Full Length Article

SOCIO-ECONOMIC PROFILE OF DUCK FARMERS IN TAMIL NADU

I. Sharmila*[1], N. Vimalraj Kumar[2], K. Devaki[3] and P. Veeramani[4]
Department of Veterinary and Animal Husbandry Extension Education
Madras Veterinary College
Tamil Nadu Veterinary and Animal Sciences University
Chennai- 600 007

ABSTRACT

The present study was carried out in eight highly duck populated districts comprised of four clusters of Tamil Nadu. From each of the clusters, 40 duck farmers were selected randomly to study their socio-economic status. Using a pre-tested, structured schedule, data were collected through face to face interview method. The results of the study revealed that 50.60 per cent of the farmers belonged to old age group (Above 45 years). Most of the farmers were married (92.50 %) and majority of them were found to be illiterate (48.80 %). Most of the farmers found to be rearing ducks as their primary occupation (84.37 %). Highest proportion of farmers (43.75 %) had duck farming experience of 37 – 55 years. The risk-taking abilities of the duck farmers were at medium level (51.50 %). Nearly one-half (48.75 %) of the respondents had contact with input dealers followed by 33.75 per cent had contact with progressive farmers for obtaining information's related to duck farming.

Key words: Socio-economic status, duck farming, duck farmers, Tamil Nadu.

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INTRODUCTION

The poultry sector is an integral part of the farming system and one of the sprightly growing segments of the livestock sector in India. The total livestock population in India is 536.76 million showing an increase of 4.80 per cent and the total poultry in the country is 851.81 million in 2019 with an increase of 16.80 per cent over the previous census (DADF, 2019). In India, the most duck-populated states are West Bengal, Assam, Kerala, Tamil Nadu, Manipur, Jharkhand, Tripura, Bihar, Andhra Pradesh, Odisha and Uttar Pradesh.

Tamil Nadu is known as the poultry capital of India and with total poultry population of 120.8 million, it stands first

[1] M.V.Sc Student, *Corresponding author Email id: sharmigeetha1997@gmail.com
[2] Associate professor and Head, Farmers Training Centre, Theni
[3] Associate professor, Veterinary College and Research Institute, Salem
[4] Professor and Head, Livestock Farm Complex, VCRI, Salem

in poultry production in India. The duck population has been reported to be 2.01 lakhs (20th Livestock Census, 2019). Tamil Nadu contributes 9.7 per cent of total duck population in India. In Tamil Nadu, majority (70.00 %) of the duck population is concentrated in six districts namely Kancheepuram, Thiruvallur, Villupuram, Cuddalore, Vellore and Tiruvannamalai (Sivakumar *et al*., 2009), while the remaining share is being reared by the farmers in considerable number in different regions of Tamil Nadu. Different indigenous duck varieties namely Arni, Sanyasi and Keeri (Gajendran and Karthikeyan, 2011, Veeramani *et al.,* 2016) were being reared by mostly small and marginal farmers in free scavenging systems or nomadic system. Duck rearing provides nutritious duck eggs and meat for their own family consumption and also provides steady income to rural households. The socio-economic status of the duck farmers varies greatly from place to place. In order to introduce new scientific methods and techniques to improve the duck farming in Tamil Nadu it is imperative to explore the social, personal and economic status of the farmers involved in duck farming in Tamil Nadu. With this backdrop, the present study was carried out in eight highly duck populated districts of Tamil Nadu with an objective of assessing socio-economic profile of duck farmers in Tamil Nadu.

METHODOLOGY

An exploratory research design was adopted in this study and eight highly duck populated districts of Tamil Nadu were purposely selected and formed into four clusters *viz.,* Northern cluster (Thiruvallur and Kancheepuram districts), Western cluster (Karur and Erode districts), Eastern cluster (Tiruchirappalli and Thanjavur districts) and Southern cluster (Tirunelveli and Kanyakumari districts) based on their geographical location. From each of the cluster, a sample of 40 duck farmers were selected by adopting snowball sampling technique, thus a total of 160 duck farmers were selected for the study. Data pertaining to the study objective *viz.,* age, marital status, family type and size, educational level, occupation, land holding, livestock possession other than ducks, annual income, years of experience, extension agency contact, social participation, media exposure, risk orientation, innovativeness and economic motivation were collected by personal interview method using a pre-tested structured interview schedule. The data thus collected were coded, tabulated and analysed using appropriate statistical methods and inferences were drawn accordingly.

RESULTS AND DISCUSSION

Socio-personal status of the duck farmers

It could be noted from Table 1 that about one-half of the respondents (50.60 %) belonged to old age group followed by nearly one-third (31.90 %) belonging to middle age and around one-fifth (17.50 %) belonging to young age group. This finding is in agreement with the findings of Veeramani *et al.* (2016) who reported that mostly old age group of farmers were the active participants in duck farming. This might be due to enhanced employment opportunities for young

generation in other arenas. It could also be inferred that nearly one-half of the duck farmers (48.12 %) belonged to Scheduled castes (socially backward castes) followed by nearly two-third (39.38 %) of them belonging to Most backward castes and 11.25 per cent of them belonged to Backward castes and few (1.25 %) belonging to Scheduled tribes. These findings were in line with Halder *et al.* (2016) who reported that most of the duck owners belonged to Scheduled caste. This could be due to the fact that they were economically poor and were adopting duck farming as a traditional occupation.

The Table 1 also indicates that majority of the duck farmers (92.50 %) were married and only a meagre (7.50 %) were unmarried. Similar reports were given by Abhishek (2016) and Das *et al.* (2020). The assistance of family members in duck farming activities reduces labor cost. The results also reveal that nearly one-half of the respondents (48.80 %) had no formal education, followed by nearly one-eighth of the respondents (13.10 %) with primary education and 12.50 per cent were degree holders. Further, it could be observed that only 10.60 per cent of the respondents had middle school level of education and whereas nearly an equal percentage had high school (6.90 %) and higher secondary school education (8.10 %). This finding is in agreement with the study of Rahman, (2020) who reported that about 43.00 per cent of the farmers were illiterate, 33.00 per cent received primary education and 24.00 percent had secondary level education and also with the findings of Cheriyan and Jacob (2023) who reported that about 55.00 per cent had completed their primary education, 20.00 per cent had completed upper primary and an equal percentage (10.00 %) had completed high school and higher secondary education and only few (5.00 %) had earned a degree. This might be due to the fact that most of the respondents rear ducks in nomadic system of farming and as they were in movement from one place to another they might not had the opportunity to get formal education.

Further, it could be observed from the Table 1 that majority of the respondents (70.00 %) had nuclear families with a family size of up to four members and the remaining 30.00 per cent of the respondents were in joint family with a family size of more than four members. Similar findings were documented by Ahaotu *et al.* (2017) and Rahman, (2020). The nomadic pattern of duck rearing in the study area would help the farmers to carry out farming operations with family labors and this might be the reason for the existence of substantial amount of joint family system among the duck farmers. Nearly one-half (43.75 %) of the respondents had high experience in duck farming followed by medium (40.00 %) and low (16.25 %) level of experience. Similar findings were reported by Basriwijaya *et al.* (2022) who reported 60.00 per cent had more than ten years of experience and 35.00 per cent had less than ten years of experience. The experience would have improved their knowledge in duck farming and participation in identifying problems, finding solutions and this would help duck farmers to make decisions related to all the scientific practices to be implemented.

It could be inferred from Table 1 that more than one-half (51.50 %) of the respondents belonged to medium level of risk orientation which indicated that they were skeptical in taking risk regarding modern duck farming activities like introduction of new technology, expansion of farm, *etc.,* followed by high level of risk orientation (33.50 %) and low level of risk orientation (15.00 %) categories. This might be due to the fact that the risk taking abilities to cope up with the daily challenges and demands for duck management decreases with age. This is in accordance with the findings of Kadurumba *et al.* (2019). Table 1 clearly shows that nearly one-half (49.00 %) of the respondents had medium level of economic motivation followed by high level (34.00 %) and low level (17.00 %) of economic motivation. The medium to high level of economic motivation indicated that the respondents were thriving to improve their economic status in order to achieve better socio-economic status. This finding is against the report furnished by Setiarso *et al.* (2017).

Economic status of duck farmers

Table 2, evidently shows that majority of the respondents were landless (93.10 %) followed by marginal farmers (4.30 %) and an equal percentage of the respondents (1.30 %) were small and large farmers. This finding is in line with the study of Hoque *et al.* (2010), Gajendran and Karthikeyan (2011) and Islam *et al.* (2020) who reported that majority of the respondents were landless. From Table 2, it could also be concluded that a huge proportion of the respondents (84.37 %) were primarily duck rearers who had duck farming as their primary occupation and this was similar to the reports of Khanum and Mahadi (2016) and Afrin *et al.* (2017), followed by 6.25 per cent were involved in Agriculture, 1.25 per cent were working as agricultural laborers, 5.63 per cent were daily wage workers and a meagre 2.50 per cent had other occupation. It could also be inferred that daily wages was the subsidiary livelihood source of income for 69.37 per cent and 8.13 per cent were involved in Agriculture,10.00 per cent of the respondents had taken up agricultural laborers as secondary occupation and only few of the respondents (5.00 %) were engaged in other jobs including drivers, tailors *etc.* This could be due to that the respondents in the study area had no knowledge and experience in other occupation and most of them were practicing duck farming over generations as traditional farming learnt from their ancestors.

From Table 2, it could be further noted that just over one-half (57.50 %) of the respondents had an annual income of Rs. 20,000 to 1.30 lakhs and belonged to low level of income, followed by nearly one-third (30.00 %) of the respondents belonged to medium income category with an annual income of 1.30 lakhs to 2.40 lakhs and the rest 12.50 per cent of the duck farmers belonged to high income category with an annual income ranging from 2.40 lakhs to 3.50 lakhs. This is in accordance with the findings of Tamizhkumaran *et al.* (2013). This might be due to lack of proper marketing channel and comparatively low level of consumption of duck eggs and meat in

Table 1. Distribution of duck farmers based on their socio-personal status

Characteristics	Categories	Frequency	Percentage (%)
Age	Up to 35 years	28	17.50
	36 to 45 years	51	31.90
	Above 45 years	81	50.60
Community	OC	0	0
	BC	18	11.25
	MBC	63	39.38
	SC	77	48.12
	ST	2	1.25
Marital status	Married	148	92.50
	Unmarried	12	7.50
Educational status	No formal education	78	48.80
	Primary	21	13.10
	Middle	17	10.60
	High school	11	6.90
	Higher secondary	13	8.10
	Graduation and above	20	12.50
Type of family	Nuclear	112	70.00
	Joint	48	30.00
Size of the family	Small	86	53.80
	Medium	51	31.90
	Large	23	14.30
Experience	Up to 19 years (Low)	26	16.25
	19 – 37 years (Medium)	64	40.00
	Above 37 or 37 – 55 years (High)	70	43.75
Risk orientation	High	55	33.50
	Medium	81	51.50
	Low	24	15.00
Economic motivation	High	54	34.00
	Medium	79	49.00
	Low	27	17.00

Table 2. Distribution of duck farmers based on their economic status

Characteristics	Categories	Frequency	Percentage (%)
Land Holding	Landless	149	93.10
	Marginal	7	4.30
	Small	2	1.30
	Large	2	1.30
Primary occupation	Agricultural	10	6.25
	Duck farming	135	84.37
	Agri labour	2	1.25
	Daily wages	9	5.63
	others	4	2.50
Secondary occupation	Agricultural	13	8.13
	Duck farming	12	7.50
	Agri labour	16	10.00
	Daily wages	111	69.37
	others	8	5.00
Income from duck farming	20,000 – 1,30,000(Low)	92	57.50
	1,30,000 – 2,40,000 (Medium)	48	30.00
	2,40,000 – 3,50,000 (High)	20	12.50
Livestock and poultry (other than ducks)	No Possession	136	85.00
	Small	18	11.25
	Medium	4	2.50
	Large	2	1.25

Table 3. Distribution of duck farmers based on communication variables

Characteristics	Categories	Frequency	Percentage (%)
Extension agency contact	Veterinary Assistant Surgeon	4	2.50
	Input dealers (Feed / Agro agents/ Medical shops)	78	48.75
	Progressive farmers / Local leaders	54	33.75
	Friends and Relatives	24	15.00
Social participation	No participation	140	87.50
	Participation	20	12.50
Mass media usage	Never	116	72.50
	Daily Newspaper	0	0
	Radio	0	0
	Television	0	0
	Mobile	39	24.37
	Meetings	5	3.13

Tamil Nadu the duck farmers are forced to be dependent on few buyers and fetch low prices for their produce.

It could be inferred from Table 2, that most of the respondents (85.00 %) did not have any livestock / poultry other than ducks which was found similar to the study of Rahman *et al.* (2017), followed by nearly one-eighth of the respondents (11.25 %) had small herd size and remaining 2.50 per cent and 1.25 per cent were medium and large livestock herd / poultry flock size respectively. The reason may be due to that majority of the respondents in the study area were landless and nomadic in nature. Also, duck farming simply lowers the availability of labors compared to rearing large animals.

Table 3 clearly indicates that nearly one-half (48.75 %) of the respondents had contact with input dealers followed by one-third (33.75 %) had contact with progressive farmers and 15.00 per cent had contact with friends and relatives for getting information in duck farming. Only few (2.50 %) had contact with Veterinary Assistant Surgeon working in their locality. This is in accordance with the findings of Das *et al.* (2020). This could be due to the fact that rural people almost every

day had contact with their friends/relatives and progressive farmers regarding their farming problems and for personal sources. They were due highly depended on input dealers to avail financial support. Few contacts with Veterinary Assistant Surgeon may be due to distant location of veterinary dispensary and less availability of veterinarians and also varies according to their species interest and it is also time consuming for the farmers. It could be noticed from majority of the respondents (87.50 %) that they were not involved in social participation and only few (12.50 %) were involved in social participation. This finding is in line with the report of Alfred and Agbede (2012) and Das *et al.* (2020). This could be due to the lack of proper organization among duck farmers in the study area and fewer participation may also be due to lack of opportunities and the farmers' own interest.

The Table 3 reveals that 72.50 per cent of the respondents had no mass media usage followed by around one-fourth (24.38 %) of the respondents had mobile phone for using social media and communication purpose. A smaller proportion of 3.13 per cent have attended meetings regarding duck farming. None of the respondents in the study area were using radio, television and newspapers. These findings were against the report of Das *et al.* (2020). This might be due to that majority of the respondents in the study area were illiterate and old aged farmers and had no knowledge in using mass media.

CONCLUSION

From the study it can be concluded that most of the duck farming activities were carried out by old aged group of farmers with high duck farming experience. The innovativeness among the duck farmers was less due to lack of awareness and poor knowledge on adoption of technologies and majority does not have any social contact as well as mass media exposure. This condition could be overcome by extension efforts like trainings, exposure visits, literatures *etc.* for creating awareness on scientific duck farming. Hence, it is high time that policy makers and extension agencies involved in livestock sector organize workshops with all stakeholders and make suitable recommendations for the improvement of duck farming as an alternative source of income for poverty eradication.

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