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# Decision making, participation of family members and training needs of backyard poultry farmers in poultry management practices

**Vidya Kumar Jagalur and Manjula N**

## Abstract

Small-scale backyard poultry farming is one way for rural women to make money in their local neighbourhood. The present investigation was carried out in two districts of Karnataka state namely Dharwad and Belgaum. From each district 60 backyard poultry farmers were selected randomly which constituted total sample size of 120. The ex-post facto research design was employed and appropriate statistical tools were applied to analyse the data. The study revealed that, majority (40.00%) of backyard poultry farmers belonged to high decision making category. While, 58.33 per cent of the backyard poultry farmers belonged to medium level of participation in poultry farming activities. About 80.83 per cent backyard poultry farmers expressed that they need training on identification of diseases symptoms and its control, followed by balanced feed preparation using locally available/household ingredients (58.33%), increasing hatchability of eggs (55.00%). Hence, there is a need for timely vaccination and create awareness about it in rural areas.

**Keywords:** Activities, backyard poultry, management practices

## 1. Introduction

In India, the poultry production system is gendered, meaning that women are in responsible of all backyard poultry farming activities, including care and management, feeding, breeding, etc. Poultry can be seen as an excellent tool for augmenting income and giving weaker groups and women in rural areas employment through agriculture and allied sources of revenue. Small-scale backyard poultry farming is one way for rural women to make money in their local neighbourhood.

Backyard poultry, due to its least demanding nature in terms of infrastructure has been widely accepted by the rural poor. Backyard poultry in India is characterized by small flock size consisting of 5-10 predominantly non-descript birds maintained in extensive system under zero or low input venture. It is characterized by indigenous night shelter, scavenging system with little supplementary feeding and natural hatching of chicks due to this the system auto-regenerates. Since majority of the rural households comes under landless or marginal farming category. The backyard poultry farming may emerge as a potent tool for poverty alleviation. Rural mass can generate their livelihood through backyard poultry farming because it is very less expensive, having lesser risk and high capital growth with lesser time. The farmer can do this farming even as their subsidiary or main occupation.

Backyard poultry production forms the basis for transforming the rural poultry sector from subsistence to a more economically productive base. Also, increased backyard poultry production would result in a positive impact on household food security both in terms of increased dietary intake as well as income generation. Hence, increasing meat and egg production from backyard poultry has been a major concern of Government of India for many years and supported by various programmes to improve backyard poultry production. Debendra, Giriraja, Gramapriya, Krishna-J, Swarnadhara, Vanaraja etc.

## 2. Methodology

The study was conducted in Dharwad and Belgaum districts of North Karnataka. By following sample random sampling technique, 60 backyard poultry farmers were randomly selected from each district for the study thus, the total sample size constitute 120 backyard poultry farmers. Data was collected by using structured schedule by personal interview method.

## 2.1 Decision making pattern

Decision making pattern refers to the extent of participation of backyard poultry farmer in decision making of poultry related activities. It was measured with the scale followed by Chaturvedani (2014) [2]. The respondents were given score of 1, 2, 3, 4, 5 for no response, male only, collective, joint (Husband and wife) and female only, respectively. The frequency of responses in each activity was calculated.

Sl. No	Category	Score
1.	No response	1
2.	Independent decision by husband only	2
3.	Collective decision by all family members	3
4.	Joint decision by husband and wife only	4
5.	Independent decision by wife only	5

Further, based on the total scores, the backyard poultry farmers were classified into three categories such as low, medium and high by considering mean and standard deviation as a measure of check as detailed below.

Sl. No	Categories	Score	Range
1.	Low	Below (Mean-0.425SD)	< 56.62
2.	Medium	Between (Mean $\pm$ 0.425SD)	56.62-60.74
3.	High	Above (Mean + 0.425SD)	> 60.74

## 2.2 Participation of family members in poultry farming

It refers to the degree to which the family members involved in poultry farming.

This variable was measured by developing a schedule. A score of 2, 1 & 0 was assigned for Regularly, Occasionally and Never, respectively.

Further, based on the total scores, the backyard poultry farmers were classified into three categories such as low, medium and high by considering mean and standard deviation as a measure of check as detailed below.

Sl. No.	Categories	Score	Range
1.	Low	Below (Mean-0.425SD)	< 10
2.	Medium	Between (Mean $\pm$ 0.425SD)	10-12
3.	High	Above (Mean + 0.425SD)	> 12

## 2.3 Training needs of backyard poultry farmers

It refers to necessary or requirement of an individual in the areas in which awareness, knowledge and skill development are essential to bridge the gap between what is and what ought to be and future status in actual performance of the backyard poultry management practices. The training needs were measured with the help of procedure followed by Asha (2018) [5]. By asking the respondents to give their responses by answering 'Needed' or 'Not needed' with scores of 1 and 0, respectively. Based on the total scores obtained, the backyard poultry farmers were given different ranks suiting to their scores. The training needs were analyzed using frequency and percentage.

## 3. Results and Discussion

### 3.1 Decision making pattern in poultry farming

It is evident from the Table 1 that, 40.00 per cent of backyard poultry farmers belonged to high decision making category. While, 30.83 per cent and 29.17 per cent farmers belonged to medium and low decision making category, respectively.

The decision making pattern of backyard poultry farmers is given in Table 2 indicated that, nearly half (46.00%) of the

decision on housing to be provided for birds was taken by wife only, followed by husband only (21.33%), family members (18.17%) and joint decision by husband and wife only (14.50%).

Further, it is also observed from Table 2 that, 44.58 per cent of the decision on feeding related activities was decided by wife only, followed by collective decision of all family members (27.91%), husband only (16.46%) and joint decision by husband and wife only (11.04%).

Data from Table 2 revealed that, 41.11 per cent of the decision on related to chick production was taken by family members, followed by husband (33.89%), husband and wife only (13.61%) and wife only (11.38%).

It is also observed from Table 2 that, a little more than half (51.94%) of the decision on health care practices was made by all family members, followed by husband only (19.72%), wife only (14.89%) and husband and wife only (13.33%).

It is evident from the Table 2 that, 60.56 per cent of the decision on marketing related aspects was taken by husband only, followed by collective decision of family members (16.39%), joint decision of husband and wife (13.33%) and wife only (9.72%).

Data from Table 2 revealed that, regarding consumption related practices 51.66 per cent decision was taken by women only, followed by collective decision of family members (30.83%), joint decision of husband and wife only (10.41%) and husband only (7.08%).

The possible reasons for above findings might be due to medium level of education and low experience in poultry farming which might have helped them to change the foresight, developed confidence made them to choose good among available alternatives. Men of tenly engaged in poultry management practices. Backyard poultry farming is exclusively woman venture due to the ease of rearing poultry in the backyard and availability of family labours. The similar findings reported by Rameshchandra (2013) [4] in his study found that 58.75 per cent poultry farmers had high decision making ability.

### 3.2 Participation of family members in poultry farming

The data pertinent to participation of family members in poultry farming presented in Table 3 revealed that, more than half (58.33%) of the backyard poultry farmers belonged to medium level of participation in poultry farming activities, followed by high (25.00%) and low level of participation (16.67%), respectively.

The data in Table 4 revealed that, cent per cent of the respondents family members regularly participated in feeding, scavenging and egg collection, followed by cleaning of birds and sheds (89.17%), care of sick birds (71.67%), watering (25.00%) and marketing of live birds/eggs (20.83%). While none of the family member regularly participated in vaccination of birds, purchasing feed and processing of birds.

It is also indicated in Table 4 that, half (50.00%) of family members occasionally participated in marketing of live birds/eggs, followed by processing of birds (44.16%), care of sick birds (28.33%) and purchase of feed (21.67%). While, 15.83 per cent of family members occasionally participated in watering the birds, followed by 10.83 per cent and 4.16 per cent family members occasionally participated in cleaning of birds and sheds and vaccination of birds, respectively.

The probable reason for medium level of participation in

poultry farming might be that, backyard poultry can be easily manageable by family members including children and even old aged people. Backyard poultry does not require any extra skill and manageable with family labours. Rural poultry can generate additional income as well as employment to landless and poor people.

The present investigation gets the support from the finding of Mishra and Badodiya (2015) <sup>[6]</sup> they found that 62.50 per cent of the rural women belong to medium level of participation in agriculture.

**3.3 Training needs of backyard poultry farmers**

It is evident from the Table 5 that 80.83 per cent backyard poultry farmers expressed that, they need training on identification of diseases symptoms and its control (80.83%), followed by balanced feed preparation using locally available/household ingredients (58.33%), increasing hatchability of eggs (55.00%), chick rearing/brooding management (52.50%), protecting chicks from predators (46.66%), termite production and feeding technique (45.83%), entrepreneurship and marketing of eggs and birds (40.83%), control of parasites using ethnoveterinary

preparations (40.00%), candling of eggs (24.16%) and construction of low cost sheds (14.16%).

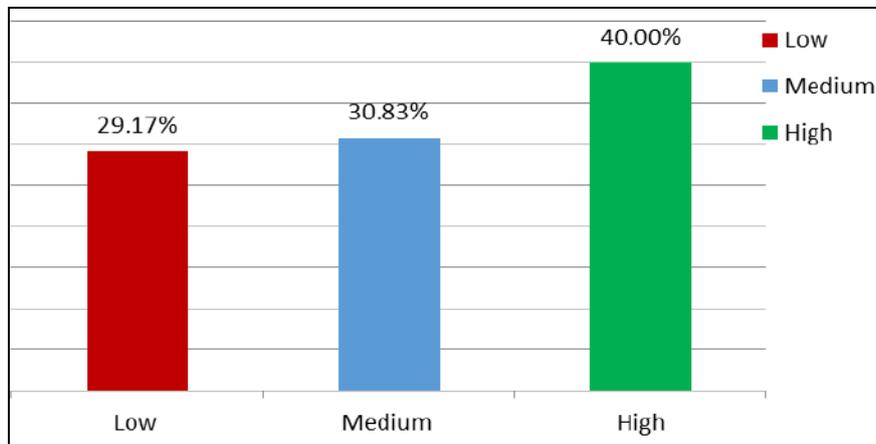
The possible reason might be due to low extension contact and scientific orientation. Less knowledge about balanced and supplementary feeding, medium adoption of housing, feeding, watering, breeding, health care and general management practices. The backyard poultry farmers adopted traditional rearing practices than improved management practices. The decreased rate of hatchability of eggs, because they could not identify whether eggs were fertile or not. Similar findings reported by Singh *et al.* (2013) <sup>[5]</sup> study on training needs of poultry farmers.

**Table 1:** Overall distribution of backyard poultry farmers according to their decision making pattern

(n=120)			
Sl. No.	Categories	Frequency (f)	Percentage (%)
1	Low (<56.62)	35	29.17
2	Medium (56.62 to 60.74)	37	30.83
3	High (>60.74)	48	40.00
Total		120	100
Mean = 58.68 SD = 4.84			

**Table 2:** Decision making pattern of backyard poultry farmers on specific wise practices (n=120)

Sl. No	Activities	Decision making			
		Independent decision by husband only	Independent decision by Wife only	Joint decision by husband & wife only	Collective decision by all family members
		f (%)	f (%)	f (%)	f (%)
<b>A. Housing</b>					
1.	Type of housing	73 (60.83)	17 (14.17)	15 (12.50)	15 (12.50)
2.	Number of birds to be kept	32 (26.67)	41 (34.17)	34 (28.33)	13 (10.83)
3.	Cleaning of poultry house	10 (8.33)	38 (31.67)	24 (20.00)	48 (40.00)
4.	When birds are to be released in morning	6 (5.00)	90 (75.00)	11 (9.17)	13 (10.83)
5.	When birds are to be received in the evening	7 (5.83)	90 (75.00)	3 (2.5)	20 (16.67)
	Average (%)	21.33	46.00	14.50	18.17
<b>B. Feeding</b>					
1.	Feeding ration	48 (40.00)	11 (9.17)	11 (9.17)	50 (41.66)
2.	Scavenging	11 (9.17)	70 (58.33)	17 (14.17)	22 (18.33)
3.	Amount to be fed	8 (6.67)	85 (70.83)	15 (12.5)	12 (10.00)
4.	Times of feeding	12 (10.00)	48 (40.00)	10 (8.33)	50 (41.67)
	Average (%)	16.46	44.58	11.04	27.91
<b>C. Chick production</b>					
1.	Number of eggs kept for natural incubation	17 (14.17)	30 (25.00)	12 (10.00)	61 (50.83)
2.	Chicks purchase from hatchery	41 (34.17)	4 (3.33)	19 (15.83)	56 (46.67)
3.	Selection of cock for breeding purpose	64 (53.33)	7 (5.83)	18 (15.00)	21 (25.83)
	Average (%)	33.89	11.38	13.61	41.11
<b>D. Health care</b>					
1.	Vaccination(s) to be done or not	17 (14.17)	12 (10.00)	16 (13.33)	75 (62.50)
2.	Treatment of sick birds	21 (17.50)	22 (18.33)	10 (8.33)	67 (55.83)
3.	Deworming	33 (27.50)	20 (16.67)	22 (18.33)	45 (37.50)
	Average (%)	19.72	14.89	13.33	51.94
<b>E. Marketing</b>					
1.	Quantity to be sold	30 (25.00)	20 (16.67)	34 (28.33)	36 (30.00)
2.	Place of sale of birds and eggs	99 (82.50)	8 (6.67)	9 (7.50)	4 (3.33)
3.	Minimum price at which birds/eggs/meat are to be sold	89 (74.17)	7 (5.83)	5 (4.17)	19 (15.83)
	Average (%)	60.56	9.72	13.33	16.39
<b>F. Consumption</b>					
1.	Amount of egg consumed at home	3 (2.50)	60 (50.00)	13 (10.83)	44 (36.67)
2.	Amount of meat consumed at home	14 (11.67)	64 (53.33)	12 (10.00)	30 (25.00)
	Average (%)	7.085	51.665	10.415	30.835



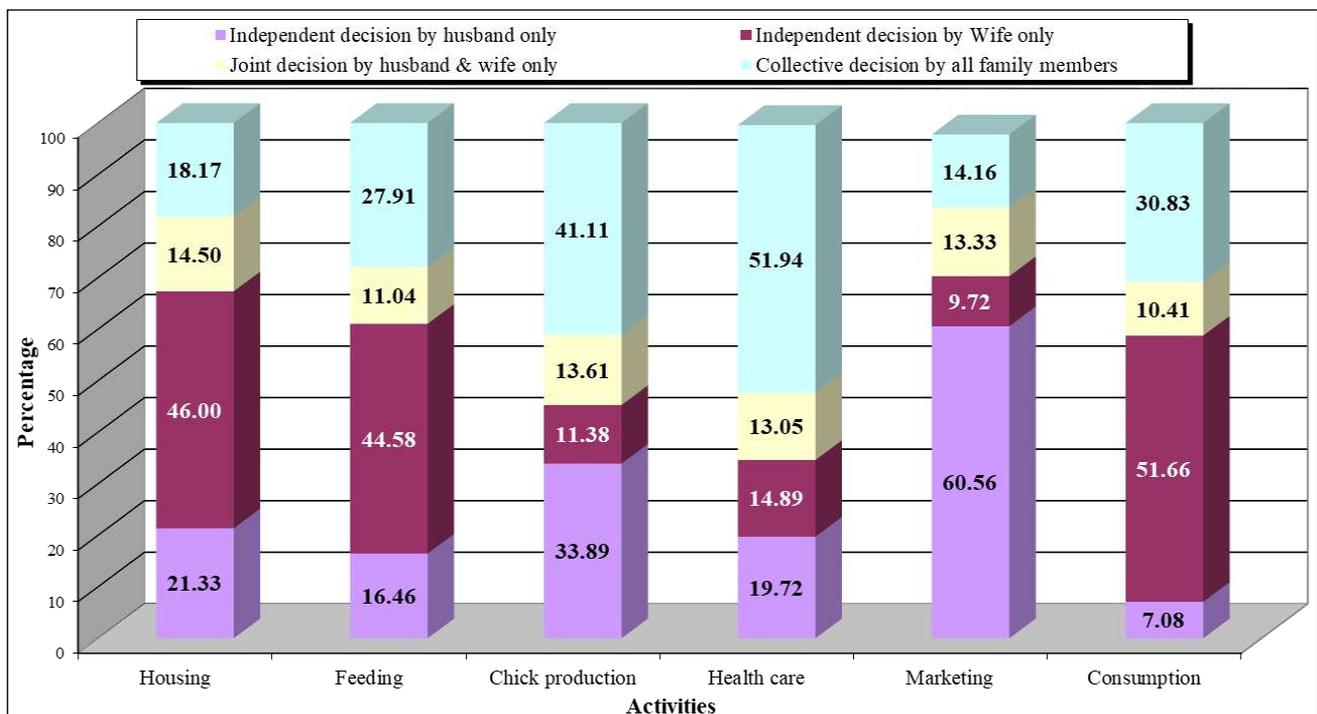
**Fig 1:** Overall distribution of backyard poultry farmers according to their decision

**Table 3:** Overall distribution of backyard poultry farmers according to their family member’s participation (n=120)

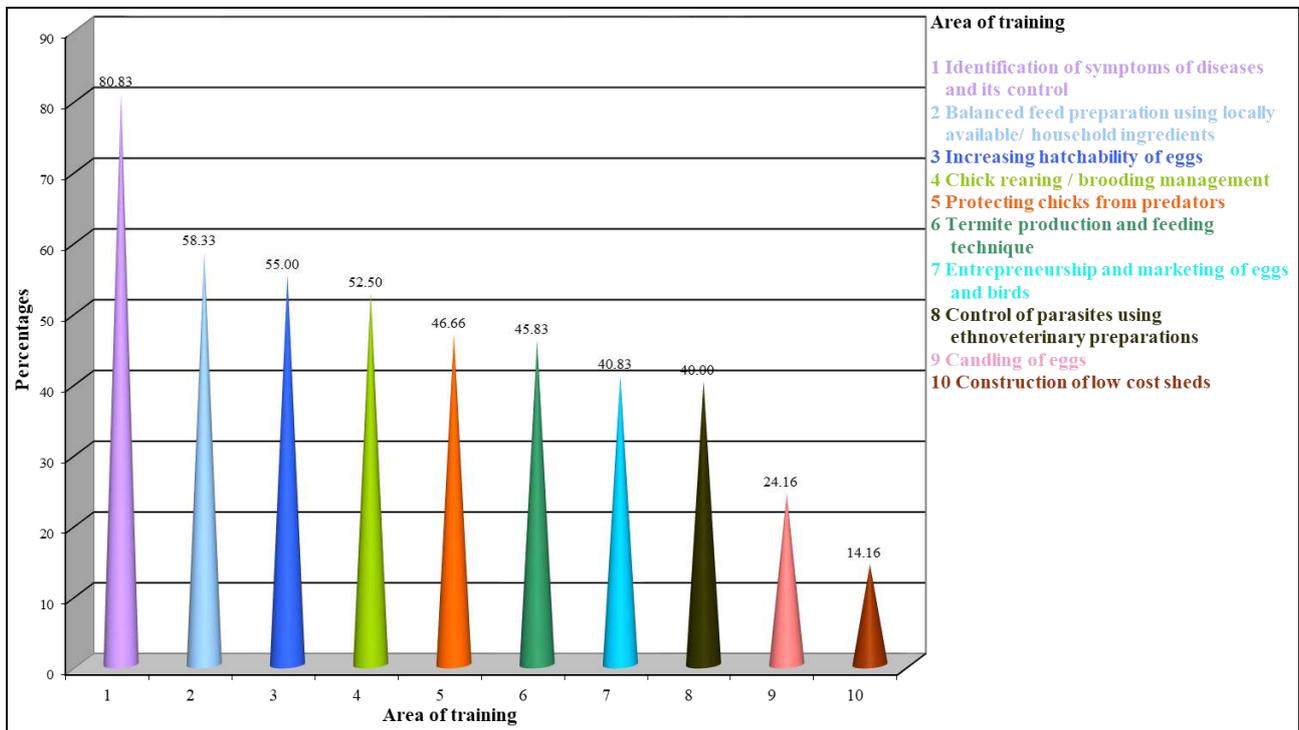
Sl. No.	Categories	Frequency (f)	Percentage (%)
1.	Low (<10.00 members)	20	16.67
2.	Medium (10.00 to 12.00 members)	70	58.33
3.	High (>12.00 members)	30	25.00
	Total	120	100
Mean = 11.27 SD = 1.78			

**Table 4:** Specific activity wise participation of family members in poultry farming (n=120)

Sl. No.	Activities	Regularly		Occasionally		Never	
		f	%	f	%	f	%
1.	Feeding	120	100.00	0	0.00	0	0.00
2.	Watering	30	25.00	19	15.83	71	59.17
3.	Cleaning of birds and sheds	107	89.17	13	10.83	0	0.00
4.	Vaccination of birds	0	0.00	5	4.16	115	95.83
5.	Care of sick birds	86	71.67	34	28.33	0	0.00
6.	Scavenging	120	100.00	0	0.00	0	0.00
7.	Purchase of feed	0	0.00	26	21.67	94	78.33
8.	Egg collection	120	100.00	0	0.00	0	0.00
9.	Marketing of live birds/produce (egg)	25	20.83	60	50.00	35	29.17
10.	Processing of birds for meat	0	0.00	53	44.16	67	55.83



**Fig 2:** Decision making of backyard poultry farmers on specific practices wise



**Fig 3:** Training needs of backyard poultry farmers

**Table 5:** Training needs of backyard poultry farmers (n = 120)

Sl. No	Area of training	Frequency (f)	Percentage (%)	Rank
1.	Identification of symptoms of diseases and its control	97	80.83	I
2.	Increasing hatchability of eggs	66	55.00	III
3.	Candling of eggs	29	24.16	IX
4.	Control of parasites using ethno veterinary preparations	48	40.00	VIII
5.	Termite production and feeding technique	55	45.83	VI
6.	Balanced feed preparation using locally available/household ingredients	70	58.33	II
7.	Construction of low cost sheds	17	14.16	X
8.	Chick rearing/brooding management	63	52.50	IV
9.	Entrepreneurship and marketing of eggs and birds	49	40.83	VII
10.	Protecting chicks from predators	56	46.66	V

**4. Conclusion**

The success of backyard poultry has strengthened rural people livelihood. According to the study, women took part in nearly all aspects of poultry-related activities to a larger extent than men. Additionally, the amount of time spent on these activities is relatively low and women has a good deal of discretion over their choices. In order to pursue poultry as a supplementary occupation without significantly changing their household or daily schedule.

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