

Involvement of Tribal Women and Children in Traditional Poultry Rearing Practices in Pali District of Rajasthan

Pankaj Lavania¹, M.P. Verma^{2*}, L.K. Jain³ and Rashmi Bhinda¹

¹Department of Animal Production, College of Agriculture, (AU, Jodhpur), Mandor, Jodhpur (Rajasthan), India.

² Department of Animal Production, College of Agriculture, (AU, Jodhpur), Sumerpur, Pali (Rajasthan), India.

³Department of Agronomy, College of Agriculture, (AU, Jodhpur), Sumerpur, Pali (Rajasthan), India.

(Corresponding author: M.P. Verma*)

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ABSTRACT: Poultry farming is one of the subsidiaries for economic and social upliftment in agriculture sector. Rural poultry farming using native breeds is being practiced in many developing and underdeveloped countries throughout the world. Importance of native birds for rural economy is immense in different countries. The first priority of today's rural poultry farmer is not only having birds which lay just more eggs but also having birds which lay eggs. The role of tribal women and their children in the traditional poultry production practices were investigated in Pali district of Rajasthan under Tribal Sub Plan (TSP) scheme sponsored by Division of Education, ICAR, New Delhi. Different aspects were investigated nature and extent of involvement of family members in different activities of poultry rearing in terms of operations. Findings of present study concluded that participation of tribal women is comparatively more in housing, feeding, watering, health care, and hatching of chicks which were contributed to a larger extent in increasing the household income of the family. The income was generated from backyard poultry rearing was utilised for household celebrations, recreation purpose, as a gift to relatives and also to extend the poultry flock production depending upon the felt needs. From this study, it can be concluded that the back yard poultry production with full participation of tribal women helped in empowering women's of tribal communities in Pali district of Rajasthan. The Government is making concerted efforts to create an ecosystem to support their hard work so that the farmers get optimum returns on a sustainable basis. It would go a long way encourage farmer across India to follow the recommended practices and enhance their income. Thus, paving a way of sustainable poultry production for doubling of farmer's income in arid eco system. The article portrays the need for providing capacity building and extension programme to tribal households, which can go long way in making backyard poultry as a tool for rural upliftment.

Keywords: Backyard, Involvement, Poultry, Economic venture, Management practices.

INTRODUCTION

Livestock is the lifeline for the farming community. It acts as a vital source of dietary protein by providing foods like, milk, meat and eggs for human consumption (Channappa *et al.*, 2023). Traditional poultry farming is as old as its civilization and it occupies a pivotal place in India due to its huge potential to bring about rapid economic growth with low investment (Mishra, 2022). Keeping of poultry birds in the backyards, one of the age old practices in India and is a promising option for rural livelihoods and also provides valuable animal protein source through egg and chicken meat. Poultry production has grown spectacularly throughout the world of 23 per cent in developed and 76 per cent in developing countries. There is evidence that investments in small scale poultry farming generate handsome returns and contribute to poverty reduction

(Jha and Chakrabarti 2017). Backyard poultry, by supplying high quality nutrient in the form of meat and egg, not only improve family nutrition but also substantial increase over all income of household through surplus sale poultry and poultry products. As per livestock census 2019 the rural population in India is 317.7 million and has shown a 45 per cent growth over 2012 (Kantwa *et al.*, 2022). Rajasthan has less than 2 per cent poultry population as well as egg production of the country (Yadav *et al.*, 2018). Poultry industry in India has transformed itself from the age-old backyard farming into a dynamic agri-based industry. Backyard poultry farming system profitability can be increased if we adopt an improved indigenous strain of poultry birds (Chatterjee Cand Rajkumar 2015). Moreover, the consumer have liking for eggs and poultry of indigenous poultry compared to those

realized from farm bred chickens or exotic bred (Jha and Chakrabarti 2017). The poultry birds reared in the backyard poultry farming are also important for the point of view biodiversity as they act as a natural scavenger. The growing demand for indigenous poultry products and low investment in back yard poultry sector provides opportunity for the rural farmers (Aparna *et al.*, 2021). The popularity of chicken is on the rise during the last two decades and presently accounting for about 45 per cent of the total meat consumed, therefore has become the most popular meat from any single livestock species (Singh, 2019). Rural areas, backyard poultry rearing activity is considered to be one of the women exclusive work and the women are liable for the care and management of the birds (Deka *et al.*, 2014). The crucial role of women in agriculture and allied occupations has however, grossly underestimated and undervalued. Women in all regions perform a variety of roles. Many of these roles are of great economic significance (Jhajharia *et al.*, 2018). Sangwan *et al.* (1990) reported that there is distinct sphere of participation between male and female in farm and dairy sectors in which men are involved in planning and women in implementation of the activity. Livestock based Integrated Farming System project in Schedule Tribal component erstwhile Tribal Sub plan (TSP) funded by Division of Education, ICAR, New-Delhi implemented by the Agriculture University, Jodhpur in Bali block of Pali district, Further, livestock based an integrated farming system (IFS) inclusive of backyard poultry offer unique opportunities for maintaining and extending biodiversity to make the farm income double by 2022 (Lavania, 2021). Women in tribal society play a important role in their social, cultural and economic ways of life and are considered as economic asset in the tribal society. In spite of, their

contribution has not been identified fully and acknowledged (Dave *et al.*, 2020). Noticing the participation of family members in rural poultry production, it was felt necessary to understand their role in management. The present investigation was designed to the nature and extent of involvement in terms of operations.

MATERIAL AND METHODS

The Pali district comprises of 10 tehsils, out of which Bali tehsil purposively selected for the study due to maximum tribal population in the district, where the project being implemented. 10 villages were selected on the basis of tribal population and from each village, 20 poultry farmers were selected randomly for the present study. To select the villages, a comprehensive list of all the villages consisting backyard poultry farming in Bali tehsil was arranged in consultation with the individual of revenue department and Agriculture Technology Information Centre. Thus, the sample was comprised of 120 respondents. The information's were collected by personal interview based on the participation of family members in poultry rearing in terms of operation and income utilization from poultry keeping. Collected data were tabulated and analysed by using suitable statistical methods.

RESULTS AND DISCUSSION

Profile characteristics of respondent. The rural people have adopted back yard poultry rearing as their subsidiary enterprise to utilize the family labour and ensure livelihood for the family. The choice and way of using the family labour by an individual respondent for different poultry rearing practices. The results of the survey are depicted in Table 1.

Table 1: Profile characteristics of respondents (n=120).

Sr. No.	Particulars	Category	Frequency	Percentage
1.	Age	Young (Below 35 years)	27	22.50
		Middle (Between 36-49 years)	77	64.17
		Old (Above 50 years)	16	13.33
2.	Education	Illiterate	69	57.50
		Primary	38	31.67
		Middle	10	8.33
		Secondary	03	2.50
3.	Family type	Nuclear	85	70.83
		Joint	35	29.17
4.	Occupation	Laborer	55	45.83
		Agriculture	30	25.0
		Animal husbandry and poultry	35	29.17
5.	Experience in poultry farming	Low (<5 years)	11	9.17
		Medium (5-10 Years)	95	79.17
		High (>10 years)	14	11.67

The study showed that majority were middle-aged (64.17%) had no education (57.50%) to a primary level of education (31.67%) with nuclear type of family (70.83%). Majority of the respondents reported laborer

as main source (45.83%) of occupation followed by agriculture (25.0%) and animal husbandry and poultry (29.17%) with medium experience of backyard poultry farming (79.17%). The results are in close agreement

with the findings of Budharam *et al.* (2021); Yadav *et al.* (2018); Tailor (2017).

Production parameters of *desi* birds. The results of study regarding performance of rural birds are presented in Table 2. Average flock size of *desi* poultry was 18.3 birds which showed that majority of respondents kept poultry at small scale for secondary occupation by utilizing the family resources. The average age of maturity was 23.6 weeks, average egg production per year was 46.5 sold @ Rs. 9.0/egg. Present findings are corroborated with the findings of Chaturvedani *et al.* (2015); Jha and Chakrabarti (2017); Yadav *et al.* (2018). Production potential of non-

descript birds reared by rural women were quite below in comparison to improved indigenous backyard breed of poultry developed by various institutions, in spite of this poultry rearers are comparatively fetching more price on account of sale of poultry and its product due to liking of consumers. It was also observed during the survey, none of the farmers reported any problem regarding the sale of chicken and eggs. These results are in close agreement with the findings of Rao *et al.* (2005) who reported that due to non-availability of poultry products, the prices are up to 25 percent higher in rural/tribal areas compared to those prevailing in the urban and semi-urban markets.

Table 2: Production parameters of rural poultry farming of *desi* birds.

Parameter	Pooled (n=120)
Average flock size	18.3±4.2
Average age of puberty (weeks)	23.6±2.4
Average egg production/Yr/bird (No)	46.5±1.9
Average selling price /egg (Rs)	9.0±0.7
Average selling weight of live birds(Kg)	1.8±0.3
Average selling price of bird(Rs)	450.2±22.5

Involvement of family members in rural poultry farming. The results of the survey regarding the involvement of family members in different management practices of poultry rearing were estimated and presented in Table 3. Present study indicated that children of family were not largely involved in strenuous activities in terms of operations of poultry production. The woman of tribal's family, in addition to their routine household duties also contributed in

poultry rearing practices. Singh and Srivastva (2016) reported that involvement of rural women to be predominant in livestock and domestic related activities. Men look at the poultry as an additional source of income, without much investment and women consider poultry useful as a cheap source of protein for the family members. Results of present study are corroborated with findings of Chaturvedani *et al.* (2015); Motin *et al.* (2014); Dave *et al.* (2020).

Table 3: Involvement of family members in different poultry production activities (n=120).

Sex	Operation in backyard poultry production					
	Housing	Feeding	Hatching of chicks	Cleaning Corrals	Health	Marketing & Consumption
Male	36 (30.0)	40 (33.33)	24 (20.0)	13 (10.83)	46 (38.33)	48 (40.0)
Female	57 (47.5)	51 (42.5)	61 (50.83)	71 (59.17)	56 (46.67)	52 (43.33)
Children	27 (22.5)	29 (24.17)	35 (29.17)	36 (30.0)	18 (15.0)	20 (16.67)

Figure in parenthesis are percentage

Utilization of income from backyard poultry farming. It was considered important and interesting to find out utilization of the income of tribal women received poultry enterprises. The data pertaining to this aspect has been presented in Table 4. Majority (89.17%) of the tribal women reported that their income generally incurred to fulfill the household needs followed by (75.83%) for further strengthening of animal husbandry including poultry (74.17%) and for recreation purpose (74.17%). While, very few tribal women (7.50%) also share their bad experiences during

survey that a part of income was force fully taken up by their husband, it was spent on bad habits like drinking, smoking and gambling etc., which showed the exceptional command of tribal women's as far as concerned over income utilization of income generation from the backyard poultry rearing and ultimately supported in empowering women in tribal communities of Pali district of Rajasthan. The present findings are in lieu with the earlier findings were reported by Chaturvedani *et al.* (2015); Jahjharia *et al.* (2018); Rao *et al.* (2018).

Table 4: Percentage distribution of respondents by utilization of income from poultry enterprises (n=120)

Particular	Frequency (F)	Percentage (%)
Education	33	27.50
For household	107	89.17
Recreation	89	74.17
Part of income is saved	48	40.00
Spent in family members sickness	24	20.0
Animal husbandry including poultry	91	75.83
Income spent in husband's bad habits	9	7.50

CONCLUSIONS

Backyard poultry production is being recognized as important component of socio economic development among the tribal community of rural society is not only meets the nutritional security but also economic venture for resource poor farm families in terms of livelihood and economic security and help in checking the people migration to urban/semi-urban areas. So, animal husbandry including, poultry production is considered to be an effective tool to combat poverty. Even though, it is a secondary occupation, the statistics of this region reflects the production and productivity is comparatively below to its maximum production potential. In order to bring a change in their poultry farming practices through various initiatives including, innovations, interventions, technologies, training and front line demonstration focused towards tribal households brought some improvement but still there are considerable gaps for improvement.

FUTURE SCOPE

Promoting improved birds as self employment enterprise among the tribal households in rural areas and would help to alleviate poverty and achieving nutritional security of the rural households. Therefore, focus should be on capacity building of tribal households and to ensure availability of improved germplasm for keeping in backyard poultry production system at farmers' doorstep.

Author Contributions. Use this forum to specify this contribution of each author of research article: prepared questionnaires and document the data's during the part of study, symmetry and analysis of data as per the demand of study to draw the inference.

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Conflict of interest. None.

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