
**BACKYARD POULTRY FARMING AS A SOURCE OF
SUPPLEMENTAL INCOME AND FOOD SECURITY: A STUDY OF
CHERANGODE PANCHAYATH**

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ABSTRACT

Backyard poultry farming has emerged as an important livelihood activity in rural areas, particularly for economically weaker households. It provides an affordable source of protein through eggs and meat and generates additional income for rural families. The present study examines the role of backyard poultry farming in improving household food security and supplemental income among residents of Cherangode Panchayath in the Nilgiris district. Primary data were collected from 167 respondents using a structured questionnaire, and both descriptive and inferential statistical tools such as percentage analysis and Chi-square tests were used for analysis. The study finds that backyard poultry farming contributes significantly to household nutrition and income generation, while also empowering rural women. However, several challenges such as disease outbreaks, lack of veterinary services, high feed costs, and limited market access affect its sustainability. The study suggests that awareness programs, veterinary support, and technical training can enhance the productivity and economic benefits of backyard poultry farming.

KEYWORDS: Backyard poultry, supplemental income, food security, rural livelihood, Cherangode Panchayath.

1. INTRODUCTION

Backyard poultry farming is a traditional livelihood activity practiced by rural households in many developing countries. It involves raising small numbers of indigenous or improved chicken breeds in household backyards using locally available resources. This system requires minimal investment and infrastructure, making it highly suitable for small and marginal farmers as well as economically weaker sections of society.

In rural India, poultry farming plays a significant role in improving food security and providing supplemental income to households. Eggs and poultry meat are valuable sources of high-quality protein and essential nutrients, which contribute to better health and nutrition among family members. Additionally, surplus production can be sold in local markets, providing households with an additional source of income.

The Nilgiris district of Tamil Nadu is characterized by rural settlements where agriculture, plantation work, and daily wage labour form the primary sources of livelihood. However, these sources often provide seasonal and irregular income, making it difficult for households to meet their daily needs. In such situations, backyard poultry farming serves as an important supplementary activity that helps households diversify their income sources.

Backyard poultry farming also contributes to women empowerment. Women are often responsible for managing poultry, and the income generated from this activity is frequently used for household expenses, children's education, and healthcare. Therefore, promoting backyard poultry farming can have significant socio-economic benefits for rural communities.

The present study focuses on Cherangode Panchayath in the Nilgiris district and examines the role of backyard poultry farming in generating supplemental income, improving household food security, and identifying the challenges faced by poultry farmers.

1.2 Importance of Backyard Poultry Farming

Backyard poultry farming is an important livelihood activity for rural households because it requires very little investment and can be managed easily with available resources. It provides a regular source of eggs and meat, which improves household nutrition and food availability. For small and marginal farmers, backyard poultry also acts as an additional source of income and helps reduce financial risk during agricultural uncertainties.

1.3 Backyard Poultry and Rural Livelihood

Backyard poultry farming plays a vital role in strengthening rural livelihoods. It provides employment opportunities for family members, particularly women and elderly people, who can manage the birds alongside their daily household activities. Income generated from the sale of eggs and poultry birds supports household expenses such as education, healthcare, and daily consumption needs.

1.4 Role of Women in Backyard Poultry Farming

Women play a significant role in backyard poultry farming in rural areas. They are mainly responsible for feeding, cleaning, and managing poultry birds. Through this activity, women gain financial independence and contribute to the economic stability of their households. Therefore, backyard poultry farming not only improves food security but also supports women empowerment in rural communities.

1.5 Government Support for Backyard Poultry Development

The government and various development agencies have introduced several schemes and programmes to promote backyard poultry farming among rural households. These initiatives provide support in the form of improved poultry breeds, vaccination services, training programmes, and financial assistance. Such support helps farmers increase poultry production and improve their household nutrition and income levels.

1.6 Scope of the Study

The present study focuses on understanding the contribution of backyard poultry farming to household food and nutritional security in Cherangode Panchayath. It examines how poultry farming supports rural families in improving their diet, generating additional income, and strengthening their livelihood security. The study also aims to identify challenges faced by poultry farmers and suggest suitable measures for improvement.

2.1 Review of Literature

Several researchers have studied the role of backyard poultry farming in improving rural livelihoods, food security, and income generation.

Sultana et al. (2012) conducted a study on backyard poultry production in rural Bangladesh and found that the income generated from selling eggs and birds helped households meet daily expenses such as food, clothing, and education. The study concluded that poultry farming acts as an important financial support for low-income families.

Nnadi and Uzochukwu (2013) examined backyard poultry farming in Nigeria and reported that small-scale poultry farming provides consistent supplementary income to rural households. The researchers also observed that poultry farming requires minimal capital investment, making it accessible to poor farmers.

Halima et al. (2014) studied indigenous poultry farming practices in Ethiopia and found that women play a major role in managing poultry activities. The income generated from poultry farming helped women contribute to household expenses and improved their economic independence.

Previous studies also highlight that backyard poultry farming contributes to household food security by providing regular access to eggs and meat. However, several challenges such as disease outbreaks, lack of veterinary services, high feed costs, and limited access to markets affect productivity and income generation.

Despite the growing importance of backyard poultry farming, limited research has been conducted at the local level to examine its socio-economic impact on rural households. Therefore, the present study attempts to analyze the contribution of backyard poultry farming to household income and food security in Cherangode Panchayath.

2.2 Research Gap

Previous studies have discussed financial inclusion, insurance awareness, and saving behaviour among rural populations. However, only a few studies focus specifically on the awareness, participation, and challenges faced by rural beneficiaries in accessing rural insurance schemes at the local level. Most research is conducted at national or state levels and may not reflect the real conditions in specific rural areas. Therefore, this study aims to examine the awareness, participation, and problems related to rural insurance schemes in the selected study area.

3. Objectives of the Study

The major objectives of the study are:

- To assess the contribution of backyard poultry farming to household food and nutritional security.
- To analyze backyard poultry farming as a source of supplemental income.
- To identify the major challenges faced by backyard poultry farmers.

4. Research Methodology

Research Design

The study adopts a descriptive research design to examine the role of backyard poultry farming in improving household income and food security.

Sources of Data

The study uses both primary and secondary data.

- **Primary data** were collected directly from respondents through structured questionnaires and personal interaction.
- **Secondary data** were collected from books, journals, research articles, and government reports related to poultry farming.

Population of the Study

The population includes residents of Cherangode Panchayath involved in backyard poultry farming.

Sampling Design and Sample Size

Convenience sampling was used to select respondents due to the unknown population size. A total of **167 respondents** were selected for the study.

Tools for Data Collection

A structured questionnaire consisting of demographic and poultry-related questions was used.

Statistical Tools Used

The collected data were analyzed using:

- Percentage analysis
- Descriptive statistics
- Chi-square test
- Correlation analysis

5. Data Analysis and Interpretation

Table 1: Chi-Square Test between Education Level and Monthly Poultry Income.

Test	Value	df	Significance (p-value)
Pearson Chi-Square	36.096	16	0.003
Likelihood Ratio	37.210	16	0.002
Linear-by-Linear Association	9.800	1	0.002
N of Valid Cases	167		

Interpretation

The Chi-square test indicates a significant relationship between education level and monthly poultry income ($p = 0.003$). Since the p-value is less than 0.05, the result is statistically significant. This suggests that education level influences the income earned from backyard poultry farming.

Table 2: Chi-Square Test between Occupation and Regularity of Poultry Income.

Test	Value	df	Significance (p-value)
Pearson Chi-Square	25.762	8	0.001
Likelihood Ratio	27.094	8	0.001
Linear-by-Linear Association	6.670	1	0.010
N of Valid Cases	167		

Interpretation

The Chi-square test results show a significant relationship between occupation and the regularity of income from backyard poultry farming ($p = 0.001$). This indicates that occupation plays an important role in determining how consistently respondents earn income from poultry farming.

Table 3: Correlation between Nutritional Improvement and Reduction in Food Expenditure.

Variables	Nutritional Improvement	Reduction in Food Expenditure
Nutritional Improvement	1	0.087
Reduction in Food Expenditure	0.087	1
Significance (p-value)		0.266
N		167

Interpretation

The correlation coefficient ($r = 0.087$) indicates a **very weak positive relationship** between nutritional improvement and reduction in food expenditure. Since the p-value (0.266) is greater than 0.05, the relationship is **not statistically significant**.

Table 4: Correlation between Income Support and Reliability of Poultry Income.

Variables	Income Supports Household Expenses	Reliable Supplemental Income
Income Supports Household Expenses	1	0.067
Reliable Supplemental	0.067	1

Income		
Significance (p-value)		0.392
N		167

Interpretation

The correlation coefficient ($r = 0.067$) indicates a **very weak positive relationship** between income support and the perception of poultry as a reliable supplemental income source. Since the p-value (0.392) is greater than 0.05, the relationship is **not statistically significant**.

The collected data were coded, classified, and analyzed using statistical tools. Percentage analysis was used to examine the demographic characteristics of respondents, while Chi-square tests were used to test relationships between variables such as education level, income generation, and nutritional improvement.

The analysis indicates that many households rely on backyard poultry farming as a supplementary source of income. The sale of eggs and birds contributes to household expenses such as food, education, and healthcare. Regular consumption of eggs also improves the nutritional intake of family members.

However, farmers face several difficulties such as disease outbreaks, lack of veterinary facilities, high feed costs, and market-related problems. These issues reduce productivity and profitability and affect the sustainability of backyard poultry farming.

6. Major Findings

The major findings of the study based on data analysis and interpretation are as follows:

- Backyard poultry farming plays an important role in improving household food and nutritional security by providing regular access to eggs and poultry meat for family consumption.
- The activity acts as a supplementary source of income for rural households, and the income earned from the sale of eggs and poultry birds supports daily household expenses such as food, education, and healthcare.
- The Chi-square test indicates a significant relationship between education level and monthly poultry income, suggesting that respondents with better education are able to manage poultry farming more effectively and generate higher income.
- The analysis also shows a significant association between occupation and regularity of poultry income, indicating that individuals engaged in agriculture or related activities tend to receive more consistent income from poultry farming.

- The correlation analysis reveals a weak relationship between nutritional improvement and reduction in food expenditure, suggesting that although poultry products improve household nutrition, they may not significantly reduce overall food spending.
- Similarly, the relationship between income support and reliability of poultry income is weak, indicating that while poultry farming contributes to household income, it is not yet considered a fully dependable income source.
- Women play a major role in managing backyard poultry farming, including feeding, cleaning, and caring for poultry birds, which contributes to women's participation in household economic activities.
- Farmers face several constraints such as disease outbreaks, lack of veterinary facilities, high feed costs, predator attacks, and limited market access, which affect productivity and income generation.

7. Suggestions

Based on the findings of the study, the following suggestions are proposed to improve the effectiveness and sustainability of backyard poultry farming:

- Training and awareness programmes should be organized to educate farmers about scientific poultry management, disease prevention, and improved feeding practices.
- Government and local authorities should strengthen veterinary services, including regular vaccination programmes and access to poultry healthcare facilities in rural areas.
- Efforts should be made to reduce the cost of poultry feed by promoting locally available feed resources and providing subsidies where possible.
- Development of organized marketing channels and cooperative marketing systems can help farmers obtain better prices for eggs and poultry birds.
- Financial institutions and development agencies should provide small credit facilities or subsidies to support backyard poultry farmers in expanding their activities.
- Women's participation should be encouraged through self-help groups (SHGs) and community-based poultry development programmes.
- Awareness about government poultry development schemes and technical support programmes should be increased to ensure that farmers can benefit from available assistance.
- Local authorities should also promote training on disease control, predator protection, and improved poultry housing to enhance productivity.

8. CONCLUSION

Backyard poultry farming has emerged as an important livelihood activity for rural households in Cherangode Panchayath. The study shows that poultry farming contributes to household food security, nutritional improvement, and supplemental income generation. The activity is particularly beneficial for economically weaker families because it requires minimal investment and can be managed using locally available resources.

The statistical analysis indicates that factors such as education level and occupation significantly influence income generation from poultry farming, highlighting the importance of knowledge and livelihood background in improving productivity. At the same time, the correlation results suggest that poultry farming currently functions more as a supportive income source rather than a fully reliable economic activity.

Despite its benefits, several challenges such as disease outbreaks, high feed costs, limited veterinary services, and poor market access restrict the full potential of backyard poultry farming. Addressing these constraints through training programmes, veterinary support, improved marketing systems, and government assistance can significantly enhance the sustainability and profitability of this activity.

Therefore, promoting backyard poultry farming can serve as an effective strategy for strengthening rural livelihoods, improving nutritional security, empowering women, and supporting sustainable rural development in regions like Cherangode Panchayath.

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