**CHAPTER-I: INTRODUCTION**

Poultry farming is now considered as a growing industry in Bangladesh. It is generally acknowledged as the most efficient and cost-effective way of increasing the availability of high protein food. Poultry sector now plays an important role in poverty alleviation and economic development. Bangladesh is a over populated country (1015 people per k$m^{2}$) of the world with a population of 149.772 million people within the area of 147570 k$m^{2}$**(BBS, 2011).** About 80% people of this country live in villages and are extremely poor. In 2000, 52.5% of the urban and 44.3% of the rural people was surviving under the poverty line (Sumy *et al*., 2010).

However, the people of our country is blessed with a variety of agricultural resources of which chicken rearing is considered to have potential both for poverty alleviation and food production (Sumy *et al.,* 2010). Chicken rearing is suitable for widespread implementation as it cost less, requires little skills, is highly productive and can be incorporated into the household works (Solberg *et al.*, 1997).

Poultry sector will create job opportunity for 10m people in Bangladesh (Source: Financial Express, Bangladesh 23 July, 2010). In the last few years, the recognition of small-scale commercial poultry production helps to accelerate the pace of poverty reduction riding in new height in Bangladesh. It has already capable to rise at an annual growth of around 20 per cent during last two decades. This industry has immense potentialities from the point of view of the economic growth of the country as well as fulfillment of basic needs and to keep the price at a minimum level and ensuring food especially animal protein for the human being. This industry has immense scope for the country through changing livelihood & food habit, reduction of dependence of meat related to cow and goat and ultimately has positive impact on GDP growth rate of the country.

Broiler farming plays an important role in improving livelihood, food security and poverty alleviation in rural and semi-urban communities in developing countries including Bangladesh. Broiler production has become a specialized and speedy business at present time for the people of the country due to short life cycle of the broiler and requirement of relatively less amount of capital attributed to its popularity to the farmers (Ahmed *et al*., 2009). A study report on the impact on Smallholder Livestock Development Project (SLDP) in rural community at different rural areas of Bangladesh revealed that the overall socio-economic condition of the beneficiaries, their egg and meat consumption capability, empowerment of rural women in decision making issues and employment opportunities were significantly increased after the intervention made by SLDP (Alam, 1997). Another study showed that commercial broiler farming provided employment opportunities for unemployed family members, improved socio-economic conditions and increased women empowerment among rural people of Bangladesh (Rahman *et al*., 2006).

Protein intake is recommended to be in range of 0.8 to 1.6 g per kg body weight for human (Anonymous, 1998) Broiler meat contains high quality protein and micro-nutrients which has had a tremendous impact on health and nutrition for the poor people in rural areas (Neumann *et al*., 2002; Barroetoa, 2007). Again, another study reported that it can be the main source of family earning or can provide sufficient income and gainful employment opportunity to rural farmers throughout the year (Bhende, 2006). For this reason, broiler farming has been playing a important role in providing meat to overcome the malnutrition and serve as a tool for employment generation and poverty alleviation (Raha, 2007).

The upazilla Ramu occupies an important place in Bangladesh in respect of poultry farming because of availability of all facilities. So, the present study was undertaken to evaluate the existing management system of poultry farming and understanding the socio-economic condition of the broiler and layer farmers.

**The specific objectives of the study**

1. To know the socio-economic status of the broiler and layer farmer.
2. To study the managemental system of broiler and layer farm in Ramu upazilla.
3. To identify the better management system.
4. To determine the productivity, profitability, cost and return aspects of different types of poultry farms under different managemental practices

**CHAPTER-II: MATERIALS AND MRTHODS**

***2.1 Study area:***

The study was performed at Ramu upazilla, located at 21.4583˚N 92.1000˚E in Cox’s bazar district which contains nine unions. The total area of this upazilla is
391.71 km2.

***2.2 Study period:***

This study was carried out during my clinical placement at Upazilla Veterinary Hospital (UVH) placement in Upazilla Veterinary Hospital, Ramu during the period of 1st March to 1st of April 2017.

***2.3 Sources of data:***

Data for this study was obtained from both primary and secondary sources. The primary data were collected from the production performance, activities and economic condition of the chicken producers using structured questionnaires and the secondary data was obtained from Upazilla livestock office, Ramu.

***2.4 Research design:***

The research design adopted for this study was of ex-post-facto in nature since the phenomenon has already occurred.

***2.5 Sampling Procedure***

***2.5.1 Defining the Population***

All the poultry farms of the district engaged in poultry production were classified as population of the study.

***2.5.2 Sample size***

On the basis of nature of research and analysis; number of variables; resource constraints; and, the importance of decision, a sample size of 40 (20 broiler and 20 layer farms) poultry farms engaged in poultry production was selected.

***2.5.3 Sampling methods***

Ramu upazila has nine unions. From these unions, five unions were randomly selected and from these five unions, two villages from each union was randomly selected (Multi-stage random sampling). From these selected villages two farms of each category (Broiler and Layer) were selected randomly (Stratified random sampling). Each farm rearing at least 1000 bird is taken under consideration.

***2.6 Methods of data collection***

Data were collected through direct interview schedule and recorded in a questionnaire.

***2.7 Analytical techniques***

The data were put on the master sheet in Microsoft Office Excel 2007 and were arranged in tabular form. The obtained data imported to software STATA/IC-11.0 for analysis. Descriptive statistics (i.e. means, frequencies etc) was done to estimate the different variables. Unpaired unequal t-test was used to determine the level of significance (*p<0.05* and *p<0.01*) between categorical variables.

**CHAPTER-III: RESULTS AND DISCUSSION**

**3.1 General description of the farm**

The Table 3.1 revealed that the mean farm size (Number of bird), number of family member, number of educated person per farmer family and amount of land (acre) per farmer were 4336.84$\pm $541.99, 6.16$\pm $0.47, 1.26$\pm $0.23 and 3.51$\pm $0.4 with range; 1500-10000, 3-10, 0-3 and 0.2-5.6 respectively in broiler farms and 5252.63$\pm $708.61, 4.79$\pm $0.27, 1.37$\pm $0.21 and 4.1$\pm $0.45 with range; 1200-1000, 3-7, 0-3 and 0.45-6.3 respectively in layer farms. There were found no statistically significance difference (p$>$0.05) between the broiler and layer farms in terms of farm size (Number of bird), number of educated person per farmer family and amount of land per farmer. But there were found statistically significance difference (P< 0.05) in number of family member between broiler and layer farmers.

**Table 3.1**: **Analysis of different parameters related to farms and farm owners (N=40).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameters** |  **Broiler farm (N=20)** |  **Layer farm (N=20)** |  **P value** |
| Mean$\pm $ SE | Range (Min-Max) | Mean$\pm $ SE | Range (Min-Max) |
| **Farm size** (Number of bird) | 4336.84$\pm $541.99 | 1500-10000 | 5252.63$\pm $708.61 | 1200-10000 | 0.41 |
| **Number of family member**  | 6.16$\pm $0.47 | 3-10 | 4.79$\pm $0.27 | 3-7 | 0.02 |
| **Number of educated member per farmer’s family** | 1.26$\pm $0.23 | 0-3 | 1.37$\pm $0.21 | 0-3 | 0.74 |
| **Amount of land per farmer** (acre) | 3.51$\pm $0.4 | 0.2-5.6 | 4.1$\pm $0.45 | 0.45-6.3 | 0.36 |

Islam *et al.,* (2010) found per farmer have 0.49 acre and Devendra, (1993) showed 0.99- 1.97 acres of land per farmer. Rahman *et al.,* (2002) in their study observed 47.3% educated farmer.

**3.2. Socio-economic condition of the farmers**

Different factors associated with socio-economic condition of the farmers of Ramu upazilla are listed in Table 3.2 and specific findings of the study also describe below:

**Table 3.2**: **Factors associated with socio-economic status of the farmers in Ramu upazilla (N=40).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Categories** | **No. of farm/****Farm owner** | **Percentage (%)** |
| Type of farmer | Landless (0.00-0.50 acre) | 2 | 5 |
| Marginal (0.51-1.24 acre) | 3 | 7.5 |
| Small (1.25-2.47 acre) | 5 | 12.5 |
| Medium (2.48-4.94 acre) | 13 | 32.5 |
| Large ($\geq $ 4.95 acre) | 17 | 42.5 |
| Source of investment | Own | 23 | 57.5 |
| Bank loan | 13 | 32.5 |
| With interest from money lender | 3 | 7.5 |
| Without interest from money lender | 1 | 2.5 |
| Number of birds | $<$ 3000 | 10 | 25 |
| 3000-5000 | 18 | 45 |
| $>$ 5000 | 12 | 30 |
| Training | Yes | 11 | 27.5 |
| No | 29 | 72.5 |
| Family Type | Single | 19 | 47.5 |
| Joint | 21 | 52.5 |
| Farming is main occupation | Yes | 22 | 55 |
| No | 18 | 45 |
| Amount of loan(BDT.) | No loan | 20 | 50 |
| $<$100000 | 5 | 12.5 |
| 100000 - 500000 | 9 | 22.5 |
| $>$ 500000 | 6 | 15 |
| Level of educational knowledge  | High ( Above secondary) | 5 | 12.5 |
| Medium (Secondary) | 10 | 25 |
| Poor ( Primary) | 25 | 62.5 |
| Level of poultry farm management skill | High | 15 | 37.5 |
| Medium | 15 | 37.5 |
| Poor | 10 | 25 |

***3.2.1 Socio-economic status in terms of land***

About 42.5% large, 32.5% medium, 12.5% small, 7.5% marginal and 5% landless farmers were involved in farming in Ramu upazilla (Table 3.2).These findings agree with the study of Rahman *et al*., (2002) in Rajshahi district. These findings indicate that, in this sector, comparatively rich farmers are more involved than poor, although Islam *et al*., (2010) reported that all of the farmers involved in the farming are small categories (Having 6-49 decimal land).

***3.2.2 Sources of investment of the farmer***

The present study shows that, 57.5% farmer invest their own money in farming and 32.5% takes bank loan, 75% manage investment from money lender in terms of interest and remaining 2.5% also takes from money lender but without interest. These findings have similarity with Rahman *et al*., (2002) in a study in Rajshahi district.

***3.2.3 Size of the farm***

The size of the farm reflects the socio-economic status of the farmer. About 30% of the farmers have more than 5000 birds, 45% have 3000-5000 birds and 30% have more than 5000 birds.

***3.2.4 Training***

About 27.5 % of the farmer had received training of farming and left 72.5% did not take any training at all about poultry farming. It was enumerated that 8.5 % of the poultry farmer had received training in any times of his farming life (BBS, 2011).

***3.2.5 Farming as occupation***

The present study shows that, farming is the main occupation of 55% of the farmers involved in the study and for remaining 45%, it is subsidiary occupation. Ahmed *et al.,* (2009) showed that, farming is the main occupation of the 35% of the broiler farmer. This higher value in my finding is due to involvement of layer in my study but Ahmed *et al*., (2009) did not consider layer farmers.

***3.2.6 Level of knowledge and managemental skill***

Most of the farmers have poor level of knowledge (62.5%), but level of managemental skill is high in 37.5% of the farmers. Rahman *et al.,* (2002) found that, 71.43% and 24.29% of the farmers have high and medium level of knowledge respectively.

***3.2.7 Literacy level of the farmers***

The Table 3.3 shows the literacy level of the farmers. There were found 15% illiterate, 20% class I-V, 35% class VI-VIII, 20% class VIII- X and remaining 10% are SSC/above. These findings are agreement more or less with Sumy *et al*., (2010)that were in a study on backyard chicken owners.

**Table 3.3:** **Literacy level of the farmers (N=40).**

|  |  |  |
| --- | --- | --- |
| **Literacy levels Farmers** | **No. of farmers** | **Percentage (%)** |
| Illiterate | 6 | 15 |
| Class (I - V) | 8 | 20 |
| Class (VI - VIII) | 14 | 35 |
| Class (VIII - X) | 8 | 20 |
| SSC/ Above | 4 | 10 |
| Total | 40 | 100 |

**3.3 Economic analysis**

***3.3.1 Per bird annual gross cost (Average)***

Per bird average annual gross cost for rearing of broiler and layer are 925.5 BDT. and 1332.5 BDT respectively (Table 3.4).

**Table 3.4: Per bird annual gross cost (Average)**

|  |  |
| --- | --- |
| **Items** | **Expenditure** |
|  | **Per bird cost in one batch** | **Total cost****(BDT.)** | **Per bird annual cost** | **Total cost****(BDT.)** |
| **Gross****Cost (BDT.)** | **Depreciation****cost (BDT.)** | **Gross****cost (BDT.)** | **Depreciation****cost (BDT.)** |
| DOC | 45 | - | 55 | 50 | - | 50 |
| Feed  | 81 | - | 81 | 1259 | - | 1259 |
| Labor  | 8 | - | 8 | 10 | - | 10 |
| Medication  | 8 | - | 8 | 10 | - | 10 |
| Housing  | - | 2 | 2 | - | 3.00 | 3 |
| Equipment  | - | 0.25 | 0.25 | - | 0.50 | 0.5 |
| Total gross | 142 | 2.25 | 154.25 | 1329 | 3.50 | 1332.5 |
| Total gross cost for 6 batch in a year:154.25\*6= 925.5 |  |

\*DOC:Day Old Chick

Islam, J., (1995) studied economic analysis of poultry farms of different sizes in some selected area of Dhaka district. He found that the total costs of per poultry bird per year were BDT. 406.17, 373.86 and 347.54 for small, medium and large poultry farms respectively. Alam, J., (1997) found the cost per bird was BDT. 106.68 for intensive farm. The higher value of cost in my study due to recent increase of price of feed and other raw materials.

***3.3.2 Per bird annual gross return (Average)***

Per bird gross return of broiler and layer are shown in the Table 3.5. Per bird gross return of broiler and layer are BDT. 1080 and BDT. 2210 respectively which is higher than per bird net cost. Islam, J., (1995) found average gross return per poultry bird per year stood at BDT. 614.15, 599.67 and 351.69 for small, medium and large farm respectively. Alam, J., (1997) found the return per bird was BDT. 129.5 for intensive farm. The higher value of return in my study due to recent increase of price of chicken meat and eggs.

**Table 3.5:** **Per bird annual gross return (Average)**

|  |  |  |
| --- | --- | --- |
| **Items** | **Broiler (BDT.)** | **Layer (BDT.)** |
| Selling of bird (broiler/spend hen) | 1080 | 180 |
| Selling of eggs (290 pieces) | - | 2030 |
| Total gross return | 1080 | 2210 |
| Per bird annual cost benefit ratio (Annual per bird total gross return$÷$ Annual per bird total gross cost) | 1: 1.17 | 1: 1.66 |

**Figure 3.1:** **Gross return, gross cost and net profit of per broiler and layer.**

The figure 3.1 shows that gross return, gross cost and net profit is higher in layer than broiler. This indicates that although rearing cost is high in layer farm but it is more profitable than broiler farming.

***3.3.3 Cost Benefit Ratio***

The cost benefit ratio is shown in Table 3.5. The result of cost benefit ratio is 1:1.17 in broiler and 1:1.66 in layer. The cost benefit ratio value in my study more or less close to the findings of Alam, J., (1997), he found 1:1.22 cost benefit ratio for intensive farms.

**Figure 3.2: Cost benefit ratio for broiler and layer (Per bir**

**3.4 Common management Practices in poultry farms under study**

**Table: 3.6**: **Management of broiler farm in study area of Ramu upazilla (N=20).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Categories** | **No. of farms** | **% of farms** |
| **Water** |  |  |  |
| Drinker type | Hanging drinker | 17 | 85 |
| Pot/ bucket | 3 | 15 |
| Attached | 0 | 0 |
| Water supply | Manual | 8 | 40 |
| Pump | 12 | 60 |
| **Disease management** | own effort | 5 | 25 |
| By quack | 8 | 40 |
| By vets | 5 | 25 |
| All  | 2 | 10 |
| **Vaccination** | Regular | 12 | 60 |
| Irregular | 4 | 20 |
| Not at all | 4 | 20 |
| **Waste disposal****(litter material)** | To open air | 3 | 15 |
| To a pit | 4 | 20 |
| Biogas plant | 5 | 25 |
| Sell  | 1 | 5 |
| Fish feed | 2 | 10 |
| Crop field | 5 | 25 |
| **Biosecurity** |  |  |  |
| Enclosure surrounding the farm | Present | 0 | 0 |
| Absent  | 20 | 100 |
| Footbath  | Present | 2 | 10 |
| Absent  | 18 | 90 |
| Disinfectant spray | Use | 5 | 25 |
| Not | 15 | 75 |
| Visitors | Restricted | 4 | 20 |
| Moderately restricted | 9 | 45 |
| Allowed | 7 | 35 |
| Isolation of birds | Yes | 2 | 10 |
| Not | 18 | 90 |
| Migrating birds | Restricted | 13 | 65 |
| allowed | 7 | 35 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables**  | **Categories** | **No. of farms** | **% of farms** |
| **Housing** |  |  |  |
| Floor  | Concrete  | 15 | 75 |
| Muddy | 5 | 25 |
| Slats | 0 | 0 |
| Roof  | Iron sheets | 17 | 85 |
| Concrete | 2 | 10 |
| Bamboo & leaf | 1 | 5 |
| Sidewall | Wire netting | 19 | 95 |
| Bamboo splint  | 1 | 5 |
| **Floor**  |  |  |  |
| Rearing system | Floor  | 20 | 100 |
| Case | 0 | 0 |
| Litter material | Rice husk | 15 | 75 |
| Saw dust | 3 | 15 |
| Wood shavings | 2 | 10 |
| Frequency of litter change/month | 2 times | 8 | 40 |
| 3 times | 6 | 30 |
| 4 times | 6 | 30 |
| **Feeding**  |  |  |  |
| Feeder type  | Hanging plastic feeder | 17 | 85 |
| Pot/ bucket | 3 | 15 |
| Attached with case | 0 | 0 |
| Feed type | Self prepared  | 3 | 15 |
| Readymade mash | 3 | 15 |
| Readymade pellet | 14 | 70 |
| Use in crop production | 5 | 25 |
| Allowed | 7 | 35 |
| **Use of fan** | Yes | 12 | 60 |
| Not  | 8 | 40 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Categories** | **No. of farms** | **% of farms** |
| **Housing** |  |  |  |
| Floor  | Concrete  | 15 | 75 |
| Muddy | 5 | 25 |
| Slats | 0 | 0 |
| Roof  | Iron sheets | 17 | 85 |
| Concrete | 2 | 10 |
| Bamboo & leaf | 1 | 5 |
| Sidewall | Wire netting | 19 | 95 |
| Bamboo splint  | 1 | 5 |
| **Floor**  |  |  |  |
| Rearing system | Floor  | 20 | 100 |
| Case | 0 | 0 |
| Litter material | Rice husk | 15 | 75 |
| Saw dust | 3 | 15 |
| Wood shavings | 2 | 10 |
| Frequency of litter change/month | 2 times | 8 | 40 |
| 3 times | 6 | 30 |
| 4 times | 6 | 30 |
| **Feeding**  |  |  |  |
| Feeder type  | Hanging plastic feeder | 17 | 85 |
| Pot/ bucket | 3 | 15 |
| Attached  | 0 | 0 |
| Feed type | Self prepared  | 3 | 15 |
| Readymade mash | 3 | 15 |
| Readymade pellet | 14 | 70 |
| Use in crop production | 5 | 25 |
| Allowed | 7 | 35 |
| **Use of fan** | Yes | 12 | 60 |
| Not  | 8 | 40 |

**Table 3.7:** **Management of layer farms in study area of Ramu upazilla (N=20).**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Categories** | **No. of farms** | **% farms** |
| **Housing** |  |  |  |
| Floor  | Concrete  | 16 | 80 |
| Muddy | 4 | 20 |
| Slats | 0 | 0 |
| Roof  | Iron sheets | 17 | 85 |
| Concrete | 3 | 15 |
| Bamboo & leaf | 0 | 0 |
| Sidewall | Wire netting | 20 | 100 |
| Bamboo splint netting | 0 | 0 |
| Rearing system | Floor  | 7 | 35 |
| Case | 13 | 66 |
| **Feeding** |  |  |  |
| Feeder type | Hanging plastic feeder | 4 | 20 |
| Pot/ bucket | 3 | 15 |
| Attached with cage | 13 | 65 |
| Feed type | Self preparation  | 8 | 40 |
| Readymade mash | 12 | 60 |
| Readymade pellet | 0 | 0 |
| Amount of feed/ day | Less than 115 gm | 5 | 25 |
| 115- 120 gm | 12 | 60 |
| More than 120 gm | 3 | 15 |
| Frequency of feeding/day | 2 times | 14 | 70 |
| 3 times | 4 | 20 |
| 4 times | 2 | 10 |
| **Egg collection** | Manual  | 20 | 100 |
| Automated machine | 0 | 0 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Categories** | **No. of farms** | **% farms** |
| **Water**  |  |  |  |
| Drinker type | Hanging drinker | 4 | 20 |
| Pot/ bucket | 3 | 15 |
| Attached | 13 | 65 |
| Water supply | Manual | 6 | 30 |
| Pump | 14 | 70 |
| **Use of fan** | Yes | 13 | 65 |
| Not  | 7 | 35 |
| **Disease management** | Own effort | 3 | 15 |
| By quack | 5 | 25 |
| By vets | 8 | 40 |
| All  | 4 | 20 |
| **Vaccination** | Regular | 14 | 70 |
| Irregular | 4 | 20 |
| Not at all | 2 | 10 |
| **Waste disposal****(litter material)** | To open air | 5 | 25 |
| To a pit | 5 | 25 |
| Biogas  | 3 | 15 |
| Sell | 2 | 10 |
| Fish feed | 2 | 10 |
| Use in crop production | 3 | 15 |
| **Biosecurity** |  |  |  |
| Enclosure  | Present | 1 | 5 |
| Absent  | 19 | 95 |
| Footbath | Present | 9 | 45 |
| Absent  | 11 | 55 |
| Disinfectant spray | Use | 10 | 50 |
| Not | 10 | 50 |
| Visitors | Restricted | 5 | 25 |
| Moderately restricted | 8 | 40 |
| Allowed | 7 | 35 |
| Isolation  | Yes | 2 | 10 |
| Not | 18 | 90 |
| Migrating birds | Restricted | 15 | 75 |
| allowed | 5 | 25 |

***3.4.1 Housing***

The poultry houses in the Ramu upazilla, that are found in this study are mainly made of concrete (75% of the broiler and 80% of the layer houses) and remaining are made of mud (25% of broiler and 20% of layer houses). Corrugated iron sheet made roof were found 85% cases of both broiler and layer houses, concrete roof were found 10% of broiler and 15% of layer houses. Roof made of bamboo and leaf was found in 5% cases of broiler house but not found in layer house. In most of the cases sidewall of the house consists of wire netting (95% cases in broiler and 100% cases in layer house). Only one case of broiler (5%) the sidewall consists of bamboo splint netting. (Table 3.6 and 3.7).

In terms of side wall, North and Bell, (1990) suggested that the side wall should remain open. The height of the opening depends on climatic condition. For broiler 1/2 to 2/3 of each side should keep open. In present study the use of wire netting is more or less similar as open side’s house because of free access of air.

In present study there were found most of the roof of farm made of corrugated iron sheets. These findings have similarity with Chabo *et al.,* (2000) who reported that the most common material used in roofing poultry house is corrugated iron sheets.

***3.4.2 Floor management***

In current study it was revealed that in 100% cases broilers are reared in floor and 35% of the layer farm rears their bird in floor (Table 3.6 and 3.7). About 75% of the broiler farmer use rice husk, 15% use saw dust and 10% use wood shavings these findings are found in current study (Table 3.6 and 3.7). Mizu *et al.,* (1998) reported that in Bangladesh different types of litter such as saw dust, sugarcane bagasses, rice husk, wheat straw, sand and ash are used.

***3.4.3 Feeding***

In present study it was revealed that 85% of the broiler and 20% of the layer farmer use hanging plastic feeder, 15% of both broiler and layer farmer use pot / bucket feeder and in 65% of the layer farm the feeder are attached with case (Table 3.6 and 3.7).

In terms of type of feed used, 15% of the broiler farmer used self prepared and readymade mash feed and remaining 70% use readymade pellet feed. In layer none of the farmer use readymade pellet but, 60% use readymade mash and remaining 40% use self prepared feed (Table 3.6 and 3.7). Jahan *et al.,* (2006) in a study found the highest, intermediate and lowest body weight gain by crumble, pellet and mash feeding respectively. Mendes *et al.,* (1995) showed that, bird feed mash diet had a better feed conversion ratio (FCR) than pellet.

In current study it was found that, the broiler are maintained with adlibitum feeding where as the amount of feed per bird per day in case of layer are categories as less than 115 gm (25% of the farm); 115-120 gm (60% of the farm) and more than 120 gm (15% of the farm) (Table 3.6 and 3.7).Mahmud *et al.,* (2008) conducted a study in which all experimental birds were fed a commercial layer ration @ 110 gm per bird per day.

***3.4.4 Water management***

In this study it was found that, 85% of broiler and 20% of layer farmer, 15% of both broiler and layer farmer use hanging plastic feeder and pot/bucket respectively. In 65% of the layer farms, the drinker is attached with the cage(Table 3.6 and 3.7).The scenery of water supply is that, 40% of broiler and 30% of layer farm perform water supply manually and 60% of broiler and 70% of layer farm use pump**.**

***3.4.5 Biosecurity***

The Biosecurity practices of the farms involved in present study is not so good. In broiler farms there is no enclosure found, footbath present only in 10% of the farm, disinfectant spray use only 25% of the farm, in about 35% of the farm the visitors are allowed, 90% of the farm have no isolation facilities and about 35% of the farms have chance to entry of migrating bird. In layer farm these parameters are 5%, 55%, 50%, 35%, 90%, and 25% respectively(Table 3.6 and 3.7)

**CHAPTER-IV: CONCLUSION**

Poultry farming is a great opportunity for the rural people and youth as a means of income generation. Socioeconomic development might be achieved with the help of household poultry farming. There is a wide scope for the development of poultry farming in the countrywide because rural poor people have enough time for rearing poultry. It would be really very helpful for income generation, women empowerment, and fill up nutritional gap for the rural family. Socio-economic position on subsidiary occupation, monthly household income and expenditure, cash in hand, savings with bank, household assets, number of school going children, monthly consumption of meat, eggs, vegetables, milk and fish, sources of drinking water, condition of latrines and health status of farmers were improved and the annual cost for treatment is reduced after adopting farming. Since most of the people irrespective of caste and religion prefer chickens and eggs, its demand is and price is gone up. Most of the poultry farmers were small farmers while some of them were landless. Some improvements in the status of clothing, toilet condition, medical facilities, drinking water and housing have been taken place because of poultry farming. It was also revealed that layer farming is more profitable than broiler, so farmers can adapt layer farming for maximum profit. In the present study, in terms of overall socio-economic improvement it was found that poultry farming helped to improve their socioeconomic condition. As a result, tendency to initiate poultry farming is widely observed in rural areas.

**LIMITATIONS**

There were some limitations in my study. The study period was limited and study area restricted to a particular unions, for this reason the findings may not reflect the whole upazilla. There was limited recording system in poultry farms under study as a result it was difficult to select valid data. Some of the farmers were not cooperative to give information

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**QUESTIONNAIRE**

Questionnaire for data collection on **‘Farmers’ Socio-economic status and common management practices in poultry farming at a selected area in Ramu upazilla.**

Farm identity no: ………… Date:……

Name of the farm: …………………………

Address: ………………………………………………………………………

Name of the farm owner & address: …………………………………………..

Type of farm: Broiler/Layer

Number of bird:…………………

**Farmer’s information:**

Educational level: ………

Level of knowledge:………

Managemental skill: …………...

Source of investment : own fund/ loan/ both .

Other occupation:…………………

 Main occupation: yes/ not .

Amount of land: ……… acre.

Training: Taken/ Not taken

**Family Information**

Type of family: ……………… Family member no: …………………….

Table: Information of family members.

|  |  |  |  |
| --- | --- | --- | --- |
| Family members  | Educational status | Occupation | Income/ year (Tk.) |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |   |  |  |

Source of drinking water: …………......... Latrine condition: …………………

 Health status of the farmer: ………………………………..………………

**Information of income and expenditure of the farm:**

Annual egg production: ……… Annual meat production: ………kg

Feed cost/year: …………Tk. Housing cost/year: ……...……. Tk.

 Equipment cost/year: ….Tk. Labor cost/year: ……………… Tk.

Total cost: ………...Tk. Income from egg / year:……..…Tk. Income from selling of bird/year:…….Tk.

Net income: ……………………Tk. If have loan the amount:………………....Tk.

**Management**

Housing: Floor …………. Roof:………… Sidewall:……………………………………………

Rearing in : Case / floor Litter material: ………………………………………

 Feeder type: ………………………………Drinker type : ……………

 Feed: …………… Frequency of feeding: ……… times in a day

Amount of feeding : ……….. gm/ adlibitum. Water supply by : Manual/ pump.

Use of fan: yes/ not Use of nest: yes/not.

Litter change: …… times in a momth.

Waste dispose: To a pit/ open air/ to biogas plant.

Disease management: own effort/ quack/by vet/all

Vaccination: Regular/ Irregular/ not.

**Bio-security :**

 Enclosure: Present/ Absent Footbath: Present/Absent

Disinfectant spray: Use/no

Visitors: Strictly restricted/Moderate restricted/Allowed

Isolation of diseased bird: yes/not

Entry of migrating bird: Restricted/ Allowed**.**

 ……………………………..

 **Signature of interviewer**

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 **Biography**

This is Sajjad Hossain, son of Mr. Abdu Sukkur and Mrs. Sofia Akter. I am from Cox’s Bazar district. I completed S.S.C in 2008 and H.S.C in 2010 with GPA 5.00 .I got admitted into Doctor of Veterinary Medicine(DVM) course under Chittagong Veterinary and Animal Sciences University in 2011- 2012 session. As an upcoming Veterinarian I would like to dedicate my rest of the life for the welfare of animals. I am keen to be a field veterinarian as well as a skilled poultry practitioner.