
AN ANALYSIS OF THE SOCIO-ECONOMIC PROFILE, MARKETING STRATEGIES AND CONSTRAINTS OF BACKYARD POULTRY FARMERS IN THRISSUR DISTRICT OF KERALA STATE, INDIA

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ABSTRACT

A study was conducted in two taluks of Thrissur district of Kerala state, India, to assess the socio-economic profile of poultry farmers, production of birds, health care and marketing and constraints in backyard poultry production system. The poultry farmers were aged above 45 years in both Chalakudy (68 per cent) and Mukundapuram (60 per cent) taluks. Higher proportion of respondents were female in both taluks. In Mukundapuram taluk, most of the farmers (72 per cent) belonged to small (≤ 4) family size. About 40 per cent of farmers had large land holding in Chalakudy and 52 per cent of farmers had marginal land holding in Mukundapuram. The most of the farmers had previous experience in poultry farming. The eggs produced were used for home consumption by 92 per cent of respondents in Chalakudy and 96 per

cent in Mukundapuram. The computed overall mean number of eggs produced per year was 225.56 ± 83.65 in Chalakudy and 230.28 ± 23.25 in Mukundapuram. The mean egg weight ranged from 31.92 to 32.04g in Chalakudy and Mukundapuram respectively. Attack of predators, high feed cost, diseases and shortage of adequate germplasm were the major constraints faced in the present study.

Keywords: Backyard poultry rearing, socioeconomic profile, production, healthcare and marketing

INTRODUCTION

Poultry sector is a fast growing and very flexible enterprise for farmers throughout the world. The developments in poultry production in the past two decades have driven the consumer to prefer chicken eggs and meat as an economical source of

animal protein. Thus, integrated poultry industry has developed with the present resources and latest technology in poultry production. In 2019, there were 851.81 million chickens in the country, a 16.80 per cent rise over the previous census. In 2019, there were 317.07 million backyard chickens across the country, indicating an increase of 45.80 per cent from the previous census (GOI, 2019). The 2019 census data showed a 47 per cent increase in backyard birds in the state, with the total population reaching 132.60 lakh (GOI, 2019). Backyard poultry production often involves indigenous birds with poor performance, with only 70-80 eggs per bird per year for egg production and minimal meat production. The poultry industry in India is primarily organized in nature and accounts for 67 per cent of total output, while the unorganised sector contributes 33 per cent. The Eastern and Southern regions contribute 34.26 per cent and 32.74 per cent, respectively. Thus, the present study was conducted in two mentioned taluks of Kerala, to assess the socio-economic profile of farmers and production performance of poultry.

MATERIALS AND METHODS

The research was carried out in selected panchayats of Mukundapuram and Chalakudy taluks of Thrissur district of Kerala state in India. The management

practices followed in backyard poultry farming were recorded in this study. Multistage random sampling technique was used to select the respondents. Mukundapuram and Chalakudy taluks were selected in the first stage. In total, 25 households from each panchayat were selected. Thus, a total of 50 households formed the sample. Data was collected using a structured questionnaire. Socio economic profile of poultry farmers such as age, gender, education, family type, family size, major occupation, land holding, farming experience, training exposure and reported level of satisfaction were the variables included in this study. Also, the production performance of birds, source of purchase of chicks, health care, marketing of eggs and birds were studied. In health care management, the occurrence of common diseases, prevention methods and treatment practices in backyard poultry were collected and analysed.

RESULTS AND DISCUSSION

The reports of this study on socio economic profile, production performance, health care, marketing practices and constraints in backyard poultry farming are given below.

Socio-economic profile

The findings showed that the majority of respondents in Chalakudy (68

per cent) and Mukundapuram (60 per cent) belonged to age group greater than 47 years of age. This finding was contrary to the observations of Gazi *et al.* (2014), Patel *et al.* (2014) and Samantaray *et al.* (2020) who reported that the average age of poultry owners were 31 to 50 years. Higher proportion of respondents were females from Mukundapuram (64 per cent) and Chalakudy (60 per cent), which was similar to the results of Nath *et al.* (2012), Gazi *et al.* (2014) and Islam *et al.* (2020). With regard to the educational status of respondents it was evident that in Chalakudy, 52 per cent of farmers had completed up to high school education. Four per cent each of farmers completed college and university education. In Mukundapuram taluk 44 per cent of farmers completed high school, 40 per cent had elementary school education, whereas only 8 per cent had college education. The result clearly showed that the most of the backyard poultry farmers from both taluks were educated. These findings were in accordance with that of Nath *et al.* (2012) who opined that most of the poultry farmers were literate, but contrary to Mandal *et al.* (2006) who reported that most of the farmers in Uttar Pradesh were illiterate. In both taluks under study, majority of the respondents belonged to nuclear families. A similar finding was reported by Gazi *et al.* (2014). However contrary reports were made by Patel *et al.* (2014) who reported

that most of the respondents (79 per cent) belonged to joint families in Dahod District of Gujarat.

In Mukundapuram taluk, the per cent of respondents reporting small (≤ 4), medium (5-7), large (> 7) families were 72, 24 and 4 per cent respectively. In Chalakudy taluk, the majority (76 per cent) of the farmers belonged to medium (5-7) sized families. This finding was concurrent with that of Mandal *et al.* (2006) who reported that majority of the farmers (73 per cent) were from medium sized families. With regard to the major occupation of the respondents, analysis of the data indicated that in both taluks, most of the poultry farmers were home makers. In contrast, Patel *et al.* (2014) and Mishra *et al.* (2020) observed that 90.62 per cent of the poultry farmers practiced dairy farming as their secondary occupation. Only 40 per cent of farmers had large land holdings whereas 52 per cent reported possession of marginal land holdings in Chalakudy and Mukundapuram taluks respectively. According to Mandal *et al.* (2006), a higher percentage of respondents (47.92 per cent) had land holding less than one hectare and were marginal farmers. Most of the farmers in Chalakudy and Mukundapuram taluks (88 and 72 per cent respectively) had previous experience in poultry farming. The current study was supported by Deka *et*

al. (2013) who reported that 51 per cent of poultry owners had an experience of more than six years in backyard poultry farming. With regard to the training exposure of the respondents, it was evident from the results of the present study that almost 96 per cent of poultry owners lacked training exposure on management of poultry at Chalakudy and Mukundapuram taluks. Tadesse *et al.* (2013) reported that majority of the respondents perceived training on selection of birds, knowledge of balanced feeding and watering, brooding and hatching, immunisation and preventative measures as being crucial to these enterprises. In both Chalakudy and Mukundapuram taluks, most of the poultry rearers reported being moderately satisfied with this vocation. Mandal *et al.* (2006) opined that high costs of feed and frequent occurrence of

diseases affected poultry farming.

Production performance

The distribution of respondents based on production performance in poultry rearing in per cent is given in Table 1. The computed overall mean of number of eggs produced in each household of Chalakudy and Mukundapuram were 225.56 ± 83.65 and 230.28 ± 23.25 per year respectively. The mean egg weights had ranges of 31.92 ± 0.65 and 32.04 ± 0.62 g in Chalakudy and Mukundapuram respectively.

Type and source of improved chicks

The details of farmers according to the type and source of improved chicks are given in Table 2. Interestingly, respondents reported that poultry eggs were hatched naturally at home, whereas chicks were

Table 1: Production performance of backyard poultry

Variables	Chalakudy (n=25)	Mukundapuram (n=25)
	Mean \pm S.E	Mean \pm S.E
Egg production per year (No.)	225.56 ± 83.65	230.28 ± 23.25
Average egg weight (g)	31.92 ± 0.65	32.04 ± 0.62

Table 2: Distribution of farmers according to the type and source of improved chicks (per cent)

Variables	Category	Taluk	
		Chalakudy (n=25)	Mukundapuram (n=25)
Source of improved chicks	Purchased from Govt. or Private. Hatchery	12	0
	Provided from Governemnt schemes	8	16
	Hatching of eggs naturally at home	56	52
	Purchased from near house	24	32

purchased from nearby houses and from government schemes in both taluks. In Chalakudy taluk, 12 per cent of respondents purchased chicks from government or private hatcheries. Deka *et al.* (2013) and Asresie *et al.* (2015) stated that the native chicken were resistant to diseases and adapted to their surroundings.

Health care

The results on disease occurrence and treatment are presented in Table 3. Majority of respondents reported that they had not encountered any illness among their

flocks of backyard poultry. The prevalence of important diseases such as fowl pox and respiratory diseases were reported in both taluks. The results of the present study revealed that diseases were generally encountered during the summer and rainy seasons.

With regard to whether respondents dewormed or vaccinated their birds, it is evident from data in Table 3 that most of the respondents had not resorted to such recommended measures. This could be due to the fact that their encounters with such diseases were limited. Similar results

Table 3: Distribution of farmers according to health care of poultry rearing (per cent)

Variables	Categories	Taluks	
		Chalakudy (n=25) (%)	Mukundapuram (n=25) (%)
Common diseases	Colibacillosis	8.00	4.00
	Fowl pox	24.00	20.00
	Ranikhet disease	4.00	0
	Respiratory diseases	24.00	12.00
	Nil	40.00	64.00
Season of disease occurrence	Rainy	12.00	4.00
	Summer	24.00	12.00
	Winter	0	0
	Nil	64.00	84.00
Preventive health care measures	Deworming	24.00	12.00
	Vaccination	8.00	0
	Vitamins	0	0
	Nil	68.00	88.00
Treatment	Self	16.00	20.00
	Local expert	44.00	20.00
	Veterinary Doctor	12.00	0
	Nil	28.00	60.00

were reported by Asresie *et al.* (2015) who stated that the native flocks were healthy and suited to their surroundings. Regarding the choice of the respondents for health care provisions to their birds, it was evident from data in Table 3 that the local expert was sought after for this purpose by 44 per cent of poultry owners in Chalakudy and 20 per cent in Mukundapuram taluk. Self-treatment of different ailments that may have been encountered was resorted to in both Mukundapuram (20 per cent) and Chalakudy (16 per cent) taluks. Disease control measures by the respondents were generally herbal in nature with the respondents resorting to the use of local available herbal medicants such as like *tulsi* (*Ocimum tenuiflorum*), turmeric (*Curcuma longa*), onion (*Allium cepa*) etc. The present study highlighted the fact that the veterinary consulting services were readily available at Chalakudy.

Marketing Practices

The distribution of respondents based on marketing practices in poultry rearing is given in Table 4 from which it is clear that majority of the respondents used eggs for their own consumption and sold the surplus ones in both the taluks under study. Birds were not sold by most of the respondents through other sources and markets, rather the respondents sold these at their own premises itself.

Constraints in poultry farming

The difficulties noted by the poultry farmers are given in Table 5. The owners reported that attacks of predators like dogs, wild cats, snakes etc., the high cost of inputs like feed and the high incidence of diseases such as fowl pox, respiratory diseases etc were major constraints faced by them. Another barrier in both taluks was

Table 4: Distribution of farmers according to marketing practices in poultry rearing (per cent)

Variables	Categories	Taluks	
		Chalakudy (n=25) (%)	Mukundapuram (n=25) (%)
Marketing of eggs	Yes	16.00	20.00
	No	84.00	80.00
Marketing of birds	Yes	8.00	4.00
	No	92.00	96.00
Marketing channel for eggs and poultry	Sale at own premises	20.00	16.00
	Sale through village shop keepers	0	0
	Sale in the village market	0	0
	Nil	80.00	84.00

Table 5: Distribution of farmers based on difficulties in poultry farming (per cent)

Variables	Taluks	
	Chalakydy (n=25) (%)	Mukundapuram (n=25) (%)
Attack of predators	35.00	40.00
High cost of inputs	18.00	25.00.
High incidence of diseases	15.00	5.00
Lack of space	12.00	6.00
High hatching mortality	10.00	4.00
Lack of suitable germplasm	6.00	11.00
Lack of financial support	4.00	9.00
Lack of knowledge	0	0

the shortage of adequate germplasm, lack of space for poultry rearing, significant hatching mortality and inadequate financial support from the Government.

SUMMARY

As per the standard questionnaire method, the data on socio-economic profile of poultry farmers, production of birds, health care and marketing and constraints in backyard poultry production in the selected two taluks of Thrissur District were collected and analysed. The poultry farmers were aged above 45 years in both Chalakydy(68percent)andMukundapuram (60 per cent) taluk. Higher proportion of respondents were female in both taluks. In Mukundapuram taluk, most of the poultry rearers (72 per cent) belonged to small

(≤ 4) families. About 40 per cent of farmers had large land holding in Chalakydy and 52 per cent of farmers had marginal land holding in Mukundapuram. Most of the farmers had previous experience in poultry farming. The eggs produced were used for home consumption by 92 per cent of respondents in Chalakydy and 96 per cent in Mukundapuram. The computed overall mean number of eggs produced was 225.56 ± 83.65 in Chalakydy and 230.28 ± 23.25 in Mukundapuram per year. The mean egg weight ranged from 31.92 to 32.04g in Chalakydy and Mukundapuram respectively. High feed cost, inadequate germplasm, attack by predators such as dogs, wild cats, snake etc., and disease occurrence were the major constraints faced in backyard poultry production.

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