. The relevant information was collected and the findings are presented as follows.

Materials and Methods

The present study was conducted during2016-17 in the selected blocks of Godda in Jharkhand. Out of 9 blocks in Godda, three tribal populated blocks namely Sunderpahari, pathergama and Boarijore were selected for the study. From each block, four villages were selected and from eachvillage 25 dairy tribal respondents wereselected thus 300 respondents were constituted for the study. Stratified simple random sampling method was used to selectthe respondents. A comprehensive semi structured interview schedule was constructed and the same was pre-tested with30 tribal farmers selected from non-sampling villages. Modification was made in the schedule after pretesting as found necessary and it was finalized before its final administration. Utmost care was taken to ensure that the items were perceptible, to

the point, complete, comprehensive, and unambiguous. Further, some of the important production data were documented using a Participatory Rural Appraisal (PRA) tools, participatory observation, indirect observation, on-site documentation, key informant survey and focused group discussions.

Results and Discussion

Profile characteristics of the respondents gives a clear-cut picture about the respondents' background, living condition, surroundings and belongings which in turn will help to bring appropriate policy implications based on derived conclusions.The socio-economic profiling of the tribalfarmers was carried out to get a precise understanding about the respondents towards Interactive Educational Multimedia Module learning. In the present experimental study,twelve independent and two dependent variables have been taken into consideration.

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The relevant information was collected andthe findings are presented as follows.It could be observed from Table 1 that57.33 percent of the tribal farmer's were between 36 and 50 years of age, followed by 24.00 percent with the class intervals of > 50years. Very meagre percent (18.67 %) of the farmers were of the age upto 35 years of age.This leads us to understand that majority of the respondents (57.33 %) selected for thisstudy belonged to the middle-aged category.More than one fourth (37.67%) of the farmers were educated up to primary school level and more than one fourth (31.33 %) of the respondents were illiterate, also. About 18.66 percent of respondents possessed middle level of education. The high level of education, namely collegiate education was found among 1.34 percent of the respondents. About 7.00 percent of farmers possessed secondary level of education and 1.67 percentages of the farmers were functionally literate. About 2.33percent of farmers possessed higher secondary education.

It is observed from table 1 that less than half (40.33%) of the respondents had subsistence dairy farming + Minor forest products collection + labour as their sole occupations, followed by 29.67percent with primary agriculture and subsidiary dairy farming, about 24.00 percent with primary dairy farming and subsidiary agriculture and the rest 6.00 percent with subsidiary dairy farming and other services. Here, nearly half (46.33%) of the respondents fall under non-primary dairy farming because the tribal workers are engaged in the primary sector ofeconomy related to exploitation of natural resources. Agriculture is counted as the chief economic occupation of the state; horticulture and animal husbandry also engages a major share of the total population of the state. About 80 percent of the population of the stateis rural and their main livelihood is solely depending on agriculture and allied based sub sectors.

Table.1 Distribution of Respondents According to their Age, Education and Occupational Status (n = 300)

Sl.No.	Category	Frequency	Percentage	Rank
A. Age				
1.	Young (Upto 35 years)	56	18.67	III
2.	Middle (36 - 50 years)	**172**	57.33	I
3.	Old (Above 50 years)	72	24.00	II
B. Education				
1.	Illiterate	94	31.33	II
2.	Functionally literate	5	01.67	VI
3.	Primary education	113	37.67	I
4.	Middle education	56	18.66	III
5.	Secondary education	21	07.00	IV
6.	Higher secondary education	7	02.33	V
7.	Collegiate and above	4	01.34	VII
C. Occupational status				
1.	Subsistence dairy farming + Minor forest products collection + labour	121	40.33	I
2.	Primary crop farming + Subsidiary dairy farming	89	**29.67**	II
3.	Primary dairy farming + Subsidiary crop farming	72	24.00	III
4.	Subsidiary dairy farming + other services	18	6.00	IV

Table.2 Distribution of Respondents According to their Farm Size, Farming Experience, Annual Income and Innovativeness (n = 300)

Sl. No.	Category	Frequency	Percentage	Rank
A. Farm size				
1.	Marginal farmers (up to 2.5 acres)	122	40.66	I
2.	Small farmers (2.51 - 5.00 acres)	116	38.67	II
3.	Medium farmers (5.01 - 10.00 acres)	42	14.00	III
4.	Big farmers (above 10.00 acres)	20	6.67	IV
B. Farming experience				
1.	Low (Up to 10 years)	49	16.33	III
2.	Medium (11 to 20 years)	158	52.67	I
3.	High (Above 20 years)	93	31.00	II
C. Annual income				
1.	UptoRs. 25,000	65	21.66	II
2.	Rs. 25,001 to 75,000	137	45.67	I
3.	Rs. 75,001 to 1,25,000	62	20.67	III
4.	Above Rs. 1,25,000	36	12.00	IV
D. Innovativeness				
1.	As soon as it is brought to my knowledge	47	15.66	II
2.	After I have seen it, being adopted by other members successfully	209	69.67	I
3.	I prefer to wait and take my own time	44	14.67	III

Table.3 Herd Size and Dairy Production System in the Study Area (n = 300)

Sl.No.	Category	Frequency	Percentage	Rank
1.	Small (< 3 animals)	93	31.00	III
2.	Medium (3 - 7 animals)	138	46.00	II
3.	Large (> 7 animals)	69	23.00	V
4.	Extensive (Subsistence)	152	50.66	I
5.	Semi-extensive	89	29.67	IV
6.	Intensive	59	19.67	VI

Table.2 clearly indicates that nearly half (40.66%) of the respondents were marginal farmers, followed by 38.67percent were small farmers, about 14.00percent were medium farmers and 6.67 percent were big farmers. From the results it could be concluded that majority (79.33%) of the respondent's wereunder the category of marginal and small farmers. Further, it could be very interesting to note that sent percent of the respondents at least hold their small piece of land as theirown. This might be due to the fact that the state government is allocating forest lands/other natural resources to tribal communities for their livelihood, overall development and for holistic welfare. It could be seen from Table 2 that more than half (52.67 %) of the farmers were foundwith medium level of farming experience followed by 31.00 percent with high level of farming experience and 16.33 percent of farmers possessed low level of experience infarming. Here, majority (52.67%+31.00%) ofthe farmers were found with medium and highlevel of farming experience due to the fact that tribal community is the integral part of the natural system and they start their life through utilising natural resources for farming activities. Farming is their basic livelihood activity by generation by generation. With respect to farming exposure, about 86.48percent of the farmers were hereditary whereas about 13.52 percent of the farmers were from first generation. The results in Table 2 indicates that about half (45.67 %) ofthe respondents were at the income range of Rs. 25,001 to Rs. 75,000/- followed by 21.66 percent of farmers earning upto Rs. 25,000.Further, it could be observed from the same table that 20.67 percent of farmers were under the income range between Rs. 75,001 to Rs. 1, 25,000 and least percentage (12.00%) of the respondents had obtained above Rs.1.25 lakhs as an annual income from farming and allied activities. It is inferred from the results that majority (67.33 %) of the farmers had their earning upto Rs. 75,000 per year. This might be the reason that, most of farmers are depending on agriculture + dairy farming+ Minor forest products collection + labourer as a major source of income for their livelihood. The incidence of poverty in Jharkhand is very high. The prevalence ofpoverty in the rural and urban areas is almostthe same. More than half of the rural STs and urban SCs are poor. In general, the proportions of poor SC and ST households in the state are higher than the state average and their community's respective national averages (except for rural SC households). Given that approx 50 percent of the state's population comprises STs and SCs and high incidence of income poverty among them is a matter of serious concern in the state.

From Table 2clearly indicates that majority (69.67%) of the tribal farmers would like to adopt the innovation "After I have seen it, being adopted by other members successfully" followed by(15.66%) like to adopt the innovation "As soon as it is

brought to their knowledge, 14.67percent of the farmer responded that "I prefer to wait and take my own time" and least number of farmers". So, the majority of the tribal farmers adopt an innovation after the average participant from their community. These individuals approach an innovation with a high degree of scepticism and after the majority of society has adopted the innovation.It is a fact that tribal farmers are sceptical about any innovations and they believe the innovations after they had received the importance of the innovation from others. Hence, the results obtained.Table 3 shows that more than half (50.66%)of the tribal dairy farmers falling under the category of subsistence level of dairy production system, followed by 29.67 percent of the farmers following semi-extensive andleast percentage (19.67%) of respondents doing dairy farming in a intensive way.

Extensive dairy farming can be characteristically described as a minimal useof farm inputs such as feed and fodder, labour, infrastructure like cattle shed, and capital such as veterinary services. In the semi extensive system the main participants are small scale producers with small herd size. This system is low in cost with the purpose to utilise locally available resources effectively. Supplementation of additional feed and fodder, providing proper housing and veterinary care is the main features of this system of production. In intensive dairy farming, cows are kept in "zero-grazing" systems which means they are kept indoors where the feed and fodder is brought to the animal and they are given with high-protein diet to increase their milk yield. It could be observed from the Table 3 about half (46.00 %) of the respondents falling under the category of medium herd size followed by 31.00 percent in small and 23.00 percent in large herd size. Since the tribal farmers are economically backward they are unable to maintain their herd in large size. It is also due to that the respondents are not only depend on dairy alone for their livelihood and they engaged themselves in different enterprise viz., minor forest produce collection, agriculture, wage labour and inland fishing.

This study concluded that majority of the respondents were falling under the category of low to medium level socio-economic standards, so appropriate policy implications has to be developed to enhance their standard of living and livelihood status. Large scale awareness campaigns and mass media should be utilized in a big way to promote the profitable farming enterprise. This results implied that Model Dairy Villages (MDVs) may developed at gross-root level to create awareness about Good Dairy Farming Practices (GDFPs) among tribal farmers inturn to accelerate the adoption level for GDFPs. The variables such as age, educational status, occupational status, mass media exposure, social participation, farm size and milk production were found to act as a critical variables. So, while preparing developmental programmes in future, one should take care of above variables. On the basis of results it can be concluded that the cattle rearing agricultural practices is still solely depend on small scale production system. The production system is traditional with low to minimum input involvement and remunerative. Considering the demand of milk in thearea, immense opportunities prevailed in improvement of productivity through adopting scientific interventionwith routine management and health care services withbetter vaccination procedures. Entrepreneurship developments in major sectors generate employment opportunities for farmers and youth engaged in this animal husbandry sector to check the migration from villages.

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