

From experience to knowledge  
From knowledge to action  
From action to impact



## Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project



**Eco-Social Development Organization (ESDO)**  
**Palli Karma Sahayak Foundation**

January 2019

# Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project



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Survey Title: Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project

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At last but not at the least, our sincere thanks and acknowledgement also go to the respondents for their nice cooperation and patience during the interview and other survey related activities.

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## PREFACE

Eco Social Development Organization (ESDO) has completed a 3 years Beef Fattening Sub sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) project of Palli Karma-Sahayak Foundation (PKSF) entitled as “Improvement of Increase Income and Employment generation through year round beef fattening and marketing (বছরব্যাপি গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তারদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি) in two Upazilas of Thakurgaon District with the aim to improve the livelihood of the entrepreneurs through the year round beef fattening and marketing. There was a total of 4400 entrepreneurs of the projects of which 4000 were involved in beef fattening and rest 400 were involved in manufacturing of compost using the cow dung from the fattening farms.

I am grateful to the officials of PKSF specially to the PKSF-PACE unit for providing continuous appropriate direction and technical supports that enriched the quality implementation of the project.

I do thank the Evaluators Professor Dr. Md. Mufazzal Hossain , Chairman, Dept. of Animal Nutrition, Gene cs Breeding, Sher-e-Bangla Agriculture University Team Leader & Dr. K. B. M. Saiful Islam , Chairman, Dept. of Medicine & Public Health Sher-e-Bangla Agriculture University Co-Team Leader –for their excellent professional efforts for conducted the “Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project”.

Finally, I am thankful to the all relevant stakeholders including program participants, ESDO staffs, enumerators – for their appropriate supports for conduct the study.

We hope the recommendations of the report will be significantly contributed for the Beef Fattening Sub Sector Value Chain initiatives in Bangladesh

**Dr. Md. Shahid Uz Zaman**  
Founder & Executive Director  
ESDO



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## ABBREVIATION

BDT	:	Bangladeshi Taka
DLS	:	Department of Livestock Services
ESDO	:	Eco-Social Development Organization
FASVM	:	Faculty of Animal Science & Veterinary Medicine
FGD	:	Focus Group Discussion
HH	:	Household
HHs	:	Households
IMPS	:	Integrated Multipurpose Sample
KII	:	Key Informant Interview
MST	:	Multistage Sample Technique
NGO	:	Non-Government Organization
PACE	:	Promoting Agricultural Commercialization and Enterprises
PKSF	:	Palli Karma-Sahayak Foundation
SAU	:	Sher-e-Bangla Agricultural University
SI	:	Sanitary Inspector
UAO	:	Upazila Agriculture Officer
ULO	:	Upazila Livestock Officer
UMS	:	Urea Molasses Straw
UNO	:	Upazila Nirbahi Officer



# EXECUTIVE SUMMARY

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**Title:** Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project

**Objective:** The objective of the evaluation was to assess the project performance against key indicators set out in the logical framework by comparing with baseline status in order to document an overall end of project evaluation in a report with recommendations.

**Methodology:** The end-line evaluation was conducted among 352 beneficiary households under 8 branch offices of Eco Social Development Organization (ESDO) in 2 Upazilas under Thakurgaon district following random sampling approaches to collect, verify and analyze data. The sample size was calculated using standard statistical formula. Total 38 KIIs were conducted in the research area. Key persons interviewed were local elite, government officials, businessman and para-vet. KII was conducted through structured and semi-structured questions. In this study, 4 FGDs (three in Sadar Upazila and one in Ranisankail Upazila) were held. Respondents of FGDs were households, homemakers, teachers, meat producers (farmers), meat consumers, meat market actors, local elite etc.

**Socio-Economic Condition:** Total 65% of the respondents were female whereas 35% of the respondents were male. Although it is not related to project implementation and/or project result, the average family size of the beneficiary households have been increased to 4.92 persons (end line) from 3.87 persons (baseline) in project area during the project period (3 years). Similarly, school going member (1.26 in baseline vs. 1.71 in end line) and earning member of the family (1.43 in baseline vs. 1.82 in end line) have been increased after the implementation of the project. It is apparent from the finding that household monthly income was increased to 21,819 Tk (end line)

from 19,387 Tk (baseline) after the completion of the project due to contribution of the project. Accordingly, household monthly expenditure was increased to 16,790 Tk (end line) from 16,030 Tk (baseline) after the completion of the project.

**Quantitative Assessment:** Respondents were asked different questions about modern technology for beef fattening, urea molasses straw (UMS) making, leaflet distribution of UMS and training about beef fattening. It was shown that in terms of fodder cultivation less emphasis was given to Gobindonagar area (due to municipality area) about modern technology adoption for beef fattening program compare to Santinagar, Sibganj, Ruhia, Salandar, Gorea, Ranisankail, Neckmorod areas.

Almost all the respondents were got training from ESDO on beef fattening and the rest of the respondent got different kind of training like vermi compost, fodder cultivation etc. However, none of the respondents indicated that they received fodder cultivation, compost making and other trainings. This is may be due to more emphasis was given by ESDO on beef fattening training rather than other training programs which was indicated in log-frame.

The end line evaluation has revealed that there is an increase in input use, particularly feed and medicine/vaccine by the participating farmers in order to achieve faster fattening of cattle. Seventy nine percent of total respondents collected inputs for beef fattening from feed dealers, 61% from local para-vets, 44% from pharmaceuticals dealers, 20% from grass dealer and 7% from other sources whereas the proportion in baseline survey were 50% for feed dealers, 39% for pharmaceuticals dealers, 8% for grass dealer and 3% from other sources. Interestingly, proportion of input collection from para-vet increased from 0% in baseline to 61% in end line indicating farmers became much concerned about the potential sources after the project implementation.



A notable increase in the number of beef fatteners is observed who received assistance from Department of Livestock (DoL) and local par-vet. About 55% of the respondents mentioned that they got assistance from the DoL, while it was only 4% at the baseline indicating that farmers are more aware of the source of assistance and capacitated to access the services. However, local para-vet was ranked top (92% in end line and 64% in baseline) among the service providers representing farmer's dependency to them.

Green grass supplies to beef cattle before baseline 15% and after end-line 55% the implementation of the project. However, fodder cultivation by the participants was increased tremendously to 46% at the end line evaluation from 2% of respondent at baseline. Napier was found the most preferred grass variety for cultivation to the participants as noticed by 36% of the total followed by corn mentioned by 9% participants.

Nearly all (95%) respondents were found to formulate ration according to age and weight of cattle whereas the proportion in baseline was only 3%. Similarly, 92% of the respondents applied balanced ration to their cattle regularly whereas the proportion in baseline was only 5%. Likewise, the proportion of respondents who supplied complete concentrate feed to their cattle from the market was increased to 89% in end line from 15% in baseline study.

More than three forth (82%) of the farmers preferred cross-bred cattle for fattening followed by deshi (40%) and only 10% farmers preferred exotic breed for fattening. Most (90%) of the farmers thought that crossbred cattle are more profitable than deshi (20%) and exotic (12%) cattle. It may be due to the comparatively faster growth rate of the crossbred than deshi. Cattle farmers used multiple options to sell their fattened cattle. Most of the respondents (94%) ranked cattle seller (cattle dalal) as the main buyer of the cattle from farming household, followed by butcher (48%) and local cattle farmer (14%). By comparatively analysis between farm gate price and cattle seller price it was found that the average final market selling price of those cattle by the cattle sellers

was Taka 69,483 whereas the average farm gate selling price of a fattened cattle was Taka 64,306 which indicating that cattle sellers make more than 5,000 Tk. profit per cattle.

Respondents were asked about the disposal of dead animals. Almost all (99%) of the respondents dispose their animal by burial. The proportion is slightly higher than baseline (92%). It was found in end line survey that none of the respondents gave the dead animal to butcher whereas 8% of the respondents used to give it to butcher before the implementation of the project.

Sixty eight percent of the beef fatteners received assistance from cattle traders and cattle whole sellers during the marketing of cattle, which is ranked top among all type market actors. These two actors increased more than double due to project activities as previously the proportions were 34% and 22% for cattle trader and cattle whole seller, respectively. Interestingly, 22% respondents mentioned that butchers helped them to sell the cattle which was 5 times higher than the baseline indicating that farmers have increased their communication with the market actors and understand marketing channel much better than before. The above scenario suggests that with the project interventions the beef fattening value chain is better integrated and farmers have better access to fattened cattle market.

Qualitative Assessment: KII respondents indicated that farmers are using modern technology in beef fattening program and new beef fattening entrepreneurs were also developed by the assistance of the project. The size of beef market is also increased. Different types of training, workshop, demonstration program was done from the project. However, disadvantages were also found from the project, which are- duration of project is less (27.78%) followed by area of project is less (11%), required more training (11%), no shed present in hut or market for cattle selling (5.56%) and less activities in unit (5.56%). The average income of para-vet was 15025 Tk. per month before implementation of project and it raised up 24050 Tk. per month after implementation of project. Feed sell and medicine sell were increased in the project area.



FGD respondents indicated some problems, which was- low priced cattle enter the project area from the neighboring country, monitoring should be continued even after completion of the project, less interest about grass cultivation, short time duration for loan resettlement, loan interest is high, deficiency of quality calf for fattening, no meat processing center present in project area, loan facilities should be yearly instead of half yearly, local para-vet are not properly trained, less number are beneficiaries involved in the project.

**Recommendation:** The recommendations for the Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) project are-

- ◆ Breeding policy should be adopted for production of quality calf used for fattening,
- ◆ Required more business training for beneficiaries
- ◆ Grass cultivation should be popularized
- ◆ No shed present in hut or market for cattle selling, it should be included
- ◆ Policy to stop/reduce entering low priced cattle in the project area from the neighboring country
- ◆ Required strong meat processing center in project area

### Achievement of the project at a glance

S.I		
1	Training on Beef Fattening - 2 days (147*25)	3680
2	Training on Livestock Service Provider (LHP)	16 Person
3	Market Linkage, Leadership develop & Business Development Training	320 Person
4	Green Fodder Cultivation Training	25 Person
5	Linkage Meeting with Material Supplier	300 Person
6	Vermi Compost Training	400 Person
7	Demonstration on Uria Mollases	240
8	Garbage Management Shed Making	48
9	Livestock Insurance related Training	25 Person
10	Publicity on Beef Fattening in Local Media	3 Years
11	Bengal Meat and PRAN Company Project visit for Beef purchasing	2 Company
12	Vaccination & Dewarming Camp	500





# 1. INTRODUCTION

Bangladesh is a low-lying densely populated country of more than 160 million people, 75% of who live in rural areas. Rural poverty rate in Bangladesh is 63%, of which 36% are extreme poor. Livestock is an integral component of agriculture in the country and making multifaceted contributions to the growth and development in the agricultural sectors. Cattle farming is an important subsidiary to agriculture and playing a significant role in rural economy in Bangladesh. Small scale cattle fattening enterprise represents an important component of the agribusiness sector with great economic impact in rural livelihoods, income generation, poverty reduction and social implications. Thus, cattle fattening for beef production has become an important business of the small farmers in Bangladesh. However, small scale cattle fattening is yet to be promoted by using improved technologies, feeding regimens and best practices of husbandry, health management, marketing, etc.

Eco Social Development Organization (ESDO) has completed a 3 years Beef Fattening Sub sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) project of Palli Karma-Sahayak Foundation (PKSF) entitled as “Improvement of Increase Income and Employment generation through year round beef fattening and marketing (বছরব্যাপি গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি) in two Upazilas of Thakurgaon Zilla with the aim to improve the livelihood of the entrepreneurs through the year round beef fattening and marketing. There was a total of 4400 entrepreneurs of the projects of which 4000 were involved in beef fattening and rest 400 were involved in manufacturing of compost using the cow dung from the fattening farms.

The specific objectives of the project included-

- ♦ Increasing in beef production through the creation of beef fattening entrepreneurs;

- ♦ Increasing income of the entrepreneurs, creating permanent employment;
- ♦ Reducing the deficiency of animal protein in the country and strengthening the network among different actors of beef fattening.

The project has conducted various activities in the project areas that included workshop, staff training on beef fattening, farmers training on beef fattening, skill improvement training of livestock service provider, workshops on cattle selling, marketing and distribution, training on food cultivation, meeting with materials suppliers, training on meat procession, preservation, selling and waste disposal, training on composting, display of green grass plot, display of UMS preparation, vaccination and deworming campaign, preparation of waste disposal shed, establishment of model beef fattening farms, distribution of leaflet on UMS and recognition of better cattle for beef fattening, training on cattle insurance, etc.

An end-line evaluation was planned in the project design to review the relevance, effectiveness, efficiency, sustainability, and outputs of the project interventions against baseline and monitoring data.

Therefore, the study entitled “Impact Evaluation Report of End Evaluation of Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) Project” was conducted at the project areas to analyze project performance against key indicator set out in the logical framework and produce an overall end evaluation report and summary reports using the agreed format.

The end-line evaluation assessed the relevance of the project and its consistency with policies and strategic documents of both the Government of Bangladesh and PKSF; the relation to national priorities; whether the approaches used in the project



suit the priorities and needs of the vulnerable people especially the women and other groups; spillover effects and benefits to nonparticipants; impact of project interventions on the overall poverty alleviation and promoting of livestock commercialization in project area; impact of project on economic empowerment, livelihoods development, income, expenditure and savings, asset base of project beneficiaries; extent of market linkages contributed to increases in the profits of all business group members; impact to enhance the status of participating women and empowering them socio-economically. The evaluation also assessed the extent to which the activity has produced positive or negative changes against project Log Frame indicators.

The end-line evaluation was conducted using both qualitative and quantitative approaches to collect, verify and analyses the data. Household survey was conducted at the project areas of Thakurgaon districts that included Sadar and Gobindonagar Upazilas. Eight regions of these two Upazilas were included in the study namely Santinagar, Ruhia, Salandar, Gorea and Sibganj of Sadar Upazila whereas Neckmorod & Ranisankail of Gobindonagar Upazila were considered as study areas as ESDO implemented their project in these areas. Focal Group Discussions, key informant interviews, meetings with ESDO field staffs and community representatives, observing field activities were conducted during the study.

This report is the output of the evaluation process of the project implemented by Eco Social Development Organization (ESDO) and funded by PACE project, PKSF and conducted by the consultant team from Faculty of Animal Science and Veterinary Medicine, Sher-e-Bangla Agricultural University, Dhaka, Bangladesh.

## 2. METHODOLOGY

The activities were a survey based exploratory as well as explanatory survey research by applying quantitative and qualitative approach. Information was collected via questionnaire survey. Opinions and recommendations were collected from respondents through FGDs with different level of stakeholders by field visiting in study areas. However, quantitative data was collected by using structural questionnaire and qualitative data was collected by KII and FGDs.

### Respondents

- ◆ Beneficiary household of project area
- ◆ Homemaker
- ◆ Teachers
- ◆ Farmers
- ◆ Para-vet
- ◆ Meat purchasers
- ◆ Value chain actors
- ◆ Key person of local level business communities
- ◆ Local elite, govt., non-govt., NGO officials

### Information to be Collected

The questionnaire was developed by using the baseline, log-frame and other monitoring data under the project. Questionnaire was finalized in consultation with ESDO personnel. Overall following data was accommodated in a questionnaire-

- a. Socio-economic condition of the respondents including physical asset, financial income assessment
- b. Scenario of beef fattening by using modern technology and improve management systems
- c. Farmers involvement in as entrepreneur of beef fattening program
- d. Analysis about production cost
- e. Change to access of beef market
- f. Connection of farmers with service providers
- g. Available public support services for the efficient beef production in the project areas
- h. Information about meat production in study area
- i. Information about meat actors
- j. Present situation of beneficiaries
- k. Identify gaps, challenges or barriers



### Sample size for Households' Survey

In order to determine the sample size an approach based on confidence level and precision rate was followed. The advantage of this approach is that the statistical validity of a sample does not depend on its size relative to the population being investigated. Rather what matters is the required level of probability (confidence level), required degree of precision and the variability of the population. The following formula (S. K. Lwanga, 1991) was used to estimate the required sample size:

$$n = \frac{Z^2 p(1-p) N}{E^2 (N-1) + Z^2 p(1-p)}$$

- N = Population size of the project area = 4400  
 Z = Confidence level (95%), ( $\alpha = 0.05$ ) and Z = 1.96  
 p = Initial probability of the indicator 0.5  
 E = Design effect at 5% (0.05)  
 n = Required number of sample size = 352 Respondents

### Sample Size for KII and FGDs

Total 38 KIIs were conducted in the research area. Two types of KII were done in this research, one for government official and another one for local elites, business man and village veterinary service providers-para-vet (KII questionnaire attached). KIIs were conducted through structured and semi-structured questions. In this study, 4 FGDs (three in Sadar Upazila and one in Ranisankail Upazila) were held on. Information from FGD was collected through semi-structured questionnaires and checklist. FGDs were also used to verify, cross-check and validate the collected data from household survey. Respondents of FGDs were from households, homemakers, teachers, meat producers, meat consumers, meat market actors, local elite etc.

### Sample Distribution

District	Upazila	Branch Offices of ESDO	No. of Sample
Thakurgaon	Sadar	Gobindonagar	44
		Santinagar	44
		Ruhia	44
		Salandar	44
		Gorea	44
		Sibganj	44
	Ranisankail	Neckmorod	44
		Ranisankail	44
Total Sample			352

### Survey Tools

This was a survey based exploratory as well as explanatory social research. The survey tools were divided into two parts according to the nature of data i) quantitative data ii) qualitative data.

**Quantitative data:** Statistical information was collected via questionnaire survey from beneficiary' household of the project area.

- ◆ Questionnaire for household survey (Attached in Annex-1)

**Target group:** beneficiary household living in project area.

**Qualitative data:** Opinions, recommendations and collected information via surveys, interviews, field visits and focus groups. Main tools for qualitative was KII questionnaire and FGD check lists.

- ◆ KII Questionnaire (Attached in Annex-2 & 3)

**Target group:** Two types of KII were done in this research, one for government official and another one for local elites, business man and village veterinary service providers (para-vet).

- ◆ FGD check list (Attached in Annex-4)

**Target group:** Different consumer group, concerned stakeholders, actors, businessman, teachers, local elite, UP member, homemaker, para-vet. etc.



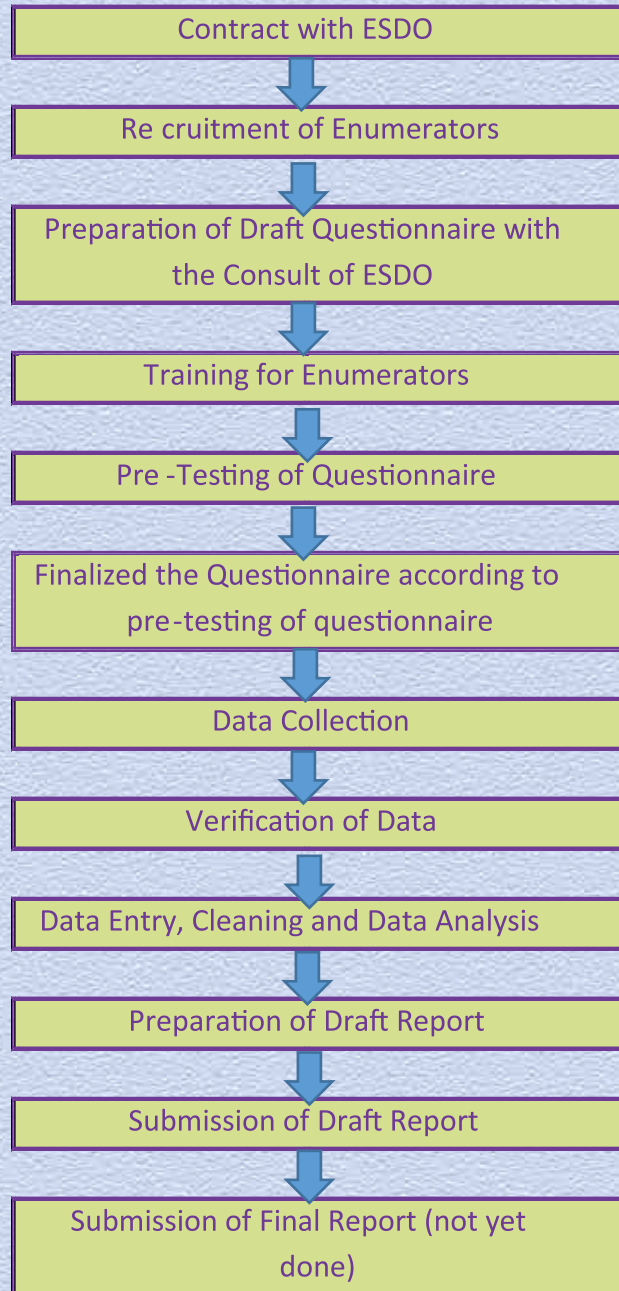


Fig : Flow Chart of Survey Implementation Activities



### Quality Assurance

In order to ensure the highest level of quality of data following measures was adopted:

- a) Recruitment of appropriately qualified and experienced enumerators
- b) Training on interview techniques and use of tools appropriately including field exercise
- c) Pre-testing of questionnaire
- d) Correction of questionnaire according to result found on field tests
- e) Supervise of data collection at field and over phone
- f) Day to day checking of collected data in order to ensure proper filling and recording of data
- g) Preserving contact telephone number of the respondents to recheck if necessary, at the analytical stage.

### Data Management

Every filled-in questionnaire was thoroughly checked and edited before the schedule was coded for computer entry. Data processing work was consisting of registration of all completed schedules and editing, coding, cross check, data entry and matching of data. Statistician oversaw the data processing activities.

#### Registration of Documents:

There was one registration section in the office and the main responsibility of this section was to keep track of the filled-in interviewing documents, information schedules, performance reports and other necessary papers.

#### Data Editing:

The information collected during fieldwork was scrutinized 100% of each interviewer's interview schedule to check the quality of the raw data. It was basically a process of examination to detect errors, omissions of any and to correct these wherever possible and the respondents were re-interviewed at the field level, if needed.

#### Coding:

Coding system was developed and all data was coded. Individual coding manual was developed for individual questionnaire by the experts.

### Data Entry:

Data entry was conducted by data entry operator under the supervision of statistician. Before data entry a data entry program was developed.

### Data Cleaning:

Data cleaning was an important procedure during which the data was inspected, and erroneous data was corrected. Data cleaning was done during the stage of data entry.

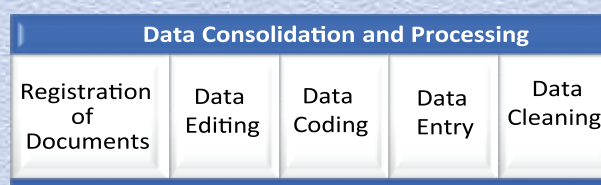


Fig: Stages of Data Consolidation and Processing

### Training

Training was imparted to all the support staff. Training program was included both in-house orientation and repeated practice sessions through role plays followed by field practices in areas outside selected sample sites.

### Data Analysis and Presentation

Microsoft Access and Microsoft Excel program were used to develop for data entry software. Data analysis was done by statistical program. Different types of statistical tools like number, mean, percent were used. A simple tabular technique was presented in the study to classify the data into meaningful categories.

## 3. ASSESSMENT OF SOCIO-ECONOMIC CONDITION

The end-line evaluation was conducted among 352 respondents of 8 units of 2 Upazilas under Thakurgaon of which 65% respondents were female and the rest 35% of the respondents were male (Figure 3.1). This indicates that ESDO effectively engaged women as project participants to build their capacity in beef fattening and created opportunities for income generation, thus empower them.



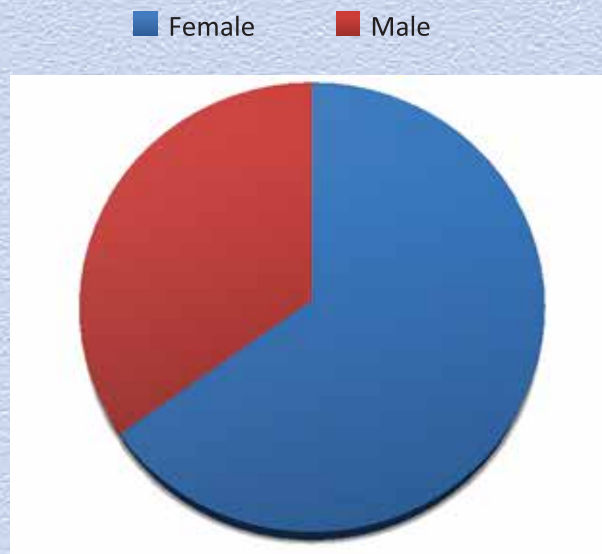


Fig 3.1: Respondents in the project area

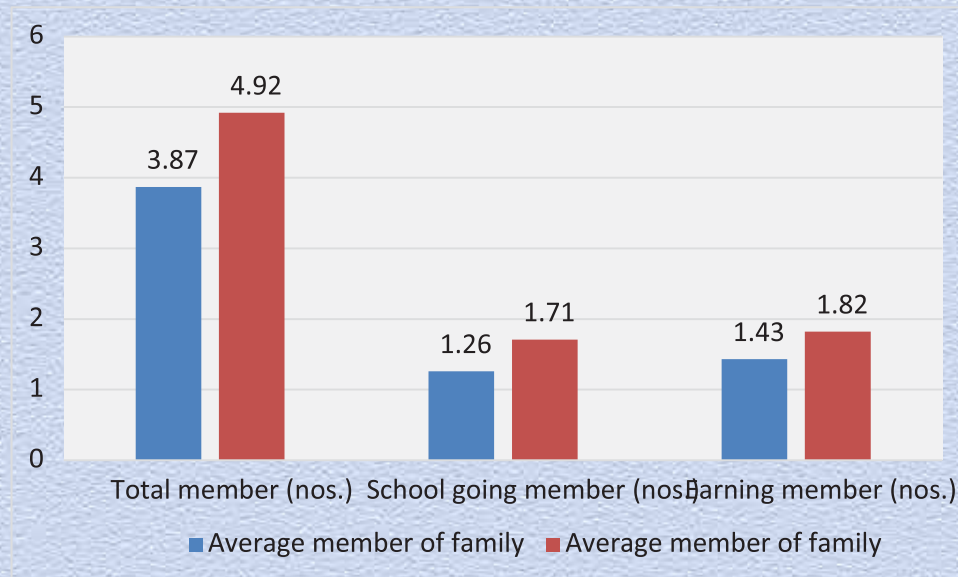


Fig 3.2: Family member of households

Average family size of the project participants has been increased to 4.92 persons (end line) from 3.87 persons (baseline). Similarly, average school going member (1.26 in baseline vs. 1.71 in end line) and average earning member of the family have been increased (1.43 in baseline vs. 1.82 in end line)(Figure 3.2).



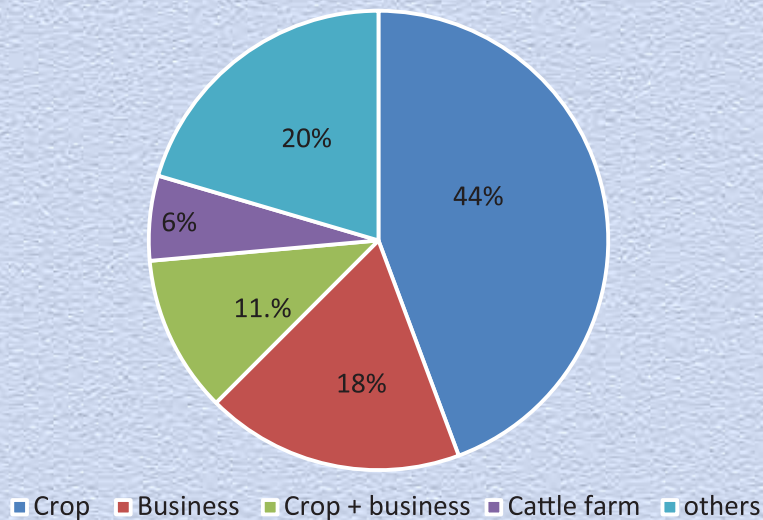


Fig 3.3: Main profession of the respondents

Figure 3.3 depicts the main profession of the beef fattening household involved with the project. Likewise, other rural areas of Bangladesh, agriculture (crop) is the main profession of the project farmers as 44% respondents mentioned. However, while interest in beef fattening is increasing, yet the number of farmers adopting beef fattening as main profession is less as only 6% of the respondents mentioned cattle farming as their main profession. Other professions included business (18%), crop and business (11%), etc.

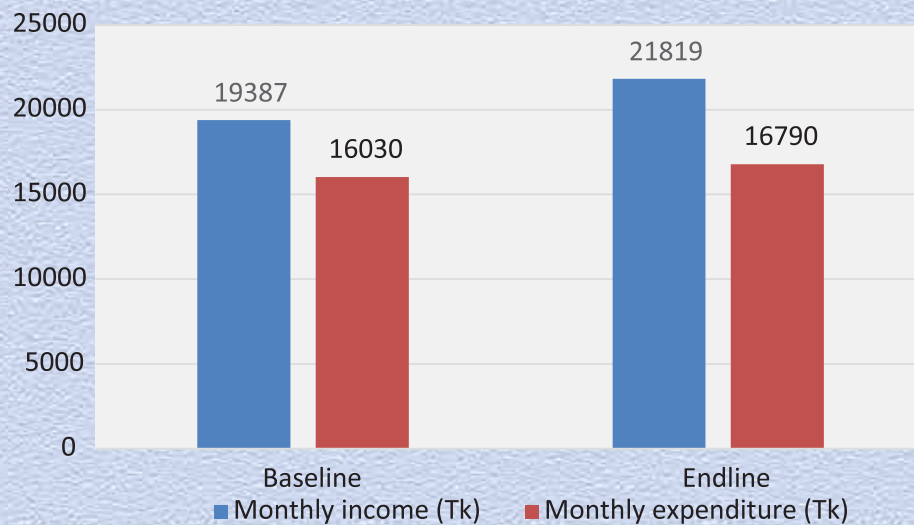


Fig 3.4: Income and expenditure of households

Figure 3.4 shows the comparison of monthly income and expenditure of the project participating household before and after the implementation of the beef fattening value chain project. It is apparent from the figure that household average monthly income was increased to 21,819tk (end line) from 19,387Tk (baseline) after the completion of the project. Accordingly, household monthly expenditure was increased to 16,790 Tk (end line) from 16,030 Tk (baseline) after the completion of the project. However, the contribution of beef fattening in the total monthly income could not be calculated due to lack of information even though it would be better to know the contribution of beef fattening in the total monthly income of the beneficiaries farmers.



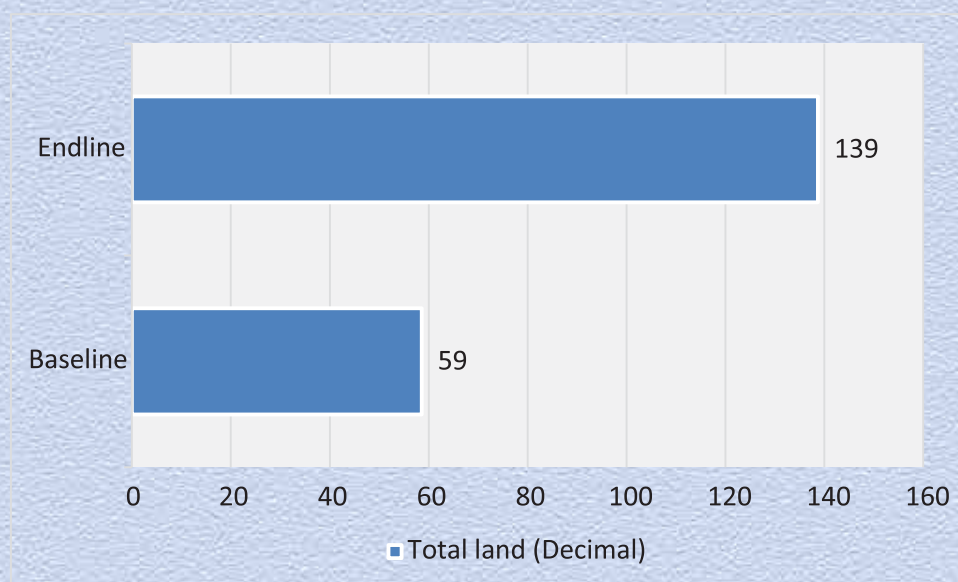


Fig 3.5: Total land (Decimal) of project area

The increased income of the household was relevantly manifested by the possession of land before the after of the beef value chain project. Figure 3.5 shows the comparison of land ownership before and after the project implementation. The average land size owned by the respondents found in the end line study is 139 decimal, which was 59 decimal in baseline study. It indicates that respondents like to invest in land since it is secure and has potential to increase income from crop farming.

The end line study recorded the average number of cattle in household as 3.5 and average number of concrete houses, semi-concrete house and mud house as 0.92, 0.74 and 1.43, respectively. However, these findings could not be compared to the findings before the implementation of the project since baseline study lacks of the similar findings.

Nevertheless, this is apparent that the livelihood and socio-economic condition of the households have been much improved during the project implementation of beef fattening value chain project as manifested by increase in income and expenditure, increase in the number of schools going children and most importantly, almost three folds increase in land ownership.



## 4. QUALITATIVE ASSESSMENT: Household Survey

This chapter of the report presents the adoption of best practices and improve management systems of beef fattening by the project participants. Respondents farmers were asked to respond (Yes or No) to a series of statements/questions related to their involvement in the beef fattening program as entrepreneur, support received from the project, input use, connection of farmers with service providers, identify gaps, challenges and barriers.

### Support from the Project

Respondents were asked a series of statements to know how they use modern technology for beef fattening program and what types of support they got from the project (Table 4.1). Respondents were asked different questions about modern technology for beef fattening, urea molasses straw (UMS), leaflet of UMS and training about beef fattening. Respondent farmers' opinions are presented in Table 4.1.

Table 4.1: Summary of the positive feedbacks of the respondents to different supports provided by the project

Questions	Gobin-donagar	Santinagar	Sibganj	Ruhia	Salan dar	Gorea	Ranisa nkail	Neckm orod	Total
	yes	yes	yes	yes	yes	yes	yes	yes	yes
Do you use modern techniques for beef fattening?	31%	84%	100%	98%	95%	95%	100%	100%	88%
Do you use urea molasses straw for cattle feeding?	31%	84%	100%	98%	93%	100%	95%	100%	88%
Did you get any leaflet about urea molasses straw?	79%	86%	100%	98%	98%	98%	95%	100%	94%
Can you make urea molasses straw by your own hand?	36%	93%	100%	98%	98%	98%	98%	100%	90%
Did you watch any demonstration activities of urea molasses straw making?	70%	93%	100%	98%	95%	98%	91%	98%	93%
Did you get any training about beef fattening?	89%	93%	100%	98%	98%	91%	89%	100%	95%
Did you see any model farm of beef fattening?	5%	91%	91%	100%	100%	84%	91%	82%	80%
Did you get any leaflet for selection of good variety of bull?	77%	93%	100%	100%	100%	98%	100%	98%	96%
Did you get any measuring tape for weighing of cattle?	25%	95%	100%	100%	100%	100%	80%	100%	88%
Did you watch any demonstration plot of green grass cultivation?	7%	75%	68%	75%	95%	91%	86%	86%	73%

Different types of support were provided to the beneficiary entrepreneurs of the project by ESDO in order to adopt improve fattening business. Table 4.1 summarizes the support received and adoption of improved technology and good practices by the project participating farmers. In general, vast majority (ranging 73% to 94%) project participants received different type of support, while there is little variations in the number of participant received different items.

It is evident from the table that 88% of the total respondents used modern techniques for beef fattening and 88% of them used urea molasses straw for cattle feeding. Most (94%) of the respondents got leaflet to prepare or use urea molasses straw whereas 90% of the respondents were able to prepare urea molasses straw (UMS) by their own hand at the end of the project.



As high as 93% of the total respondents watched demonstration UMS making, while 80% visited model beef fattening farm as part of learning sharing. Almost all the respondents were got training from ESDO on beef fattening and the rest of the respondent got different kind of training like vermi compost, fodder cultivation etc. However, none can indicate about fodder cultivation, compost making and other training. It indicates that ESDO may give more emphasis on beef fattening training.

However, 96% of the respondents got leaflet for selection of good variety of bull, 88% received measuring tape for weighing of cattle 73% visited demonstration plot of green grass / fodder cultivation. It is evident from the survey that beneficiary entrepreneurs were provided by different types of support by ESDO to improve the overall beef fattening activities of the project areas.

It is clearly identified from the table 4.1 that less emphasis was given to Gobindonagar area about modern technology adopted for beef fattening program.

#### Training from ESDO

Almost all the respondents were got training from ESDO on beef fattening and the rest of the respondent got different kind of training like vermi compost, fodder cultivation etc. However, none can indicate about fodder cultivation, compost making and other

training. It indicates that ESDO may give more emphasis on beef fattening training rather than other training program which is indicated in log-frame.

#### Collection of Beef Fattening Materials

The achievement of the project activities was evaluated against different indicators of baseline study. Figure 4.1 presents the sources of inputs for beef fattening by the project participants. The end line evaluation revealed that 79% of total respondent farmers sourced the beef fattening inputs from feed dealers, 61% from local para-vets, 44% from pharmaceuticals dealers, 20% from grass dealer and 7% from other sources whereas the proportion in baseline survey were 50% for feed dealers, 39% for pharmaceuticals dealers, 8% for grass dealer and 3% from other sources. This is obvious from the findings that feed dealers stand top as the source of beef fattening inputs for both baseline and end line evaluation although the proportion was increased markedly. Interestingly, proportion of material collection from para-vet increased from 0% in baseline to 61% in end line indicating farmers became much concerned about the potential sources after the project implementation. The proportion of farmers bought fodder from fodder seller was found very low (20%), although it was increased by 12% from the baseline (8%). The inputs bought from pharmaceuticals (44%) remained similar as baseline (39%).





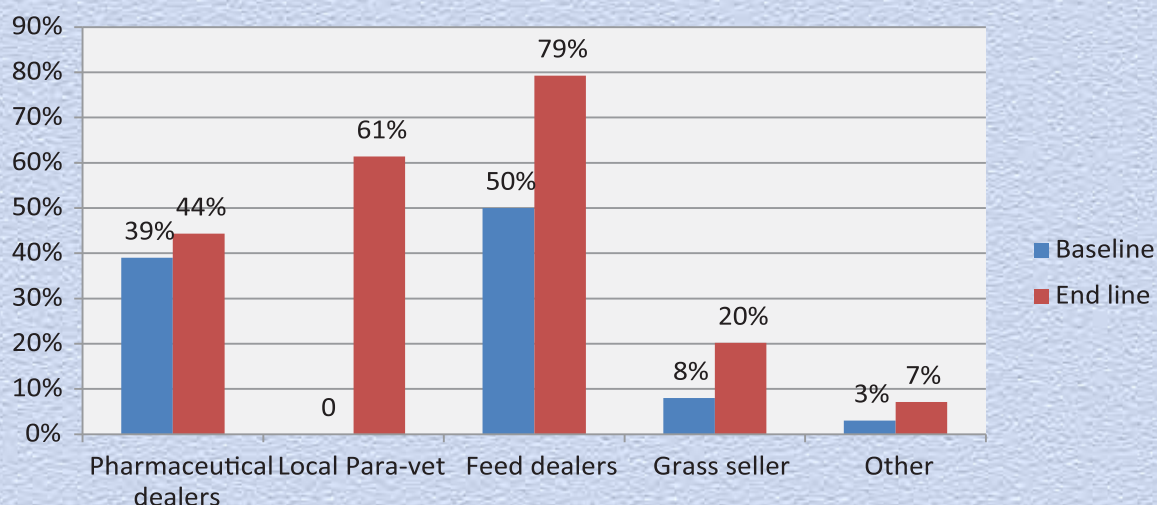


Fig 4.1: Different sources of inputs for beef fattening bought by farmers

#### Assistance Received by the Farmers from Different Service Providers

Figure 4.2 represents assistance received by the farmers from different service providers of beef fattening sub sector value chain for beef fattening enterprises. An increase in receiving services from all the key services providers (Figure 4.2) suggests that the project has significant influence in linking farmers with important service providers, particularly with the DoL.

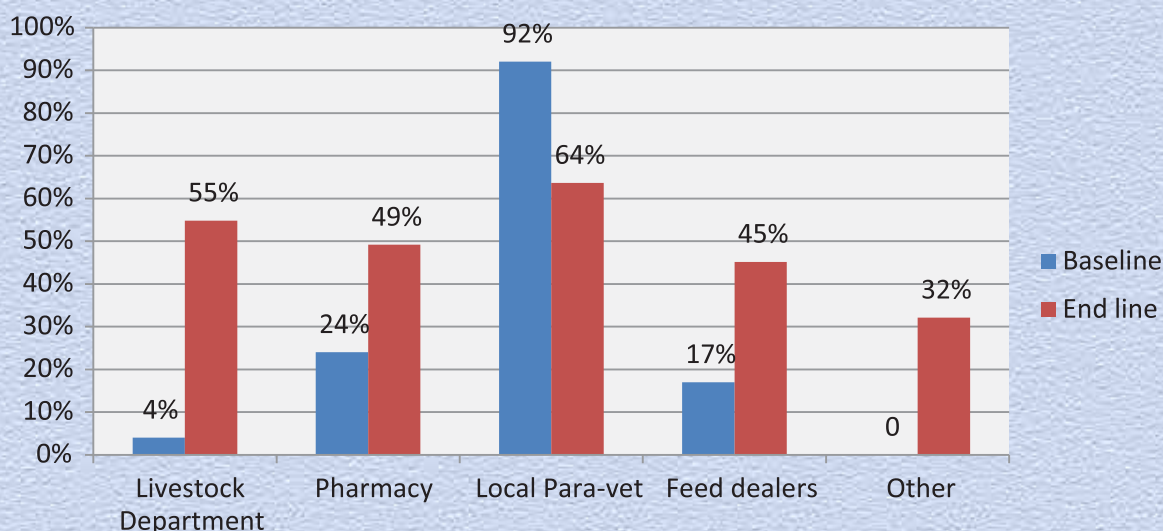


Fig 4.2: Farmers Get Assistance from Different Sources

Although only 4% of the respondents got assistance from the Department of Livestock Services (DoL) before implementing the project, as high as 55% of respondents got assistance from DoL indicating that farmers are aware of the source of assistance. Local para-vet was ranked at top (92% in end line and 64% in baseline) as the source of assistance representing farmer's dependency as well as trust to them. This might be due to their on-call availability and comparatively low-cost services. However, the respondents expressed their concern about the services after end of the project



### Feeding the Cattle with Green Grass/Fodder

The effect of the beef fattening project was marked on the green grass supply to cattle and fodder production (Figure 4.3). Green grass supplies to beef cattle before baseline 15% and after end line 55% the implementation of the beef fattening value chain project. However, fodder cultivation has been increased tremendously by 46% from baseline (2%) as respondents evaluation. When prompted to know the type of fodder they cultivate, most of respondents (36%) of end line evaluation cultivated Napier followed by 9% corn (Figure 4.4). Napier was found the most preferred grass variety for cultivation to the participants as noticed by 36% of the total respondents followed by corn as fodder mentioned by 9% participants.

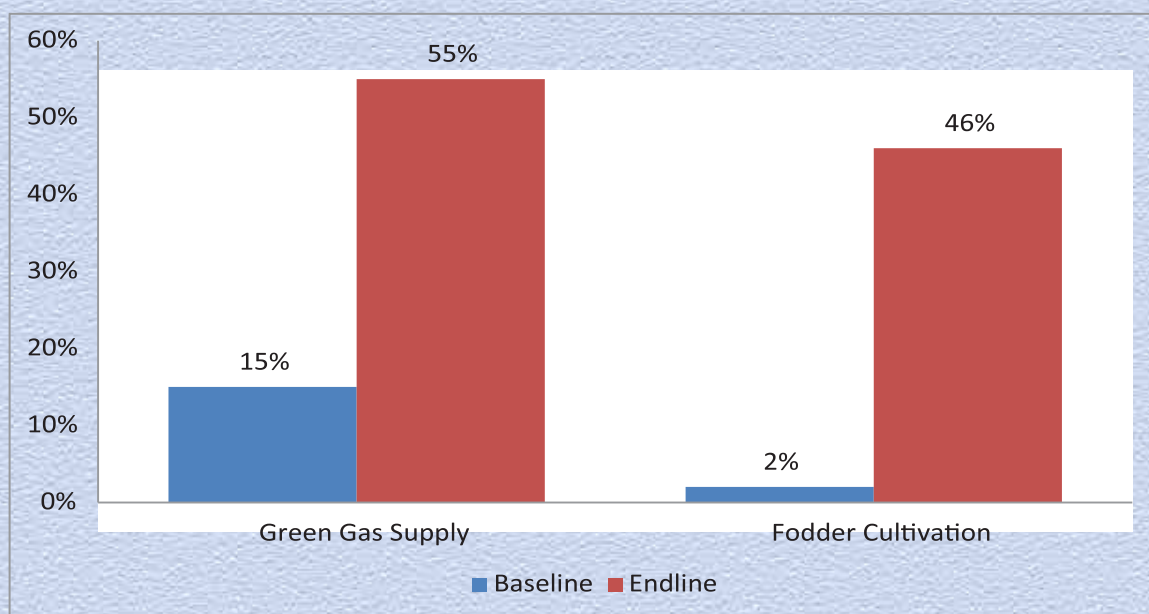


Fig 4.3: Supply of green grass to cattle and cultivation of fodder for beef fattening

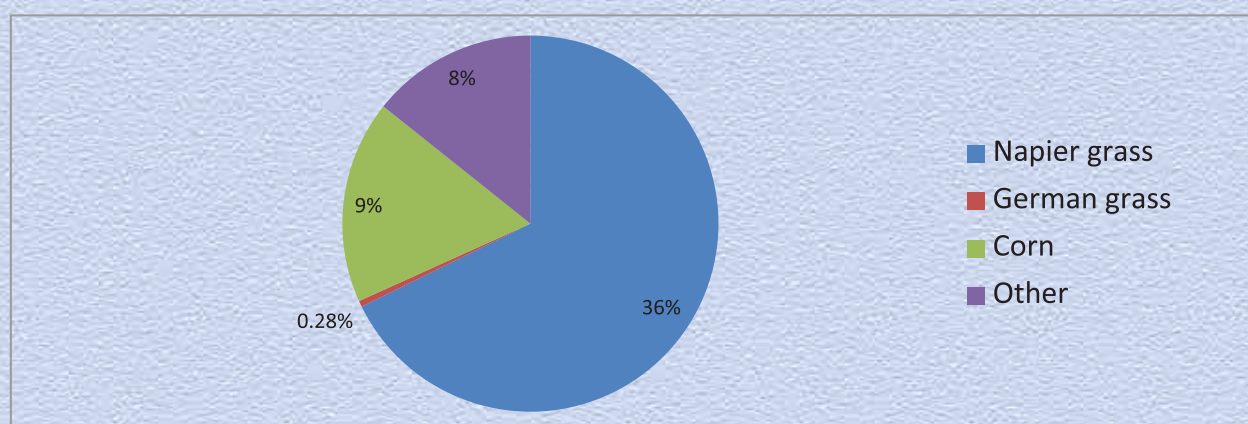


Fig 4.4: Cultivation of different types of green grass

The winter and the rainy season were the most difficult time of the year for farmers to feed the cattle with grass/fodder. About half of the respondents (56%) mentioned shortage of grass in winter, while also about half of the respondents (51%) as the lack of grass in the rainy season, 21% as land scarcity for fodder cultivation and 5% lack of grass in summer as the problems for getting green grass in the project areas (Figure 4.5).



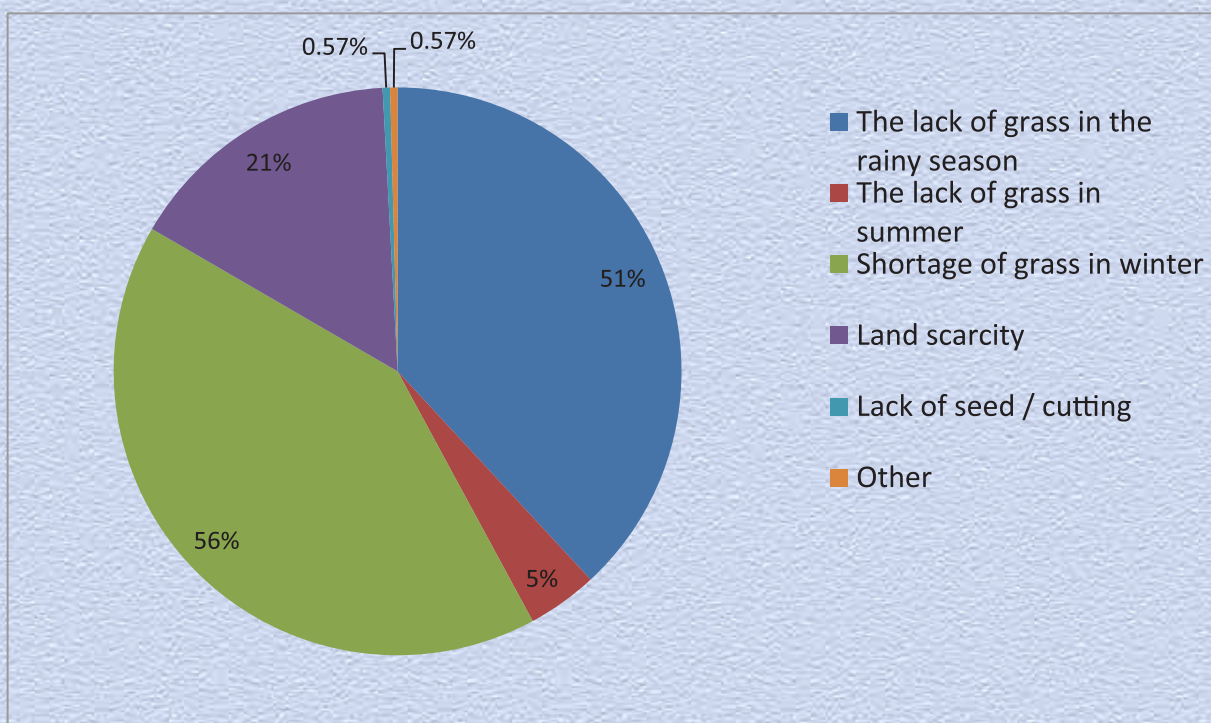


Fig 4.5: Problems for getting green grasses

#### Sources of Drinking Water for Cattle

Respondents were also asked about their sources of drinking water for cattle, almost all the respondents (98%) used Tube-well as the source of water. However, there was lacking of baseline date to compare the findings (Table 4.2).

Table 4.2: Sources of drinking water for cattle

River	Pond	Tube well	Supply water	Other
0.00%	0.00%	98 %	1 %	1 %

#### Feedings Strategies of Cattle before and after the Implementation of Project

Figure 4.6 symbolizes the effect of the Beef Fattening Sub-Sector Value Chain Project on the feedings strategies of cattle before and after the implementation of project. A highly significant increase (by 92%) was observed in the study in formulating ration according to age and weight of cattle by the farmers, as 95.17% of the respondents were found to formulate ration which was only 3% at Baseline. Similarly, a remarkable increase in proportion of farmers fed balanced ration to their cattle regularly as 92% of them replied positively whereas it was only 5% at the baseline. Likewise, the proportion of respondents who supply complete concentrate feed to their cattle from the market was increased to 88% in end line study which was 15% in baseline study.



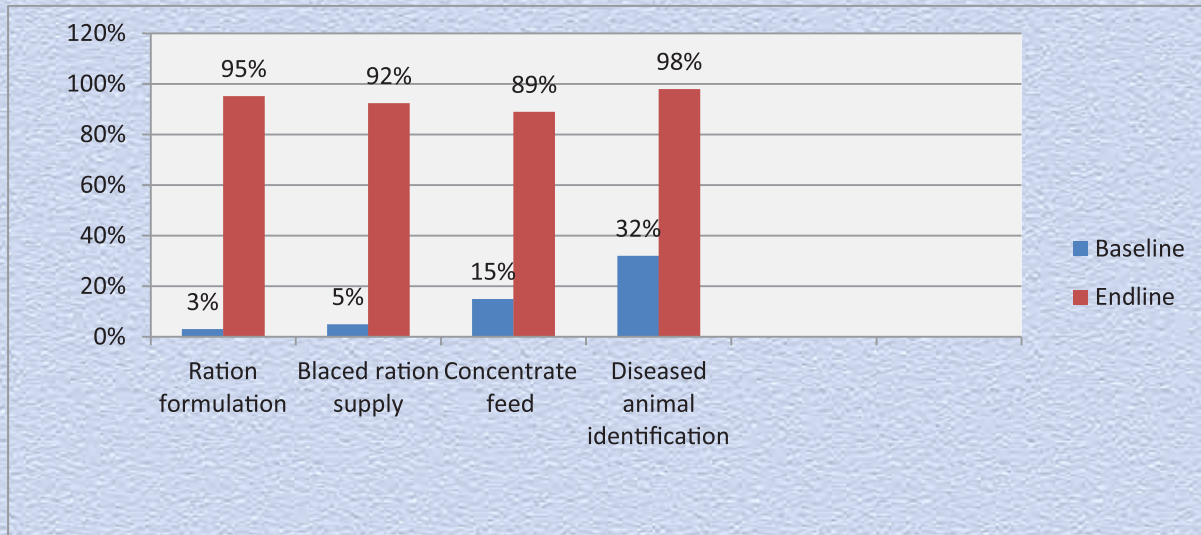


Fig 4.6: Feedings Strategies of Cattle

A similar improvement in the ability to identify healthy or sick cattle has been recorded in this study. Almost all of the respondents (98%) were able to identify the healthy or sick cattle after the implementation of the project whereas the proportion was 32% before the implementation (Fig 4.7). More than half (52%) respondents mentioned FMD as the main disease of beef cattle followed by anthrax (23%), ephemeral fever (29%) black quarter (4%) and hemorrhagic septicemia 4%. Corresponding the diseases occurrence, most of the respondents (88%) used vaccine against Anthrax, 73% against FMD, 7% against Black quarter and 5% used vaccine against Hemorrhagic septicemia (Fig 4.9). However, 3% of respondents did not know about vaccination. Interestingly, no respondents mentioned vaccine against Epimeral Fever (EF) even though the disease stood second as the main disease of beef cattle according to the farmers. It seems that the farmers are not familiar with the vaccine against EF.

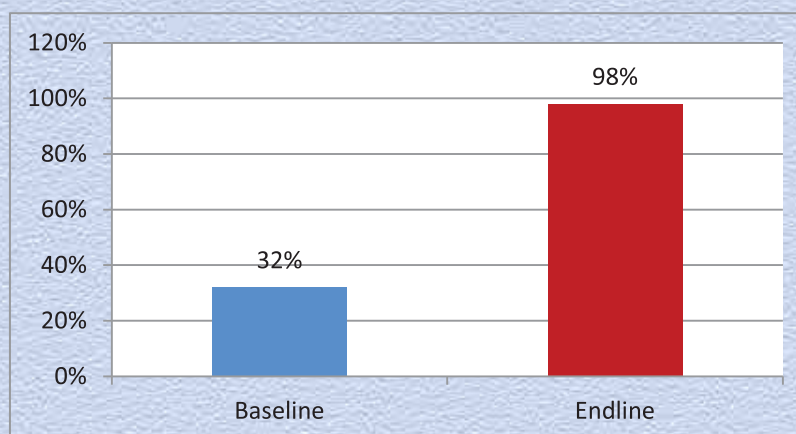


Fig 4.7: Ability of farmers to identify sick animals before and after the implementation of project



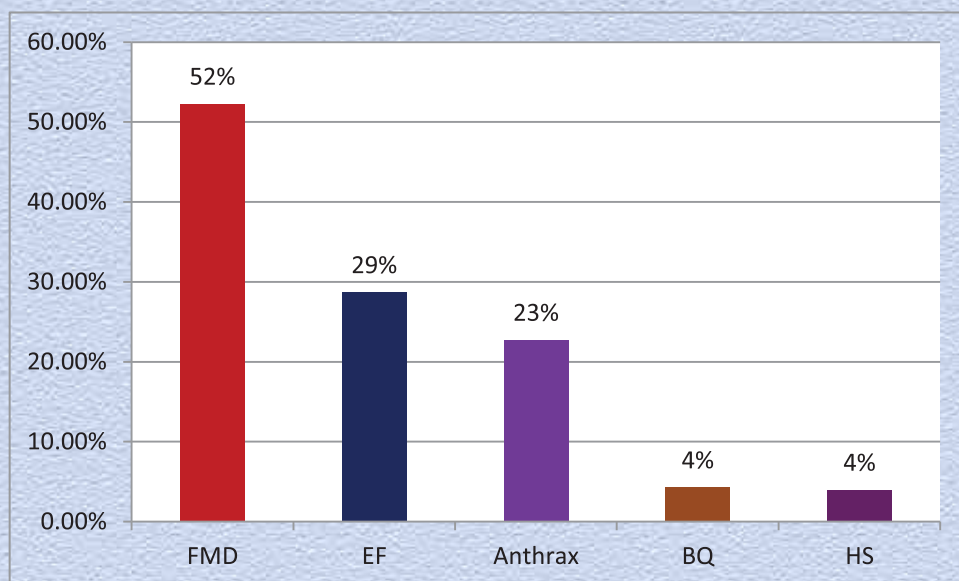


Fig 4.8: Main diseases of beef cattle as recorded in end line evaluation.

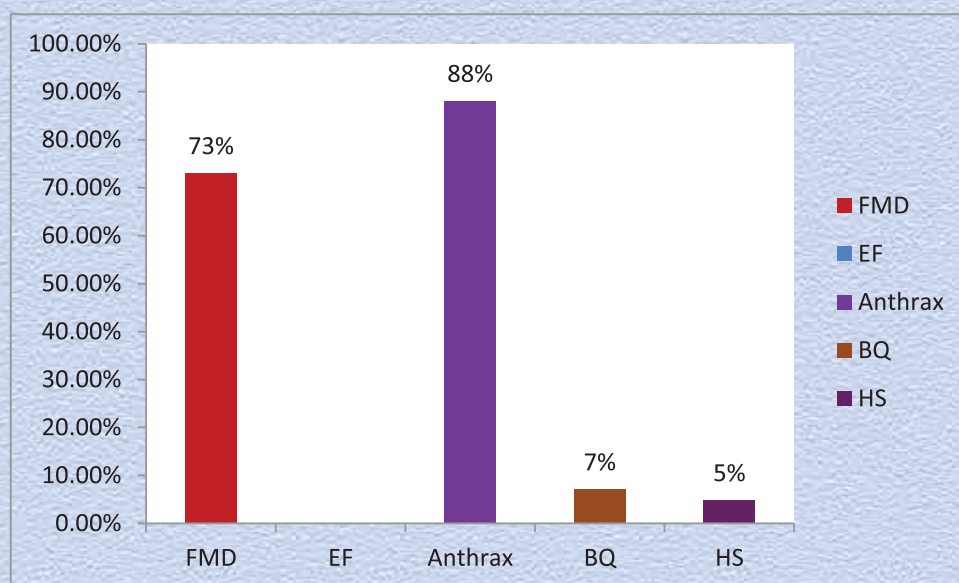


Fig 4.9: Use of vaccines against main diseases of beef cattle as recorded in end line evaluation

#### Disposal of Dead Animal

Respondents were asked about the disposal of dead animals. Almost all (99%) of the respondents dispose their animal by burial. The proportion is slightly higher than baseline (92%).



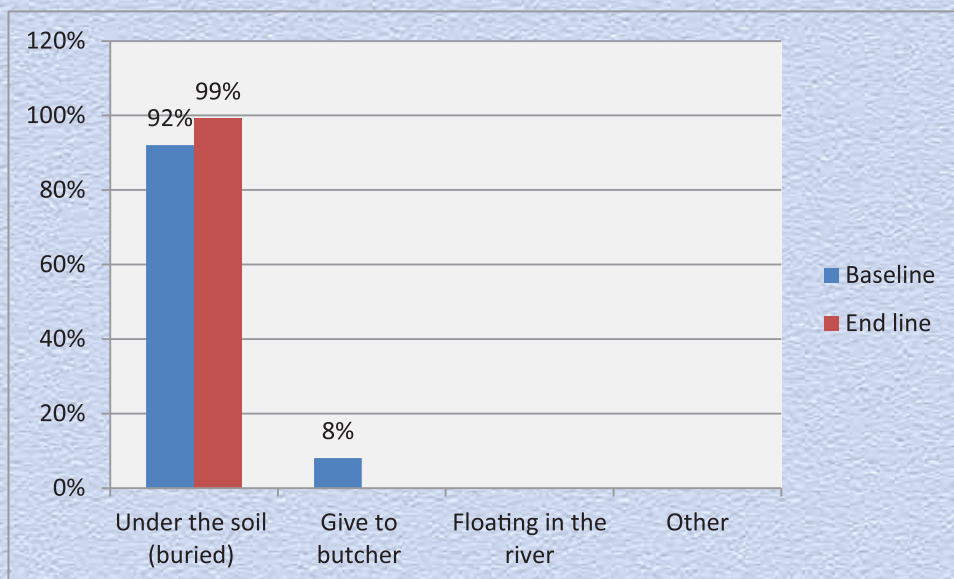


Fig 4.10: Destroy the Dead Animal

However, it was found in end line survey that none of the respondents gave the dead animal to butcher whereas 8% of the respondents used to give it to butcher before the implementation of the project (Fig 4.10).

#### Get Help during Selling Cattle

In response to the question about the actors providing support to the farmers during the marketing of cattle, cattle trader and cattle wholesaler were ranked on the top as 68.18% of respondents thought these two actors helped them more compare to others.

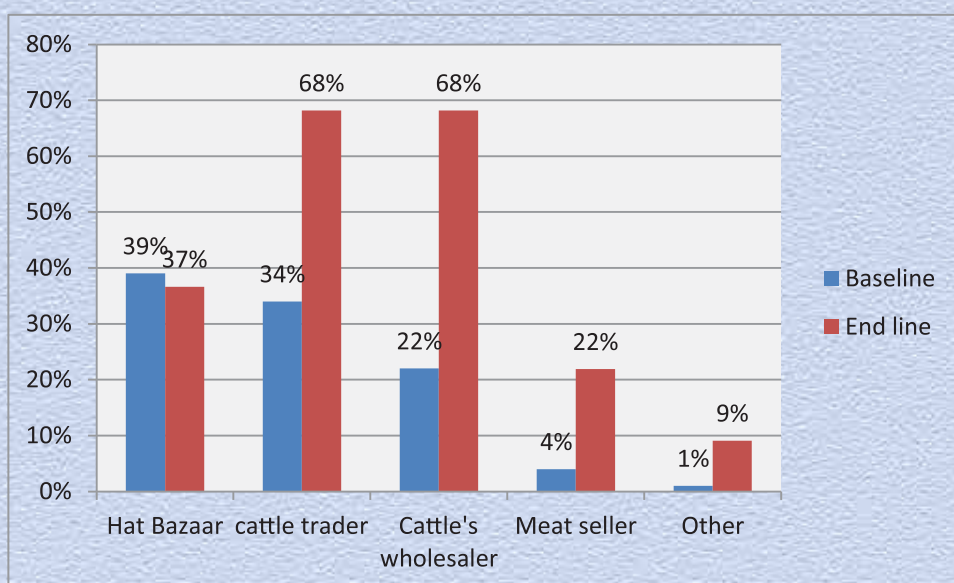


Fig 4.11: Farmers get support from the actors during selling of cattle



Seemingly the assistance from these two actors have been increased more than double after the implementation of the project as previously the proportions were 34% and 22% for cattle trader and cattle whole seller, respectively. Interestingly, 22% respondents mentioned that butcher helped them to sell the cattle which was 5 times higher than the previous finding during baseline indicating that farmers have increased their communication with the market actors and understand the marketing channel much better than before. Figure 4.8 gives a comprehensive scenario of support from cattle value chain actors to farmers for selling their cattle.

#### Benefit of Beef Fattening Program

Figure 4.12 expresses respondents' opinion on the overall benefit of beef fattening. As high as 89% respondents opined that beef fattening increased their income, 58% thought that it created opportunity for employment and 11% opined that they can take it as main profession. However, these findings could not be compared with previous (baseline) findings due to lack of related information.

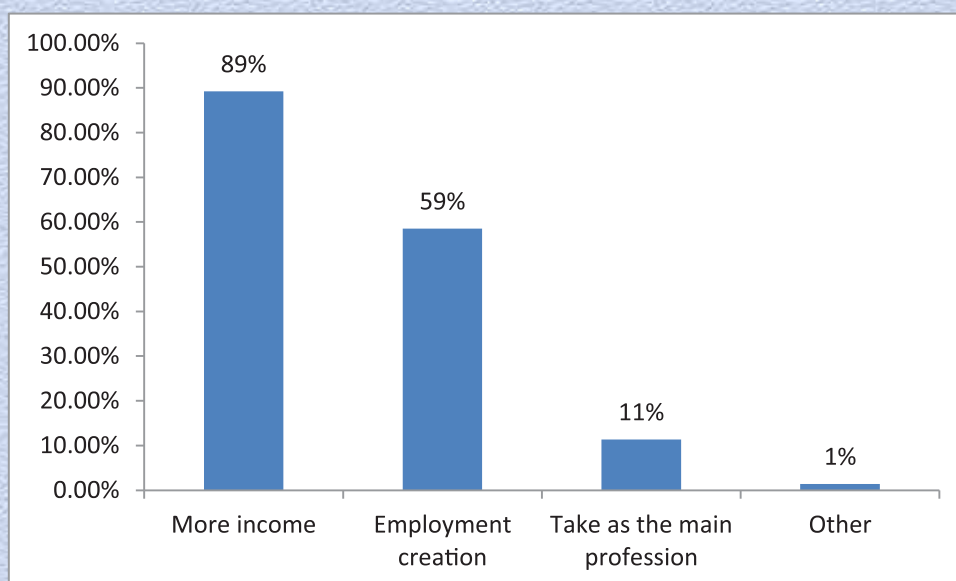


Fig 4.12: Benefit of beef fattening program

#### Waste Management

Respondents were asked about the waste management and waste utilization. As high as 97% of respondents manage waste in hole beside their houses. But when utilization of waste is an issue most of them (97%) use the waste in land as fertilizer.

#### Internet Platforms for Cattle Selling

Table 4.3 presents the perception of farmers on beef fattening and selling practices using modern communication devices. Beneficiaries were asked whether they used any internet platform, like Bikroy.com to sell their cattle after fattening. However, none of the beneficiaries was found to use such platform. When prompted to know the necessities of such platform, 100% of the respondents responded positively.



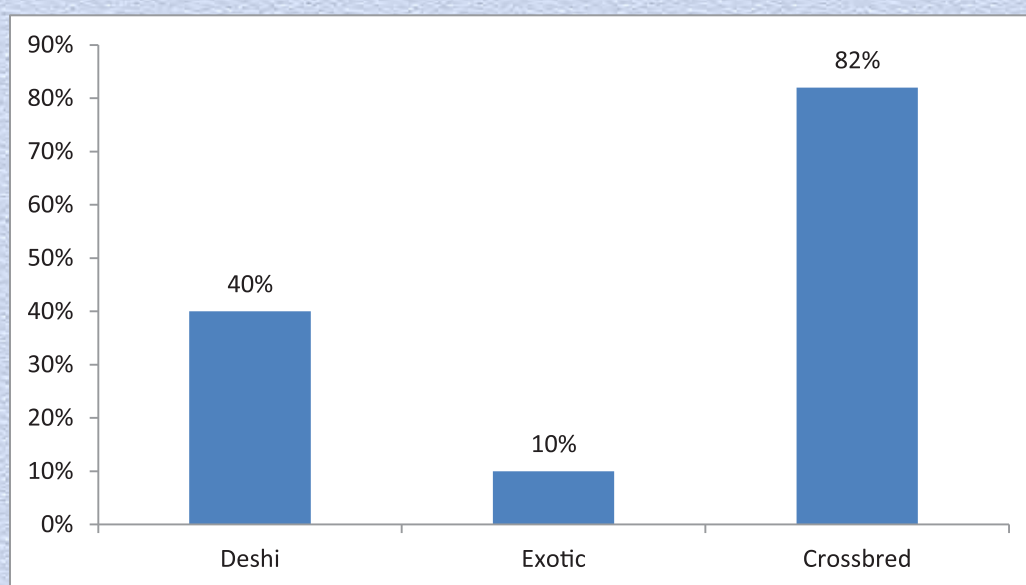
**Table 4.3:** Beef fattening and selling practices using modern communication devices tools

Queries	Yes (%)	No (%)
Use of internet platform for cattle selling	0%	100%
Necessity of internet platform for cattle selling	100%	0%
Use of hormone or growth promoter in cattle fattening	0%	100%

It is critical to highlight that none of the beneficiaries was found to use any hormone or growth promoter in their fattening practices. They become aware of the adverse effect of hormones or other related growth promoters from the project activities. However, they were not familiar with the use of internet facilities to sell their cattle although all of them were interest to that marketing channel. It might be that they didn't receive training on the use of internet as a marketing channel.

#### Choice of Different Breeds of Cattle for Fattening

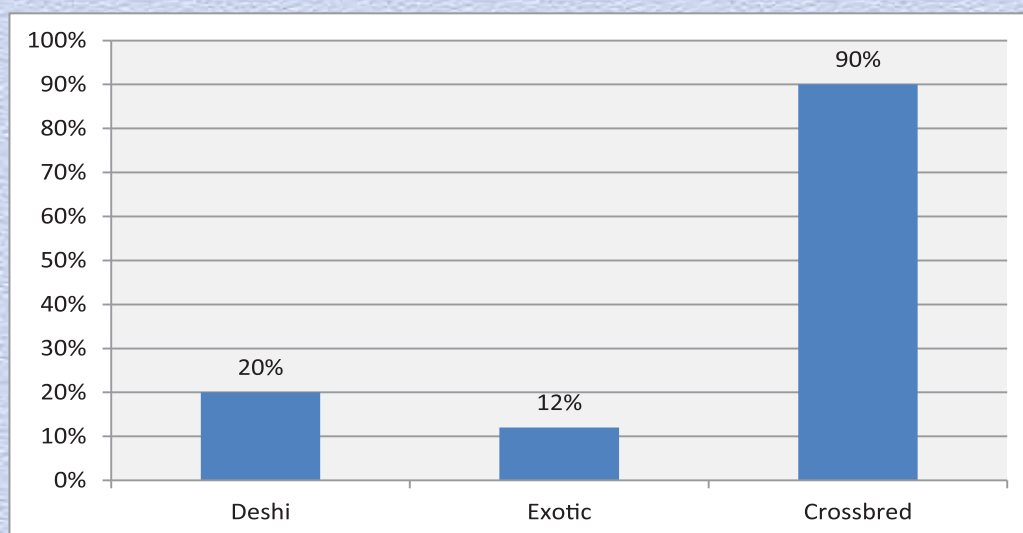
Fig 4.13 explores the breed choice of the farmers for beef fattening. More than three forth (82%) of the farmers preferred cross-breed cattle for fattening followed by far by deshi breed (40%) and only 10% farmers preferred exotic breed for fattening.



**Fig 4.13:** Farmers choice different type of cattle for fattening

Accordingly, most (90%) of the farmers thought that crossbred cattle are more profitable than deshi (20%) and exotic (12%) cattle (Fig 4.14). It may be due to the comparatively faster growth rate of the crossbred than deshi





#### Selling of Fattened Cattle to Different Buyers

Fig 4.15 depicts usual buyer of the cattle after fattening. Most of the respondents (94%) ranked cattle seller as the main buyer of the cattle, followed by butcher (48%) and local cattle farmer (14%).

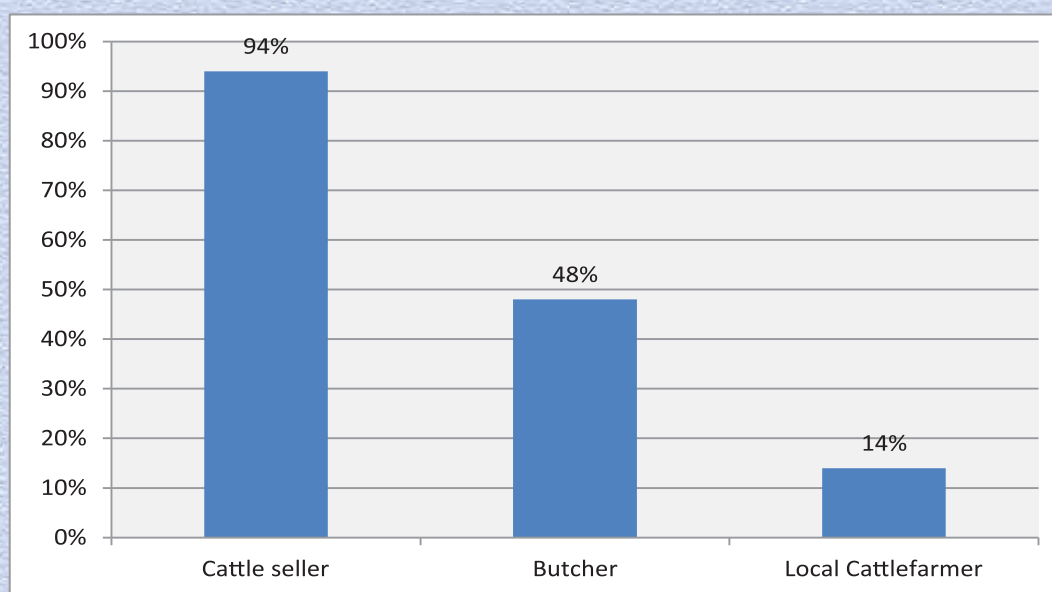


Fig 4.15: Source of selling of fattened cattle

#### Farm Gate Price and Market Price of Cattle

Respondents were asked about the average farm gate selling price of their cattle after fattening and the average final market selling price of their that cattle by the cattle sellers. By comparatively analysis between farm gate price and cattle seller price it was found that the average final market selling price of those cattle by the cattle sellers was Taka 69,483

Whereas the average farm gate selling price of a fattened cattle was Taka 64,306 which indicating that cattle sellers make more than 5,000 Tk. profit per cattle (Fig 4.16).



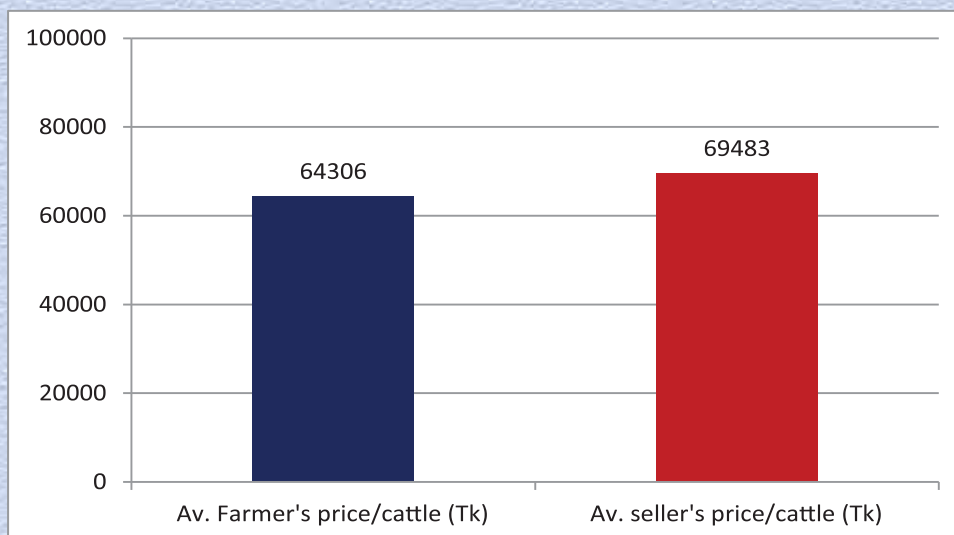


Fig 4.16: Farm Gate Price and Market Price of Cattle

Beef Fattening Value chain project of ESDO has impacted well on reducing the mortality rate of cattle in the project areas. All of the respondents (100%) mentioned that cattle mortality has been decreased after the implementation of the project by ESDO.

#### Advantages and Disadvantages of the Beef Fattening Value Chain Project

The end line study explored the advantages and disadvantages of the beef fattening value chain project as completed by ESDO. Respondents were asked to make comment on their own about the advantages and disadvantages of the project. Increase in income from beef fattening was found the most important advantage/benefit for the farmers as more than three forth (76%) of the respondents mentioned that beef fattening increased their income. In addition, more than half (57%) of the respondents mentioned insurance facilities as an advantage of the project whereas employment creation was mentioned by around half (49%) of the respondents (Fig 4.17)

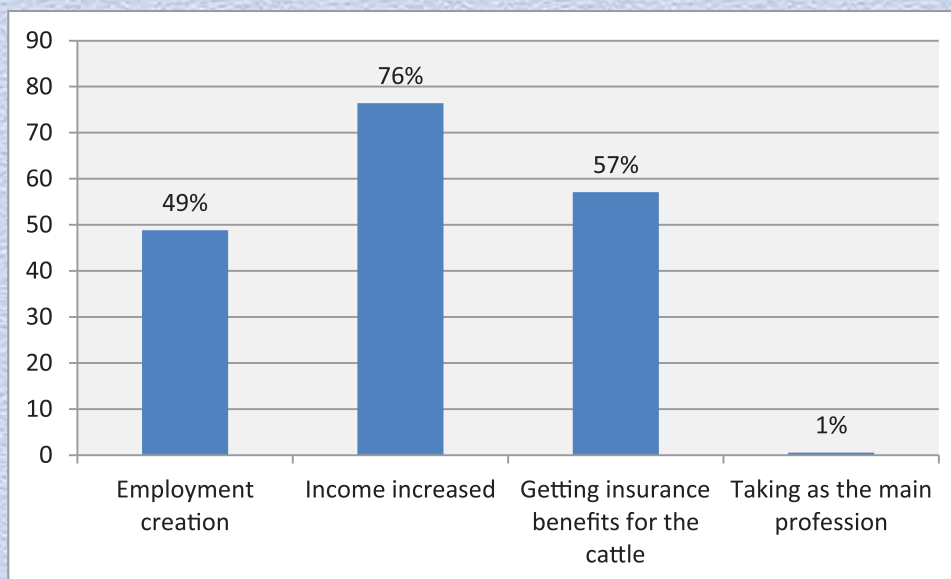


Fig 4.17: Advantages of the project



When requested to make comment on the disadvantages of the project, although it is beyond the control of the Beef Fattening Value chain project of ESDO, most of the respondents (72%) mentioned high price of feed, followed by low price of fattened cattle (20%) than the expectation and cattle coming from outside of the country (19%) were mentioned as disadvantages (figure 4.18).

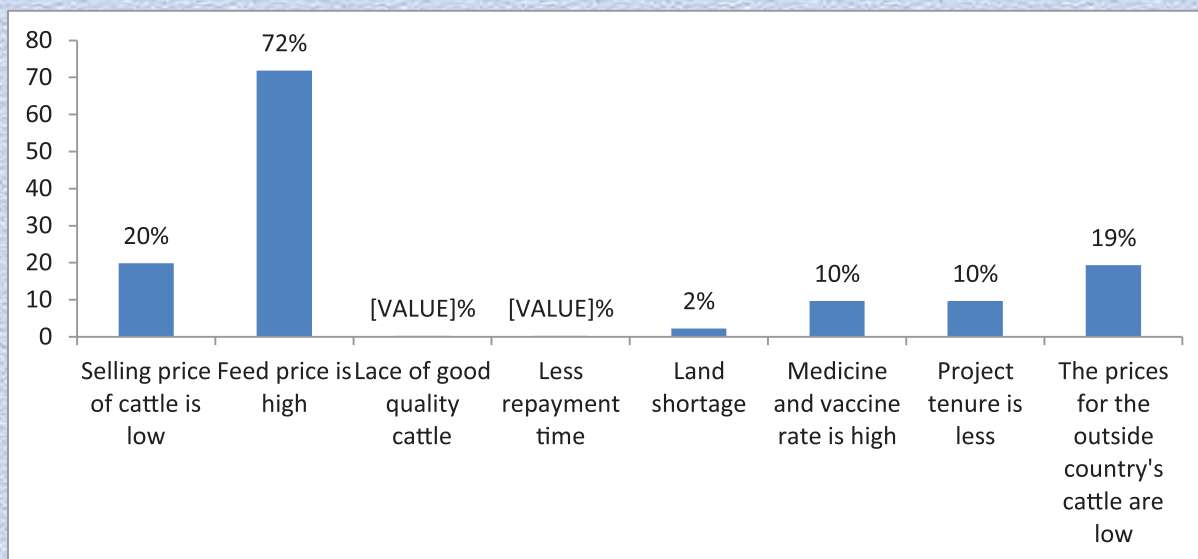


Fig 4.18: Dis-advantages of the project

## 5. QUALITATIVE ASSESSMENT: KII and FGD

In this chapter, qualitative assessment is discussed. Qualitative assessment is measured by Key Informant Interview (KII) and Focus Group Discussion (FGD). The problem faced by the producers-traders and recommendation from KII and FGD are presented in this chapter.

### KII

A total of 38 KII were conducted through structured and semi-structured questions. Two type of KII was done in this research, one for government official and another one for local elites, business man and village veterinary service providers (para-vet).

Respondents indicated that farmers are using modern technology in beef fattening program, new beef fattening entrepreneur was also developed by the project. The area of beef market was increased. Different types of training, workshop, demonstration program was done from the project. Respondents pointed out that income of village veterinary service provider (para-vet) was increased due to implementation of project (Fig 5.1).



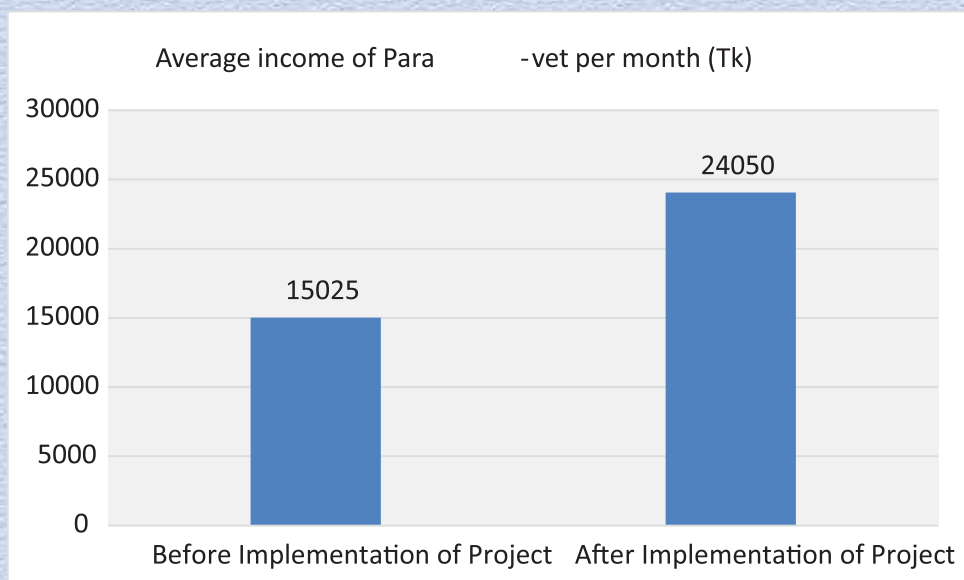


Fig 5.1: Average income of Para-vet per month

The average income of para-vet was 15025 Tk. per month before implementation of project and it raised up 24050 Tk. per month after implementation of project. It may be due to the beef fattening activities increased in the project area.

Interviewees were agreed that feed sell and medicine sell were increased in the project area, it may be caused by the increasing of beef fattening program in the research area. Respondents also indicated that a mini slaughter house is required in the project area. It was clearly identified from the opinion of the target groups that initiative should be taken about by making and storing silage from green grass in the project area. In the present survey, it was found that farmers were making profit from the grass cultivation. The advantages and disadvantages mentioned by the respondents are given below-

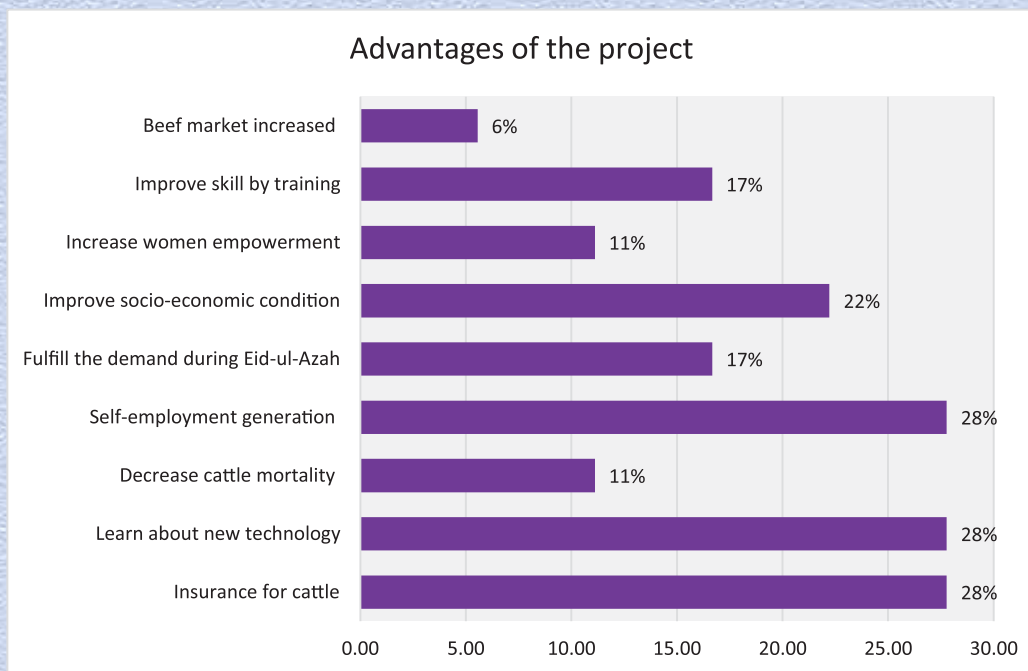


Fig 5.2: Advantages of the project



Respondents mentioned multiple important advantages/benefits derived from the project, which is presented in Figure 5.2. Among those the most important are insurance for cattle (28%), learn about new technology (28%), self-employment generation (27.78%) followed by Improve socio-economic condition (22%), fulfill the demand during Eid-ul-Azha (17%), improve skill by training (17%), decrease cattle mortality (11%), increase women empowerment through beef fattening (11%) and beef market increased (6%) (Fig 5.2).

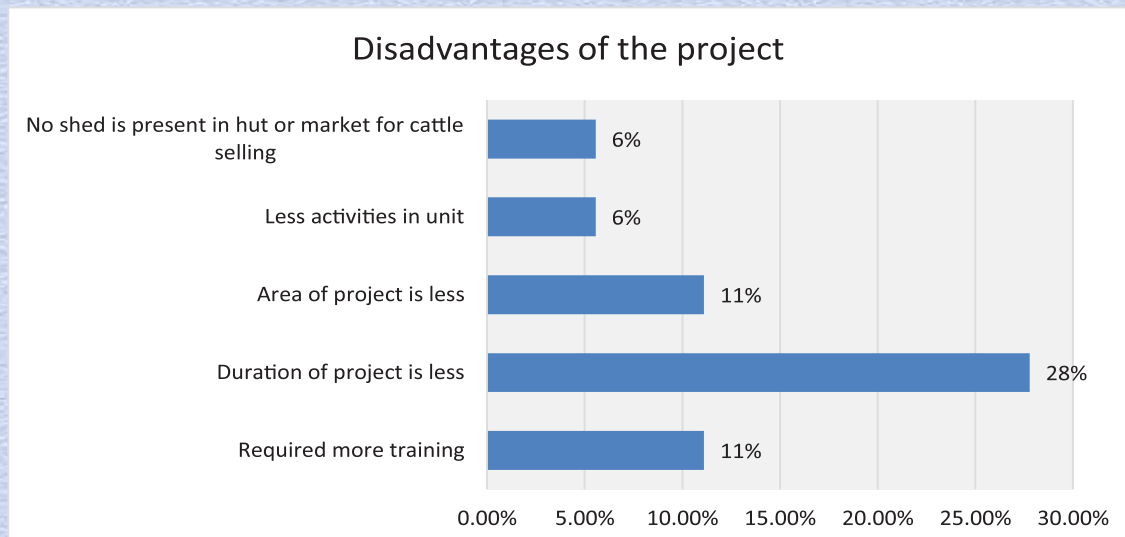


Fig 5.3: Disadvantages of the project

According to respondents' comments (Fig 5.3) the major disadvantages of the project were less duration of the project (28%) followed by less area coverage by the project is (11%), required more training (11%), no shed present in hut or market for cattle selling (6%) and less activities in unit (6%).

### Results of FGDs

In this end-line survey, a total of 4 FGD were held on. First FGD was held in Nayonpur, Thakurgaon on 28th May 2019. Total 10 participants were present in this FGD. List of participants of FGDs are presented in annex section (Annex-6, 7, 8, 9). Second FGD was held in Gobindonagar, Thakurgaon on 29th May 2019. Total 10 participants were present in this FGD. Third FGD was held in Singpara, Thakurgaon on 29th May 2019. Total 8 participants were present in this FGD. Fourth FGD was held in Sibganj, Thakurgaon on 31st May 2019. Total 10 participants were present in this FGD.

### Problem Identified from FGDs

Following problems was identified from FGDs-

- Low priced cattle enter the project area from the neighboring country
- Monitoring should be continuous even after completion of the project
- Less interest about grass cultivation
- Less time duration for loan resettlement
- Loan interest is high
- Deficiency of quality calf for fattening
- No meat processing center present in project area
- Loan facilities should be yearly instead of half yearly
- Local para-vet are not properly trained
- Less number are beneficiaries involved in the project



## 6. CONCLUSION

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The End Evaluation of Beef Fattening Sub Sector Value Chain Project clearly demonstrates that ESDO has implemented the project well in the project areas. Almost all the respondents (95%) received training from ESDO on beef fattening. Accordingly, beneficiaries became much aware of using modern technologies in fattening program, use of inputs and their sources, access to information and service, vaccination, health management, etc. Besides these, beneficiaries seem to improve their concept and concern on feed and fodder required for beef fattening. As high as 95% of the respondents were found able to formulate ration according to age and weight of cattle whereas the proportion in baseline was only 3%. Similarly, 92% of the respondents applied balanced ration to their cattle regularly whereas the proportion in baseline was only 5%. Likewise, the proportion of respondents who supplied complete concentrate feed to their cattle from the market was increased to 89% in end line from 15% in baseline

study. Fodder cultivation by the participants was increased tremendously to 46% at the end line evaluation from 2% of respondent at baseline. Beneficiaries' concept on cattle marketing has also been changed after the implementation of the project indicating that farmers have increased their communication with the market actors and understand marketing channel much better than before. It was also obvious from the evaluation that beneficiaries made good profit from the beef fattening project and thus improved their livelihood. However, some shortcomings have also been recorded in the end-line evaluation like none of the respondents received trainings on fodder cultivation, compost making, etc. Moreover, less emphasis was given to Gobindonagar area about modern technology adoption for beef fattening program compare to other areas of project implantation. These shortcomings should be properly addressed during future planning and implementation of such project.

## 7. RECOMMENDATIONS

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### Recommendation

Following recommendation are presented for the Beef Fattening Sub Sector Value Chain Project under Promoting Agricultural Commercialization and Enterprises (PACE) project-

- Breeding policy should be adopted for production of quality calf used for fattening,
- Required more business training for beneficiaries
- Grass cultivation should be popularized
- No shed present in hut or market for cattle selling, it should be included
- Policy to stop/reduce entering low priced cattle in the project area from the neighboring country
- Required strong meat processing center in project area



বছরব্যাপী গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক ভ্যালু চেইন উন্নয়ন প্রকল্প  
প্রকল্প সমাপ্তের পর চূড়ান্ত জরিপের প্রশ্নমালা (Questionnaire for End line Survey)

টার্গেট গ্রুপ: প্রকল্পের সুবিধাভোগী ব্যক্তি

কোড নং -----

১. সুবিধাভোগীর সাধারণ তথ্য

- ১.১ উত্তর দাতার ধরন : ১. পুরুষ ২. মহিলা  
১.২ উত্তরদাতার নাম :  
১.৩ মোবাইল নং :  
১.৪ উপজেলা :  
১.৫ ইউনিয়ন :  
১.৬ ওয়ার্ড নং :  
১.৭ গ্রাম :  
১.৮ ইএসডিও-তে সদস্য হওয়ার তারিখ :  
১.৯ পেস প্রকল্পে সদস্য হওয়ার তারিখ :  
১.১০ ইএসডিও হতে ঋণ গ্রহণের দফা নং :  
১.১১ ইএসডিও হতে ঋণ গ্রহণের পরিমাণ :

২. সুবিধাভোগীর আর্থ-সামাজিক অবস্থা

- ২.১ পরিবারের মোট সদস্য সংখ্যা :  
২.২ স্কুলগামী ছেলেমেয়ের সংখ্যা :  
২.৩ পরিবারের উপার্জনক্ষম সদস্য সংখ্যা :  
২.৪ পরিবারের মূল উপার্জনকারীর পেশা :  
২.৫ পরিবারের মোট মাসিক আয় :  
২.৬ পরিবারের মোট মাসিক ব্যয় :  
২.৭ মোট জমির পরিমাণ :  
২.৮ বর্তমানে পালনকৃত গরুর সংখ্যা :  
২.৯ পরিবারের ঘরের সংখ্যা: পাকা ঘর ----- টি, আধাপাকা ঘর ----- টি, কাঁচা ঘর ----- টি

৩. গরু মোটাতাজাকরণ সংক্রান্ত (প্রযোজ্য ক্ষেত্রে টিক চিহ্ন দিন)

- ৩.১ গরু মোটাতাজাকরণে আধুনিক পদ্ধতি ব্যবহার করেন কিনা? 

হ্যাঁ	না
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৩.২ গরুকে ইউরিয়া-মোলাসেস-খড় খাওয়ানো হয় কি? 

হ্যাঁ	না
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৩.৩ ইউরিয়া-মোলাসেস-খড় তৈরি ও ব্যবহার বিষয়ক কোন লিফলেট পেয়েছেন কিনা? 

হ্যাঁ	না
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৩.৪ গরুকে ইউরিয়া-মোলাসেস-খড় নিজ হাতে তৈরি করতে পারেন কিনা? 

হ্যাঁ	না
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৩.৫ আপনি কি কোন ইউরিয়া-মোলাসেস-খড় প্রদর্শনী দেখেছেন? 

হ্যাঁ	না
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৩.৬ আপনি কি গরু মোটাতাজাকরণের প্রশিক্ষণ পেয়েছেন? 

হ্যাঁ	না
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৩.৭ কি বিষয়ে এবং কোথা হতে প্রশিক্ষণ পেয়েছেন? 

বিষয়: -----	কর্তৃপক্ষ: -----
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৩.৮ আপনার এলাকায় গরু মোটাতাজাকরণের কোন মডেল খামার দেখেছেন কি? 

হ্যাঁ	না
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৩.৯ ভাল জাতের ষাঁড় চিনবার উপায় বিষয়ক কোন লিফলেট পেয়েছেন কিনা? 

হ্যাঁ	না
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৩.১০ গরুর ওজন পরিমাপের জন্য মেজারিং টেপ পেয়েছেন কিনা? 

হ্যাঁ	না
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৩.১১ গরু মোটাতাজাকরণের জন্য প্রয়োজনীয় উপকরণ কোথা হতে সংগ্রহ করেন?

ওষুধ বিক্রেতা	স্থানীয় প্যারাভেট	খাদ্য বিক্রেতা	ঘাস বিক্রেতা	অন্যান্য -----
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৩.১২ গরু মোটাতাজা করার জন্য আপনি কোন কোন ব্যক্তি বা প্রতিষ্ঠান হতে সহযোগিতা পেয়েছেন?

প্রাণিসম্পদ বিভাগ	ওষুধের দোকান	স্থানীয় প্যারাভেট	খাদ্য বিক্রেতা	অন্যান্য -----
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৩.১৩ গরুকে নিয়মিত কাঁচা ঘাস প্রদান করেন কিনা?

হ্যাঁ	না
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৩.১৪ বিগত ৩ বছর কোন উন্নত কাঁচা ঘাস চাষ করেছেন কিনা?

হ্যাঁ	না
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৩.১৫ চাষ করে থাকলে কি ঘাস চাষ করেছেন?

নেপিয়ার	প্যারা	জার্মান	ভূট্টা	অন্যান্য -----
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৩.১৬ আপনি কি কোন কাঁচা ঘাসের প্রদর্শনী প্লট দেখেছেন?

হ্যাঁ	না
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৩.১৭ নিয়মিত কাঁচা ঘাস প্রাপ্তিতে সমস্যাসমূহ কি কি?

বর্ষায় ঘাসের স্বল্পতা	গ্রীষ্মে ঘাসের স্বল্পতা	শীতে ঘাসের স্বল্পতা	জমি স্বল্পতা	বীজ/কাটিং এর অভাব	অন্যান্য -----
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৩.১৮ গরুকে কোন উৎস হতে খাবার পানি সরবরাহ করে থাকেন?

নদী	পুকুর	টিউবওয়েল	সাপ্লাই	অন্যান্য -----
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৩.১৯ গরুর বয়স ও ওজন বিবেচনায় সুখম খাদ্য তৈরি করতে পারেন কি?

হ্যাঁ	না
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৩.২০ নিয়মিত সুখম খাদ্য প্রদান করেন কিনা?

হ্যাঁ	না
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৩.২১ বাজারের প্যাকেটজাত দানাদার খাদ্য সরবরাহ করেন কিনা?

হ্যাঁ	না
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৩.২২ গরু দেখে সুস্থ্য কিনা তাকি বলতে পারেন?

হ্যাঁ	না
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৩.২৩ আপনার গরুর কি ধরনের রোগ হয়েছে?

তড়কা	বাদলা	ক্ষুরা রোগ	গলাফুলা	এপিমেয়াল ফিভার	অন্যান্য -----
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৩.২৪ গরুর কৃমি সংক্রান্ত ধারণা আছে কিনা?

হ্যাঁ	না
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৩.২৫ গরু ক্রয়ের পর কখন ক্রিমিনাশক ১ম ডোস খাওয়ানো হয়েছিল?

১ম দিন	৭ম দিন	১৫তম দিন	১মাস পর	জানা নেই	----- দিন পর
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৩.২৬ তারপর কত মাস অন্তর ক্রিমিনাশক খাওয়ানো হয়েছিল?

৩মাস পর	৬মাস পর	১বছর পর	২বছর পর	জানা নেই	----- দিন/ মাস পর
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৩.২৭ আপনার গরুকে কিকি ধরনের টিকা প্রদান করা হয়ে থাকে?

তড়কা	বাদলা	ক্ষুরা রোগ	গলাফুলা	অন্যান্য -----	জানা নেই
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৩.২৮ টিকা ও ক্রিমিনাশক ক্যাম্পে অংশগ্রহণ করেছেন কিনা?

হ্যাঁ	না
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৩.২৯ গরু মারা গেলে কিভাবে সংকার করা হয়?

মাটি চাপা দিয়ে	মুচিকে দিয়ে	নদীতে ভাসিয়ে	অন্যান্য
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৩.৩০ গরু বিক্রয় করার সময় কোন কোন এ্যাক্টরদের সাথে যোগাযোগ করতে হয়?

হাট/বাজার	গরু ব্যবসায়ী	গরুর পাইকার	মাংস বিক্রেতা	স্থানীয় গরু পালনকারী
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৩.৩১ গরু মোটাতাজাকরণকে কেন আপনি লাভবান মনে করেন?

বেশী আয়	কর্মসংস্থান সৃষ্টি	মূল পেশা হিসেবে নেয়া	অন্যান্য -----
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৩.৩২ মল-মূত্র কিভাবে ব্যবস্থাপনা করেন?

ঘরের পার্শে গর্ত করে	খোলা জায়গায়	গোবর শুকিয়ে	অন্যান্য -----
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৩.৩৩ গোবর কিভাবে ব্যবহার করেন?

শুকিয়ে বিক্রি	শুকিয়ে জালানী	জমিতে সার হিসেবে	ফেলে দেয়া	অন্যান্য -----
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৩.৩৪ আপনি কি বায়োগ্যাস প্লান্ট তৈরি করেছেন?

হ্যাঁ	না
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৩.৩৫ আপনার এলাকায় কোন বর্জ্য ব্যবস্থাপনা সেড তৈরি হয়েছে কিনা?

হ্যাঁ	না
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৩.৩৬ গরু পালনে আয়-ব্যয়ের হিসাব, গরুর স্বাস্থ্য বিষয়ক তথ্য এবং কেঁচো সার উৎপাদনের আয়-ব্যয়ের তথ্য সংরক্ষণের জন্য কোন কার্ড পেয়েছেন কিনা?

হ্যাঁ	না
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৩.৩৭ ক্যাবল টিভি নেটওয়ার্কে মোটাতাজাকরণকৃত গরুর বিক্রির বিজ্ঞাপন দেখেছেন কিনা?

হ্যাঁ	না
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৩.৩৮ বেঙ্গল মিট/পাবনা মিটের প্রতিনিধি আপনার খামার পরিদর্শন করেছেন কিনা?

হ্যাঁ	না
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৩.৩৯ গরু পালনের বিধিবিধান/আইন কানুন সংক্রান্ত ধারণা আছে কিনা?

হ্যাঁ	না
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৩.৪০ আপনার মোটাতাজাকৃত গরু বিক্রি করার সময় “বিক্রয় ডট কম” বা এ জাতীয় ইন্টারনেট মাধ্যম ব্যবহার করেন কিনা?

হ্যাঁ	না
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৩.৪১ আপনার মোটাতাজাকৃত গরু বিক্রি করার জন্য “বিক্রয় ডট কম” বা এ জাতীয় ইন্টারনেট মাধ্যম প্রয়োজন আছে কিনা?

হ্যাঁ	না
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৩.৪২ প্রাণি মোটাতাজাকরণে আপনি হরমোন বা গ্রোথ প্রোমোটর ব্যবহার করেন কিনা?

হ্যাঁ	না
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৩.৪৩ মোটাতাজাকরণের জন্য আপনি কোন জাতের গরু ব্যবহার করে থাকেন?

দেশীয়	বিদেশী	সংকর
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৩.৪৪ মোটাতাজাকরণের জন্য কোন জাতের গরুর ব্যবহার বেশি লাভজনক?

দেশীয়	বিদেশী	সংকর
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৩.৪৫ আপনার মোটাতাজাকৃত গরুর সাধারণ ক্রেতা কারা?

গরু ব্যবসায়ী	মাংস বিক্রেতা	স্থানীয় গরু পালনকারী	অন্যান্য -----
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৩.৪৬ আপনার মোটাতাজাকৃত প্রতিটি গরু গড়ে কত টাকায় বিক্রি করে থাকেন?

----- টাকায়
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৩.৪৭ আপনার মোটাতাজাকৃত ঐ গরু ক্রেতার পুনরায় কত টাকায় বিক্রি করে থাকেন বলে আপনি ধারণা করেন?

----- টাকা
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৩.৪৮ প্রকল্প বাস্তবায়নের ফলে প্রাণি মৃত্যুর হার কমেছে কিনা?

হ্যাঁ	না
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৩.৪৯ বছরব্যাপী গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক ভ্যালু চেইন উন্নয়ন প্রকল্পের সুবিধা ও অসুবিধাসমূহ লিপিবদ্ধ করুন

৪. বছরব্যাপী গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক ভ্যালু চেইন উন্নয়ন প্রকল্পের সুবিধা ও অসুবিধাসমূহ লিপিবদ্ধ করুন

সুবিধাসমূহ

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অসুবিধাসমূহ

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জরীপকারীর স্বাক্ষর:

নাম:

তারিখ:

মোবাইল নং:



বহরব্যাপী গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক ভ্যালু চেইন উন্নয়ন  
প্রকল্প (বাস্তবায়নে ESDO)

প্রকল্প সমাপ্তের পর চূড়ান্ত জরিপের নিবিড় সাক্ষাৎকার প্রশ্নমালা (KII for government officials)

কোড নং -----

টার্গেট গ্রুপ: জেলা প্রশাসনের কর্মকর্তা, জেলা প্রাণিসম্পদ কর্মকর্তা, উপজেলা নির্বাহী কর্মকর্তা, উপজেলা প্রাণিসম্পদ কর্মকর্তা,  
সেনেটারি কর্মকর্তা, পরিসংখ্যান কর্মকর্তা

উত্তরদাতার নাম:

উত্তরদাতার পদবি:

মন্ত্রণালয়/বিভাগ/শাখা/সংস্থা:

উত্তরদাতার মোবাইল নং:

#### প্রকল্প সংশ্লিষ্ট প্রশ্নাবলী

- আপনার এলাকায় আধুনিক প্রযুক্তি ও উন্নত ব্যবস্থাপনা ব্যবহার করে গরু মোটাতাজাকরণ বৃদ্ধি পেয়েছে কি?
- উপরোক্ত প্রকল্পের আওতায় আপনার এলাকায় বিগত ৩ বছরে গরু মোটাতাজাকরণে নতুন উদ্যোক্তা সৃষ্টি হয়েছে কি?
- বর্তমানে ৩ বছরের পূর্বের চেয়ে গরু মোটাতাজাকরণের ক্ষেত্রে উৎপাদন খরচ কমেছে কি?
- উক্ত প্রকল্পের আওতায় গরুর মাংসের বাজারজাতকরণের ক্ষেত্র বৃদ্ধি পেয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন কর্মশালা হয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন প্রশিক্ষণ হয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন কাঁচা ঘাসের প্রদর্শনী প্লট তৈরি হয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় ইউরিয়া-মোলাসেস-স্ট্র এর প্রদর্শনী করা হয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন বর্জ্য ব্যবস্থাপনা সেড তৈরি করা হয়েছে কি?
- আপনার এলাকায় উক্ত প্রকল্পের আওতায় ক্যাবল নেটওয়ার্কে মোটাতাজাকরকৃত গরু বিক্রির বিজ্ঞাপন দেখানো হয় কি?
- প্রকল্পের সুবিধাসমূহ কিকি?
- প্রকল্পের অসুবিধাসমূহ কিকি?
- আপনার মন্তব্য (যদি থাকে)

জরীপকারীর স্বাক্ষর:

নাম:

তারিখ:

মোবাইল নং:



### Annex-3

বছরব্যাপী গরু মোটোতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক ভ্যালু চেইন উন্নয়ন প্রকল্প (বাস্তবায়নে ESDO)

প্রকল্প সমাপ্তের পর চূড়ান্ত জরিপের নিবিড় সাক্ষাৎকার প্রশ্নমালা (KII for local elite, businessman and para-vet)

কোড নং -----

টার্গেট গ্রুপ: জনপ্রতিনিধি ও এলাকার গণ্যমান্য ব্যক্তি (৫জন), খাদ্য বিক্রেতা (৫জন), ওষুধ বিক্রেতা (৫জন), গ্রাম্য প্রাণি চিকিৎসক (৫জন)

উত্তরদাতার নাম:

উত্তরদাতার পদবি:

প্রতিষ্ঠানের নাম (প্রযোজ্য ক্ষেত্রে):

উত্তরদাতার মোবাইল নং:

#### প্রকল্প সংশ্লিষ্ট প্রশ্নাবলী

১৪. প্রকল্প বাস্তবায়নের পরে আপনার এলাকায়/প্রতিষ্ঠানে প্রাণি খাদ্য বিক্রয়ের পরিমাণ বেড়েছে কিনা?

১৫. প্রকল্প বাস্তবায়নের পরে আপনার এলাকায়/প্রতিষ্ঠানে প্রাণির ওষুধ বিক্রয়ের পরিমাণ বেড়েছে কিনা?

১৬. প্রকল্প বাস্তবায়নের পূর্বে আপনার এলাকার গ্রাম্য প্রাণি চিকিৎসকদের মাসিক গড় আয় কত ছিল বলে আপনি মনে করেন?

১৭. প্রকল্প বাস্তবায়নের পর আপনার এলাকার গ্রাম্য প্রাণি চিকিৎসকদের মাসিক গড় আয় কত হয়েছে বলে আপনি মনে করেন?

১৮. আপনার এলাকায় মিনি স্টার হাউজ স্থাপনের প্রয়োজন আছে কিনা?

১৯. প্রকল্প বাস্তবায়নের পরে আপনার এলাকার খামারিরা ঘাস চাষ করে লাভবান হচ্ছে কিনা?

২০. আপনার এলাকায় কাঁচা ঘাস সাইলেজ তৈরি করে সংরক্ষণের উদ্যোগ গ্রহণ করা উচিত কিনা?

জরীপকারীর স্বাক্ষর ও নাম:

তারিখ:

মোবাইল নং:



বহরব্যাপী গরু মোটাতাজাকরণ ও বাজারজাতকরণের মাধ্যমে উদ্যোক্তাদের আয় বৃদ্ধিকরণ এবং কর্মসংস্থান সৃষ্টি- শীর্ষক

ভ্যালু চেইন উন্নয়ন প্রকল্প (বাস্তবায়নে ESDO)

দলীয় আলোচনা (FGD)

টার্গেট গ্রুপ: প্রকল্পের সুবিধাভোগী, জনপ্রতিনিধি, স্থানীয় গণ্যমান্য ব্যক্তিবর্গ, মাংস ক্রেতা-বিক্রেতা

এফজিডি সমন্বয়কারীর নাম:	সহায়তাকারীর নাম:
মোবাইল নং:	মোবাইল নং:
আলোচনার স্থান:	তারিখ:

দলীয় আলোচনায় অংশগ্রহণকারীদের পরিচিতি (অংশগ্রহণকারী কমপক্ষে ৮জন)

নং	নাম ও মোবাইল নং	বয়স	লিঙ্গ	পেশা	স্বাক্ষর
১.					
২.					
৩.					
৪.					
৫.					
৬.					
৭.					
৮.					
৯.					
১০.					



### প্রকল্প সংশ্লিষ্ট প্রশ্নাবলী

২১. আপনার এলাকায় আধুনিক প্রযুক্তি ও উন্নত ব্যবস্থাপনা ব্যবহার করে গরু মোটাতাজাকরণ বৃদ্ধি পেয়েছে কি?
২২. উপরোক্ত প্রকল্পের আওতায় আপনার এলাকায় বিগত ৩ বছরে গরু মোটাতাজাকরণে নতুন উদ্যোক্তা সৃষ্টি হয়েছে কি?
২৩. বর্তমানে ৩ বছরের পূর্বের চেয়ে গরু মোটাতাজাকরণের ক্ষেত্রে উৎপাদন খরচ কমেছে কি?
২৪. উক্ত প্রকল্পের আওতায় গরুর মাংসের বাজারজাতকরণের ক্ষেত্র বৃদ্ধি পেয়েছে কি?
২৫. আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন কর্মশালা হয়েছে কি?
২৬. আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন প্রশিক্ষণ হয়েছে কি?
২৭. আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন কাঁচা ঘাসের প্রদর্শনী প্লট তৈরি হয়েছে কি?
২৮. আপনার এলাকায় উক্ত প্রকল্পের আওতায় ইউরিয়া-মোলাসেস-স্ট্র এর প্রদর্শনী করা হয়েছে কি?
২৯. আপনার এলাকায় উক্ত প্রকল্পের আওতায় কোন বর্জ্য ব্যবস্থাপনা সেড তৈরি করা হয়েছে কি?
৩০. আপনার এলাকায় উক্ত প্রকল্পের আওতায় ক্যাবল নেটওয়ার্কে মোটাতাজাকরকৃত গরু বিক্রির বিজ্ঞাপন দেখানো হয় কি?
৩১. প্রকল্পের দুর্বল দিক কিকি?
৩২. প্রকল্পের সবল দিক কিকি?
৩৩. প্রকল্পের ঝুঁকি কিকি?
৩৪. প্রকল্পকে শক্তিশালী করার জন্য কি কি পদক্ষেপ নেয় উচিত?



**List of key persons for KII of sampled area**

<b>No.</b>	<b>Name</b>	<b>Designation</b>	<b>Mobile Phone Number</b>
1.	Abdullah-Al-Mamun	Upazila Nirbahi Officer, Sadar, Thakurgaon	01708577261
2.	Md. Nur kutubul Alam	Additional District Commissioner, Thakurgaon	01910079192
3.	Dr. Md. Al Imran	Upazila Livestock Extension Officer, Sadar, Thakurgaon	01745368913
4.	Dr. Md. Shariar Mannan	Veterinary Surgeon, Sadar, Thakurgaon	01684846366
5.	Dr. Md. Abdur Rahim	Upazila Livestock Officer, Sadar, Thakurgaon	01716068760
6.	Md. Altaf Hossen	District Livestock Officer, Thakurgaon	01715748327
7.	Md. Anisur Rhaman	Upazila Agriculture Officer, Sadar, Thakurgaon	01716716949
8.	Md. Osman Goni	Veterinary Field Assistant, Sadar, Thakurgaon	01723445711
9.	Mousumi Afrida	Upazila Nirbahi Officer, Ranisankail, Thakurgaon	01708368666
10.	Md. Raihan Ali	Upazila Livestock Officer, Ranisankail, Thakurgaon	01713784192
11.	Krishibid Sonjoy Debnat	Upazila Agriculture Officer, Ranisankail, Thakurgaon	01773700520
12.	Dr. Modan Kumar Roy	Veterinary Surgeon, Ranisankail, Thakurgaon	01714514448
13.	Abu Ajom Md. Sarower Hossen	Sanitary Inspector, Ranisankail, Thakurgaon	01716712502
14.	Md. Aminul Haq Chowduri	Statistics Assistant, Ranisankail, Thakurgaon	01721416038
15.	Md. Abu Hanif	Artificial reproduction assistant, Ranisankail, Thakurgaon	01719794894
16.	Bodu Chandro Roy	Deputy Assistant Agriculture Officer, Sadar, Thakurgaon	01744632816
17.	Aga Walioul Md. Sadjad Hossain	Instructor (Animal Husbandry), Youth Training Center, Sadar, Thakurgaon	01716577513
18.	Md. Akhter Faruk	Sanitary Inspector, Sadar, Thakurgaon	01718461327
19.	Ovishek Chandro Roy	Bossiness man, Ranisankail, Thakurgaon	01751428661



No.	Name	Designation	Mobile Phone Number
20.	Md. Sohedul Islam,	UP Member, Rohimanpur, Thakurgaon	01713749962
21.	Bojromohon	UP Member, Jogonnatpur, Thakurgaon	01788828274
22.	Horendronat Sorkar	Agriculture Dealer, TCB & MRD	01710218203
23.	Md. kobir Ahammod	Principal, Goreya Model Govt. Primary School	01714941828
24.	Kazi Nuzrul Islam	Food Saler	01732991163
25.	Sonjoy Prosad	Food Saler, M/S Subas Traders	01762611834
26.	Md. Shorab Ali	Food Saler	01717348412
27.	Md. Alal	Food Saler	01704680660
28.	Md. Johirul Islam	Food Saler, Lota Store, Ranisankail	01765929692
29.	Md. Hanif	Medicine saler, Adunik Poosu Sastho Korner	01734832726
30.	Hossain Md. Ersad	Medicine saler, A1 Tecnician	01714332659
31.	Md. Siful Islam Bhuyan	Medicine saler, Posu Sastho Pharmacy	01776973397
32.	Md. Sofikul Islam	Medicine saler, M/S Bismillha Pharmacy	01712933078
33.	A. B. M. Mahfuj Alom	Medicine Saler, Mahfuj Medicine Store	01718879404
34.	Koilas Chandro Roy	Village veterinary doctor	01722091953
35.	Md. Saidul Islam Liton	Village veterinary doctor, Village Sales & Service Center	01738515185
36.	Md. Dobirul Islam (Babu)	Village veterinary doctor	01738710141
37.	Onik Roy	Village veterinary doctor	01791844924
38.	Md. Mohibur Rhaman,	Village veterinary doctor & Artificial breeding staff, BRAC artificial breeding staff	01713707824, 01973707824



## Participants List of FGD in Nayonpur, Thakurgaon

No.	Name & Mobile Number	Age	Gender	Occupation
1.	Mst. Johura Khatun 01792831951	42	Female	Homemaker
2.	Mst. Merina Begum 01740213300	38	Female	Meat Businessman
3.	Md. Dulal Hossen 01738267822	35	Male	Farm owner
4.	Md. Khairul Alom 01740141905	29	Male	Cattle Business
5.	Mst. Masuda begum 01717182548	30	Female	Agriculture
6.	Md. Rosidul Haq 01738267821	28	Male	Agriculture
7.	Mst. Maseda Begum 0173879449	48	Female	Agriculture
8.	Mst. Hafeja 01760582173	50	Female	Agriculture
9.	Md. Hasan Ali 01719216001	45	Male	Agriculture
10.	Mst. Morjina 01737485998	40	Female	Agriculture



**Participants List of FGD in Gobindonagar, Thakurgaon****Annex-7**

No.	Name & Mobile Number	Age	Gender	Occupation
1.	Bojro Mohon 01788828274	50	Male	Agriculture
2.	Md. Alamin 01798913834	30	Male	Business
3.	Mst. Hasina Begum 01782907442	55	Female	Homemaker
4.	Jorina Begum 01797939343	50	Female	Homemaker
5.	Panna Begum 01770629039	35	Female	Homemaker
6.	Jesmin Begum 01750803745	25	Female	Homemaker
7.	Nasima Begum 01793969149	35	Female	Homemaker
8.	Delowara Begum 01750347294	57	Female	Homemaker
9.	Protika Rani	35	Female	Homemaker
10.	Aleya	27	Female	Homemaker

**Participants List of FGD in Singpara, Thakurgaon****Annex -8**

No.	Name & Mobile Number	Age	Gender	Occupation
1.	Mst. Johura Begum 01786725015	45	Female	Farm owner
2.	Mst. Rohima Begum 01765903006	38	Female	Farm owner
3.	Mst. Nasima Akter 01744601772	30	Female	Farm owner
4.	Md. Saidul Islam 01738515185	35	Male	Local people
5.	Md. Altafur Rhaman 01741533653	40	Male	Meat Businessman
6.	Mst. Rahina Begum 01762711542	50	Female	Farm owner
7.	Md. Saiful Islam 01761450834	38	Male	Farm owner
8.	Md. Abdur Rasid 01760582173	65	Male	Local people



**Participants List of FGD in Sibganj, Thakurgaon**

<b>No.</b>	<b>Name &amp; Mobile Number</b>	<b>Age</b>	<b>Gender</b>	<b>Occupation</b>
1.	Mst. Jobeda Khatun 01762961499	45	Female	UP Member
2.	Md. Dulal Haq 01745084165	48	Male	Teacher
3.	Lakey Begum 01704319147	35	Female	Homemaker
4.	Morjina 01796067391	32	Female	Homemaker
5.	Eunus 01738256797	50	Male	Agriculture
6.	Sorifa 01306176546	42	Female	Teacher
7.	Begum 0172260983	38	Female	Homemaker
8.	Md. Mosarof 01796065487	35	Male	Agriculture
9.	Mozibor 01738200536	50	Male	Agriculture
10.	Torikul 01738682169	34	Male	Agriculture



## Picture Gallery





