**Chapter-I**

**INTRUDUCTION**

In developing countries, small scale poultry industry may lead towards the endorsement of gender equality, enhancement of household income and poverty alleviation. Poultry refers to domestication of birds that produce eggs and meat that can be consumed and traded by small scale producers as well as large scale produces.

Historians believe that it was women who first started growing crops and domesticating animal and thereby initiated the art and science of farming (Swaminathan, 1985), while men went out for hunting in search of food. Women have played and continue to play, a key role in the conservation of basic life support systems such as land, water, food and shelter. That women play a significant and crucial role in agriculture and allied fields, is a fact long taken for granted but also long ignored.

At village level almost all families even the poorest own poultry specially chickens and most of the time women owned and managed the chickens (Upton 2004). It is difficult to overcome poverty and malnutrition in one single intervention.

However livestock production especially poultry could be seen as first effective step (Mack, et al. 2005; Islam, et al. 2014).

Poultry keeping provides a chance to women for self-employment which may lead her towards income generation and a better standard of living eventually.

Poultry is significant in empowerment of poor women and poverty reduction. It is a good source of income for women especially who want to work by staying at their home doing other household chores aside (Fattah 2000).

The indigenous chickens have a good immune system to resist diseases, are well adapted to native climatic conditions because they have evolved through natural selection of thousand years. So this farming system could be characterized as low input and low output system of production that provides protein based nutrition, a good source of income, food security and women empowerment to the rural women and their families (Parveen, et al. 2013).

Empowerment is a process in which one develops his capabilities and uses this development for the betterment of his life socially, economically and politically. So poultry provides women a chance to be economically empowered by selling poultry, their products and becomes a valuable source of income. Women use this money for various purposes such as food, clothing, medical expenses, school fees of kids etc. (Conroy 2005). Women play a vital role in the poultry industry at household level though they do not use the modern techniques for rearing chicken to enhance production, yet at least provide for food security of its household members (Butt, et al. 2010; Achamyelesh 2000).

Food security includes an easy accessibility and availability of food to the members of society, ensuring sufficient amount of diet to all members of household, either purchased or achieved by production. Poultry is integral to food security, as it provides not only food but also a chance to earn money by which any person could easily buy food (Sonaiya, et al. 1994).

Poultry is an easy source for generating income. Firstly, as compared to larger livestock poultry does not require much investment because chickens are left during day time to scavenge for their feed only a minimum amount of supplementary feed is required. It is an industry at household level which generates quick and frequent profit on day to day basis (Todd 1998). Secondly, when poultry keeping is compared to the other income generating activities such as working at an organization or day laboring etc., which requires consecutive hours of working and women have to leave her home. Instead poultry are kept at house. So women can perform their domestic duties such as cooking, cleaning and rearing of kids easily and do not need to give extra time to manage poultry. Thirdly, women do not leave her house or village without a male along her due to some societal, cultural and religious reasons. So income generation through poultry keeping is suitable for them (Jennifer2006).

Through money earned by poultry keeping, women become an economic agent like men. They earn money so they assume their responsibilities for household expenditures such as food, clothing and school fees of kids. Initially these responsibilities are bear by men, but if the wife earns, he expects from her to contribute (Kryger, et al. 2010).

In accordance with great contributions of women in the poultry sector, government planners, policy makers & administrators are trying to take necessary steps to include women in the development process to achieve the **Millennium Goal**. Now it is cleared that the small holders female farmers can play an important role & would get far greater opportunities to organize themselves as functional group for livestock development. In the production of poultry like broiler and layer, both men & women are integrated together in the rearing & management of these aspects. Similarly several Govt. & NGO’s are also trying to organize & establish rural women as an active income generating group & at the same time to increase

the overall productivity of livestock in the country.

So last but not least that without the participation of our almost 50% of the people i.e. women we cannot improve our economic condition of family as well as the country. So, women participation in all works, especially in farming activities like dairy farming, poultry farming etc must be increased and now they should be the **visible one, not invisible one.**

**1.1:** **Objectives of the study:-**

The major objectives of the study are:

* To study the farm women’s role in relation to poultry production tasks.
* To explore the literacy level of rural women in the study area, to assess the involvement of rural women in different livestock sector.
* To study the factors and limitation, faced by rural women in participating agricultural activities
* Changes in women’s socio-economic position, e.g.; social participation, training received daily income, information seeking behavior, managerial assistance, ability to co-ordinate activity, leadership ability, self confidence, market orientation etc.

**Chapter-II**

**MATERIALS & METHODS**

The focus of this chapter is to illustrate the selection area, selection of samples, period of data collection, preparation of survey schedule to collect data & their reliability etc.

**2.1. Selection of study area:-**

The present study was comprised of those women of the rural areas of district Chittagong who participate in the agricultural activities. Five Villages namely Fateabad, Battali, Uttar madarsha, Fotepur and Makhol at Hathazari thana in Chittagong district are considered for this study. The reasons for selecting this area as study area are given bellow:

* Although a few years ago it was a backyard rural area, but for the development of communication now it is a highly potentiated area.
* Women play a significant role in poultry health care, management as their husbands are busy in other business.

**2.2. Selection of samples:-**

A number of families were selected from the target population randomly fulfilling the following conditions:-

* The farm women who were married,
* Having minimum two birds,
* Age minimum 18 years,
* Who are living with spouse only other closely related persons eg; mother-in law, daughter-in-law in the village.

A multi-stage sampling scheme was followed for selecting the respondents for the sample from the target population. Six farm families from each selected village were selected using simple random sampling technique without replacement from the target population. Thus the total number of primary units in the sample for the study was 30 farm women. Automatically 30 spouses of the selected farm are selected for the study Families in which women are not completely related with rearing & management of poultry are not selected for this study. Also in some families only male or other family members are related with animal rearing except farm women, these families are also not selected.

**2.3. Preparation of survey schedule:-**

The data was collected through a prepared survey schedule to record the desired information from the poultry owners. Before preparing the final schedule a preliminary survey schedule was designed for recording desired information in conformity with the objectives of the study. After preparing a draft schedule, it was however, pretested in the areas. The survey schedule was then changed, modified and rearranged according to the experience gathered in the preliminary field survey .Finally a set of interview schedules was prepared for recording the necessary information for the study.

**2.4. Method of data collection**:-

The data was collected through the direct interviews of the selected farmers. Before that each respondents was given a brief description about the nature and purpose of the study. Then the questions were asked in a very simple manner with explanation where necessary. The answers of the respondents were directly recorded in the interview schedules which are given in the appendix. The followed method were less costly, less time consuming, easier to employ and appropriate for the small holder poultry farms available in our country

**2.5. Period of data collection:**

The whole survey was conducted by the author herself during the period of 01\10\2016 to 10\10\2016.

It should be noted that most of the farmers were illiterate and very poor. They were not aware about actual procedure of poultry rearing. They also did not keep any written record of income and expenditure of their traditional farming system. Hence most of the answers given by them from their memory.

**CHAPTER III**

**RESULTS & DISCUSSION**

This chapter deals with distribution of demographic, socio-economic and decision making patterns of the respondents and involvement of farm women in different sectors of poultry management and production.

**3.1. Demographic & socio-economic status of the respondents:**

The personal characteristics of the respondents affect their role in a given family. It is therefore felt necessary to study their demographic, socio-economic characteristics such as age, religion, family position, size and type of family, education, occupation, land holdings. This section discusses these characteristics of the respondents.

**3.1.1: Age:** Age is an important parameter which effect the involvement of women in poultry farming. For this study, three age groups are considered-

1. <20 years
2. 20-40 years
3. >40 years

**3.1.2: Religion:** As my study areas were Muslim based area I found that they are willingly doing poultry farm for their economic improvement. For my study~~,~~ three groups are taken into account-

1. Muslim
2. Hindu
3. Others

**3.1.3: Family position:** Role of women in decision making slightly varies with the variation of their family position. Here three groups are considered:

1. Housewife
2. Daughter-in-law
3. Mother-in-law

**3.1.4: Size of family:** Size of family also matters in rearing of poultry in rural area. It is seen that the large families are mostly involved in rural poultry farming. Here two groups are taken:

1. Family member 5 or below
2. Family member above 5

**3.1.5: Type of family:** Now-a-days, besides with joint families the nuclear families are also involved in poultry farming. For this~~,~~ two groups are constructed:

1. Nuclear family
2. Joint family

**3.1.6: Educational status:** In our country, the poultry sector is a potential business sector. So the educated unemployed youths along with their family now involve themselves in the poultry farming. For which five groups are made-

1. Illiterate
2. Primary
3. Secondary
4. Higher secondary

Or above

1. Madrasa

**3.1.7: Occupation:** With the variation of occupation if the spouse, the role of women is also varies in decision making sector. In this study, the group of occupation is grouped as-

1. Laborer
2. Business
3. Agriculture
4. Service holder
5. Others

**3.1.8: Land holdings:** Land holdings are mainly involved in the variation of farm size i.e. the number of birds. The flock size is also a parameter which causes the variation of role of women. In this study the group’s are-

* + - 1. <1 acre
      2. 1-2 acre
      3. 2-4 acre
      4. >4 acre

**3.1.9: Types of houses:** It represents the economic condition of the family as well as the poultry farm. Four groups are defined-

1. Kaccha
2. Pucca
3. Mixed
4. Others

The table below represents the Demographic & socio-economic status of the respondents:

Table: 3.1 Distribution of respondents by demographic and socio-economic characteristics-

|  |  |  |
| --- | --- | --- |
| **Demographic & socio-economic characteristics** | **Frequency** | **Percentage (%)** |
| 1. **Age**   <20 years  20-40 years  >40 years | 6  20  4 | 20  66.7  13.3 |
| 1. **Religion**   Islam  Hindu  Others | 23  5  2 | 76.7  16.7  6.6 |
| 1. **Family position**   Housewife  Daughter-in-law  Mother-in law | 24  4  2 | 80  13.3  6.7 |
| 1. **Size of family**   Family member ≤5  Family member >5 | 20  10 | 66.7  33.3 |
| 1. **Type of family**   Nuclear  Joint | 22  8 | 73.3  26.7 |
| 1. **Educational status**   Illiterate  Primary  Secondary  Higher secondary & above  Madrasa | 6  9  5  4  6 | 20  30  16.7  13.3  20 |
| 1. **Occupation of spouse**   Labour  Business  Agriculture  Service holders  Others | 5  9  8  2  6 | 16.7  30  26.7  6.6  20 |
| 1. **Land holdings**   <1 acre  1-2 acre  2-4 acre  >4 acre | 13  10  6  1 | 43.3  33.3  20  3.3 |
| 1. **Types of house**     Kaccha  Pucca  Mixed | 6  10  14 | 20  33.3  46.7 |

From the information obtained it was observed that mostly housewives (80%) contribute in poultry farming but most of them (66.7%) were middle age (20 -40yr). Their predominant religion was Islam(76.7%) and mostly were small businessman (30%), or depends on agriculture(26.7%).They were mostly primary(30%),and poor, having pacca(33.33%), or mixed(40%) type house with joint family size(26.7%).They had low to medium experience in poultry activities.

**3.2: Involvement of farm women in decision making in terms of feeding:**

In poultry farming, the feeding practice is one of most important task to care properly, because it directly related with the profitability of the farm. From the very very beginning women were involved in feeding practice, and now it is more organized.

The percentage of involvement of women in decision making in terms of feeding is given below in table-4.2

Table: 3.2: Distribution of women involved in decision making of feeding:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Activities/ Tasks** | **Decision-making pattern** | | | | | | | | **No response** | |
| **Farm women only** | | **Spouse only** | | **Jointly** | | **Labour** | |
| ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| 1. | Concentrate to be fed or not | 5 | 16.7 | 15 | 50 | 7 | 23.3 | - | - | 3 | 10 |
| 2. | what concentrate to be fed | 7 | 23.3 | 10 | 33.3 | 8 | 26.7 | - | - | 5 | 16.7 |
| 3. | Quantity of concentrate to be fed | 10 | 33.3 | 12 | 40 | 6 | 20 | - | - | 2 | 6.7 |
| 4. | Mineral mixture to be fed or not | 6 | 20 | 8 | 26.7 | 5 | 16.7 | - | - | 11 | 36.6 |
| 5. | Time of feeding | 20 | 66.7 | 5 | 16.7 | 3 | 10 | 2 | 6.7 | - | - |
| 6. | Frequency of feeding | 20 | 66.7 | 9 | 30 | 5 | 16.7 | 1 | 3.3 | 1 | 3.3 |
|  | **Overall average** | **37.8** | | **32.8** | | **18.9** | | **1.7** | | **12.2** | |

From the table it is seen that women are mostly involved in decision making relating to time of feeding (66.7%), frequency of feeding(66.7%) and less involved in decision making relating to concentrate (23.3%),. Hence the involvement of women (37.8%) (Overall average) is more than man (32.8%).

The figure of decision making on feeding is given below:

**3.3: Involvement of farm women in decision making in terms of health care:**

For better production it is important to look after the poultry properly i.e. take health care. But it is seen that the farmers are not very much aware of taking health of their birds. Women do care more than man, but it should be increased & improved.

The percentage of involvement of women in decision making on health care is given in table-3.3.

Table 3.3: Distribution of Women involved in decision making on health care:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Activities/ Tasks** | **Decision-making pattern** | | | | | | | | **No response** | |
| **Farm women only** | | **Spouse only** | | **Jointly** | | **Labour** | |
| ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| **1.** | Vaccination to be done or not | 8 | 26.7 | 13 | 43.3 | 5 | 16.7 | 1 | 3.3 | 5 | 16.7 |
| **2.** | Maintaining of vaccination schedule | 15 | 50 | 6 | 20 | 5 | 16.7 | 2 | 6.7 | 2 | 6.7 |
| **3.** | Treatment of sick birds | 9 | 30 | 12 | 40 | 7 | 23.3 | 2 | 6.7 | 1 | 3.3 |
| **4.** | Regular deworming | 12 | 40 | 6 | 20 | 5 | 16.7 | 2 | 6.7 | 5 | 16.7 |
|  | **Overall average** | **36.7** | | **30.8** | | **18.4** | | **5.9** | | **10.9** | |

It is very positive that, now the farmers are aware of their birds in the study area. Only 10.9% were not responding about vaccination and regular deworming. Here women were mostly involved in maintaining vaccination schedule (50%) than man (20%). But in case of treating sick birds, man were more respondent (40%) than women (30%).

The figure of decision making on health care is given below:

**3.4: Involvement of farm women in decision making in terms of management:**

Management is an important factor for making a farm profitable. Only for bad management it will be an unprofitable one. Women are mostly involved in management practices in poultry sector.

The percentage of involvement of women in decision making on management is given in table-3.4.

Table 3.4: Distribution of women involved in decision making on management

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl.no** | **ACTIVITIES** | **DECISION MAKING PATTERN** | | | | | | | | | |
| **Farm women only** | | **Spouse only** | | **Jointly** | | **Labour** | | **No response** | |
| ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| 1. | Management of chicks | 19 | **63.3** | 5 | 16.7 | 3 | 10 | 2 | 6.7 | 1 | 3.3 |
| 2. | Birds to be kept in open or in shed. | 6 | 20 | 18 | **60** | 6 | 20 | - | - | - | - |
| 3. | Determination of type of shed | 4 | 13.3 | 15 | 50 | 9 | 30 | - | - | 2 | 6.7 |
| 4. | Number of birds to be kept. | 3 | 10 | 12 | 40 | 11 | 36.6 | - | - | 2 | 6.7 |
| 5. | Shed would be disinfected or not | 10 | 33.3 | 7 | 23.3 | 3 | 10 | - | - | 10 | 33.3 |
| 6. | Disposal of dead birds | 3 | 10 | 8 | **26.7** | 1 | 3.3 | 8 | 26.7 | 10 | 33.3 |
| **Overall average** | | **25** | | **36.1** | | **18.3** | | **5.6** | | **13.9** | |

It was found out that woman puts a good percentage of contribution to the poultry management (25%). But also spouse (36.1%) & joint (18.3%) decision also was also take a good percentage in poultry rearing. It’s also should be noted that women kept most contribution in management of chicks (63.3%).

The figure of decision making regarding management is given below:

This chart represents the comparative involvement of all respondents in feeding, health care and management practices in poultry farm.

The participation of women was higher in feeding (37.8%), then health care (36.7%) and management (25%) practices. Joint decision was also noticeable in all types of practices.

**Chapter-IV**

**Summary and Conclusion**

The contribution of women to the national development is crucial.Most of the working women were doing work to increase their family income and were facing problems in looking after their children and household chores. So, maintaining the balance between domestic duties and farm related activities is one of the main challenges. Livestock is one of the sectors where the participation of female is high. Rural farm women perform a large part of work relating to the maintenance of poultry management and production.

Poultry farming has a direct impact on income generation, poverty alleviation and reducing unemployment. Rural women traditionally play a very important role in raising livestock specially poultry. Although the women have favorable attitude from their family members but they have to face unfavorable attitude of the landlord.

Now-a-days, the condition is going to change. Th findings of this study reflected that women has greater participation in health care, feeding management & overall management practices than their spouses only.

**Constraints: -** By the comments of the respondents of this study the following constraints are found at the farmers’ level -

* Shortage of feeds (both in terms of quality and quantity),
* Lack of veterinary health care,
* Lack of marketing information
* Shortage of vaccine
* Fund problem

### CHAPTER V

### RECOMMENDATION

For the betterment of rural women in agriculture sector, following recommendation should be implemented:-

1. To enhance women's literacy rates and to improve the levels of female education ratio, other urgent measures required. A separate education policy for women may serve the purpose.

2. Government should launch specific training skills courses and educational programmes for rural women keeping in view their problems and also should be broadcast through television, radio and group meetings at the access areas.

3. More female extension workers should be trained and sent to help female farmers. It is necessary to particularly identify women as an integral part of the agricultural extension policy and develop gender specific operational guidelines, which will direct the extension activities of women farmers.

4. The existing women’s group in the village should be organized and strengthened to increase women’s access to extension services, credit facilities, agricultural inputs and even marketing services.

5. The Government Department of Livestock Services should produce available vaccines to decrease mortality rate.

6.   The Government should subsidize the cost of importing yellow maize, soy­bean meal, and concentrate from abroad.

Clearly, women are able to operate and manage impressive technical enterprises like dairy, broiler, layer, duck farms etc. efficiently with a high return on the investment. On the other hand, poultry production under with the help of different NGO’s GO’s are useful to improve the native backyard poultry rearing system where women traditionally play the most important role.

**CHAPTER VI**

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**APPENDIX – A**

**INTERVIEW SCHEDULES**

**1. Owner’s name with address:**

a. Name of owner and his wife:

b. Address:

**2. Family position:**

a. House wife

b. Daughter- in –law

c. Mother-in-law

**3. Age group:**

a. Young (<20 years)

b. Middle (20-40 years)

c. Old (Above 40 years)

**4. Religion:**

a. Islam

b. Hindu

c. Others

**5. Educational status:**

a. Illiterate

b. Primary

c. Secondary

d. Higher secondary or above

e. Madrasa

**6. Occupation:**

a. Laborer

b. Business

c. Agriculture

e. Service holders

f. Others

**7. Type of house:**

a. Kuccha

b. Pucca

c. Mixed

d. Others

**8. Family type & size:**

**Family type Family size**

a. Nuclear a. 5 or below family number

b. Joint b. above 5 family number

**9. Land holding :**

a. < 1 acre

b. 1-2 acre

c. 2-4 acre

d. > 4 acre

**10. Vaccination is done by:**

a. Husband

b. Wife

c. Labor

d. jointly

**11. Women involved in health care:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Activities/ Tasks** | **Decision-making pattern** | | | | **No response** |
| **Spouse only** | **Collective** | **Joint** | **Farm women only** |
| (%) | (%) | (%) | (%) | (%) |
| **1.** | Vaccination to be done or not |  |  |  |  |  |
| **2.** | Maintaining of vaccination schedule |  |  |  |  |  |
| **3.** | Treatment of sick birds |  |  |  |  |  |
| **4.** | Regular deworming |  |  |  |  |  |

**12. Women involved in feeding management:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Activities/ Tasks** | **Decision-making pattern** | | | | **No response** |
| **Farm women only** | **Spouse only** | **Jointly** | **Labour** |
| (%) | (%) | (%) | (%) | (%) |
| 11 | Concentrate to be fed or not. |  |  |  |  |  |
| 2. | What concentrates are to be fed |  |  |  |  |  |
| 3. | Quantity of concentrates are to be fed |  |  |  |  |  |
| 4. | Frequency of feeding |  |  |  |  |  |
| 5. | Time of feeding |  |  |  |  |  |
| 6. | Mineral mixture to be fed or not |  |  |  |  |  |

**13. Women involved in management:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SL.NO.** | **ACTIVITIES** | **DECISION MAKING PATTERN** | | | | |
| **Farm women only (%)** | **Spouse only (%)** | **Jointly (%)** | **Labour (%)** | **No response (%)** |
| 1. | Management of chicks |  |  |  |  |  |
| 2. | Birds to be kept in open or in shed. |  |  |  |  |  |
| 3. | Determination of type of shed |  |  |  |  |  |
| 4. | Number of birds to be kept. |  |  |  |  |  |
| 5. | Shed would be disinfected or not |  |  |  |  |  |
| 6. | Disposal of dead animals |  |  |  |  |  |

**BIOGRAPHY**

This is Umme Kulsum daughter of Md. Lokman and Fatema Begum from Hathazari upazilla at Chittagong, Bangladesh. I completed my Secondary School Certificate (SSC) Examination in 2008 with GPA-5 from Rahmania High School, Chittagong and Higher Secondary School Certificate (HSC) Examination in 2010 with GPA- 4.80 from Chittagong Govt. Girls College, Chittagong. Currently I have been doing my Internship Programme which is the compulsory for DVM degree under the faculty of Veterinary Medicine, Chittagong Veterinary and Animal Sciences University. My hobby is painting. I want to enrich my career in Research and Development.