CHAPTER- 4

**Results and Discussion**

**4.1 General description of the farm**

The **Table 4.1** 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 4336.84541.99, 6.160.47, 1.260.23 and 3.510.4 with range; 1500-10000, 3-10, 0-3 and 0.2-5.6 respectively in broiler farms and 5252.63708.61, 4.790.27, 1.370.21 and 4.10.45 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 4.1**: Analysis of different parameters related to farms and farm owners (N=40).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameters** | **Broiler farm (N=20)** | | **Layer farm (N=20)** | | **P-value** |
| **Mean SE** | **Range**  **(Min-Max)** | **Mean SE** | **Range (Min-Max)** |
| Farm size (Number of bird) | 4336.84541.99 | 1500-10000 | 5252.63708.61 | 1200-10000 | 0.41 |
| Number of family member | 6.160.47 | 3-10 | 4.790.27 | 3-7 | 0.02 |
| Number of educated member per farmer’s family | 1.260.23 | 0-3 | 1.370.21 | 0-3 | 0.74 |
| Amount of land per farmer (acre) | 3.510.4 | 0.2-5.6 | 4.10.45 | 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.

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

Different factors associated with socio-economic condition of the farmers of Gazipur district are listed in **Table 4.2** and specific findings of the study also describe below:

**Table 4.2**: Factors associated with socio-economic status of the farmers in Gazipur district (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 ( 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 |

**4.2.1 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 Kaliganj upazila of gazipur district **(Table 4.1).** 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).

**4.2.2 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.

**4.2.3 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.

**4.2.4 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).**

**4.2.5 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.

**4.2.6 Loan**

About 12.5% of the farmers involved in my study have loan less than BDT. 100000. 22.5% farmers have loan between BDT. 100000-500000, 15% have more than BDT. 500000. and 50% of the farmers have no loan.

**4.2.7 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. So the findings of my study more or less similar with **Rahman *et al*., (2002).**

**4.2.8 Literacy level of the farmers**

The literacy level of the farmers have been grouped into five educational group according to **Sumy *et al.,* ( 2010).** The **Table 4.3** 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 4.3:** 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 |

**4.2.9 Educational status of farmer’s children**

The level of education of the farmer’s children reflects the socio-economic position of a family in a society. In my study there were found (**Table 4.4**) the average number of boys and girls per farm owner attend to primary 0.7 and 0.5, high school 0.75 and 0.45, college 0.1 and 0.07 and university 0.01 and 0.01 respectively. These findings of the study agreement with **Ahmed *et al.*, (2009)** they also found more or less similar findings.

**Table 4.4:** Distribution of children of farm owner by institute (N=40).

|  |  |  |
| --- | --- | --- |
| **Particulars** | **Average no. of boys/farm** | **Average no of girls/farm** |
| Primary | 0.7 | 0.5 |
| High school | 0.75 | 0.45 |
| College | 0.10 | 0.07 |
| University | 0.01 | 0.01 |

**4.2.10 Sources of drinking water and latrine condition**

In present study it was revealed that about 87.5% of the farmer uses their own tube well as a source of drinking water. 5% use shared in tube well and 7.5% use shared in deep well (**Table 4.5**). The shearing of tube well is restricted to some drought months only.

**Table 4.5:** Sources of drinking water and condition of latrines (N=40).

|  |  |  |
| --- | --- | --- |
| **Particulars** | **No. of farmer** | **Percentage (%)** |
| *Sources of drinking water* |  |  |
| Own tube-well | 35 | 87.5 |
| Shared-in tube-well | 2 | 5 |
| Shared-in deep tube-well | 3 | 7.5 |
| *Latrine condition* |  |  |
| *Katcha* | 0 | 0 |
| Semi-sanitary | 10 | 25 |
| Sanitary | 27 | 67.5 |

No farmer use katcha latrine, 25% use semi-sanitary and 67.5% use sanitary latrine. **Ahmed *et al*., (2009)** showed using of higher percentage of semi-sanitary latrine among the farmer.

**4.2.11 Health statuses of the farmers**

In terms of health status there revealed that about 30% of the farmers had good health, 47.5% and 22.5% had moderate and poor health respectively. The health statuses of the farmers are shown in **figure 4.1.**

22.5%

9

47.5%

19

30%

12

**Figure 4.1:** Health statuses of the farmers.

**4.3 Economic analysis**

**4.3.1 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 4.6**).

**Table 4.6**: 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.

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

Per bird gross return of broiler and layer are shown in the **Table 4.7**. 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 4.7:** 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 4.2:** Gross return, gross cost and net profit of per broiler and layer.

The **figure 4.2** 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.

**4.3.3 Cost Benefit Ratio**

The cost benefit ratio is shown in **Table 4.7** .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 4.3: Cost benefit ratio** for broiler and layer (Per bird).

The **figure 4.3** shows that per bird **cost benefit ratio** is higher in layer than broiler. So layer farming is more profitable.

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

**Table: 4.8**: Management of broiler farm in study area of Gazipur district (N=20).

|  |  |  |  |
| --- | --- | --- | --- |
| **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 |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 |

**Table 4.9:** Management of layer farms in study area of Gazipur district (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 |

**4.4.1 Housing**

The poultry houses in the Gazipur district, 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 4.8 and 4.9).**

The poultry house floor should made by concrete. **Farooq *et al*., (2002)** showed the mortality of bird lower in concrete floor (12.431.45%) than in those on brick and mud made floors (14.361.55%). **Farooq *et al*., (2002)** also reported that, maintenance of broiler under good hygiene conditions on well finished concrete floor, providing the required space per broiler following recommended vaccination are the key factors to reduce mortality among the broilers.

**Abreu *et al*., (2011)** found no difference in live performance parameters (Live weight, Feed intake, FCR) but total mortality and sudden death were higher in bird reared on dirt floor compared to concrete floor. **North and Bell, (1990)** suggested a concrete or similar type of floor is mandatory. 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.

**4.4.2 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 4.8 and 4.9).** **Ratsaka *et al.,* (2012)** conducted a study to compare floor and case rearing of broiler. Feed intake, body weight gain and FCR of the chickens in that study were not affected by the system of rearing.

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 4.8 and 4.9).** **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.

**4.4.3 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 4.8 and 4.9).**

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 4.8 and 4.9).** **Jahan *et al.,* (2006)** in a study on poultry farm of Bangladesh Agricultural University, 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 4.8 and 4.9).**

**Elliot, (2002)** reported that the amount of feed required depends on poultry breed, size and chemical composition of the ingredients used to making feed.

**Mahmud *et al.,* (2008)** conducted a study in which all experimental birds were fed a commercial layer ration @ 110 gm per bird per day.

**4.4.4 Water management**

In this study it was found that, 85% 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 4.8 and 4.9).**

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 **(Table 4.8 and 4.9).**

**4.4.5 Waste management**

In terms of waste management there were found 15% of the broiler and 25% of the layer farmer dispose waste material (droppings and litter) to open air, 20% of broiler and 25% of layer farmer dispose to a pit, 25% of broiler and 15% of layer farmer used the litter in biogas plant, 5% of the broiler and 10% of the layer farmer sell to the market, 10% of the both broiler and layer farmer use as fish feed and 25% of broiler and 15% of layer farmer use to crop production **(Table 4.8 and 4.9).** Similar study was conducted by **Sarker *et al.,* (2009)** they showed that 20% of small farmer could not use their poultry litter for any particular work.

**4.4.6 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 4.8 and 4.9).**

**4.4.7 Others managemental practices**

About 25% of the broiler and 40% of the layer farmer manage disease by the help of vets. Regular vaccination is performed in 60% of broiler and 70% of layer farms. Egg collection is manual in all of the layer farms. Fan is used in about 60% of broiler and 65% of layer farms **(Table 4.8 and 4.9).**

So we can conclude that the overall managemental practices in layer farms is somewhat improved than broiler farms.

**Figure 4.2:** Activities in the poultry farm of Gazipur district.