



STUDIES ON THE SOCIO-ECONOMIC STATUS OF BACKYARD POULTRY FARMERS IN TRIBAL AREAS OF DUNGARPUR DISTRICT OF RAJASTHAN

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ABSTRACT

The present investigation was conducted on backyard poultry production system in the Faloj cluster tribal dominated Dungarpur district of southern Rajasthan. Total 100 respondents were selected for the study from 5 villages. The selected respondents belong to schedule tribe and schedule caste of Hindu religion. 60 per cent respondents live in nuclear families. The family size of surveyed respondents was mostly more than 6-8 members (51%). The overall literacy rate in NAIP and non NAIP family was 63.38 and 56.19 per cent respectively. Likewise the overall literacy in family heads, male children and female children was 48, 68 and 68.14 per cent respectively. All the selected respondents depend on agriculture + animal husbandry as a main occupation and live in kaccha house. Majority of the respondents (51%) had small holding (less than 1 ha), (92%) had liking for improved poultry breed .

Key Words : Tribal, Backyard, Socio-economic, Education, Poultry, Dugarpur, Rajasthan

Among livestock based vocations, poultry occupies a pivotal position to bring about rapid economic growth particularly benefiting the tribal areas and weaker sections mainly because it needs low capital investment and assures quick returns. Moreover, it can be undertaken even by farmwomen. Egg production was around 66.45 billion, poultry meat production is estimated to be about 2.47 billion tonnes and current per capita availability of eggs is around 55 eggs in 2011-12 as per the report of APEDA. The traditional system of poultry keeping although still prevalent in tribal and rural areas of the country is losing its importance day-

by-day under the impact of modernization and industrialization. Importance of backyard poultry has been globally recognized to overcome worsening problems of poverty, hunger, and malnutrition in tribal areas. Traditional backyard poultry production in tribal area is practiced since time immemorial, which was the primary source of animal protein and supplementary income for the tribal peoples and only source of poultry eggs and meat for urban peoples before poultry industrialization. No doubt poultry industrialization in the country in recent two decades has assured the availability of eggs and meat in urban areas but the first

problem observed from the change in poultry production system was neglect of the traditional poultry husbandry in villages which was the primary source of animal protein and supplementary income for more than 50% of the population of this country. More than 75% of eggs and almost 100% of broilers produced in the organized farms around urban areas are consumed in cities and towns leaving the vast demand in rural areas to be met by desi fowls. One must remember the backyard egg is the cheapest and produced by a foraging hen. In this system few hens (5-20) are kept in each family, which is mostly reared by women along with other household chores. Birds receive housing only in the form of the night shelter. They are fed minimally by kitchen waste and left to subsist and scavenge by themselves in field. Productivity of the desi birds under this system is very low. It is essential to evaluate and understand the local production system, its limitation, opportunity, and ways to improve it. Arunachalam and Thiagarajan (1999) studied the livestock farming structure of Tamil Nadu state. Mandal and Gautam (2003) studied the backyard poultry farming in R. S. Pura of Jammu. The poultry farming structure and its income in certain parts of Tamil Nadu was reported by Arunachalam *et al.* (2004). Whereas Mandal *et al.* (2006) studied the backyard poultry farming in Bareilly district of Uttar Pradesh. The backyard poultry farming respondents of Garhwal prefer to live in nuclear family (Singh and Jilani, 2005). Add review of literature the present was therefore, proposed to study the current status of backyard poultry in the selected villages of the tribal belt of Southern Rajasthan.

MATERIALS AND METHODS

Methods and procedures used in the present study are described under following heads.

Selection of location

Dungarpur is one of the most backward districts of Rajasthan (India) having 70.8 % of populations are tribal. The present study was conducted in Dungarpur district situated in the southern part of Rajasthan and geographically characterized by the Aravali ranges. The district lies between 23.8°N latitude and 73°E longitude.

Administratively this district is divided into five tehsils and five panchayat samities. Average rainfall of the district is 65-70 cm per year. Dungarpur district was selected because National Agriculture Innovation Project (NAIP) runs under Maharana Pratap University of Agriculture and Technology, where this work is to be conducted. Dungarpur district consists of five tehsils are in tribal dominated. Faloj cluster was selected for present study because it has maximum tribal population (72%). Not only this it also has maximum number of beneficiaries under NAIP. For selection of villages a comprehensive list of all the villages having back yard farming poultry in selected cluster was prepared based on the data collected from revenue department, Agriculture Technology Information Center (ATIC) and Krishi Vigyan Kendra (KVK). Selection of villages was done based on the number of beneficiaries under NAIP. The selected villages were Faloj, Ghatau, Futitalai, Dhani and Dabela.

Selection of respondents

For selection of respondents, comprehensive list of farmers engaged in backyard poultry farming was prepared for each identified village with the help of agriculture supervisor and staff of NAIP, MPUAT. Ten farmers each from NAIP and non NAIP families were selected randomly.

Construction of interview schedule

The interview schedule included general informations i.e. caste, religion, occupation, educational level, family members, land holding, residence (house type), family types and livestock holding of respondents.

Conducting the interview and data collection

Before conducting the interview and collection of data from respondents, specific objectives and the purpose of the survey was explicitly explained to them. The question in the schedule were presented to them in their own dialect and Hindi ensuring that they perceived the questions correctly so as to avoid any interpretational variation of the question by the respondents. The answers obtained were recorded and only one

respondent was interviewed at a time.

Tabulation of data

The collected data was first transferred to a master sheet from which appropriate tables were formulated keeping in view the specific objectives of study. Wherever necessary the data were quantified according to standards laid down in consultation with subject matter specialists, agriculture supervisor and poultry owners. The data were tabulated.

For the analysis of data the statistical parameters viz., frequency distribution, percentage and mean were used

RESULTS AND DISCUSSION

Family status of respondents

The data presented in Table 1 indicated that 60 per cent backyard poultry respondents prefer to live in nuclear family and rest 40 per cent in joint family. In NAIP the percentage of respondents living in nuclear and joint family was 64 and 36 per cent whereas in non NAIP it was 56 and 44 per cent respectively. All the selected respondents belong to schedule tribe of Hindu religion. The overall data reveal that 12% respondents were from small family (less than 5 members), 51% respondents from medium family (6-8 members) and rest 37% from large family (more than 8 members). In case of NAIP respondents 54 per cent belong to medium, 30 per cent to large and only 16 per cent belongs to small family size whereas in non NAIP

respondents, 48 per cent belong to medium, 44 per cent to large and only 8 per cent belong to small family size. Thus, it can be inferred that non NAIP respondents had relatively bigger family size as compared to NAIP. The overall literacy in respondents was 71%, while in NAIP and non NAIP respondents the literacy percentage was 67 and 66 respectively. It may be due to low level of education and ignorance of family planning measures among them.

All the backyard poultry respondents were belonging to schedule tribe cast of Hindu religion. It was due to higher population of hindu living in study area. Similarly, Mandal *et al.* (2006) worked in Bareilly district of Uttar Pradesh found that all the respondents belonged to Muslim religion and were from the general category. From the results 60 per cent backyard poultry respondents prefer to live in nuclear family while the remaining 40 per cent lived in joint family in the both surveyed area. The information collected from these areas indicted that backyard poultry rearing family posses 6-8 members (medium family). These observations are similar with the observations of Singh and Jilani (2005) and with respect to medium sized and nuclear was also in agreement with Mandal *et al.* (2006).

Educational level of family members

The data presented in Table 2 depicted that in NAIP the literacy among male children and female children was 73.14 and 71.93 respectively whereas in non NAIP families it was 63.25 and 64.29 in male female children

Table 1: Family status of NAIP and non NAIP respondents

Type of family	NAIP	Per cent	Non NAIP	Per cent	Overall
Nuclear	32	64	28	56	60 (60%)
Joint	18	36	22	44	40 (40%)
Size of family					
Small < 5	8	16	4	8	12 (12%)
Medium 6-8	27	54	24	48	51 (51%)
Large > 8	15	30	22	44	37 (37%)
Educational level of respondents (family head)					
Illiterate	12	24	17	34	29 (29%)
Literate	38	67	33	66	71 (71%)

Figures in parenthesis indicate percentage

respectively. In case of male adult 58.43 and 52.08 per cent were literate in NAIP and non NAIP group, respectively whereas 41.57 and 47.92 per cent male adult were illiterate in NAIP and non NAIP group respectively. In educational level of female adult all the members were illiterate in both NAIP and non NAIP group. It was observed that the literacy rate was lower in non NAIP as compare to NAIP. Hence, it can be concluded that literacy level among the NAIP respondents was higher than that of non NAIP.

Higher number of members in the family may be due to lack of knowledge about family planning programme for small sized family. The literacy rate among the backyard poultry respondents was 71 per cent, while 29 per cent were illiterate. The literacy rate of overall male children was 68 per cent female children 68.14 and male adult 55.14. The variation in literacy rate was also observed by Mandal *et al.* (2006), reported the low level of education among backyard poultry respondents. As a result of low literacy rate,

there is poor adoption of poultry rearing technology in both surveyed area.

Distribution of respondents according to their land holding

It is evident from the data presented Table 3 that overall 51 per cent respondents have less than 1 ha, 38 per cent have 1-2 ha and 11 per cent have more than 2 ha land. Among NAIP respondents the percentage of family having was small, medium and large land holding 48, 40 and 12 per cent, respectively whereas in non NAIP respondents it was 54, 36 and 10 per cent, respectively. Total land holding of all the respondents were 95.15 ha which accounted for 67.03 per cent cultivated area. Out of 48.40 ha land possessed by NAIP respondents 29.04 ha was cultivated. Similarly out of 46.75 ha land possessed by non NAIP respondents, 34.78 ha was cultivated. The main occupation of all the respondents covered under NAIP and non NAIP was agriculture + animal husbandry. All

Table 2: Educational level of NAIP and non NAIP family members.

No. of members		NAIP	Per cent	Non NAIP	Per cent	Total
Male children	Literate	79	73.14	74	63.25	153 (68%)
	Illiterate	29	26.86	43	36.75	72 (32%)
Total		108	100	117	100	225
Female children	Literate	82	71.93	72	64.29	154 (68.14)
	Illiterate	32	28.07	40	35.71	72 (31.86)
Total		114	100	112	100	226
Male adult	Literate	52	58.43	50	52.08	102 (55.14)
	Illiterate	37	41.57	46	47.92	83 (44.86)
Total		89	100	96	100	185
Female adult	Literate	38	44.71	31	39.24	69 (42.07)
	Illiterate	47	55.29	48	60.76	95 (57.93)
Total		85	100	79	100	164

Figures in parenthesis indicate percentage

Table 3: Distribution of NAIP and non NAIP respondents according to their land holding.

Size group	NAIP	Per cent	Non-NAIP	Per cent	Overall
Small < 1ha	24	48	27	54	51 (51%)
Medium 1-2 ha	20	40	18	36	38 (38%)
Large > 2 ha	6	12	5	10	11 (11%)
Size of land					
Uncultivated (ha)	19.36	40	11.97	25.60	31.33 (32.93)
Cultivated (ha)	29.04	60	34.78	74.40	63.82 (67.03)
Overall	48.40	100	46.75	100	95.15

Figures in parenthesis indicate percentage

the 100 respondents was kaccha house. The results obtained in the present investigation are contradiction to the findings of Mandal and Gautam (2003) who reported that main occupation of respondents was agricultural labour. All the respondents live in kaccha house. Majority of respondents (51%) have less than 1 ha land. This is in line with the finding of Mandal *et al.* (2006) and Mandal and Gautam (2003). Total land holding of respondents was 95.15 ha in both the surveyed area.

Animal resources

The data presented in Table 4a and 4b revealed that the total livestock maintained by the respondents, **17.73** per cent were cow, **3.43** per cent buffalo, **8.64** per cent sheep, **28.96** per cent goat and maximum **41.22** per cent were poultry. In NAIP, out of total **1261** livestock holding the percentage of cow, buffalo, sheep,

goat and poultry was **15.38**, **3.33**, **7.13**, **28.46** and **45.67** respectively, whereas among non NAIP out of **949** total livestock holding the percentage of cow, buffalo, sheep, goat and poultry was **20.86**, **3.58**, **10.64**, **29.61** and **35.35** respectively. Thus poultry rears were maximum in NAIP family.

Liking of poultry breed

All the NAIP respondents like to rear improved bird whereas in non NAIP respondents **92** per cent like improved bird but rest 8 per cent still like to rear desi bird.

The survey shows that poultry was mainly kept by poor men and they have maximum number of poultry i.e. **41.22** per cent compare to other livestock. It infers that area selected for the study was poultry rearing tract and supported by National agriculture Innovation Project. Livestock maintained by the respondents includes **17.73** per cent were cow, **3.43** per cent buffalo,

Table 4 a: Livestock holding of NAIP and non NAIP respondents.

Livestock	Age Condition	Gender	NAIP	Per cent	Non NAIP	Per cent	Overall
Cow	Young	Male	26	2.06	29	3.05	55 (2.48%)
		Female	16	1.26	18	1.89	34 (1.53%)
	Adult	Male	98	7.77	103	10.85	201 (9.09%)
		Female	54	4.28	48	5.05	102 (4.61%)
	Total		194	15.38	198	20.86	392 (17.73%)
Buffalo	Young	Male	6	0.47	4	0.42	10 (0.45%)
		Female	8	0.63	6	0.63	14 (0.63%)
	Adult	Male	4	0.32	1	0.10	5 (0.22%)
		Female	24	1.90	23	2.42	47 (2.12%)
	Total		42	3.33	34	3.58	76 (3.43%)
Sheep	Young	Male	9	0.71	16	1.68	25 (1.13%)
		Female	12	0.95	11	1.15	23 (1.04%)
	Adult	Male	7	0.55	10	1.05	17 (0.76%)
		Female	62	4.91	64	6.74	126 (5.70%)
	Total		90	7.13	101	10.64	191 (8.64%)
Goat	Young	Male	19	1.50	24	2.52	43 (1.94%)
		Female	74	5.86	35	3.68	109 (4.93%)
	Adult	Male	28	2.20	19	2.00	47 (2.12%)
		Female	238	18.87	203	21.39	441 (19.95%)
	Total		359	28.46	281	29.61	640 (28.96%)
Poultry	Chicks	Male	126	9.99	73	7.69	199 (9.00%)
		Female	158	12.52	84	8.85	242 (10.95%)
	Adult	Male	292	23.15	178	18.75	470 (21.26%)
		Female	576	45.67	335	35.35	911 (41.22%)
	Total		1261	100	949	100	2210 (100%)

Figures in parenthesis indicate livestock species wise percentage

Table 4b: Liking of poultry breed of NAIP and non NAIP respondents

Liking of poultry	NAIP	%	Non-NAIP	%	Overall
Improved	50	100	42	84	92 (92%)
Desi	0		08	16	8 (8%)
Overall	50	100	50	100	100 (100%)

Figures in parenthesis indicate percentage

8.64 per cent sheep, 28.96 per cent goat and maximum **41.22** per cent poultry. Similar, reports was made by Arunachalam and Thiagarajan (1999) and Arunachalam *et al.* (2004). All the NAIP respondents like to rear improved bird whereas, **92** per cent of the non NAIP respondents like improved breed. Thus most of the those respondents including both NAIP and non NAIP prefer improved breed owing to higher production and body weight as compared to desi breed.

REFERENCES

- Arunachalam S and Thiagarajan M (1999).** Livestock Farming Structure in Tamil Nadu State. *Cherion*, **28**: 96-101.
- Arunachalam S, Thiagarajan M and Ramesh V (2004).** The poultry farming structure and its income in certain parts of Tamil Nadu. *Indian Veterinary Journal* **81**: 176-178.
- Mandal M K and Gautam (2003).** Status of backyard poultry farming in R.S. Pura Tehsil of Jammu District. *Journal of Interacademia*, **7**: 491-493.
- Mandal M K, Khandekar N and Khadekar P (2006).** Backyard poultry farming in Bareilly district of Uttar Pradesh, *India: an analysis. Livestock Research for Rural Development*, **18**: 101.
- Singh C B and Jilani M H (2005).** Backyard poultry farming in Garhwal Himalayas. *Indian Journal of Poultry Science* **40**: 195-198.
