

Livelihood Security for Tribal Household through Backyard Poultry Rearing in Chhattisgarh

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ABSTRACT

The present study was carried out in the Bastar district of Chhattisgarh. The 120 poultry rearers (12 respondents from each village) were randomly selected from two blocks (Bakawand, Jagdalpur) of Bastar districts of Chhattisgarh. The data were collected from selected poultry rearers through a structured interview schedule after pre-testing. The findings of the study revealed (55.83%) that poultry rearers belonged to Gond tribe with primary to secondary level education and small size family, agriculture as primary (51.67%) and poultry as secondary occupation (35.38%), with medium flock size (11-16) desi birds and reared with a locally available material available in house. Majority of the respondents were marginal to small land holding, getting average gross annual family income of Rs 42954.2±2197.88 in which poultry contributes about Rs 3957.5±117.23. They reported that (68.33%) got 35-39 eggs per year per bird with average of 36.48±0.18 eggs at a price of Rs 7.01±0.07 in local market and feriwala. Whereas average body weight gain was 1.41±0.02 kg per bird per year and average selling price of Rs 310.21±2.06 per Kg live birds.

Key words : Backyard poultry, Livelihood security, Chhattisgarh, Tribal.

Backyard poultry is an important source of supplementary income and nutrition security for a large number of tribal poor households across the country (Ahuja and Sen, 2007). Even with proliferation of the industrial poultry on a large scale, backyard poultry constitutes a significant proportion of the total poultry population at the national level and the demand of eggs and meat of rural areas is fulfilled by backyard poultry rearing (Nandi et al., 2007; Panda et al., 2008). Backyard poultry birds provide cheap, readily harvestable protein-enriched white meat and eggs with high quality, digestible protein for immediate home consumption and sale for income generation. It also provides an important role to fulfil the need of stress free and harmful residues free birds (Mandal et al., 2006).

Backyard poultry is kept with minimal input of resources and is considered by most smallholders as supplementary to the main livelihood activities. The birds scavenge to find feed and are rarely provided more than kitchen leftovers, although supplementation with cheap grains or leftovers from the keepers' own grain production does occur. The backyard poultry farming is more beneficial to marginal, land less labourers, tribal and backward class people. Backyard poultry generate petty cash for house hold requirement in addition provide balanced food with minimum inputs available in the rural areas. Feeding of the backyard poultry is made easy by using household wastes, farm products and green vegetation, besides free scavenging for waste grains and insects. The backyard rearing certainly improves the economic status of a majority of tribal families from lower socio-economic groups in the tribal areas.

METHODOLOGY

The present study was purposively conducted in Bastar district of Chhattisgarh. The Bastar district

comprises seven blocks out of which two blocks (Bakawand and Jagdalpur) were chosen randomly. From each block five villages were selected randomly and from each village 12 poultry rearers were selected randomly making a total 120 poultry rearers for the study. The data were collected using well-structured and pre tested interview schedule by covering all the dimensions of nutritional and livelihood security i.e. flock size, production performance, selling price, annual income of family and income from poultry. Relevant data pertaining to the study were collected, analyzed using frequency, percentage analysis and interpreted.

RESULTS AND DISCUSSION

All the backyard poultry respondents reported that they rear desi type coloured birds. Desi birds seem to be the promising native chicken for low input free range system of rearing for meat and egg production in tribal areas.

Table 1
Distribution of respondents according to occupation

Occupation	Total(N=120)	
	Primary	Secondary
Labour	36 (30.00)	31 (25.83)
Agricultural farming	62 (51.67)	25 (20.83)
Animal husbandry	0 (0.00)	21 (17.50)
Business/trade and commerce	12 (10.00)	0 (0.00)
Service	10 (8.33)	0 (0.00)
Poultry	0 (0.00)	43 (35.83)

Figures in parentheses indicate percentages

Tribes : In the study area majority (53.83%) of the respondents on belonged to Gond tribes, followed by Bhatra tribe (15.00%), Halba (11.67%), Muriya (7.50%), Mariya (4.17%), Kawar (3.33%) and Oraon (2.50%).

Occupation : The data presented in Table 1 revealed that 51.67 per cent respondents had agriculture farming as primary occupation followed by labour (30.00%), business (10.00%) and service (8.33%), whereas (35.83%) respondents had poultry as secondary occupation followed by labour (25.83%), agriculture farming (20.83%) and animal husbandry (17.50%).

The primary occupation of both the blocks was agriculture whereas backyard poultry farming was found to be a secondary and subsidiary occupation for majority of the respondents. It could provide gainful employment to the family members and utilize the baron and fallow land available with the rearers. Similar finding was also reported by Meena et al. (2012) in the study area of Rajasthan.

Table 2
Distribution of respondents according to flock size

Flock size	Total(N=120)
Low (5-11)	29 (24.17)
Medium (11 -16)	64 (53.33)
High(16-22)	27 (22.50)
Mean ± SE	13.31±0.382

Figures in parentheses indicate percentages

Flock size : Table 2 revealed that average flock size were 13.31 birds. The Table further revealed that majority 53.33% of poultry rearers were found to rear medium size flock 11-16, followed by 24.17 % had small flock 5-11 and 22.50% had large flock size 16-22. It indicates that farmers rear poultry at small scale, as a secondary source of nutritional and livelihood security, which is easily sold for gift in marriage or other ceremonies.

Body weight gain per bird per year : It was evident from Table 3 that 41.67 percent respondents reported that their birds gain body weight between 1.50-1.75 kg, whereas 35.00% between reported body weight gain 1.25-1.50 kg and (23.33%) respondents reported birds gain body weight between 1.0-1.25kg. The average body weight gain was 1.41 kg per bird per year.

Egg production per year : The findings in Table 3 revealed that majority 68.33% poultry owners reported that they got 35-39 eggs per year per bird whereas 20.83% respondents claimed 32-35 eggs per year per bird and 10.83% reported 39-42 eggs per year per bird. The average production of egg per year were 36.48 eggs. Although the productivity performance is very low of desi bird reared by tribal, but selling price of eggs and live bird is very high than cross breed poultry

Table 3
Distributions of respondents according to average weight gain per year and eggs production per bird per year

Production parameter	Total (N=120)
Body weight gain per bird per year(in kg)	
Low (1.0- 1.25)	28 (23.33)
Medium (1.25 -1.50)	42 (35.00)
High (1.50-1.75)	50 (41.67)
Mean ± SE	1.41±0.02
Number of eggs produced per bird per year	
Low(32-35)	25 (20.83)
Medium(35 -39)	82 (68.33)
High(39-42)	13 (10.83)
Mean ± SE	36.48±0.18

Figures in parentheses indicate percentages

birds which help in compensating livelihood security. Similar results were also reported by Saha (2003) on backyard poultry rearing in West Bengal.

Selling price per egg : Table 4 revealed that majority (60.00%) respondents sold their eggs between Rs 6.5-7.5. About 25.83% respondents sold egg at a price of Rs 7.5-8.5 whereas only 14.17% of the respondents sold eggs between Rs 5.5-6.5. Surplus eggs were marketed by the backyard poultry rearers. The average price of an egg was Rs 7.01.

Selling price per bird : The data presented in Table 4 clearly showed that majority (45.00%) of the respondents sold their live birds at a price between Rs

Table 4
Distribution of respondents according to selling price of egg (Rs per egg) and live birds (Rs per kg live bird)

Selling price	Total (N=120)
Selling price of eggs (Rs per egg)	
Low(5.5-6.5)	17 (14.17)
Medium(6.5 -7.5)	72 (60.00)
High(7.5-8.5)	31 (25.83)
Mean ± SE	7.01±0.07
Selling price of live birds (Rs/Kg)	
Low(270-297)	30 (25.00)
Medium(297 -324)	54 (45.00)
High(324-350)	36 (30.00)
Mean ± SE	310.21±2.06

Figures in parentheses indicate percentages

297-325, whereas 30.00% sold at a price between Rs 324-350 and 25.00% respondents sold their birds between Rs 270-297. The average price of selling the live bird was Rs 310.21 per kg live bird. The surplus live birds and eggs are marketed direct to consumer, local village market and feriwala during festivals and marriage ceremonies depending upon the availability of resources. Similar results were also reported by Khan (2006) on unorganized poultry farming in Uttar Pradesh.

Table 5

Distributions of respondents according to their total annual family income and annual income from poultry

Annual income	Total (n=120)
Gross annual family income	
Low(13500-50667)	81 (67.50)
Medium(50667 -87833)	32 (26.67)
High(87833 -125000)	7 (5.83)
Mean ± SE	42954.2±2197.88
Annual income from poultry	
Low(1500-3200)	31 (25.83)
Medium(3200 -4900)	62 (51.67)
High(4900 -6600)	27 (22.50)
Mean ± SE	3957.5±117.23

Figures in parentheses indicate percentages

Gross family income : A perusal of data given in Table 5 revealed that majority (67.50%) poultry rearers belonged to low income category, followed by medium (26.67%) and high (5.83%) income from all sources including poultry farming. This may be because of, majority of respondents being either landless or marginal rearers and possessing small flock size. The average annual income from all the sources was Rs 42954.2. Similar finding was also reported by Harilal

(2013) in Andhra Pradesh. So majority of the poultry rearers belonged to below poverty line (BPL) category.

Gross annual income from poultry : With respect to annual income from poultry, the data in Table 5 revealed that majority (51.67%) poultry rearers were in medium income group, followed by low (25.83 %) and high (22.50 %). The average annual income from poultry was Rs 3957.5. In Chhattisgarh backyard poultry is identified as a significant livelihood activity for many poor tribal families. However, poor families maintained local strains with low productivity and low level of income.

CONCLUSION

Backyard poultry rearing overall impact in improving household nutritional security were achieved directly through the increased availability of highly proteinisious poultry meat, egg and indirectly through increased cash income acquired through it, imparts immense role in regulating the livelihood of tribal community. It's a means of income generation, source of protein, poverty eradication and employment for tribal family. Market oriented backyard

poultry farming significantly contribute to farmers livelihood, in terms of food and cash, often minor changes in technical and institutional dimensions generate handsome returns for farmers. However inadequate animal health and extension services, which either do not reach the poor and marketing strategies that are often disconnected with production and productivity issues, limit the contribution of poultry to rural livelihood. Changes in the current policy and institutional setting such as an increased focus on nondescrit birds and the inclusion of poultry in the current system of animal health services will definitely enhance the contribution of poultry to farmer livelihood, thereby reducing poverty and increasing food security.

Paper received on : February 23, 2015

Accepted on : March 17, 2015

REFERENCES

- Ahuja, V. and Sen, A. 2007. Scope and space for small scale poultry production in developing countries, *International Conference "Poultry in the 21st Century: Avian Influenza and Beyond"*, Bangkok, November : 5-7.
- Harilal, R. 2013. Livelihood Security of Rural Households through Backyard Poultry (Byp) Rearing In Andhra Pradesh, *Research Directions*, 1(4).
- Khan, M. A. 2006. Study of organized and unorganized sector of poultry production in Uttar Pradesh. *M.V.Sc, Thesis. Indian Veterinary Research Institute*, Izatnagar, Uttar Pradesh.
- Mandal, M.K., Khandekar, N. and Khandekar, P. 2006. Backyard poultry farming in Bareilly district of Uttar Pradesh, India: An analysis, *Livestock Research for Rural Development*, 18(7).
- Meena, K.C., Singh, B. and Shivhare, M.K. 2012. Nutritional and Livelihood Security through Backyard Poultry for small and landless labours, *Current Opinion in Agriculture*, 1(1): 24-26
- Nandi, S., Sharma, K., Kumar, P. and Nandi, D. 2007. Poultry farming: A rapidly growing profitable business, *Poultry Line*, 7(12): 19-20.
- Panda, A.K., Raju, M.V.L.N. and RamaRao, S.V. 2008. Poultry production in India: opportunities and challenges ahead, *Poultry Line*, 8(1): 11-14.
- Saha, D. 2003. Status of rural poultry production in North 24 Parganas district of West Bengal. *M.V.Sc. Thesis, Indian Veterinary Research Institute*, Izatnagar, Uttar Pradesh.