

E-ISSN: 2788-9297
P-ISSN: 2788-9289
<https://www.agrijournal.org>
SAJAS 2022; 2(2): 114-119
Received: 10-09-2022
Accepted: 13-10-2022

Vidya Kumar Jagalur
P.G Student, Department of
Agricultural Extension
Education, College of
Agriculture, UAS, Dharwad,
Karnataka, India

Manjula N
Professor, Department of
Agricultural Extension
Education, College of
Agriculture, UAS, Dharwad,
Karnataka, India

Anilkumar GK
Assistant Professor and Head,
Department of Animal
Sciences, College of
Agriculture, UAS, Dharwad,
Karnataka, India

Correspondence Author:
Vidya Kumar Jagalur
P.G Student, Department of
Agricultural Extension
Education, College of
Agriculture, UAS, Dharwad,
Karnataka, India

Backyard poultry farmer's knowledge about poultry management practices

Vidya Kumar Jagalur, Manjula N and Anilkumar GK

Abstract

Poultry keeping in backyard is a good old practice in India. Backyard poultry is regarded as the "entry point for alleviating poverty" and the "gateway to food and nutrition security" because it has the potential to improve families' nutritional status, living standards, and social ties by supplying inexpensive protein, especially in rural areas. The present study was undertaken with a view of determining knowledge level and factors affecting the knowledge of backyard poultry farmers. The study was conducted in Dharwad and Belgaum districts of North Karnataka. Sixty backyard poultry farmers were randomly selected from each selected district, to constitute a total sample size of 120 backyard poultry farmers. An ex-post facto research design was followed and a pre tested and structured interview schedule was used for data collection. The study revealed that, majority (55.00%) of the backyard poultry farmers had medium knowledge about poultry management practices, followed by low (23.33%) and high (21.67%) level of knowledge about poultry management practices. The results indicated that, knowledge had positive association with education, flock size, mass media exposure and scientific orientation at five per cent level of significance. While, extension contact and social participation had positively significant relationship at one per cent level of significance. The backyard poultry farmers had less knowledge about general management practices, chick production and health care practices. Hence, efforts are to be made to educate those with having less knowledge by the Government, NGO's and concerned departments of the state. This in turn will lead to increase in knowledge level of the backyard poultry farmers.

Keywords: Backyard poultry farming, Knowledge level, Poultry management practices, backyard poultry farmers

1. Introduction

Agriculture has been a fundamental aspect of human livelihood since the beginning of the civilization along with activities related to animal husbandry, dairying, and fisheries. The agriculture and it's allied sectors are playing vital role in development of the national economy and socio-economic status of the individual. The allied sectors are the auxiliary occupations of an individual, which support primary occupation. In addition to providing food and using animal power for transportation, these practises have been sustained by traditional, cultural, religious views and ecological balance. The word "poultry" refers to group of birds kept for their meat, eggs, feathers, game such as chickens, ducks, geese, turkeys, and guinea-fowls.

As per 20th animal census 2019 the country's overall population of poultry is 851.81 million. In total, backyard and commercial poultry have i.e. 317.07 Million and i.e. 534.74 Million birds, respectively. As growth of 45.78 per cent is seen in backyard poultry and 4.50 per cent in commercial poultry, respectively. This indicates that more enterprises rearing backyard poultry is increasing in the country recently (Anonymous, 2019) ^[1].

India has a long tradition of rearing birds in the backyard. Rural poultry farming by and large is a less input venture which is categorized by indigenous night shelter, scavenging system, limited supplementary feeding, natural hatching of chicks, and poor productivity of birds, local marketing and no health care practice (Saha, 2003) ^[10]. Raising domestic poultry birds chicken, turkey, duck and geese, as a part of animal husbandry with an aim of producing meat or eggs for human consumption is known as poultry farming. The practise of raising chickens in backyards is seen as environmentally beneficial since scavenging birds produce pure, biologically valuable protein-rich products from leftover home food waste, such as kitchen and farmyard trash (Kannadhasan *et al.* 2017) ^[5]. Due to the poultry bird's notable physiological adaptability, poultry farming is feasible in a variety of agro-climatic environments.

Backyard poultry farming is growing as a source of employment opportunities and supplementary income for rural households, which enhances the socio-economic well-being of the people.

One of the areas of animal husbandry that is expanding the fastest is poultry growth. Poultry farming in India has evolved from a domestic endeavour into a highly organised, a very scientific and profitable business. This transformation was made about by private sector actions and the policy environment that the Indian government and various state governments occasionally offered. In view of the objective of the study, the study makes an attempt to know the knowledge level of the poultry farmer about poultry management practices in Northern districts of Karnataka, India.

2. Methodology

The present investigation was carried out during 2021-22 in Dharwad and Belgaum districts of Northern Karnataka with a sample size of 120 backyard poultry farmers. From each district sixty backyard poultry farmers randomly selected for the study. The research design adopted for this study was *Ex-post facto* research design. To assess the level of knowledge of backyard poultry farmers on housing, feeding and watering, chick production, general management practices, health care practices and marketing practices.

2.1 Knowledge about poultry management practices

Knowledge is operationalized as the amount of information understood by the respondents about management practices followed in backyard poultry farming. To measure the knowledge level of backyard poultry farmers about poultry management practices, the interview schedule was framed in consultation with expert and animal scientists of the University of Agricultural Sciences, Dharwad. A list of knowledge items was prepared. The questions and answers were carefully framed related to knowledge items were finalized for each practice. The answers to each questions were quantified by giving score 1 for 'known' item and 0 for 'not known' item. The summation of the score for the answers of a particular respondent indicates his/her knowledge level about poultry management practices.

$$\text{Knowledge index} = \frac{\text{Number of correct answers}}{\text{Total number of knowledge items}} \times 100$$

Based on the total scores, the respondents were grouped into three categories as low, medium and high using mean and standard deviation.

3. Results and Discussion

3.1 Overall knowledge of backyard poultry farmers about poultry management practices

The results in Table 1 indicated the overall knowledge of backyard poultry farmers about poultry management practices and revealed that, more than half (55.00 %) of the backyard poultry farmers had medium knowledge about poultry management practices, followed by 23.33 per cent and 21.67 per cent had low and high knowledge about poultry management practices. The medium knowledge about poultry management practices might be attributed by their individual education, experience in poultry farming,

economic motivation, achievement motivation, mass media utilization, social participation and flock size. Farmers eagerness to know more about improved poultry management practices.

Similar results were reported by Bhattacharjya *et al.* (2020) [3], Kavitha *et al.* (2020) [7], Bharti *et al.* (2019) [2] and Jhirwal *et al.* (2018) [4].

3.2 Dimension wise knowledge index of backyard poultry farmers about poultry management practices

The dimension wise knowledge index of backyard poultry farmers about poultry management practices is presented in Table 2 revealed that majority (80.92%) of the backyard poultry farmers had high knowledge about marketing, ranked I, followed by housing (72.35%) and feeding and watering (63.41%), which ranked II and III, respectively. While 61.17 per cent of the backyard poultry farmers possessed knowledge about general management practices, ranked IV and 45.98 per cent of the backyard poultry farmers had knowledge about chick production, ranked V. Further, two fifth (40.63%) of the farmers had knowledge about health care practices, ranked VI respectively.

The likely cause for higher knowledge about marketing might be that backyard poultry farmers had medium knowledge about management practices and increased demand for meat and eggs of the Desi/ improved birds. Lesser investment but more economic returns in poultry farming. Backyard poultry farmers had better accessibility and transportation facilities. Farmers sold their produce near doorstep and in village market with better price compared to market price. Majority of the backyard poultry farmers belonged to small and marginal category. Farmers knew about providing night shelter, feeding and watering the birds with efficiently. Similar findings found in research conducted by Kumari (2014) [8] in her study on adoption of backyard poultry farming in Ranchi district of Jharkhand.

3.3 Knowledge level of backyard poultry farmers about specific poultry management practices

3.3.1 Housing

The data present in Table 3 indicated the knowledge level of backyard poultry farmers about specific aspects of poultry management practices. With regard to housing practices all the backyard poultry farmers had knowledge about site selection, provision of night shelter, types of floor and types of litter material, natural ventilation arrangement in poultry house and types of roofing material i.e. metal sheet, wooden material, and thatch. While, 95.83 per cent backyard poultry farmers possessed knowledge about cement asbestos sheet, followed by direction of poultry shed (86.66%), deep litter housing (73.33 %), cage system of housing (48.33%) and temperature arrangement or heating system in poultry house (46.67%). Further, 21.66 per cent backyard poultry farmers had knowledge about exhaust fan system of ventilation arrangement in poultry house.

The probable reason might be that backyard poultry farmers had medium level of knowledge with medium flock size and experience in traditional rearing practices might have helped them to have more knowledge on housing practices. Farmers possessed knowledge about locally available materials for constructing poultry houses with minimal investment. Similar results were reported by Sihag (2020) [11] in her research on backyard poultry farming.

3.3.2 Feeding and watering

All the backyard poultry farmers had knowledge about feed available in scavenging, kitchen waste, supply of feed three times in a day is essential and provision of drinking water. While, 73.33 per cent and 71.67 per cent backyard poultry farmers had knowledge about readymade feed and additional feed provision for birds. The probable reason for knowledge about feeding and watering the birds could be that, backyard poultry farmers had acquired knowledge of nutrition requirements from a variety of local resources and trainings. Similar findings reported by Kumari (2014) ^[8] in her study on backyard poultry farming in Jharkhand.

3.3.3 Chick production

Furthermore the data in Table 3 indicated that, cent per cent of the backyard poultry farmers had knowledge about different breeds of desi and improved birds, sources of chicks purchase i.e. hatching at home and local market. While, 71.66 per cent of the backyard poultry farmers had knowledge about sources of chicks at Dept. of Animal Husbandry & Veterinary Sciences and Krishi Vigyana Kendra, followed by private hatchery unit (66.67%), eggs set for hatching within 10 days of collection (60.83%), provision of nest in quite & comfortable place (30.00%), turning of eggs once or twice daily (9.17%), reduce broodiness by dipping broody hen repeatedly in cold water (5.00%) and dusting of broody hen with parasitic ices (1.67%). None of the backyard poultry farmer had knowledge about application of insecticide to nesting material and testing of eggs by immersing egg in bowl of water (Table 3).

The probable reason might be low scientific orientation and extension contact influenced on the knowledge about improved management practices. Farmers had knowledge about availability of different improved birds. Most of the backyard poultry farmers have purchased chicks from Dept. of Animal Husbandry and Veterinary Services, Krishi Vigyana Kendra and taluk veterinary officers. And few farmers gained knowledge through attending a training programme conducted by Karnataka Co-operative Poultry Federation Limited. The present findings were in consistent with Kapoor (2019) ^[6] in his study on backyard poultry rearing in Himachal Pradesh.

3.3.4 General management practices

With regard to general management practices, it is clear from the data presented in the Table 3 that all the backyard poultry farmers had knowledge on protection of chicks from predators and frequently collection of eggs, followed by provision of laying box with dry bedding (47.50%), storage of eggs at uniform cool temperature (28.33%) and provision for chick guards (20.83%). The probable reason might be due to low experience and scientific orientation. There was no extra care and attention for rearing birds. Similar results were revealed by Kumari (2014) ^[8] in her study on backyard poultry rearing.

3.3.5 Health care practices

The data pertinent to health care practices is given in Table 3 revealed that cent per cent of the farmers had knowledge about cleanliness of poultry house, followed by 93.33 per cent of the backyard poultry farmers possessed knowledge about control of ticks, lice, fleas, mites, etc. treatment of sick birds is to be done by veterinarians / experts (53.33%)

and vaccination of birds (20.83%). While, in case of identification of diseases, 20.00 per cent farmers had knowledge about Ranikhet, followed by fowl pox (9.17%), deworming of birds regularly (8.33%) and Infectious Bursal Disease IBD (5.00%).

The probable reason could be that backyard poultry farmers showed negligible interest on care and management of birds. Treatment of sick birds was taken by themselves with indigenous methods. Less knowledge about regular vaccination of birds, leads to poor productivity of birds and high mortality of birds. Similar findings expressed by Kumari (2014) ^[8] in her research on backyard poultry rearing.

3.3.6 Marketing

With regards to sale of eggs and birds, cent per cent of the backyard poultry farmers had knowledge about selling at own doorstep and village market. They used poultry manure used as fertilizer, for selling and thrown on waste land and selling of the produce when require of money. Further, 40.00 per cent of the backyard poultry farmers had knowledge about specific wt. gain/ age of birds for selling the live birds.

The probable causes might be that, the fertile status of the poultry manure, importance of egg and meat of the native birds and lesser transportation cost but higher benefits. Farmers were familiar in marketing aspects. The similar results were parallel to the results of Laxman (2012) ^[9] in his research on backyard poultry farming in Solapur district of Maharashtra.

3.4 Association of personal and socio-economic characteristics of backyard poultry farmers with their knowledge about poultry management practices

The data presented in Table 4 revealed that, the personal and socio-economic characteristics of backyard poultry farmers and their knowledge about poultry management practices. The results found that knowledge of backyard poultry farmers about poultry management practices had positively significant relationship with education (0.204), flock size (0.232), mass media exposure (0.234) and scientific orientation (0.192) at five per cent level of significance. While, extension contact (0.384) and social participation (0.186) had positively significant relationship with knowledge of backyard poultry farmers at one per cent level of significance. The other variables like age (0.079), experience in backyard poultry practicing (0.101), participation of family members in poultry farming (0.059), achievement motivation (0.028), economic motivation (0.052) and risk orientation (0.001) were non-significantly correlated with knowledge level of backyard poultry farmers.

The possible reasons might be that, higher flock size makes an individual to acquire more knowledge, providing better infrastructural facilities and feed supplements. Higher the flock size farmers might try to take greater care. Greater exposure to mass media helps to get timely information about latest technology. Raising birds under scientific management practices helps in better performance of the birds, puts a farmer in close contact with other social groups and gives an opportunity to exchange views, information and experience. The above results is in conformity with the findings of Jhirwal *et al.* (2018) ^[4], Bhattacharjya *et al.* (2020) ^[3], Singh and Gupta (2015) ^[12].

3.5 Relationship between personal and socio-economic characteristics of backyard poultry farmers with their knowledge about poultry management practices

The data presented in Table 5 results revealed that the relationship between personal and socio-economic characteristics of backyard poultry farmers with their knowledge about poultry management practices with coefficient of determination (R^2) of 0.464, indicating that 46.40 per cent changes in the knowledge level of backyard poultry farmers about poultry management practices was contributed by all these independent variables chosen for the study.

While, flock size, extension contact and mass media exposure were contributed significantly at one per cent level of significance. Both social participation and scientific orientation contributed significantly at five per cent level of significance.

The probable reason might be due to increased awareness about improved poultry management practices made farmers to contact extension workers, veterinary officers, attending training programmes and animal health camps, which may be influenced the knowledge of the backyard poultry farmers. Utilization of digital platforms to know recent innovations. Increased flock size helps to farmer adopt scientific management practices. The socio-economic level of the backyard poultry farmers is impacted by all of these independent variables.

4. Conclusion

India has a long tradition of rearing birds in the backyard. The poultry sector is the greatest way to satisfy the protein needs of a country. As it provides a significant source of more readily available and less expensive animal protein and is a viable source of income for women and young people without jobs. The study highlighted that backyard poultry farmers had medium level of knowledge on different aspects of poultry management practices. Hence the results

of the study indicated that, the backyard poultry farmers had less knowledge about general management practices, chick production and health care practices. Efforts are to be made to educate those with having less knowledge by the government, NGO's and concerned departments of the state. Education, flock size, mass media exposure, scientific orientation, extension contact and social participation had positively significant relationship with knowledge level of backyard poultry farmers about poultry management practices. Since these variables contributed for maximum variation in knowledge level of backyard poultry farmers. It calls the extension agencies, KVK, Veterinary Officers to intervene and conduct extension activities periodically through training, animal health campaign and demonstrations on improved management practices. This in turn will lead to increase in knowledge level of the backyard poultry farmers.

Table 1: Overall distribution of backyard poultry farmers according to their knowledge of poultry management practices (N = 120)

Category	Frequency (f)	Percentage (%)
Low(<44.86)	28	23.33
Medium(44.86 to 46.05)	66	55.00
High(> 46.05)	26	21.67
Total	120	100
Mean- 45.45 SD- 1.40		

Table 2: Dimension wise knowledge index of backyard poultry farmers about poultry management practices (n = 120)

Sl. No	Dimension of knowledge	Index (%)	Rank
1	Housing	72.35	II
2	Feeding and watering	63.41	III
3	Chick production	45.98	V
4	General management practices	61.17	IV
5	Health care practices	40.63	VI
6	Marketing	80.92	I

Table 3: Distribution of backyard poultry farmers according to their specific knowledge of poultry management practices (N = 120)

SL No	Particulars	Knowledge Level	
		F	%
1.	Housing		
A	Knowledge about site selection	120	100.00
B	Provision of night shelter with space	120	100.00
C	Direction of poultry shed	104	86.66
	Type of floor		
D	A. Wire mesh	120	100.00
	B. Concrete	120	100.00
	C. Kaccha	120	100.00
	Roofing material		
E	A. Cement asbestos sheet	115	95.83
	B. Metal sheet	120	100.00
	C. Wooden material	120	100.00
	D. Thatch	120	100.00
	Litter material		
F	a. Paddy husk	120	100.00
	b. Gunny bag	120	100.00
	c. Mud floor	120	100.00
	d. Wooden sheet	120	100.00
	Ventilation arrangement in poultry house		
G	a. Natural	120	100.00
	b. Exhaust fan	26	21.66
H	Temp. arrangement / heating system in poultry house	56	46.67
	Types of poultry housing		
I	a. Deep litter housing	88	73.33
	b. Cage system of housing	58	48.33
2	Feeding and watering		

A	Available in the scavenging	120	100.00
B	Kitchen waste	120	100.00
C	Additional feed provision	86	71.67
D	Readymade feed offered	88	73.33
E	Feed supply of three times in a day is essential	120	100.00
F	Provision of water	120	100.00
3	Chick production		
A	Indigenous breeds of backyard poultry birds (Giriraja, Swarnadhar, Kaveri, DP cross, Aseel Cross, Vanaraja, Gramapriya, Local/ Jawari).	120	100.00
	Sources of chicks purchase		
B	a. Hatching at home	120	100.00
	b. Local market	120	100.00
	c. Govt. institutes (Dept. of AH & VS and KVK)	86	71.66
	d. Private hatchery units	80	66.67
	Care of broody hen		
C	a. Provision of nest in quite & comfortable place	36	30.00
	b. Application of insecticide to nesting material	00	0.00
	c. Dusting of broody hen with parasiticides	02	1.67

(N = 120)

SL. No	Particulars	Knowledge level	
		Frequency	%
	d. Eggs set for hatching within 10 days of collection	73	60.83
	e. Testing of eggs by immersing egg in bowl of water	00	0.00
	f. Turning of eggs once or twice daily	11	9.17
	g. Reduce broodiness by dipping broody hen repeatedly in cold water	6	5.00
4	General management practices		
A	Care of chicks		
	a. Provision of chick guards	25	20.83
	b. Care from predators	120	100.00
B	Care of laying hen		
	a. Provision of laying box with dry bedding	57	47.5
	b. Frequently collection of eggs	120	100.00
	c. Storage of egg at uniform cool temperature	34	28.33
5	Health care practices		
A	Identification poultry disease		
	a. Ranikhet disease	24	20.00
	b. Infectious Bursal Disease (IBD)	6	5.00
	c. Fowl pox	11	9.17
B	Regular vaccination of birds	25	20.83
C	Regular deworming of birds	10	8.33
D	Control of ticks, lice, fleas, mites, etc	112	93.33
E	Cleanliness of poultry house	120	100
F	Treatment of sick birds is to be done by veterinarians / experts	64	53.33
6	Marketing		
A	Sale of eggs and birds		
	a. Village market	120	100.00
	b. Selling at own doorsteps	120	100.00
B	Time of selling		
	a. Specific wt. gain / age of birds	48	40.00
	b. Requirement of money	120	100.00
C	Poultry manure		
	a. Used as fertilizer	120	100.00
	b. For selling	120	100.00
	c. Thrown on waste land	120	100.00

F = frequency

% = percentage

Table 4: Association of personal and socio-economic characteristics of backyard poultry farmers with their knowledge about poultry management practices (N = 120)

Variable Code	Variables	Correlation Coefficient (r)
X ₁	Age	0.079 ^{NS}
X ₂	Education	0.204*
X ₃	Experience in backyard poultry practicing	0.101 ^{NS}
X ₄	Flock size	0.232*
X ₅	Participation of family members in poultry farming	0.059 ^{NS}
X ₆	Extension contact	0.384**
X ₇	Social participation	0.186**

X ₈	Mass media exposure	0.234*
X ₉	Decision making pattern	0.106 ^{NS}
X ₁₀	Achievement motivation	0.028 ^{NS}
X ₁₁	Economic motivation	0.052 ^{NS}
X ₁₂	Scientific orientation	0.192*
X ₁₃	Risk orientation	0.001 ^{NS}

** = Significant at 1 per cent level

* = Significant at 5 per cent level

NS = Non – significant

Table 5: Relationship between personal and socio-economic characteristics of backyard poultry farmers with their knowledge about poultry management practices (N = 120)

Variable Code	Variables	Regression Coefficient (b)	'T'- Value
X ₁	Age	0.007	0.656 ^{NS}
X ₂	Education	0.155	1.772 ^{NS}
X ₃	Experience in backyard poultry practicing	0.019	1.719 ^{NS}
X ₄	Flock size	0.009	3.211**
X ₅	Participation of family members in poultry farming	0.031	0.269 ^{NS}
X ₆	Decision making pattern	0.040	1.316 ^{NS}
X ₇	Extension contact	0.595	5.084**
X ₈	Social participation	0.201	2.183*
X ₉	Mass media exposure	0.186	3.181**
X ₁₀	Achievement motivation	0.055	0.680 ^{NS}
X ₁₁	Economic motivation	0.002	0.050 ^{NS}
X ₁₂	Scientific orientation	0.117	2.170*
X ₁₃	Risk orientation	0.060	0.924 ^{NS}

R² = 0.464

** = Significant at 1 per cent level

* = Significant at 5 per cent level

NS = Non – significant

5. References

- Anonymous. Department of Animal Husbandry and Dairying & Fisheries, Ministry of Agriculture, Government of India, New Delhi; c2019.
- Bharti R, Sagar MP, Singh D, Kumari M, Vishwakarma R. Knowledge level of rural women about scientific backyard poultry farming in Bundelkhand region of Uttar Pradesh. *Indian Journal of Pure & Applied Biosciences*. 2019;7(3):525-528.
- Bhattacharjya R, Haribhushan A, Devi TM, Karam A. Backyard poultry farming, a source of livelihood support and nutritional security for the tribal people of South Garo hills. *Journal of Krishi Vigyan*. 2020;8(2):21-24.
- Jhirwal A, Goswami S, Choudhary V, Singh V, Mishra G. Influence of Socio-Economic Factors on the Knowledge Level of Poultry Entrepreneurs in Ajmer District of Rajasthan. *International Journal of Livestock Research*. 2018;8(12):168-174.
- Kannadhasan MS, Sudeepkumar NK, R Asha Rajini R. Adoption of recommended feeding practices in backyard Poetry farming. *International Journal of Science, Environment and Technology*. 2017;6(2):1175 -1181.
- Kapoor N. Role of backyard poultry in household economy of Chamba district in Himachal Pradesh, M.Sc. (Agri.) Thesis, Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishvavidyalaya, Palampur, Himachal Pradesh, India; c2019.
- Kavithaa NV, Rajkumar BS, Manokaran S. A study on the knowledge level of the backyard poultry farmers and its correlation with socio-personal factors. *International Journal of Scientific and Technology Research*. 2020;9(3):373-379.
- Kumari A. Study on adoption of backyard poultry farming in Ranchi district of Jharkhand. M.V.S.C. (Veterinary & Animal Husbandry Extension Education) Thesis, Birsa Agriculture University, Ranchi, Jharkhand. India; c2014.
- Laxman KM. Profile and problems of backyard poultry keepers of Solapur district, M.Sc. (Agri.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra, India; c2012.
- Saha D. Status of rural poultry production in north 24 parganas district of West Bengal. M.V.S.C. Thesis, Division of Extension Education, IVRI, Izatnagar, India; c2003.
- Sihag P. Knowledge & Adoption level of beneficiaries of backyard poultry project operated by SKNAU, Jobner. M.Sc. (Agri.) Thesis, Sri Karan Narendra Agriculture University, Jobner, Rajasthan, India; c2020.
- Singh V, Gupta J. Promoting clean milk production: The path for milk quality improvement. *Journal of Community Mobilization and Sustainable Development*. 2015;10(2):163-167.