Research Article

ASSESSMENT OF TRAINING NEEDS IN ANIMAL HUSBANDRY PRACTICES AMONG NON- TRIBAL RURAL WOMEN OF GODDA THROUGH VARIOUS ATTRIBUTES IN JHARKHAND

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ABSTRACT
The present study was carried out on relationship of the selected non- tribal rural women with their training needs to animal husbandry practices in Godda district of Jharkhand and assessed the impact of interventions by both the Non-Government Organization (NGO) and District Administration of the state. Jharkhand is traditionally known as the mineral (40%) rich state of east India with dense forest area, accounting for about 3.4% forest area of India. Jharkhand state has less than 50% non-tribal population. Other backward classes, Scheduled Castes (SCs) and tribes (STs) together constitute more than 50% of the state's population. Agricultural activities are counted as the main economic occupation of the state. About 75.95% of the population of the state are rural. This exploratory study was conducted in the non- tribal populated districts of Jharkhand state. Case study methodology for the purpose of the present study has been deliberately chosen so as to best understand and analyse the problems of non- tribal dairy farmers. 300 non-tribal dairy families were selected who were educated, trained and empowered by various NGOs and department of state Government of Jharkhand. Therefore 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.

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 belonging 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). Women in the present age are facing the most challenging situation of performing their role in and outside the home for their social and economic development. The rural women play a great role in decision making process on farm matter, perform many of the farm operations and undertake many responsibilities concerning care and management of farm animals. Among the social groups in India, Scheduled Tribes (ST) has the highest proportion of the poor (CTDP, 2015). The population of Jharkhand is notable for non- Tribes which constitute 73.8% of the total state's populace (Census India, 2015). Indian dairy sector mainly comprises of millions of small and marginal farmers who own two to three animals and produce on an average 5 liters milk per day. Livestock development in general and dairy development activities in particular are key components of pro-poor development strategies because livestock distribution is much more equitable than land distribution. National Dairy Development Board (NDDB) and government of Jharkhand collaterally runs various schemes for women which play an important role by generating self-employment through dairy in rural areas which in turn provides nutritious food to rural folks. The cattle rearing system has been extensive grazing and low input cost based. It is observed that the rearing of livestock animals especially in villages 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 of 414 per sq. km. The state is pre dominantly rural with 75.95% 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%. 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 indicated that, tribal farmers possessed with low level of education relative to non – tribal's (Srivastava, 1982). Majority of the respondents had agriculture as primary occupation followed by labour and dairying (Pandey, 1996) and rural women had an average of 3.25 milch animals per household for their livelihood (Subramanian, 1992). An in-depth study of profile characteristics of the non -tribal dairy farmers gives a clear-cut picture about the respondents' background, living conditions, surroundings and belongings which in turn will help to bring appropriate policy implications based on derived conclusions.

Milk production has been the single major activity to supplement as well as to provide income to the rural households; the majority of them are landless and small or marginal farmers (Bariya *et al.,* 2013). After acquiring training, the rural women not only learned about the improved animal husbandry practices but also opt them into practices (Sharma *et al.,* 2012) . Keeping in view the above facts, the present study was carried out with the objectives to study the socio – economic and psychological characteristics of the rural women with their training needs.

MATERIALS AND METHODS

The present study was conducted in the selected blocks of Godda District in Jharkhand. Out of nine blocks in Godda, seven are non- tribal populated blocks namely Poriyahat, Pathergama, Godda, Basantria, Mahagama, Meherama and Thakurgangati. Out of these seven blocks, three blocks namely Poriyahat, Pathergama and Godda were selected for the study. From each block, four villages were selected and from each village 25 non- tribal dairy farming practising women respondents were selected. Thus, 300 respondents were constituted for the study. Stratified simple random sampling method was used to select the respondents. A comprehensive semi structured interview schedule were constructed and the same was pre-tested with 30 non- tribal women selected from non-sampling villages. Modification was made in the schedule after pretesting as found necessary and it was finalized before its 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. Pearson's product moment method of computing correlation coefficient which provided generally accepted means for measuring the relationship was used. Profile characteristics of the respondents gives a clear-cut picture about the respondents' background, living conditions, surroundings and belongings which in turn will help to bring appropriate policy implications based on derived conclusions. The socio-economic profiling of the non-tribal farmers was carried out to get a precise understanding about the respondents towards Interactive Educational Multimedia Module learning. In the present experimental study, eleven independent and four dependent variables have been taken into consideration.

RESULTS AND DISCUSSION

The relevant information was collected and the findings are presented as follows. It could be observed from Table 1 that 25.33% of the non-tribal farmers were above 45 years of age, followed by 59.00% with the class intervals 31- 45 years. Very meagre percent (15.33%) of the farmers were of the age up to 30 years of age. This leads us to understand that majority of the respondents (59.00%) selected for this study belonged to the middle-aged category. More than one fourth (36.33%) of the farmers were educated up to primary school level and less than one fourth (25.67 %) of the respondents were illiterate. About 20% of respondents possessed middle level of education. The high level of education, namely collegiate education was found among 02.66% of the respondents. About 10.70% of farmers possessed secondary level of education and a meagre1.00% of the farmers were functionally literate. About 4.66% of farmers possessed higher secondary education.

It is observed from table 1 that more than one fourth (29.00%) of the respondents had subsistence dairy farming + minor forest products collection + labour as their sole occupations, whereas 33.00% with primary agriculture and subsidiary dairy farming, about 26.00% with primary dairy farming and subsidiary agriculture and the rest 12% percent with subsidiary dairy farming and other services. Here, more than half (59.00%) of the respondents fall under primary dairy farming because the non-tribal workers are engaged in the non-primary sector of economy related to less exploitation of natural resources than tribal's people. 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%t of the population of the state is rural and their main livelihood is solely depending on agriculture and allied based sub sectors.

Table 2. clearly indicates that nearly half (46.00%) of the respondents were marginal farmers, followed by 34%.67% were small farmers, about 16.66% percent were medium farmers and 02.67% were big farmers. From the results it could be concluded that majority (80.67%) of the

respondents were under the category of marginal and small farmers. Further, it could be very interesting to note that cent percent of the respondents at least hold their small piece of land as their own. This might be due to lack of communication system, poor agricultural services, lack of scientific agricultural knowledge and migration of younger generations towards cities in search of jobs and daily wage labours. fact that the state government is also non-allocating forest lands/other natural resources to non-tribal communities for their livelihood, overall development and for holistic welfare. Generally Department of Forest have allocate forest area for running smoothly their livelihood only for sub tribals and schedule caste without hampering forest area. Whereas non tribals have no any concession/scheme /planning in Godda.It could be seen from Table 2 that less than half (42.33 %) of the farmers have medium level of farming experience followed by 32.33% with high level of farming experience and 25.34% of farmers possessed low level of experience in farming. Here, majority (42.33%+32.33%) of the farmers were found with medium and high level of farming experiences due to the fact that non- tribal community is the integral part of the natural system and they started their life through utilising natural resources for farming activities as like as tribal's of the area and less non- agricultural functions in area. The results in Table 2 also indicates that about half (42.33 %) of the respondents were in the income range of Rs. 25,001 to Rs. 75,000/- followed by 25.67% of farmers earning up to Rs. 75,001 to Rs. 1, 25,000. Further, it could be observed from the same table that 23.00% of farmers were under the income range between Rs. 25,000 and least percentage (15.33%) 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 (59.00 %) of the farmers had their earning up to 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 of poverty in the rural and urban areas is almost the same. More than half of the rural non-tribals and urban SCs, STs are poor (Satish Kumar *et al.,* 2017). In general, the proportions of poor SC and ST households in the state are higher than the state's average and their community's respective national averages (except for rural SC households). Approx 50% 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. Result's also clearly indicated that majority (68.00%) of the non- tribal farmers would like to adopt the innovation "After I have seen it, being adopted by other members successfully" followed by (21.33%). "As soon as it is brought to their knowledge, 10.67% of the farmer responded that "I prefer to wait and take my own time" and least number of farmers". So, the majority of the non- 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 non-tribal farmers are sceptical about any innovations and they believe the innovations after they had received the importance of the innovation from others. Farming is their basic livelihood activity from generation to generations. With respect to farming exposure; about 91.00% of the farmers were hereditary whereas, about 8.00%t of the farmers were from more than one generation with 1.00% are service holders. Table 2 shows that more than half (56.00%) of the non-tribal dairy farmers falling under the category of low level of dairy milk production system, followed by 36.67% of the farmers following medium milk production and least percentage (7.33%) of respondents doing dairy farming in a intensive or high milk production way. Here also shows that the small proportion 56.00% people uses small field under fodder crops production followed by 36.67% are medium fodder crop cultivators and 7.33 percent are only produces more fodder under their field. Besides this farmers also fed to their animal the crop like green grasses , cabbage, potato and many conventional grasses, tree leaves either cooked or as raw material which is in consonance with the findings of (Lemke *et al*., 2008,Kumaresan *et al*, 2009, Moanaro *et al*., 2001,Patr *et al*., 2014).The mass media exposure is medium as 53.34 % followed by low exposure 44.66% and finally only 2.00% are having high mass media exposure at village level.

Extensive dairy farming can be characteristically described as a minimal use of 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 (Satish kumar *et al*., 2018). It could be observed from the Table 2 that about half (76.00 %) of the respondents falling under the category of medium herd size followed by 18.00% in small and 6.00% in large herd size. Since the non-tribal farmers are economically backward they are unable to maintain large size herds in. It is also due to that the respondents are not only depend on dairy alone for their livelihood and they also engaged themselves in other different enterprises viz., minor forest produce collection, agriculture, wage labour and inland fishing.

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 (Up to 30 years)	46	15.33	III
2.	Middle (31 - 45 years)	**178**	59.33	I
3.	Old (Above 45 years)	76	25.33	II
B. Education				
1.	Illiterate	74	24.67	II
2.	Functionally literate	3	01.00	VII
3.	Primary education	109	36.33	I
4.	Middle education	60	20.00	III
5.	High School education	32	10.70	IV
6.	Higher secondary education	14	04.66	V
7.	Collegiate and above	8	02.66	VI
C. Occupational status				
1.	Subsistence dairy farming + Minor forest products collection + labour	87	29.00	II
2.	Primary crop farming + Subsidiary dairy farming	99	**33.00**	I
3.	Primary dairy farming + Subsidiary crop farming	78	26.00	III
4.	Subsidiary dairy farming + other services	36	12.00	IV
D. Family size				
1	Single	21	7.00	IV
2	Small (up to 4)	86	28.67	II
3	Medium (5-8)	170	56.66	I
4	Large (above 8)	23	7.66	III

Table 2. Distribution of respondent's according to various farming attributes and attitude towards dairy farming, Annual milk production, Areas under fodder crops and Marketing (n = 300)

Sl. No.	Category	Frequency	Percentage	Rank
A. Farm size				
1.	Marginal farmers (up to 2.5 acres)	138	46.00	I
2.	Small farmers (2.51 - 5.00 acres)	104	34.67	II
3.	Medium farmers (5.01 - 10.00 acres)	50	16.66	III
4.	Big farmers (above 10.00 acres)	8	02.67	IV
B. Farming experience				
1.	Low (Up to 10 years)	76	25.34	III
2.	Medium (11 to 20 years)	127	42.33	I
3.	High (Above 20 years)	97	32.33	II
C. Annual income				
1.	Up to Rs. 25,000	69	23.00	II
2.	Rs. 25,001 to 75,000	108	36.00	I
3.	Rs. 75,001 to 1,25,000	77	25.67	III
4.	Above Rs. 1,25,000	46	15.33	IV
D. Innovativeness				
1.	As soon as it is brought to my knowledge	64	21.33	II
2.	After I have seen it, being adopted by other members successfully	204	68.00	I

3.	I prefer to wait and take my own time	32	10.67	III
E. Social Participation				
1.	Membership in one organization	273	91.00	I
2.	Membership in more than one organization	24	8.00	II
3.	Office holder	3	1.00	III
F. mass media Exposure				
1.	Low exposure(up to 1)	134	44.66	II
2.	Medium (2-5)	160	53.34	I
3.	High (above 5)	6	2.00	III
G. Herd size				
1.	Small (up to 2 milch animals)	54	18.00	II
2.	Medium (3-7 milch animals)	228	76.00	I
3.	Large (above 7 milch animals)	18	6.00	III
H. Annual milk production (litres)				
1.	Low (up to 3300 l.)	168	56.00	I
2.	Medium (3301 to 9600 l.)	110	36.67	II
3.	High (above 9600 l.)	22	7.33	III
I. Areas under fodder crops				
1.	Small (up to 0.5 ha)	168	56.00	I
2.	Medium (0.51 to 2.0 ha)	86	28.67	II
3.	Large (above 2.0 ha.)	46	15.33	III
J Attitude towards dairy farming				
1.	Favourable (More than 28 scores)	54	18.00	II
2.	Neutral (24-28 scores)	238	79.33	I
3.	Unfavourable (less than 24 scores)	08	2.67	III
K. Marketing				
1.	Self-consuming	62	20.67	III
2.	Door to door sale	148	49.33	I
3.	Sale up to dairy chilling centre	90	30.00	II

CONCLUSION

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, enhanced veterinary services, forage production and mass media should be utilized in a big way to promote the profitable farming enterprise. The results implied that Model Dairy Villages (MDVs) may be developed at grass-root level to create awareness about Good Dairy Farming Practices (GDFPs) among non-tribal farmers in turn to accelerate the adoption level for GDFPs. The variables such as age, educational status, occupational status, mass media exposure, social participation, farm size, herd size, fodder cultivation practice and milk production were found to act as a critical variables. Thus, 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 based farming is still solely depended on small scale production system. The production system is traditional with low to minimum input involvement and remunerative. Considering the demand of milk in the area, immense opportunities prevailed in improvement of productivity through adopting scientific interventions with routine management and health care services with better vaccination procedures. Entrepreneurship developments in major sectors generate employment opportunities for farmers and youths engaged in animal husbandry sector to check the migration from villages.

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REFERENCES

Bariya, M.K., Kiran Chandravadiya , N.S. Joshi and G.P. Deshmukh. 2013. Relationship of rural women's characteristics with their training needs in animal husbandry practices. *Farming*, 1(2):65-69.

Census India. 2015. Data Highlights: The Scheduled Tribes, Jharkhand state, Census of India.

2001,ttp://censusindia.gov.in/Tablespublished/SCS T/dhstjharkhand.pdf.

JTDP. 2015. Jharkhand Tribal Development Programme. Tribal Development Society, Reaching the Poorest of the Poor. http://cjtdp.jh.gov.in/Projsummarye.htm. Accessed 20 May (2015).

Kumaresan, A., K.M. Bujarbaruah, K.A. Pathak, A. Das and R.K. Bardoloi. 2009. Integrated resourcegriven pig production systems in a mountainous area of North east India: production practices and pig performance. *Tropical Animal Health and production*, **41**: 1187-1196.

Lanada, E.B., J.A. Lee, S.J. More, S. Basito and A. Taveros. 2005. A longitudinal study of sows and boars raised by smallholder farmers in the Philippines. *Preventive Veterinary Medicine*, **70**: 95-113.

Lemke, U., B. Kaufmann, L.T. Thuy, K. Emrich and A. Valle Zarate. 2006. Evaluation of smallholder pig production system in North Vietnam. *Agricultural Systems*, **96**: 207-223.

Meeta Punjabi. 2014. India: Increasing Demand Challenges the Dairy Sector. FAO.http://w ww .fao .o r g / d o c r e p / 0 1 1 / i 0 5 8 8 e /I0588E05. htm. Accessed 20 June (2014).

Moanaro, E. Ngullie, I. Walling, M. Krose and B.P. Bhatt. 2011. Traditional Animal Husbandary Practices in Tribal States of Eastern Himalaya, India: A Case Study. *Indian Journal of Animal Nutrition*, 28: 23-28.

Pandey, A.K. 1996. A Comparative Study of Livestock Rearing System among Tribal and Non-Tribal in Chotanagpur Region of Bihar. Ph.D.Thesis, National Dairy Research Institute (Deemed University), Karnal, Haryana.

Sanjeev Kumar, B.N. Dhananjaya and A.P. Singh. 2014. The Livelihood School, Milking the potentials: Study Report on Dairy Sub Sectorin Chhattisgarh.http://www.cgsird.gov.in/dairysubsect or report final submission.pdf. Accessed 10 May (2014).

Satish Kumar, Ritesh Dube and Neeraj. 2017. Constraints and prospects of traditional pig husbandry for tribal livelihood in jharkhand. *Innovative Farming*, **2**(2):101-107.

Satish Kumar, Ritesh Dube, Shobha and Sujeet Kumar Yadav. 2018. Socio – Economic profile of tribal dairy farmers in Godda of Jharkhand. *International Journal of current microbiology and applied sciences*, **7**: 2727-2733.

Senthil Kumar, R., Ramkumar, B.S. Meena, S. Subash and Asif Mohammad. 2012. Entrepreneurial Behaviour of Dairy Farmers. *Indian Journal of Dairy Science*, **65**(1): 174-177.

Sharma, P.K., B.S. Shekhawat and M.K. Chaudhary. 2012. Knowledge of dairy farmers about improved animal husbandry practices in Kheda district of Gujrat. *Journal Krishi Vigyan*, **1**: 49-53.

Srivastava, R.M. 1982. Cattle in Culture and Economy of Tribal Mundas of Bihar.Unpub.Ph.D. Thesis, Kurukshetra University, Kurukshetra, Haryana.

Subramanian, V. 1992. A study on the impact of milk producer's cooperative societies in Thanjavur District, Unpub. M. V. Sc. Thesis,Tamil Nadu University of Veterinary and Animal Sciences, Chennai, Tamilnadu.

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