**Chapter-I**

**INTRUDUCTION**

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.

The women folk can easily be considered as backbone of any nation and better half of the men in almost all spheres of community development, of which Bangladesh is not an exception. Rural women, who constitute about 50 % of total rural population, play an active role in all spheres of economic life and contribute richly towards national income.

 The role of women becomes much more pertinent as they significantly contribute in all land based farm operations including animal rearing. Their work often remains physically visible but conceptually and culturally invisible. In the rural areas even though women are playing a major role by undertaking the most tiring and time consuming work in livestock enterprises, their contribution is not recognized. Role of women is not adequately reflected in the national census & development  activities due to lack proper documentation of homestead activities(Hossain & Sen,1992). They share abundant responsibilities and perform a wide spectrum of duties. By and large they have remained “**invisible workers**”. Because of law “visibility” of their contributions, they are not regarded as equal partners in the development processes.

Of the major rural enterprises, dairy enterprise has been regarded as an important instrument of economic and social change to supplement the income and employment to the rural sector in general and rural women in particular.

Livestock are considered to be integral component of agricultural production system. The role of this sub sector is quite imperative in respect of nutrition, employment & income generation for the poor & alleviation of poverty in agrarian  economy of Bangladesh(Alam,1998). Livestock is the most important means through which rural women are able to contribute meaningfully to the cash needs for themselves & their family members with very less amount capital.

But time is being changed. Almost everywhere there is glamour of change. The 21st centuary is the centuary of being positively changed- myself along with surroundings. In this modern technology based world, it will be very difficult to find anyone even a women who waste her time. Everybody utilize owns time properly. Women are no longer left behind. They can also successfully do their job. One example is-dairy sector. With their hard work, responsibilities, efficiency and most of all the affection & love to the animals make them successful.

In accordance with great contributions of women in the dairy 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 large livestock animals like cattle & buffalo, 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 role of farm women as perceived by themselves in relation to dairy animal production tasks.
* To evaluate various parameter of farmers which have an impact on dairy farming . The evaluated parameters are-
* Personnel characteristics:-age, education, knowledge,
* Economic characters:-land holding, income etc.
* Social characteristics:-Extension works
* Psychological characteristics:-attitude towards homestead agriculture & innovativeness
* Changes in women’s socio-economic position, eg; social participation, training received, dairy income, information seeking behaviour, managerial assistance, ability to co-ordinate activity, leadership ability, self confidence, market orientation etc.

**Chapter-II**

**REVIEW OF LITERATURE**

In rural area of Bangladesh, women are major but largely unrecognised contributors to agricultural and economic productivity. The involvement of rural women in decision-making activities (independently or as part of a group), in particular in decisions relating to feeding, breeding, management, veterinary health care and marketing products of dairy cattle are largely noticable.

Women participation in dairying is countable now& recorded in recent times. The studies were pertaining to the farm women in dairy co-operatives and allied activities are scanty. However an attempt has been made to review and present the relevant literature including that outside the purview of dairy activities.

In male dominated society normally the decision is taken by men only. It has been reported that while taking the decision the women are consulted in various activities such as seed storage, care of animals **(Sharma and Sing, 1970).**

**Puri et al. (1971**) revealed that preparation of feed, feeding cattle, grazing and washing of animals were mostly carried out by women.

**Bahrma et al, (1978)** emphasized on the importance of the dairying in rural areas as it contributed substantially to their economy by creating employment opportunities for rural women.

**Puri (1971) and Venkatachalum(1983)** revealed that that participation of feed, feeding cattle, grazing and washing of animals were mostly carried out by women.

**Jagannathan (1984)** indicated that in hilly and tribal areas, women were doingthe entirelivestock management on their own**.**

**Janesujatha (1986**) reported that 81.25 percent of farm women had large and joint family.

**Chauhan et al, (1994)** reported that despite lower proportion and level of education, women contributed a larger share of labor in agriculture and dairying. Their contribution to total house hold income was assessed to be 32%, though there share as high as 65% to the farm household income. The study further concludes that the formally educated women have a tendency to dislike the dairy business; they preferred to take up those tasks which are comparatively lighter, clean and less risky. Women being important resource person for dairy production. It becomes necessary to educate them on scientific lines as stated above. .

**Bhatt (1987)** indicated that farm women had no or low exposure to mass media.

**Rahaman et al, (1988)** studied participation of women and children in agricultural activities in the area of Bangladesh. The study found that women and children participate mostly in family farm activities particularly in livestock activities rather than crop. Women labor was reported to be hired out from landless families.

 **Sardana (1988)** observed that Indian farm women are playing dominant role in about eight Agricultural activities. In descending order these are tending dairy cattle, collecting fodder from the field, selling livestock product, storage of farm product, weeding operations, management of cattle treatment, harvesting the crops and making of farm yard manure.

**Padma (1987) and Anuradha (1992**) concluded that majority of the farm women were small farmers.

**Jain and verma (1992)** reported that on an average, a woman devoted 5.5 hours per day in husbandry activities. **Shella and Katteppa(1996**) found that farm women who involve themselves in agriculture and dairy enterprises in addition to household work spent 3.11 hours per day in dairying.

**Bharati (1996**) reported that 80 percent farmers have agriculture as their primary occupation in combination with dairying.

**Thakor (1996)** observed that more than 50 percent of the small farm women never participated in taking decisions regarding fare activities.

According to**Haq (1998***).Women’s Contribution to Homestead Agricultural Production System**in Bangladesh Survey,(1988****),***About 71.3%,86.0%,70.5% women of marginal families are doing the works like husking ,boiling, storing etc . On the contrary, the above works are also done by about 51.9%, 78.0%, 53.8% women of some rich farmers’ families.

**FAO** presents that women works for longer times than men in most of the societies of the world .It is also shown that women work 13 hours more in average in a week, in Africa and Asia. Including Bangladesh ,a village woman of the developing countries of Asia and Africa begins her work at 4.00 am and continues ceaselessly till 10.00 p.m.

**Md. Hamidul Islam (1996)** studied the women participation in dairying in some selected area of Bangladesh. He observed that mostly (62%) house wives were involved in dairying and they are of middle ages between 30 to 40 years. These women are mostly illiterate (84%) and only 12% could read and write. It was also observed that in decision making regarding feeding and management, 27.45%, and 28% respectively. While in breeding, health care and marketing were less than 3% only. Besides these in case of milking, manure disposal, milk selling and watering women had their participation of about 27.1%, 60%, 20% and 82%, respectively.

For the above reviews which are cited from different authors reveals that it would be very helpful for comparing the present research findings. It will be ultimately helpful for proper interpretation of the objectives of the study.

**Chapter-III**

**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.

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

The research usually involves the selection of one or more areas which are particularly suitable for fulfilling the objectives set for the study. Six Villages namely Mukhi, Shonatola, Baghber, lokkhonpur, Haoakhali & Birunia at **Gaffargaon thana in Mymensing 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.
* This areas is well served by roads and rickshaw services
* Women play a significant role in animal health care, management as their husbands are busy in other business.

**3.2. 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 one milch cow,
* 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.5 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 30farm 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 animals 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.

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

The survey schedule was designed in accordance with objectives of the research. A survey schedule was prepared to record the desired information from the dairy cow 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.

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

 The data was collected by following the prepared final questionnaire also considering the different factors among which survey cost & financial accounting are important. It is important to say that the followed method were less costly, less time consuming, easier to employ and appropriate for the small holder dairy farms available in our country.

 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 schedule which are given in the appendix.

**3.5. Period of data collection:**

The whole survey was conducted by the author herself during the period of 02\01\2013 to 10\01\2013.

It should be noted that most of the farmers were illiterate and very poor. They were not aware about actual procedure of animal 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.

**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 dairy cattle management and production.

**4.1. 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.

**4.1.1: Age:** Age is an important parameter which effect the involvement of women in dairy farming. As the dairy farming is a hard working task, so mainly the women around 20-40 years are mostly involved. Women of other ages are also involved, but less in number. For this, three age groups are considered-

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

**4.1.2: Religion:** Though in the past it is seen that Hindus are much more involved in traditional dairying for their religious feelings, but now-a -days, Muslim and other families also largely involved in dairy sector. As my study areas were Muslim based area I found that they are willingly doing dairy farm for their economic improvement. For my study~~,~~ three groups are taken into account-

1. Muslim
2. Hindu
3. Others

**4.1.3: 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

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

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

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

1. Nuclear family
2. Joint family

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

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

Or above

1. Madrasa

 **4.1.7: 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. Labourer
2. Business
3. Agriculture
4. Service holder
5. Others

**4.1.8: Land holdings:** Land holdings are mainly involved in the variation of farm size i.e. the number of cattle. The flock size is also a parameter which cause the variation of role of women. In this study the groups are-

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

**4.1.9: Types of houses:** It represents the economic condition oh the family as well as the dairy 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:4.1 Distribution of respondents by demographic and socio-economic characteristics-

|  |  |  |
| --- | --- | --- |
| **Demographic & socio-economic characteristics** | **Frequency** | **Percentage(%)** |
| 1. **Age**

<20 years20-40 years >40 years | 5223 | 16.773.310 |
| 1. **Religion**

 IslamHinduOthers | 1884 | 602613 |
| 1. **Family position**

 HousewifeDaughter-in-law Mother-in law | 2343 | 76.713.310 |
| 1. **Size of family**

Family member ≤5Family member >5 | 1911 | 63.336.7 |
| 1. **Type of family**

NuclearJoint | 1812 | 6040 |
| 1. **Educational status**

IlliteratePrimarySecondaryHigher secondary & aboveMadrasa | 69546 | 203016.713.320 |
| 1. **Occupation of spouse**

LabourBusinessAgricultureService holdersOthers | 310926 | 1033.3306.720 |
| 1. **Land holdings**

<1 acre1-2 acre2-4 acre>4 acre | 91371 | 3043.323.333.33 |
| 1. **Types of house**

  KacchaPuccaMixed | 10812 | 33.3326.6640 |

From the information obtained it was observed that mostly housewives (76.7%) contribute in dairyng but most of them(73.3%) were middle age(20 -40yr). Their predominant religion was Islam(60%) and mostly were small businessman (33.33%), or depends on agriculture(30%).They were mostly illiterate(20%),and poor, having kaccha(33.33%), or mixed(40%) type house with joint family size(40%).They had low to medium experience in dairy activities.

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

In dairy 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:4.2: Distribution of women involved in decision making of feeding:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Activities/ Tasks** | **Decision-making pattern** | **No response** |
| **Farm women only** | **Spouse only** | **Jointly** | **Labour** |
|  ***f***  | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| 1. 111
 | Green fodder to be fed or not. | 17 | 56.66 | 9 | 30 | 8 | 26.66 | - | - | - | - |
| 2. | Green fodder to be purchased or home made | 9 | 30 | 13 | 43.33 | 6 | 20 | - | - | 7 | 23.33 |
| 3. | Quantity of green fodder are to be fed | 18 | 60 | 8 | 26.66 | 9 | 30 | 1 | 3.33 | 1 | 3.33 |
|  4. | Concentrate to be fed or not | 3 | 10 | 19 | 63.33 | 10 | 33.33 | - | - |  3 | 10 |
|  5. | what concentrate to be fed | 3 | 10 | 18 | 60 | 7 | 23.33 | - | - | 7 | 23.3 |
| 6. | Quantity of concentrate to be fed | 7 | 23.33 | 14 | 46.66 | 10 | 33.33 | - | - | 4 | 13.3 |
| 7. | Mineral mixture to be fed or not | 4 | 13.33 | 14 | 46.66 | 5 | 16.66 | - | - | 11 | 36.6 |
| 8. | Time of feeding | 19 | 63.33 | 11 | 36.66 |  5 | 16.66 | 3 | 10 | - | - |
| 9. | Frequency of feeding | 20 | 66.66 | 9 | 30 | 5 | 16.66 | 1 | 3.33 | 1 | 3.3 |
| 10. | Silage or hay making | 2 | 6.66 | 11 | 36.66 | 5 | 16.66 | 4 | 13.3 | 13 | 43.3 |
| 11. | Chopping of fodder | 11 | 36.66 | 15 | 50 | 3 | 10 | 3 | 10 | 4 | 13.3 |
| 12. | Method of storage of straw | 4 | 13.33 | 20 | 66.66 | 3 | 10 | 4 | 13.33 | 6 | 20 |
| 13. | Treatment of straw or use of UMB | 2 | 6.66 | 14 | 46.66 | 1 | 3.33 | 6 | 20 | 9 | 30 |
|  | **Overall average** | **33.32** | **45.20** | **18.45** |  **5.64** | **16.92** |

From the table it is seen that women are mostly involved in decision making relating to green fodder (56.66%), time of feeding (63.33%), frequency of feeding(66.33%) and less involved in decision making relating to concentrate (10%), silage or hay making (6.66%), storage of straw (13.33%), treatment of straw with molasses (6.66%). Hence the involvement of women (33.52%) (overall average) is less than man (45.20), but increased from previous day.

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

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

The percentage of involvement of women in decision making on health care is given in table-4.3.

 Table4.3: 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 | 9 | 30 | 13 | 43.33 | 6 | 20 | 1 | 3.3 | 5 | 16.66 |
| **2.** | Maintaining of vaccination schedule | 16 | 53.33 | 6 | 20 | 2 | 6.66 | 3 | 10 | 3 | 10 |
| **3.** | Treatment of sick animals  | 8 | 26.66 | 12 |  40 | 7 | 23.3 | 2 | 6.6 | 2 | 6.66 |
| **4.** | Regular deworming  | 14 | 46.66 | 5 | 16.66 | 5 | 16.6 | 2 | 6.6 | 4 | 13.33 |
|  | **Overall average** | **39.16** | **29.99** | **16.66** | **6.66** | **11.66** |

It is very positive that, now the farmers are aware of their animals in the study area. Only 11.66% were not responding about vaccination and regular deworming. Here women were mostly involved in maintaining vaccination schedule (53.33%) than man (20%). But in case of treating sick animals man were more respondent (40%) than women (26%).

**4.4: Involvement of farm women in decision making in terms of breeding:** Though the breeding management is most important factor for profitable dairy farm, if the farmers want a calf per year. But it is the most negligible one in dairy sector. Role of women in this terms should be increased.

The percentage of involvement of women in decision making on health care is given in table-4.4

Table4.4: Distribution of women involved in decision making on breeding management

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Activities/ Tasks** | **Decision-making pattern** | **No response** |
| **Farm women only** | **Spouse only** | **Jointly** | **Labour** |
| ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| 1. | Heat detection | 14 | 46.66 | 8 | 13.33 | 3 | 10 | 2 | 6.66 | 3 | 10 |
| 2. | Natural service | 9 | 30 | 6 | 20 | 2 | 6.66 | - | - | 12 | 40 |
| 3. | Artificial insemination or AI |  3 | 10 | 9 | 30 | 4 | 13.33 | 3 | 10 | 11 | 36.66 |
| 4. | Time of AI |  5 | 16.66 | 7 | 23.33 | 1 | 3.33 | 1 | 3.33 | 16 | 53.3 |
| 5. | Treatment of animals suffering with reproductive disorders to be got done by vet. Doctor or village healer | 5 | 16.66 | 11 | 36.66 | 4 | 13.33 | - | - | 10 | 33.33 |
| 6. | Pregnancy diagnosis  | 10 | 33.33 | 6 | 20 | 4 | 13.3 | 1 | 3.33 | 11 | 36.6 |
|  | **Overall average** |  **25.55** |  **23.88** |  **9.99** | **3.88** | **34.99** |

Table shows that farm women were actively involved **(25.55%)** in the decision making process with regard to breeding activities of dairy animals though the involvement of spouse **(23.88%)** was also noticeable. Women detect heat during milking by some signs & sometimes by also other family members. The animal were mostly reared in semi intensive system that’s why natural service was more but the spouse were mostly interested for A.I. If the animal was suffering from reproductive disorder the animal was treated by village quack commonly. Pregnancy diagnosis was not generally done by rectal palpation except in some cases by village A.I. technician but diagnosed by the farm family members by assumption.

Taking outside of animal for grazing or service or treatment was generally done by male person of family due to these were outdoor activities, long distance and time consuming. The housewife didn’t like to spare much time in such cases.

Though the breeding management is one of the most important topic in dairying, but in the study area it has been neglected, as by calculation the percentage of no response is average **34.99%.**

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

Management-is a broad term, which includes many things. Such as- the time of any work, its frequencies, who will do it, when and how etc. In a farm if there everything is ok, but only for bad management it will be an unprofitable one. Women are mostly involved in management practices in dairy sector.

The percentage of involvement of women in decision making on management is given in table-4.5.

Table4.5: 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 newborn calf. | 22 | **73.33** | 3 | 10 | 2 | 6.66 | 3 | 10 | 2 | 6.66 |
| 2. | Weaning of calf to be done or not. | 13 | **43.33** | 9 | 30 | 3 | 10 | - | - | 5 | 16.66 |
| 3. | Animals to be kept in open or in shed. | 5 | 16.66 | 16 | **53.33** | 5 | 16.66 | - | - | - | - |
| 4. | Determination of type of shed | 3 | 10 | 18 | 60 | 8 | 26.66 | - | - | 2 | 6.66 |
| 5. | Number of dairy animals to be kept. | 3 | 10 | 12 | 40 | 11 | 36.66 | - | - | 2 | 6.66 |
| 6. | Shed would be disinfected or not | 9 | 30 | 7 | 23.33 | 5 | 16.66 | - | - | 11 | 36.66 |
| 7. | Time of milking. | 13 | 43.33 | 7 | 23.33 | 7 | 23.33 | 2 | 6.6 | 2 | 6.66 |
| 8. | Frequency of milking. | 18 | **60** | 4 | 13.33 | 3 | 60 | 2 | 6.6 | 3 | 10 |
| 9. | No. of times animals are to be bathed & groomed in a week. | 10 | 33.33 | 13 | **53.33** | 5 | 16.66 | 4 | 13.33 | 3 | 10 |
| 10. | Care & management of pregnant animal . | 12 | 40 | 4 | 13.33 | 4 | 13.33 | 3 | 10 | 10 | **33.33** |
| 11. | Disposal of dead animals | - | - | 8 | **26.66** | 1 | 3.33 | 8 | 26.66 | 14 | 46.66 |
| **Overall average** | **32.72** | **31.51** | **20.90** |  | **16.35** |

It was found out that woman puts a good percentage of contribution to the animal management(32.72%). But also spouse (31.51%)& joint (20.90%) decision also was also take a good percentage in animal rearing .It’s also should be noted that women kept most contribution in management of new born calf (73.33%), frequency of milking (60%), time of milking(43.33%),weaning of calf to be done or not(43.33%),care & management of pregnant animal(40%) .

It would be observed that in this segment also activities requiring monetary input were decided either jointly by the farm women and the spouse or collectively by the family.

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

The participation of women was higher in health care (39.17%), then feeding (31.53%) and management (32.72%) practices. Joint decision was also noticeable in all types of practices.

 But in case of breeding management the percentage of no response (34.99%) was higher. So, it should be improved, because by proper breeding management and breeding policy, a dairy farmer can improved his farm economy as well as national economy.

**4.6: Involvement of farm women in decision making in terms of daily routine works in a dairy farm:**

Women are mostly involved in the commonly common works of a dairy farm, such as :hygiene maintaining, watering, milking etc.

The involvement of the respondents in these works is given in table 4.6.

Table4.6: Involved of women in terms of the following terms:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Activities/ Tasks** | **Decision-making pattern** | **No respons****e** |
| **Farm women only** | **Spouse only**  | **Jointly** | **Labour** |
| ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) | ***f*** | (%) |
| **1.** | Hygiene maintaining | 14 | 46.66 | 8 | 26.66 | 7 | 23.3 | 3 | 10 | 2 | 6.6 |
| **2.** | Watering in the farm | 7 | 23.33 | 9 | 30 | 8 | 26.6 | 6 | 20 | - | - |
| **3.** | Milking  | 11 | 36.66 | 6 | 20 | 9 | 30 | 4 | 13.3 | - | - |
| **4.** | Selling of milk & other dairy product | 5 | 16.66 | 11 | 36.66 | 12 | 40 | 2 | 6.66 | - | - |
| **5.** | Manure disposal | 5 | 16.66 | 9 | 30 | 7 | 23.3 | 6 | 20 | 4 | 13.3 |
| **6.** | Vaccination | 9 | 30 | 13 | 43.33 | 6 | 20 | 1 | 3.3 | 5 | 16.6 |
|  | **Overall average** | **28.33** | **31.11** | **27.22** | **12.22** | **6.11** |

The table shows that the women were mostly involved in hygiene maintaining (46.66%) and in milking (36.66%). Hence the spouse were mostly involved in selling of milk and milk products (36.66%) and in vaccination (43.33%).

In the study area it has seen that the women were remain busy mostly in the activities within the door, they also participate in the outdoor farm activities too. For this, the work like selling of milk and milk products, vaccination etc their participation is less than man. But it will be wrong to says that they were lag behind in these works. Their participation is also good and day by day it is increasing.

In the next page, I tried to represents the graphical representation of table 4.6 as

* Figure: 4.6.1-Column chart: Comparative distribution of the respondents in various daily works in dairy farm
* Figure: 4.6.2-Pie chart: Participation of women in various daily works in dairy farm

These charts have been made based upon the figures found on table 4.6.

Figure :4.6.1: Comparative distribution of the respondents in various daily works in dairy farm

Figure :4.6.2 : Participation of women in various daily works in dairy farm

* 1. **:Women comments regarding dairying**

By the respondents the following comments were found as their farming problem. These are given below-

|  |  |  |  |
| --- | --- | --- | --- |
| **Comments** | **Prime constraint** | **Somewhat a constraint** | **Rank** |
| A .Feeds are not sufficient  | 92 | 08 | I |
| b. High price of concentrate  | 84 | 16 | II |
| c. A.I service is not sufficient  | 77 | 18 | III |
| d. Vet service is not sufficient  | 68 | 22 | IV |
| e. Demand more credit  | 62 | 10 | V |
| f. Higher interest in bank credit  | 55 | 13 | VI |
| g. Prevalence of diseases  | 48 | 36 | VII |

Insufficiency of feed was the main problem in the dairy sector of the studied area. According to the respondents it varies seasonally. The high price of the concentrate was also a big problem.

There veterinary services were also insufficient and don’t get in the right time. The unavailability of the medicine was also a big problem.

The respondents said that they want to continue their dairy farm, but less and shortage of credit, and also the higher interest of the bank made them Confucius either they would continue or not.

**Chapter-V**

**Summary and Conclusion**

The contribution of women to the national development is crucial. The process of development would be incomplete, unless the women folk is fully involved in it. 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 dairy cattle management and production.

Dairying is nearly always a part of mixed farming systems in Bangladesh. It has a direct impact on income generation, poverty alleviation and availability of animal protein. Rural women traditionally play a very important role in raising livestock specially dairying. However, the household job they perform is unpaid and the traditional extension service does not make much contribution to raise their skills. The women are by passed by banks and other money lending institutions. the animal husbandry transfer of technology programmes should be planned accordingly and implemented pervasively through personal contacts with the landless livestock.

But more impressing matter is that, the condition is going to change. Now the women are conscious about their role in family matters as well as their family members too. Its reflection is the foundings of this study. Here it is seen that women has greater participation in health care, breeding management & overall management practices than their spouses only. In other household sectors eg; milking(74%),manure disposal(62%),milk selling(58%), watering(68%) they has great contributions .As the matters like marketing(18.42%) the decisions are mostly taken by farm owner also collectively by the family. In marketing of animals and their products the system I disorganized. Men are mostly involved in outdoor activities and they remain more busy in those work. For this they are not highly involved in this sector, except commercial dairy farming.

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

* shortage of feeds and fodder (both in terms of quality and quantity),
* the breeds of cattle available,
* lack of veterinary health care,
* lack of marketing information
* Shortage of vaccine
* fund problem

### Recommendations:- In order to increase the contributions of women in dairy production , the following recommendations should be implemented:-

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

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

       A well-organized marketing system should be established to give the farmers a better price for their livestock products.

       The National media (Radio, TV) should arrange a campaign for successful dairy projects.

       Regional workshops, seminars, exhibitions should be organized at the inter­national level for sharing the experiences of farmers about successful project.

       Regional Livestock Training Institute can be set-up to increase the capacity of NGO and private sectors.

       Co-ordination amongst Government, NGOs and donors should be strengthened

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, dairy production under with the help of different NGO’s GO’s are useful to improve the native backyard cattle rearing system where women traditionally play the most important role.

Women constitute about 49 percent of the total population of Bangladesh. Therefore any development programmed requires their active participation. So it is the time to take measures to encourage the rural women in livestock raising by allowing more credit facilities and to establish “Mini” dairy farm in their home-stead areas. These would be useful in generating income for rural farm families as well as to help alleviate the malnutrition of the children of the family as well as the country. It is known to all that if a baby is maintained properly by proper & balanced nutrition, he will be the sharper one by body, by mind and by brain too. And this baby in future will gift the elders a better world.

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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. Hygiene is maintained by**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

 d. Others

**11. Watering is done by:**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

**12. Milking is done by:**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

**13. Vaccination is done by:**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

 **14. Manure disposal is done by:**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

**15. Milk selling is done by:**

 a. Husband

 b. Wife

 c. Labor

 d. jointly

**16. Women comments about dairying :**

**17. Problems faced by women regarding dairying :**

**18. 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 animals  |  |  |  |  |  |
| **4.** | Regular deworming  |  |  |  |  |  |

**19. Women involved in breeding management**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No.** | **Activities/ Tasks** | **Decision-making pattern** | **No response** |
| **Farm women only** | **Spouse only** | **Jointly** | **Labour** |
|  |  | (%) | (%) | (%) | (%) | (%) |
| 1. | Heat detection |  |  |  |  |  |
| 2. | Natural service |  |  |  |  |  |
| 3. | Artificial insemination or AI |   |  |  |  |  |
| 4. | Time of AI |  |  |  |  |  |
| 5. | Treatment of animals suffering with reproductive disorders to be got done by vet. Doctor or village healer |  |  |  |  |  |
| 6. | Pregnancy diagnosis  |  |  |  |  |  |

**20. Women involved in feeding management**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Activities/ Tasks** | **Decision-making pattern** | **No response** |
| **Farm women only** | **Spouse only** | **Jointly** | **Labour** |
| (%) | (%) | (%) | (%) | (%) |
| 1. 11
 | Concentrate to be fed or not. |  |  |  |  |  |
| 2. | What concentrates are to be fed |  |  |  |  |  |
| 3. | Quantity of concentrates are to be fed |  |  |  |  |  |
|  4. | Concentrate mixture to be home made or purchased |  |  |  |  |  |
|  5. | Frequency of feeding |  |  |  |  |  |
| 6. | Green fodder to be fed or not |  |  |  |  |  |
| 7. | Green fodder to be purchased or home made |  |  |  |  |  |
| 8. | Quantity of green fodder to be fed |  |  |  |  |  |
| 9. | Quantity of crop residues are to given |  |  |  |  |  |
| 10. | Silage or hay making |  |  |  |  |  |
| 11. | Chaffing of fodder |  |  |  |  |  |
| 12. | Method of storage of straw |  |  |  |  |  |
| 13. | Treatment of straw or use of UMB |  |  |  |  |  |

**21. Women involved in management**

|  |  |  |
| --- | --- | --- |
| **SL.NO.** | **ACTIVITIES** |  **DECISION MAKING PATTERN** |
| **Farm women only (%)** | **Spouse only (%)** | **Jointly (%)** | **Labour (%)** | **No response (%)** |
| 1. | Management of newborn calf. |  |  |  |  |  |
| 2. | Weaning of calf to be done or not. |  |  |  |  |  |
| 3. | Animals to be kept in open or in shed. |  |  |  |  |  |
| 4. | Determination of type of shed |  |  |  |  |  |
| 5. | Number of dairy animals to be kept. |  |  |  |  |  |
| 6. | Shed would be disinfected or not |  |  |  |  |  |
| 7. | Time of milking. |  |  |  |  |  |
| 8. | Frequency of milking. |  |  |  |  |  |
| 9. | No. of times animals are to be bathed & groomed in a week. |  |  |  |  |  |
| 10. | Care & management of pregnant animal . |  |  |  |  |  |
| 11. | Disposal of dead animals |  |  |  |  |  |