



## Socio-Economic Profile of Tribal Poultry Farmers In Nadia District of West Bengal

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### ABSTRACT

*This study was conducted in five tribal adopted villages viz. Mollabelia, Nischintapur, Basantapur, Brahmapur and Panpur of the Nadia district of West Bengal during January, 2011 to December, 2012 where a front line demonstration on Vanaraja poultry birds was proposed with two specific objectives, viz., (i) to study the demographic profile of the tribal poultry farmers and (ii) to study the housing and feeding systems followed by the farmers for keeping poultry under village conditions for socio-economic development of Scheduled Tribes (ST) community. Women members of farmers' family played a major role (72%) in the rearing of poultry. Scavenging with local feed/kitchen waste was found to be 25.33% and concentrates feeds was found to be 9.33%. Pond water as the source of water for poultry was found to be very common (60%) and in only 12% cases farmers used well water and 28% tube well water.*

**KEYWORDS :** Vanaraja birds, feeding and housing systems, tribal poultry farmers

### INTRODUCTION

Poultry keeping in India is as old as its civilization. Despite this poultry farming in the country remained a disorganized backyard venture only to be patronised by poor and weaker sections of the society. However, the backyard farming is improving the economic status of a large majority of tribal rural families from lower socio-economic strata in the rural/tribal areas. Backyard farming fulfills a wide range of functions e.g. the provision of meat and eggs, food for special festivals, chicken for traditional ceremonies, pest control and petty cash-while requiring minimal external inputs, minimal human attention, and causing minimal disruption to the environment. Vanaraja, a dual type high yielding chicken developed by Project Directorate on Poultry, Hyderabad exclusively for free range poultry farming in rural and tribal areas and successfully introduced in various parts of our country is giving promising productive and reproductive performance under backyard system of management. Keeping in view of its importance for socio-economic development of poor people mainly Scheduled Tribes (ST) community a front line demonstration on Vanaraja poultry birds was proposed with two specific objectives, viz., (i) to study the demographic profile of the tribal poultry farmers and (ii) to study the housing and feeding systems followed by the farmers for keeping poultry under village conditions.

### MATERIALS AND METHODS

The present study was conducted in Nadia district of West Bengal during January, 2011 to December, 2012. Nadia district lies between 22°52'30" and 24°05'40" parallels of North latitudes and 22°08'10" and 88°48'15" meridians of East Longitudes. Considering the need for availability of data and accessibility of the area, five tribal villages viz. Mollabelia, Nischintapur, Basantapur, Brahmapur and Panpur of the Nadia district of West Bengal are selected purposively for the present study. Seventy five families from five villages belonged to Scheduled Tribes (ST) community and already accustomed to poultry rearing, were randomly selected. Two thousand two hundred fifty Vanaraja poultry birds were procured from West Bengal University of Animal and Fishery Sciences, Mohanpur Campus, Nadia, West Bengal, and thirty birds were hand-

ed over to each of the farmer families. The study area is located in the worm-humid zone having three distinct seasons, viz., summer, monsoon and winter. The birds were maintained under the backyard system of management. Before going to the final data collection, a pilot study was carried out, and accordingly a structured interview schedule was constructed through participatory method. The data were collected through face-to-face interview and by direct observation method. Data pertaining to farmers' socio-economic parameters, viz., sex, education, occupation and annual income were recorded. Information on housing and feeding systems of poultry rearing like housing duration, housing location, type of houses, type of floor, roofing pattern, feeding and grazing pattern were recorded. Data were analyzed following the standard statistical methods (Snedecor and Cochran, 1967).

### RESULTS AND DISCUSSION

#### Socio-economic profile of tribal poultry farmers

The socio-economic profile of the tribal poultry farmers in terms of sex, education and income is presented in Table 1.

**Table 1: Socio-economic profile of tribal poultry farmers in selected villages of Nadia district of West Bengal**

Variables	Category	Total number	Percentage (%)
Sex of farmers	Men	21	28.00
	Women	54	72.00
Education of farmers	Illiterate male	11	14.66
	Primary standard male	8	10.66
	Secondary standard male	2	2.66
	Illiterate female	39	52.00
	Primary standard female	10	13.33
	Secondary standard female	6	8.00

Occupation of farmers	Landless, small and marginal farmers	45	60.00
	Agricultural labourers	19	25.33
	Small business holders	8	10.66
	Service men	3	4.00
Annual income	Low income group (within Rs. 15000.00)	51	68.00
	Medium income group (Rs. 15000.00-25000.00)	17	22.66
	High income group (Above Rs. 25000.00)	7	9.33

### Sex

Women members of farmers' family played a major role (72%) in the rearing of poultry. However, the male members of the family were also involved (28%) in rearing of the poultry (Table 1). Sankhyan *et al.* (2013) reported that almost all family members participated in local chicken management and provided labour for chicken husbandry but majority of routine works such as cleaning, feeding, collection of egg were usually practiced by females, whereas males were generally involved in construction/maintenance of shelter and scavenging activities. In many cases children participated in various activities like provision of supplementary feed and water.

### Educational status

Poultry farmers under study were illiterate (66.66%); out of which 14.66% were male and 52% were female (Table 1). Sankhyan *et al.* (2013) reported that majority farmers belong to medium family size and are having education up to primary level in north western Himalayan state of Himachal Pradesh, India. Kanwat *et al.* (2012) reported that majority of the respondents (88.58%) were literates and but still 11.42% of the respondents of them were illiterates. High level of illiteracy among tribal farmers of the region is due to fact that education system still in infant stage.

### Occupation

Poultry farming is much popular amongst the landless, small marginal farmers (60%), followed by the agricultural labourers (25.33%), whereas, only 10.66% of small business holders and 4% of service men are involved in poultry rearing (Table 1). Kanwat *et al.* (2012) reported that majority of the respondents (65.70%) involved in poultry farming were laying from 31 to 45 years. Sankhyan *et al.* (2013) found that the land holding was 44.0% marginal, 48.8% small and 7.7% landless farmers.

### Income of farmers' family

Annual income of most of the poultry farmers (68%) was within Rs. 15000, and 22.66% farmers earned medium annual income (Rs. 15000-25000), and only 9.33% farmers earned more than Rs. 25000 per year (Table 1). Kumaresan *et al.* (2008) reported that the village chickens are an important income source for household expenses, and that traditional free-range poultry production in the smallholder sector of developing countries can possibly be improved through the use of improved dual-purpose birds. Naga Raja Kumari and Subrahmanyeswari (2014) reported that backyard and small scale poultry farms are viable enterprises, only when the scavenging base is sufficient to feed the birds. Sankhyan *et al.* (2013) reported that the annual income of most of the households engaged in rural poultry farming is less than Rs. 25,000/annum, while few farmers also belongs to medium income category (up to Rs. 50,000/annum).

### Poultry housing and feeding systems

Poultry housing and feeding systems followed by the tribal poultry farmers in the selected villages of Nadia district is presented in Table 2.

**Table 2: Poultry housing and feeding systems followed by the tribal poultry farmers in selected villages of Nadia district of West Bengal**

Variables	Category	Total number of families rearing poultry	Percentage (%)
Housing duration	Night only	51	68.00
	Both day and night	11	14.66
	No housing	13	17.33
Housing location	With other animal	43	57.33
	With human	17	22.66
	Separately	15	20.00
Type of houses	Kachcha	48	64.00
	Pucca	8	10.66
	Partially pucca	19	25.33
Type of floor	Earthen floor	63	84.00
	Brick finished	7	9.33
	Cement floor	5	6.66
Roofing pattern	Covered	11	14.66
	Half covered	31	41.33
	Open	33	44.00
Feeding pattern	Source of feeds		
	Scavenging only	49	65.33
	Scavenging and local feed/kitchen waste	19	25.33
	Commercial feed supplementation	7	9.33
	Source of drinking water		
	Pond water	45	60.00
	Well water	9	12.00
	Tube well water	21	28.00

### Poultry housing system

Survey indicated that majority of farmers kept their poultry confined during night only (68%), some farmers kept their poultry confined during both day and night (14.66%) and no housing was provided to poultry in 17.33% cases. Farmers housed their poultry with other animals (57.33%) and with themselves in their dwelling places (22.66%); 20% farmers kept their poultry separately. Results indicated that 64% farmers housed their poultry in *kachcha* house, 10.66% in *pucca* and 25.33% in partially *pucca* house. Floor was found to be earthen floor (84%), brick finished (9.33%) and cemented floor (6.66%). Roofing pattern was found to be covered (14.66%), half covered (41.33%) and open (44%) (Table 2). Sankhyan *et al.* (2013) reported that the local chicken was reared predominantly under free range scavenging system. During the day time bird freely scavenge in the area around the household and at night is provided a shelter in most of the cases (97.19%). Poultry houses consisted predominantly of wooden material and usually single storied.

### Poultry feeding system

Results indicated that about 65.33% of poultry farmers used to rear poultry by scavenging only. Scavenging with local feed/kitchen waste was found to be 25.33% and concentrates feeds was found to be 9.33%. Pond water as the source of water for poultry was found to be very common (60%) and in only 12% cases farmers used well water and 28% tube well water (Table 2). Sankhyan *et al.* (2013) reported that the kitchen leftover, insect, worms, crop residues, grass and grains were mainly used as feed materials, although most of the farmers provided the supplementary feed, but the amount is unknown and variable in most cases. Corn was the most common supplement, followed by wheat, whereas very few commercial feed. As far as water is concern, there is free access to it but the quality was poor due to unhygienic drinkers and unreliable water sources.

## CONCLUSION

From the present study, the following conclusions may be drawn:

*From socio-economic profile study, it can be said that poultry farming is still an occupation of poor ST community. For any poultry improvement programme, female members should be engaged in training programme. Training should be offered in such a way that illiterate people can follow this.*

From housing system study, it can be said that awareness programme should be strengthened in light of providing housing to the poultry as 17.33% family provided no housing for their poultry, which is essential for scientific poultry production management; poultry farming away from human dwelling as they may transmit zoonotic diseases; and improving the condition of the poultry houses including floor and roof.

From feeding system study, it can be said that backyard poultry farming system of management, it is better to change feeding pattern, *i.e.* locally available feed/kitchen waste should be given to the poultry birds. As a sizeable number of farmers provide pond water for drinking purpose, the quality of pond water should be taken care of to reduce the water borne diseases.

## REFERENCES

1. Kanwat, M., Meena, M.S., Suresh Kumar, P., Choudhary, V.K. and Bhagawati, R. (2012) Measurement of attitude towards the adoption of backyard poultry farming in Arunachal Pradesh. *Journal of Agricultural Science*. 4 (3): 131-136. | 2. Kumaresan, A., Bujarbaruah, K.M., Pathak, K.A., Chhetri, B., Ahmed, S.K and Haunshi, S. (2007) Analysis of a village chicken production system and performance of an improved dual purpose chicken under a subtropical hill agro-ecosystem in India. *Tropical Animal Health and Production*. 40 (6): 395-402. | 3. Naga Raja Kumari, K. and Subrahmanyeswari, B. (2014) Productive Performance of Rajasri Bird at Farmer's Backyard: A Study in Southern State of India. *International Journal of Livestock Research*. 4 (6): 20-28 | 4. Sankhyan, V., Katoch, S., Thakur, Y. P., Dinesh, K., Patial, S. and Bhardwaj, N. (2013) Analysis of characteristics and improvement strategies of rural poultry farming in north western Himalayan state of Himachal Pradesh, India. *Livestock Research for Rural Development*. Volume 25, Article #211. Retrieved January 15, 2015, from <http://www.Irrd.org/Irrd25/12/sank25211.htm> | 5. Snedecor, G.W. and Cochran, W.G. (1967) *Statistical Methods*. 8th Edn., The Iowa State University Press, Ames, Iowa, USA. |