World Vision

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Hope, Joy and Justice for All Children

Bangladesh

Prepared By

Agile Consultants

August 09, 2021

SUMMARY REPORT
MARKET AND SUB-SECTOR ASSESSMENT

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Acronyms

ACI	Advanced Chemical Industries
ADP	Area Development Program
AI	Artificial Insemination
AIC	Agriculture Information Center
AP	Area Program
ASA	Association for Social Advancement
AgCon	Agile Consultants
BACE	Bangladesh Association for Community Education
BADC	Bangladesh Agriculture Development Corporation
BB	Bangladesh Bank
BBS	Bangladesh Bureau of Statistics
BDT	Bangladesh Taka
BDRCS	Bangladesh Red Crescent Society
BSL	Building Secure Livelihoods
BRAC	Bangladesh Rural Advancement Committee.
BMPCUL	Bangladesh Milk Producer's Cooperative Union Limited
BOPMA	Bangladesh Organic Products Manufacturers Association
BRKB	Bangladesh Rice Knowledge Bank
BARI	Bangladesh Agricultural Research Institute
BSPs	Business Service Providers
CBs	Commercial Banks
CCDB	Christian Commission for Development in Bangladesh
CNRS	Center for Natural Resource Studies
CRD	Chronic Respiratory Disease
DAE	Department of Agricultural Extension
DAM	Dhaka Ahsania Mission
DLS	Department of Livestock Services
DOC	Day Old Chick
DoF	Department of Fisheries
DSK	Dushtha Shasthya Kendra
DYD	Department of Youth Development
ESDO	Eco Social Development Foundation
FIAC	Farmer's Information and Advice Centre
FGD	Focus Group Discussion
GESI	Gender Equity and Social Inclusion
GDP	Gross Domestic Product
GO	Government Organization
GUK	Gana Unnayan Kendra
HILIP	Haor Infrastructure and Livelihood Improvement Project
HYV	High-Yielding Variety
IBD	Infectious Bursal Disease
ICT	Information and Communications Technology
IGA	Income Generating Activities
INGO	International non-governmental organization
iMSD	Inclusive Market System Development
IPM	Integrated Pest Management
KII	Key Informant Interview
MMI	Missing Middle Initiative
MT	Metric Ton
MSD	Market System Development
NATP	National Agricultural Technology Programme
ND	Newcastle Disease
NGO	Non-Governmental Organization
PKSF	Palli Karma-Sahayak Foundation
RDRS	Rangpur Dinajpur Rural Services
RIC	Resource Integration Centre
RMG	Ready-made garments
SFBL	Square Food & Beverage Ltd
SME	Small & Medium Enterprise
SDG	Sustainable Development Goals
SHED	Society for Health Extension & Development
TMSS	Thengamara Mohila Sabuj Sangha
TG	Target Group
ULO	Upazila Livestock Officer
UPG	Ultra Poor Graduation
UNDP	United Nations Development rogramme
UNWFP	United Nations World Food Programme
USAID	United States Agency for International Development
VC	Value Chain
VCD	Value Chain Development
VTI	Vocational Training Institutes
WEE	Women Economic Empowerment
WVB	World Vision Bangladesh
WVA	World Vision Australia
WB	The World Bank
LAL	Lal Teer Livestock Limited
LGED	Local Government Engineering Department
LVCD	Local Value Chain Development
MFI	Micro Finance Institution

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Executive Summary

World Vision became involved in Bangladesh providing relief to the cyclone victims of Bhola in 1970. International humanitarian organization World Vision started relief and rehabilitation programs and revived its humanitarian activity in the country in 1972. Since then, it has managed to spread its operation in thirty (30) districts with a view to serving the children, families of these children, and communities to reduce poverty.

The study named 'Market and Sub-Sector Assessment' was conducted not only to identify potential sub-sectors for marginal poor and livelihood options for the ultra-poor community but also to determine key market system dynamics to focus through livelihood technical program. The study covered thirty-nine (39) APs operating spread over (19) districts operating under eleven (11) APCs of World Vision Bangladesh. The study area also included three (03) Haor areas of Dhamapasha, Taherpur, and Sunamgong AP. Both qualitative and quantitative primary data were collected through Questionnaire Survey, Workshop, Key Informants Interview (KII), Focus Group Discussion (FGD) (GESI and General), and Observation.

This study comprises five consecutive segments, namely, literature review, household assessment, identification of prospective sub-sectors and livelihood options, assessment of prospective sub-Sectors, and recommendations. For household assessment, 35 FGD and 443 household questionnaire surveys were conducted using stratified sampling. The HH assessment was adopted to understand target groups current behavioral patterns related to livelihood issues, economic empowerment status of women, resources/skillsets possessed, constraints (gender-based) limiting market access, and vulnerabilities to climatic/non-climatic shocks so that market-based solutions can be recommended following the sub-sector assessment.

In total, forty-three (43) workshops were conducted based on a priority matrix to undertake a weighted ranking exercise to identify the most prospective sub-sectors for each AP. Participants in the workshops included producers, farmers, market actors, NGO and INGO representatives, and government officials. The weighted ranking results were validated and supplemented through KII and FGD with the key stakeholders to identify the most promising sub-sectors for the marginal poor. The findings of the weighted ranking were validated and supplemented through KII and FGD with key stakeholders to determine the most potential sub-sectors for the marginal poor. KII and FGD findings, on the other hand, also identified prospective livelihood options for the ultra-poor. Finally, an assessment of the projected subsectors, distinguished for the marginal poor, was carried out based on the quantitative and qualitative data collected through 31 FGD and 154 KII with market actors and other stakeholders.

The household assessment revealed that 363 of the 443 respondents did not own any cultivable land. Some of the respondents who are engaged in farming but do not own any cultivable land frequently lease land from landlords in exchange for a part of the crop produced being paid to the landowner. The proportion of female household heads who owned more than five decimals of the land property was barely 0.4 percent of the total household surveyed. A significant proportion of marginal people (29.4%) and ultra-poor respondents (33.9%) owned less than ten decimal land properties. A significant difference in land ownership patterns was visible between the marginal and ultra-poor groups. Whereas 7.9% of ultra-poor people did not own any land, only 4.3% of marginal people were found landless. As a result, the marginal poor were more engaged in agricultural and vegetable production than the ultra-poor. The ultra-poor were primarily involved in dairy farming, country chicken, and day labor.

About 58.01 percent of respondents' families experienced reduced incomes due to COVID-19 impact. During COVID-19 to cope up with reduced income the household had to adapt their expenses and attempted to minimize their expenditure on food and education. To balance with their reduced income, households had cut their educational spending more drastically. The number of households eating three meals a day fell from 98 percent to 70 percent with the advent of COVID-19 and some families were even forced to survive on one meal a day. Children of 28.4 percent of households were found to be suffering from various

health problems as a result of significant reductions in consumption spending. Approximately 72.7 percent and 31.8 percent of respondents did not have any savings and access to institutional loans respectively. Around 9.3% of respondents who had access to the institutional loan were paying 3% to 11% interest on their loan whereas 1.8% of respondents were paying an even higher interest rate of 11% to 14%. Moreover, 74.9 percent of respondents had not received any IGA related training. Only a fraction of the respondents had access to marketing services, improved technology, storage facility, and local processing units. Around 51.2 percent of respondents responded that they had difficulties in improving their livelihood due to a lack of finance.

Although 98.6 percent of women respondents were involved in different forms of income generating activities last year, although 41.9 percent of them were not happy with their current livelihood. Adult men, women, and adolescent girls argued that their community disapproved when a married woman was a breadwinner. The women were mostly responsible for performing reproductive tasks whereas the male members spend most of the time in different IGA and community tasks. In most households, men act as the sole decisions maker and unlike boys girls did not have access to agricultural inputs. Additionally, almost all the respondents believed that a person with disabilities should not be involved in any form of economic and income generation activity. However, most respondents think that people with disabilities have the right to access resources and social services and their opinion must be considered while their families or community members are deciding on their behalf.

As the HH assessment revealed that the ultra-poor and the marginal poor differ in terms of their ownership of productive assets, two separate lists of prospective sub-sectors and livelihood options were delineated as prospective livelihood options and sub-sectors for the marginal and ultra-poor.

SL	Livelihood Options for Ultra poor
1	Cow Rearing
2	Homestead Vegetables
3	Country Chicken
4	Duck Rearing
5	Small Business
6	Goat Rearing
7	Sheep Rearing
8	Handicraft
9	Vermi Compost
10	Poultry
11	Rice Cultivation
12	Sewing Work
13	Tailoring/Clothing Business
14	Van Puller
15	Papaya/ Banana

SL	Sub-sectors for Marginal Poor
1	Vegetables
2	Dairy
3	Cattle Fattening
4	Country Chicken
5	Duck Rearing
6	Rice Cultivation
7	Goat Rearing
8	Poultry (Broiler Chicken)
9	Maize
10	Handicraft
11	Small Business
12	Mixed Fish
13	Vermi Compost
14	Potato Cultivation

A sub-sector assessment to understand power dynamics among value chain actors revealed that within the value chain, marginal and ultra-poor men and women are often engaged as farmers/producers and, on occasion, retailers. The market accessibility of TGs is frequently hindered by lack of financing, lack of training, and systematic market constraints such as high input prices, scarce input supply, poor infrastructure, insufficient veterinary services, low output prices, and others. Furthermore, the COVID-19 crisis has distorted the value chain since consumer demand has decreased considerably owing to the lockout, and raw materials/inputs and transportation have become unavailable.

To address specific constraints faced by the TGs, relevant interventions such as productive asset transfer, technical skill training, producer group formation, linking with government programs, networking with the private sector (input suppliers, processing companies, and micro-financing institutions), and so on should be facilitated. So that, TG's access to the market may be improved through business, financial, and technical services to enable them to develop sustainable livelihood.

Chapter 1: **Introduction**

World Vision (WV) is an international humanitarian organization helping vulnerable children to overcome poverty and injustice. Responding to the cyclone victims of Bhola in 1970 World Vision (WV) made its first involvement in Bangladesh. After the independence of Bangladesh, WV started relief and rehabilitation programs and later on revived its humanitarian activity in the country in 1972. Since then World Vision Bangladesh (WVB) has managed to spread its operation in thirty (30) districts with a view to serving the children, families of these children and communities to reduce poverty. In partnership and collaboration with the government and other stakeholders, WVB works to ensure technical services, strengthen governance and others. In doing so, it is currently implementing twenty-seven (27) projects in Bangladesh thereby serving five (05) million vulnerable children of the country. To achieve its vision of sustainable well-being and brighter future for the underprivileged children, WVB has been operating to alleviate poverty, inequalities and injustices by eliminating the causes.

1.1 Background

By any given society, poverty is determined as the inability to access basic human needs, such as clean water, nutrition, health care, education, clothing, and shelter. According to World Bank (2019), more than half of the population of Bangladesh can be considered vulnerable to poverty as their level of consumption is close to the poverty threshold. They regularly face poverty, inadequate food, inequalities, injustices, lack of proper education, health and nutrition problems in slum and rural areas.

Individuals who suffer from social, economic, political problems resulting from poverty, discrimination, intolerance, subordination, and stigmatization-induced stresses and risks are often considered potentially vulnerable groups. Different sub-groups including socioeconomically disadvantaged, women and children, ethnic minorities, the homeless, and the elderly are often referred to as vulnerable populations. Such vulnerability is generated by multiple processes, such as social relations of resources access, political and economic marginalization, loss of employment opportunities, and weakening social networks (Adams et al. 1998; Kelly, 1999).

In Bangladesh, there exists a disconnection between the private sector environment with the poor and marginal people. Even though different initiatives, such as employing the poor, procuring raw materials from the poor, running labor-intensive distribution processes, and activities performed as corporate social responsibility from the private sector have been associated with poverty reduction albeit such initiatives have limitations in making poor selfreliant in a sustainable way (Ahmed, Bhuyan, & Basher, 2016). Moreover, due to a low level of literacy, most smallholder farmers have limited or no understanding of agricultural marketing dynamics and have limited access to market information (Quddus & Kropp, 2020).

To reduce the cause of vulnerability of the marginal farmers and ultra-poor households, WVB has been implementing Building Secure Livelihoods (BSL) and Ultra-Poor Graduation (UPG) model in its operational areas. As traditional subsistence farming practices by marginal and landless farmers do not offer bargaining power over buyers, WVB extends technical supports and productive farm and non-farm assets to selected households to increase their family income in a sustainable way to achieve socio-economic improvement and resilience from their vulnerable status.

However, a recent study by Needs Assessment Working Group Bangladesh (2020) identified that due to the COVID-19 crisis the value chain of perishable items was disrupted and it will negatively impact the food

security condition of a large proportion of the population rendering them vulnerable and aid-dependent. The livelihood of marginal and ultra-poor population, women, girls, and female-headed households are likely to get more severely affected. Hence, gender-sensitive market evaluation is required to identify appropriate actions to increase marginal and ultra-poor women's market access within the sub-sectors distorted by COVID-19 pandemic. So, before making any forms of interventions to address the needs of the target groups (i.e., marginal and ultra-poor households), initial their socio-economic status, vulnerabilities, and opportunities must be assessed. Additionally, prospective livelihood options for the TGs and their role in the existing market structure must also be gauged.

In this regard, WVB undertook an endeavor to conduct 'Market and Sub-Sector Assessment' not only to identify potential sub-sectors for extreme poor communities and promoting value chains for the poor community but also to determine key market system dynamics, gender dynamics, and environmental considerations to focus through Livelihood Technical Program. Agile Consultants (AgCon), one of the leading consulting firms in Bangladesh, has been commissioned to conduct the 'Market and Sub-Sector Assessment'. The knowledge and learning gathered from the study will help to shape future intervention by WVB in adding value to promote gender-inclusive business opportunities and bring market system change for the targeted most vulnerable community.

1.2 Objectives of the Study

The purposes of the study can be outlined in chronological order as mentioned below:

- ✓ To explore current livelihood practices of target groups (income sources, expenditure, saving practices, assets, food/non-food demand condition, living standards, impact of Covid-19 and their coping mechanism etc.);
- ✓ To explore and examine market dynamics, structure, distribution channels, value chain and business enabling & non-enabling environments of the shortlisted markets;
- ✓ To assess gendered nature of the resources/skillsets, vulnerabilities and experience of shock for each target group, and to assess the gendered barriers to markets;
- ✓ To identify systematic constraints within the market system and limitations of value chain for market accessibility of target group (extreme-poor, marginal poor, men and women);
- ✓ To assess market systems resilience to climatic/non-climatic shocks, identify public and private sector actors as potential partners and map power dynamics in the relationships between the actors; and
- ✓ To recommend 'Inclusive Market System Development' strategies aimed at marginal & ultra-poor graduation, economic empowerment of women and climatic and non-climatic risk mitigation.

Chapter 2: **Methodology**

The study is designed to explore the market & sub-sector and livelihood options selection for marginal poor and ultra-poor respectively. It is assessing and analytical study in nature. Several methods and techniques have been used to complete the study.

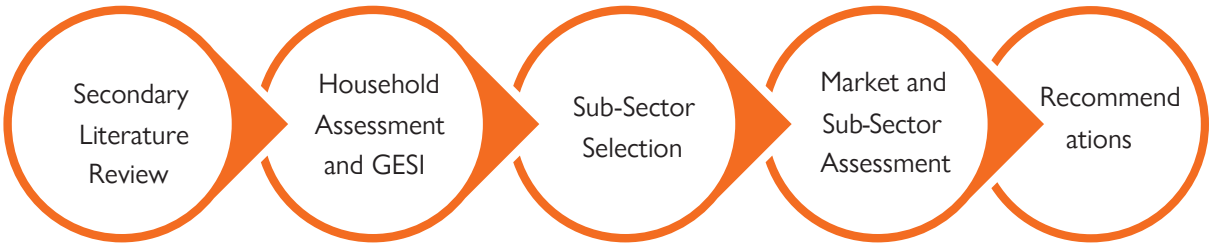
2.1 Study Area

This study has been conducted in eleven (11) APC spread over nineteen (19) districts of the country. These eleven (11) APCs represent plain land, Barendra land, coastal land, hill basin, river basin, and Haor basin of Bangladesh. In these eleven (11) APCs there are for thirty-nine (39) AP and three (3) Haor areas.

2.2 Process Outline

The study adopted mixed method approach to find out the prospective livelihood options and recommend 'Market System Development (MSD)' strategies and interventions to be aligned with livelihood technical program. Both qualitative and quantitative primary data were collected through Workshop, FGD, KII, Questionnaire Survey and observation. As depicted in the Process Outline, the study is comprised of five (05) segments.

Figure-01: **Process Outline**



Segment 01: Literature Review: The initiation of the market and sub-sector assessment study began with secondary study and literature review to understand regional economy and gauge the sub-sectors that has significant growth potential. Different publications and reports including value chain assessment reports conducted by WVB in the APs were reviewed. Detailed literature review provided hard-data on the selection criteria of the Priority Matrix and enabled the study team to come up with a "Long-list" of potential markets.

Segment 02: Household Assessment: Prior to sub-sector selection, target groups were profiled to understand household demographics, livelihoods, behavior, resources/skills (opportunity), constraints (limitations), vulnerabilities, access to market, business, financial & technical services etc. Primary data for the assessment has been gathered through questionnaire survey. Focus Group Discussions (FGDs) were also conducted to undertake GESI Analysis which included Access and Control Assessment, 24 hour day tool and Social Norm Analysis. Since the target groups (TGs) were not homogenous, FGDs were conducted on different sub-groups to collect gender sensitive data.

Segment 03: Sub-Sectors and Livelihood Options Selection: Sub-Sectors were selected based on Workshop, KII and FGD from the "Long-List" of potential sub-sectors outlined through literature review. In the workshop, out of the long list of sub-sectors, the options that were relevant to the geographic livelihood zones were discussed, short-listed and then ranked using a weighted ranking exercise. Additionally, FGDs and KIIs were also conducted to identify the prospective sub-sectors.

Similarly, potential livelihood options for the ultra-poor were determined through Workshop, KII and FGD also. During the workshops, the respondents were asked to determine the potential livelihood options for the ultra-poor in each AP based on pre-specified parameters. The findings of the workshops were supplemented by KII and FGD with key stakeholders.

Segment 04: Market and Sub-Sector Assessment: Market systems data were collected on the prospective sub-sectors identified through Workshops, KIIs and FGDs for sub-sector assessment. The objectives of market and sub-sector assessment was to:

- ✓ Conduct value chain mapping of each sub-sector, including market locations, actors, infrastructures and support services at each point;
- ✓ Determine relationship among market actors and role of support services within the value chain;
- ✓ Evaluate each actor's influence to the economic behavior and market accessibility of the target group (either ultra or marginal-poor men and women);
- ✓ Identify systematic constraints for target group's access and participation in the market (either ultra/marginal-poor, women, men);
- ✓ Assess 'social/religious' norms and institutional barriers that influence economic activity;
- ✓ Gauge vulnerability and resilience of the existing market system against hazards/risk/stresses;
- ✓ Explore opportunities & list potential private sector actors for potential partnership.

Segment 05: Recommendations: Finally, the consultants aligned the findings from secondary and primary data collected to provide recommendations that include:

- ⇒ Prospective 'Livelihood Options' by AP;
- ⇒ Prospective private actors for collaboration;
- ⇒ Service providers for collaboration;
- ⇒ 'Inclusive Market System Development (MSD)' strategies;
- ⇒ Plan of action for interventions.

2.3 Data Collection Methods

Both quantitative and qualitative techniques were followed for collecting data. A survey using structure and open-ended questionnaire were conducted for collecting quantitative information. The study was supplemented with qualitative methods, like, Workshop, KII and FGD.

2.4 Sample Size and Selection of Respondent

Selection of Household: According to the data provided by World Vision Bangladesh, marginal and ultra-poor population in the study area was as follow:

Table-01: **Target Population**

SL	Category of the Population	Total Population
1.	Marginal Poor	1,67,310
2.	Ultra Poor	1,51,567
	Total	3,18,477

From the above population, the sample size for household survey was determined using the formula:

$$n = \frac{N}{1 + Ne^2}$$

Here, n = Desired sample size, N= Total number of population = 318477, e = sampling error = for 95% confidence level, the sampling error is 0.05. So, using this formula, for household survey the desired sample size was calculated to be:

$$n = \frac{318477}{1+318477 \times (0.05)^2} = 399.5$$

By using **stratified sampling** in case of **marginal poor** while the population is 167310, the sample size was calculated proportionately as below -

$$n = \frac{167310 \times 400}{318477} = 210$$

In case of ultra-poor while the population is 151567, the sample size was calculated proportionately as below-

$$n = \frac{151567 \times 400}{318477} = 190$$

From the above population, the sample size for the household survey was determined to be 400 (210+190). Besides, another 32 respondents were also selected from Haor areas. So, the total sample size of this study was (400+32) = 432. To avoid fractions and odd numbers, the number of respondent was increased to a whole and even number. Finally, the total required number of respondents was 446. Two (02) AP/Upazila was selected randomly from each APC except for Cox's Bazar. There is only one (01) AP/Upazila in Cox's Bazar. With the AP/Upazila of Cox's Bazar, an AP/Upazila was also selected from the Haor area. One (1) union/municipality ward was selected randomly from each AP/Upazila. There was no beneficiary of World Vision Bangladesh at Chattogram Hill. Hence, no respondents from Chattogram Hill was included in the household survey. A random selection procedure was followed in each step of the study, the selection of respondents is as follows:

Table-02: **Selection of Respondents for Household Survey**

Marginal Poor per APC						
APC	**Formula**	**Result**	**AP/ Upazila**	**Union/ Municipality Ward x Respondents**	**Male + Female**	**Collected Data**
Nilphamari	(25012 x 210)/167310	31.39	2	2 x 16	16+16	32
Dinajpur	(18285 x 210)/167310	22.95	2	2 x 12	12+12	24
Rangpur	(19871 x 210)/167310	24.94	2	2 x 13	13+13	26
Rajshahi	(16450 x 210)/167310	20.64	2	2 x 10	10+10	20
Jamalpur	(23296 x 210)/167310	29.24	2	2 x 15	15+15	30
Nandail	(14679 x 210)/167310	18.42	2	2 x 9	9+9	18
Sylhet	(10528 x 210)/167310	13.21	2	2 x 7	7+7	14
Rampal	(24922 x 210)/167310	31.28	2	2 x 16	16+16	32
Barishal	(12804 x 210)/167310	16.07	2	2 x 8	8+8	16
Cox's Bazar	(3748 x 210)/167310	4.70	1	2 x 3	3+3	6
Haor			1	2 x 8	8+8	16
Total			20		117+117	234
Ultra Poor per APC						
APC	Formula	Result	AP/ Upazila	Union/ Municipality Ward x Respondents	Male + Female	Collected Data
Nilphamari	(25626 x 190)/151567	32.12	2	2 x 16	16+16	32
Dinajpur	(12657 x 190)/151567	15.86	2	2 x 8	8+8	16
Rangpur	(22134 x 190)/151567	27.74	2	2 x 14	14+14	28

Rajshahi	(22489 x 190)/151567	28.19	2	2 x 14	14+14	**28**
Jamalpur	(19020 x 190)/151567	23.84	2	2 x 12	12+12	**24**
Nandail	(12206 x 190)/151567	15.30	2	2 x 8	8+8	**16**
Sylhet	(13643 x 190)/151567	17.10	2	2 x 9	9+9	**14***
Rampal	(5836 x 190)/151567	7.31	2	2 x 4	4+4	**8**
Barishal	(15651 x 190)/151567	19.61	2	2 x 10	10+10	**20**
Cox's Bazar	(3748 x 190)/151567	4.69	1	2 x 3	3+3	**6**
Haor			1	2 x 8	8+8	**17****
Total			**20**		**106+106**	**209**

Note: * Ultra poor household interviewed from Sylhet APC was fourteen (14) where the required number was eighteen (18). Seven (07) male and seven (07) female respondents were interviewed in Sylhet.

* Number of household interviewed from Haor area was was seventeen (17) where the required number was sixteen (16). Eight (08) male and nine (09) female respondents were interviewed in Haor area.

Selection of FGD: Initially, APs were selected from APC using simple random sampling. Then union/municipality ward was selected from the selected AP using simple random sampling. One sub-population group was selected from the selected unions/municipality ward. For every sub-population group, the same procedure was repeated for every FGD. Each subpopulations were selected to be a representative of the APC. For GESI analysis thirty-five (35) FGD were conducted and another thirty-one (31) general FGD were conducted for sub-sector identification and assessment. A total of sixty-six (66) FGD was conducted to gather qualitative data.

Table-03: **FGD Types and Number**

Tool	Sub -Population Group	No of FGD
FGD for GESI analysis	Ultra-Poor Adult Men	4
	Ultra-Poor Adult Women	4
	Marginal Poor Adult Men	4
	Marginal Poor Adult Women	4
	Ultra-Poor Adolescent Girls	3
	Ultra-Poor Adolescent Boys	3
	Marginal Poor Adolescent Girls	3
	Marginal Poor Adolescent Boys	3
	Ultra-Poor Elderly People	2
	Marginal -Poor Elderly People	2
	Marginal Poor Disable	1
	Ultra-Poor Disable	2
Total		**35**

Tool	Sub -Population Group	No of FGD
FGD for sub - sector	Farmer/Producer	11
	Mixed FGD (ultra & marginal poor, farmer, village leader, market actor, NGO and Govt. Officer, teacher, faith leader, student etc.)	10
	Market actor (input seller, retailer, wholesaler), Large & Medium Scale Farmer and Producer	10
	Total	**31**

Key Informants Interview (KII): The rationale behind conducting KII was to collect qualitative data for prospective sub-sector and livelihood options selection and sub-sector assessment. The number of KII to be conducted was determined based on total APC. For Key Informants Interview (KII) the respondents were selected purposively.

Table-04: **KII Types and Number**

Tool	Types of KII	Area Covered		Total
		Nationa l	APC (11)	
Key	Input Supplier		11	11
Informants	Retailer		11x2	22
Interview	Whole Seller		11	11
	Middlemen		11	11
	Processing Company/Private Sector	10	11	21
	Market Leader/Business/Association		11	11
	Village Leader/ Chairman/Member		11	11
	Government Officials		11x2	22
	NGO Representative	3	11	14
	Local Research/Training Institutes		11	11
	National Level Women & Child Affairs	1	1	2
	National Thinker/Policy Maker	7		7
	Total			154

Note: Three Haor were included within the selected APC

2.5 Duration of Data Collection, Data Processing and Analysis

Qualitative and quantitative data were collected from February 2021 to April 2021. After essential checking, re-checking and editing the collected data have been processed and presented using computer software. To analyze the data various statistical techniques have been used.

2.6 Validity and Reliability of Data

To ensure validity and reliability of the data proper training was organized by Agile Consultants for enumerators and supervisors. The questionnaire and checklist was pre-tested before final data collection. Observation was made to ensure the validity and reliability of data.

2.7 Ethical Issues

The data collected in the study have not been used to hamper anyone or any institution. Participants were informed the purpose of the study and informal consent was received prior to the data collection. Confidentiality was maintained strictly and field activities were conducted following WVB's child protection and safe guarding protocol.

2.8 Limitations of Study

Every study has its own distinctive limitations. "Market and Sub-Sector" study also faced a few limitations during the conduction of the study: Implementing field operations in the midst of COVID-19 pandemic was challenging. While safety materials have been used by the enumerators but in order to create a friendly environment, they could not always maintain the precautionary distance.

- Ultra mist at the beginning of the day due to adverse winter season at the Northern APC created complications in data collection therefore it took the enumerators longer than normal to conduct field investigation.

- Reaching out to and gathering disabled participants for FGD was difficult. The enumerators had to motivate them to participate in FGD.
- A few women respondents were hesitant to provide sensitive information. Adolescent girls and boys were also shy to provide gender related information, hence the enumerators took their time to make comfortable.
- Collecting primary data from the distant Haor area was challenging. The transportation system in Haor area was also miserable which increased the data collection time.

Chapter 3: **Literature Review**

Bangladesh is one of the largest growing economies in the world. As the economy of this country is growing, per capita income is increasing and the poverty rate is also decreasing rapidly. In 2016, People living below the upper poverty line in Bangladesh dropped to 24.3% whereas the proportion of people living below the lower poverty was 12.9% (BBS, 2020). But such statistics do not show the whole picture. Because rapid economic expansion does not necessarily ensure inclusive economic growth. For instance, even though statistics indicate that the proportion of marginal and ultra-poor is declining within the country but the proportion is still significantly high in some regions.

As the most vulnerable subset of the population, marginal and ultra-poor often encounter marginalization and are therefore excluded from traditional development programs in developing sustainable livelihoods for themselves. In Bangladesh, the poor are truly vulnerable and less united than other people when it comes to enforcing their human rights. According to a contextual evaluation conducted by World Vision Bangladesh (2018), approximately 86% of ultra-poor people in the Ukhiya and Teknaf unions of Cox's Bazar district lacked land and lived in protected forest land. Their means of subsistence were also discovered to be particularly vulnerable to natural disasters.

World Vision Bangladesh (2020) attempted to get a broader and deeper picture of COVID-19 impact in WVB operational areas by conducting a rapid impact assessment. The study found that lower middle class and day laborer have lost their jobs and have become the most vulnerable groups. So, in addition to job creation opportunities, they also require one-time cash grants to rehabilitate themselves. Haque (2010) explored the livelihood adaptation of disadvantaged people of Satkhira, Gaibandha, Kishoreganj, Mymensingh, and Tangail districts to economic volatility and other shocks. In the face of shocks, they adopt by cutting their consumption expenditure and adult women face more severe consumption discrimination than their male counterparts.

According to Hoque (2010), vulnerable ultra-poor households have no specific and stable source of income and are primarily engaged in farm labor selling, non-farm labor selling, housewife, maidservant, minor trade, catching fish, livestock holding, rickshaw/Van pulling, carpentering, tailoring, and other related activities. Their food insecurity is considerably high due to a greater reliance on wage labor or low-income activities. As a result, identification of sustainable livelihoods and actively involving them in such IGA can minimize vulnerability and facilitate upward mobility of the marginal and ultra-poor.

Kleih et al. (2003) described sustainable livelihoods as a framework for thinking about poverty to try to understand and analyze the lives and needs of the poor and identify key opportunities that will ultimately benefit them. Bangladesh has a suitable climate and soil conditions for yearround cultivation of a wide range of crops. Based on the soil and land characteristics different regions have specialized in producing and rearing different crops and livestock.

As shown in Table-05, Thakurgaon, Dinajpur, Nilphamari, and Rangpur districts lie in the old Himalayan Piedmont Plain and Tista Floodplain comprised of low to medium fertile sandy loam, loamy & silt clay-loam soil that are particularly favorable for Potato, Jute, Maize, and Wheat cultivation alongside rice (BBS, 2019). On the other hand, Naogaon and Rajshahi lying in the Karatoya Floodplain and Atrai Basin are moderate to medium fertile grey, silt loam & silt clay-loam soil are much suitable for Potato, Oil Seeds, and Maize cultivation (BBS, 2019).

Barishal, Pirojpur, Barguna, Bagerhat, and Satkhira districts of the Ganges Tidal Floodplain are very fertile medium low and low land. Silt clays and alkaline properties of the soil of the region favor the cultivation of Pulse and Oil Seeds (BBS, 2019). The region is significantly enriched in water and fisheries resources. On the other hand, Sylhet Basin and SurmaKusiyara Floodplain comprising medium low, low, and very low land. Most of the cultivable land of low to medium fertile land of Sylhet and Sunamganj districts is under rice cultivation. Potato, maize, and oilseeds are also cultivated in Medium fertile grey, loam, and dark grey loamy soil of Cumilla whereas low fertile yellow brown to strong brown soil of Bandarban district is not suitable for cultivation. However, natural vegetation remains extensively common in the hill districts.

Table-05: **Land and Soil Type of Study Area**

Region	Districts	Land Type	Soil Type
North West	Thakurgaon, Dinajpur, Nilphamari and Rangpur	High and medium high	Low to medium fertile sandy loam, loamy & silt clay -loam
	Naogaon and Rajshahi	Medium and low	Moderate to medium fertile grey, silt loam & silt clay -loam
South Central & South West	Barishal, Pirojpur, Barguna, Bagerhat and Satkhira	Medium low and low	Medium to high fertile heavy silt clays and alkaline
North Central	Mymansingh, Jamalpur, Netrokona	High and medium	Low to medium fertile silt loam to silt clay -loam
North East	Sylhet, Sunamganj	Medium low, low and very low	Low to medium fertile heavy silt clay loam and grey color
South East & Eastern Hill	Cumilla	Medium low, low and very low	Medium fertile grey, loam and dark grey loamy
	Bandarban	High	Low fertile yellow brown to strong brown
	Cox's Bazar	High, medium high, medium and low	Low to medium fertile grey silt loam and silt clay loam

Sources: Quddus, 2009

UNWFP (2016) found that in the river basin and chars zones, although boro rice is the primary food crop, Aman rice, wheat, foxtail millet, proso millet, maize, lentils, sesame, chili, jute, mustard, groundnuts, vegetables, and fruit trees are also grown. A large proportion of the chars remain uncultivated which is suitable for grazing and collection of fodder. Hence, the chars are better suited to livestock rearing than the river basin zone.

In an effort to formulate a guideline to encourage Inclusive Market Development (IMD) in various agriculture sectors, the Bangladesh Institute of Development Studies (2016) selected Fisheries (capture and culture fisheries), Vegetable, Fertilizer, and Seed Sector as prospective sub-sectors for introducing or expanding IMD practice in Bangladesh with a view to facilitating private sector engagement within the sector for the graduation of the poor.

World Vision Bangladesh (2018) through contextual assessment classified vegetable, kitchen gardening, poultry, cattle rearing, handicraft, small bus driving, dry fish, goat rearing, rice, and farming fish as sustainable livelihood options for the marginal and ultra-poor of Ukhiya and Teknaf. In a value chain assessment based on the Local Value Chain Development (LVCD) model, World Vision Bangladesh (2018) identified dairy, country chicken, cattle fattening, pig, duck, vegetables, carp fish culture, fruits (banana, papaya, and pineapple), handicrafts, vocational training, and maize cultivation as prospective sub-sectors for effective interventions in 18 districts across Greater Mymensingh, Central Eastern, Southern Bangladesh, and Northern Bangladesh.

USAID (2019) has also conducted a comprehensive private sector assessment and identified fruits (pineapple, mango, papaya, orange, banana, litchi, and Jackfruit), potato, spices, herbs, nuts, ginger, turmeric, and cashew as potential sub-sectors for growth in the agro-processing industry. However, World Bank (2020) provided a better understanding of the business opportunities and constraints agribusinesses and private investors confront along the agrofood value chain. According to the study, the sub-sectors with the greatest revealed comparative advantage for private sector engagement were jute, rapeseed, garlic, sesame, cotton, and fish.

The above literature reviewed suggests a variety of sub-sectors as a marketable, sustainable, and feasible livelihood for self-sufficiency of the poor in light of their socioeconomic conditions as outlined below:

Table-06: **Long List of Prospective Sub-Sectors**

Organization	Identified sub-sectors	Implication
UNWFP (2016)	Aman rice, wheat, foxtail millet, proso millet, maize, lentils, sesame, chili, jute, mustard, groundnuts, vegetables, fruit and livestock rearing in chars	Livelihoods in river basin and chars zones
Bangladesh Institute of Development Studies (2016)	Fisheries (capture and culture fisheries), vegetable, fertilizer, and seed sector	Prospective sub-sectors for introducing or expanding IMD practice in Bangladesh
World Vision Bangladesh (2018)	Vegetables, kitchen gardening, poultry, cattle rearing, handicraft, small bus, dry fish, goat rearing, rice, and farming fish	Prospective livelihood options for Ukhiya and Teknaf union of Cox's Bazar
World Vision Bangladesh (2018)	Dairy, country chicken, cattle fattening, pig, duck, vegetables, carp fish culture, fruits (banana, papaya, and pineapple), handicrafts, vocational training, and maize cultivation	Prospective sub-sectors for intervention for sustainable livelihood options development for poor in Greater Mymensingh, Central Eastern, Southern Bangladesh, & Northern Bangladesh
BBS (2019)	Rice, potato, jute, maize, and wheat cultivation	Rice, potato, jute, maize, and wheat cultivation
	Rice, potato, oil seeds, and maize cultivation	Extensively produced in Naogaon and Rajshahi
	Rice, jute, oil seeds and sugar can and fisheries	Most produced in Barishal, Pirojpur, Barguna, Bagerhat, and Satkhira
	Rice, potato, maize and oil seeds	Extensively produced in Sylhet and Sunamganj
USAID (2019)	Agro -processing, shrimp and fish	New investment prospects outside of RMG for private sector engagement
World Bank (2020)	Jute, rapeseed, garlic, sesame, cotton, fish	Sub-sectors with greatest revealed comparative advantage for private sector engagement

Although multiple studies on identification of livelihood opportunities for pro-poor and disadvantaged groups have been conducted across the region, the fundamental conditions of the sub-sector have been distorted as a result of the Covid-19 crisis. This has called into question the viability of previous assessments.

In addition, classification of prospective sub-sectors and sustainable livelihood options requires systematic analysis of poverty, identification of the constraints and recognizing opportunities. Because the graduation interventions should be carefully designed and adapted to meet the particular needs of the ultra-poor in different contexts (Moqueet et al., 2019).

Therefore, to classify relevant sub-sectors and livelihood options, a gender-sensitive market assessment and differentiated analysis on target groups are needed. This study attempted to gather a wide range of empirical evidence on socioeconomic conditions, livelihoods, and WEE status in recognizing potential sub-sectors and livelihood options for future strategies to reduce vulnerability of marginal and ultra-poor households.

Chapter 4: **Household Assessment**

4.1 Methodology

To understand target groups' socio-economic conditions and environmental issues impacting their lives a comprehensive field survey was undertaken. The purpose of the household assessment was to gather an in-depth understanding of the context, vulnerabilities, and capabilities of the households to exploit market opportunities in order to design interventions. Respondents of the survey were from marginal and ultra-poor households. In this study, marginal farming households were considered those earning just near or over USD 1.9/per day/per person or BDT 2000/month/person. Whereas ultra-poor households were considered those earning below USD 1.9/per day/per person or BDT 2000/month/person. The household assessment delineates target households' livelihood, present economic empowerment status of women, the resources/skillsets target groups possess, constraints (gender-based) limiting their access to the market, and their vulnerabilities to climatic/non-climatic shocks. In line with the objectives of the study primary data was gathered following PRA methods using a formatted questionnaire for household survey and guidelines for Focus Group Discussion. For FGDs GESI-responsive qualitative toolkit was used.

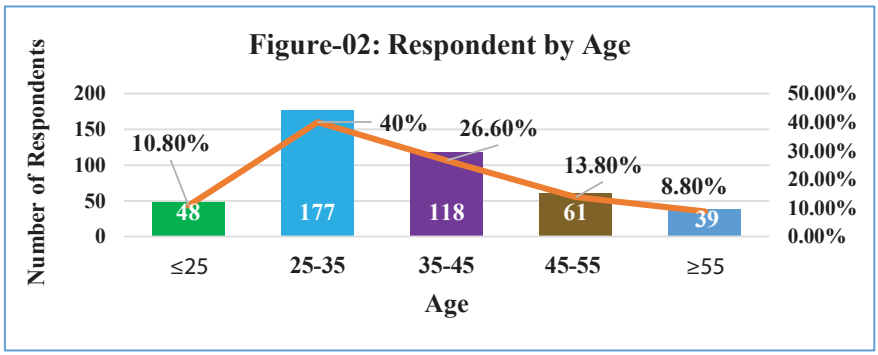
4.2 Socio-Economic Status and Living Condition of HHs

For the study, the highest proportion of respondents interviewed were from Dinajpur (16.3%), followed by Mymenshing (16%), Rangpur (11.7%), and others. The number of respondents selected from each district was proportional to the number APs of WVB operating within the districts. Keeping in view the main objectives of the study respondents were surveyed from each target group and each gender.

Table-07: **Respondents by Gender and Target Group**

Target Group	Gender	Frequency	Percentage
Marginal Poor	Male	119	26.87
	Female	117	26.41
Ultra Poor	Male	102	23.00
	Female	105	23.7
Total		443	100

The respondents of the household survey ranged in age from 18 to 60 years. The majority of the respondents were working-age population engaged in different income-generating activities to support their families. More importantly, about 50.10% of the respondents interviewed were female.



A large proportion of the respondents surveyed have never had the opportunity to attend school. As shown in Table-08, 43.3 percent of those interviewed had no formal schooling yet they have learned to sign their names. In contrast to the male, a higher proportion of female ultra-poor household heads have completed secondary school and higher education.

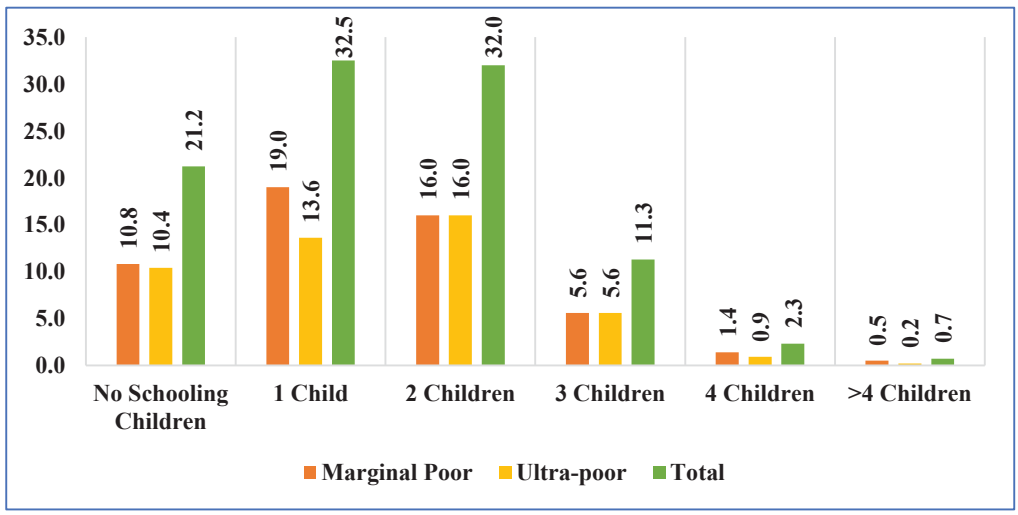
Table-08: **Education Level of Respondents by Target Group and Gender**

Level	Marginal Poor				Ultra Poor				Total	
	Male		Female		Male		Female			
	No.	%	No.	%	No.	%	No.	%	No.	%
Sign Only	49	11.1	47	10.6	49	11.1	47	10.6	192	43.3
Primary	44	9.9	41	9.3	35	7.9	28	6.3	148	33.4
SSC	23	5.2	23	5.2	15	3.4	26	5.9	77	19.6
HSC	02	0.5	01	0.2	02	0.5	02	0.5	07	1.6
Graduate	00	0.0	03	0.7	00	0.0	00	0.0	03	0.7
Post Graduate	00	0.0	00	0.0	00	0.0	02	0.5	02	0.5
Others	01	0.2	02	0.5	01	0.2	00	0.0	04	0.9
Total	**119**	**26.9**	**117**	**26.4**	**102**	**23.0**	**105**	**23.7**	**443**	**100**

In almost all AP, marginal and ultra-poor men and adolescent boys had complete access to educational services, while access to educational services for women, children, and disabled household members were still managed by the male household head. Women and girls' access to education services was limited in Barishal and Kochua AP. Disabled people were discriminated against when it came to receiving education in Kochua, Kaharole, Muktagacha, and Kishoreganj AP while marginal poor disabled people from Pirozpur AP claimed that they had no access to education services. In several APs, namely, Nilphamary, Nandail, Muktagacha, Ujirpur, Debhata, and Pirozpur, disable respondents are denied any authority to approach education services. Women in Nilphamary, Ujirpur, Debhata, and Pirozpur AP face similar challenges.

A significant finding was that, while the percentage of households without children was just 11.7 percent, the proportion of households without school going children was 21.2 percent. That is, about 10% of families did not send their children to schools. Furthermore, nearly 32.5 percent of households had one school going child, while only 25.7 percent of households had one child. This demonstrates that, even though several families had more than one child, they did not send all their children to schools.

Figure-03: **Number of School Going Children (in Percentage)**



As it can be seen from Table-09, 76.5 percent of households had only one earning member. In contrast, around 19.9 percent of households had more than one earning member and 3.6 percent had no earning member. It's worth noting that the study discovered that a massive 83.5 percent of respondents' families had no female working member. Additionally, the proportion of marginal households with no female working member was higher than that of ultra-poor. The male members of the household including the boys spend most of the day in different IGA. The female members of the household also assist and manage small scale IGA, like, vegetables, poultry rearing, livestock, vermin production, etc.

Table-09: **Number of Male Earning Members in the Household**

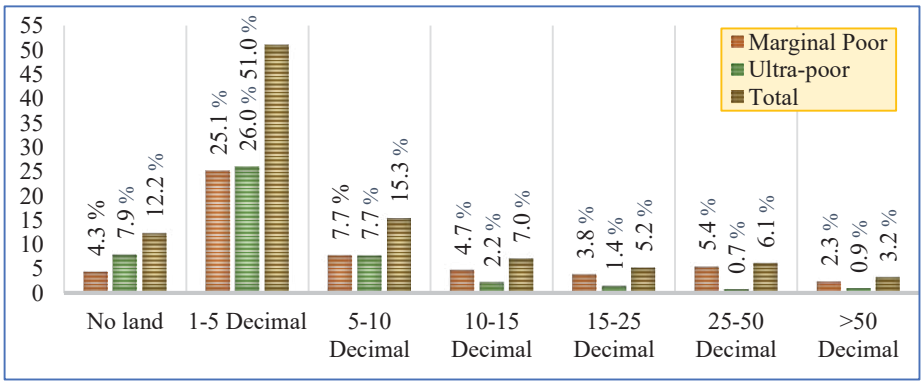
Level	Marginal Poor		Ultra-poor		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
None	7	1.6	9	2.0	16	3.6
1 Member	171	38.6	168	37.9	339	76.5
2 Members	41	9.2	24	5.4	65	14.7
3 Members	15	3.4	6	1.4	21	4.7
≥ 4 Members	2	0.5	0	0	2	0.5
Total	**236**	**53.3**	**207**	**46.7**	**443**	**100**

Table-10: **Number of Female Earning Members in the Household**

Level	Marginal Poor		Ultra-poor		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
None	201	45.4	169	38.1	370	83.5
1 Member	34	7.7	36	8.1	70	15.8
2 Members	1	0.2	2	0.5	3	0.7
Total	**236**	**53.3**	**207**	**46.7**	**443**	**100**

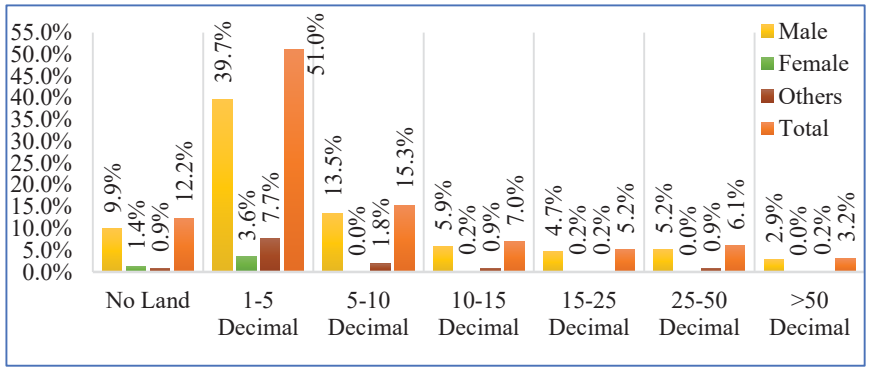
The rural economy of Bangladesh is heavily reliant on land-based agricultural activities. But, the marginal and ultra-poor populations leg significantly in terms of their land ownership which limits their ability to create viable livelihoods. As depicted in Figure-04, most of the respondents owned less than five (05) decimals of land. Around 12.2% of respondents did not own any land. However, whereas 7.9% of ultra-poor people did not own any land, only 4.3% of marginal people were found landless.

Figure-04: **Ownership of Land by Target Group**



However, the majority of the land property occupied by marginal and ultra-poor households was owned by the male headed family. Female household heads owned far less land than male household heads. Other members of the household also owned more land than the female respondents. This depicts the ominous facts about the degree of discrimination women face in the lower society of the country.

Figure-05: **Ownership of Land by Household Head**



During the FGD, marginal poor adult woman respondents from Debhata AP revealed similar details that the women of that AP lacked access to land. All respondents further confirmed that girls and disabled people of no AP had complete access to and control over the land property whereas in Amtali, Debhata and Godagari AP women had no control over land. However, Table-11 also indicates that the proportion of respondents who did not own cultivable land was 81.90 percent.

Table-11: **Ownership of Cultivable Land by Target Group**

Land in Decimal	Marginal Poor		Ultra-poor		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
No Land	175	39.5%	188	42.4%	363	81.9%
1-10	13	2.9%	6	1.4%	19	4.3%
11-20	14	3.2%	2	0.5%	16	3.6%
21-30	10	2.3%	3	0.7%	13	2.9%
31-50	13	2.9%	6	1.4%	19	4.3%
>50	11	2.5%	2	0.5%	13	2.9%
Total	**236**	**53.3%**	**207**	**46.7%**	**443**	**100%**

Other than land property, very few marginal and ultra-poor households possessed other forms of physical assets and livestock. As found by the study, nearly 62.1% of respondents' families did not own any cow and 79.0% respondents' did not own goats. Irrespective of the type of the asset, ultra-poor household asset base was much narrow than that of marginal poor and livestock ownership by female respondents was relatively high compared to men. In most APs, girls and disabled people had little and no access and control over agricultural input and resources.

Table-12: **Ownership and Monetary Values of the Assets**

Cow				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	32.1%	30.0%	32.1%	30.0%
10000-25000	5.0%	3.6%	5.6%	2.9%
25000-50000	10.4%	8.4%	7.7%	11.1%
50000-75000	3.4%	2.7%	2.7%	3.4%
>75000	2.5%	2.0%	1.8%	2.7%

Bicycle				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	37.9%	39.5%	37.9%	39.5%
500-2000	4.1%	2.7%	3.8%	2.9%
2000-4000	5.2%	2.5%	4.3%	3.4%
4000-6000	3.2%	1.4%	1.6%	2.9%
>6000	2.9%	0.7%	2.3%	1.4%

Goat				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	41.3%	37.7%	38.8%	40.2%
600-5000	-	4.5%	5.2%	4.5%
5000-10000	4.1%	2.7%	4.3%	2.5%
>10000	2.7%	1.8%	1.6%	2.9%

Pond				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	47.2%	43.8%	46.0%	44.9%
1250-10000	2.3%	1.1%	1.1%	2.3%
10000-50000	2.7%	1.6%	2.3%	2.0%
>50000	1.1%	0.2%	0.5%	0.9%

Duck/Chicken				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	21.9%	23.3%	23.9%	21.2%
150-500	10.4%	8.6%	8.8%	10.2%
500-1000	10.2%	6.5%	7.4%	9.3%
1000-2000	7.2%	5.6%	6.3%	6.5%
>2000	3.6%	2.7%	3.4%	2.9%

Small business				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	47.2%	43.6%	44.7%	46.0%
3000-20000	2.3%	1.8%	2.0%	2.0%
>20000	3.8%	1.4%	3.2%	2.0%

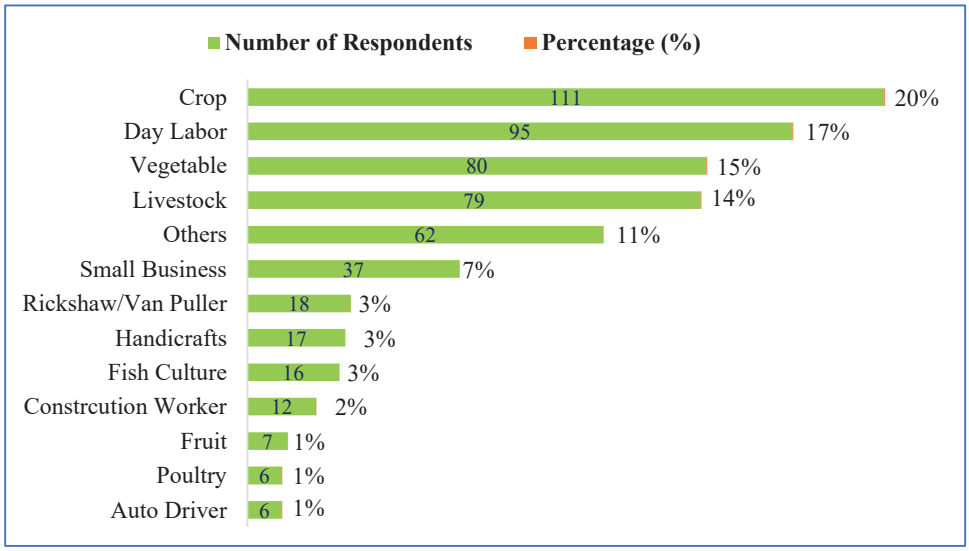
Mobile				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	1.8%	0.9%	0.9%	1.8%
<500	5.0%	5.0%	5.0%	5.0%
500-2000	31.5%	30.9%	30.0%	32.5%
3500-5000	4.1%	3.8%	4.5%	3.4%
3500-5000	4.5%	3.4%	4.5%	3.4%
>5000	6.3%	2.7%	5.0%	4.1%

Sewing Machine				
Level (Tk)	**Marginal**	**Ultra**	**Male**	**Female**
Don't have	46.7%	43.8%	45.1%	45.4%
500-2000	1.8%	1.4%	2.0%	1.1%
>4000	1.8%	0.2%	0.9%	1.1%

4.3 Livelihoods and COVID-19 Impact

As the analysis suggests, most of the households of the study area were associated with agricultural activities. As such the largest proportion of the respondents (19%) earned their livelihood by cultivating rice, maize, and others. About 29% of respondents were involved in livestock and vegetable production also. However, a large proportion of the respondents (16%) worked as day laborer. However, some of the respondents were involved in multiple professions.

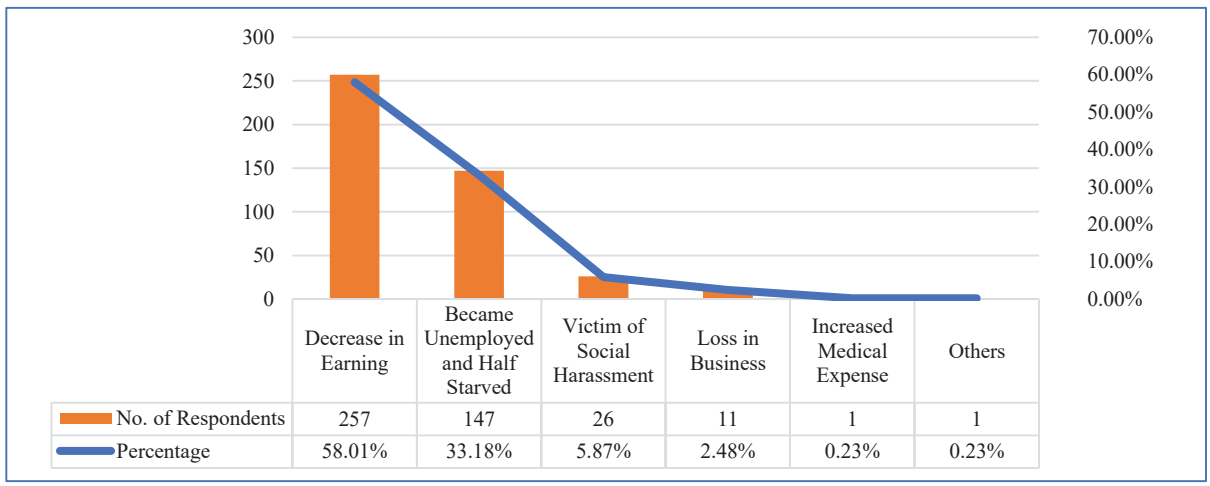
Figure-06: **Livelihood of Respondents**



Segmentation of data by target group and gender revealed that male respondents were predominantly associated with crops and vegetables cultivation, livestock rearing, fish culture, and poultry sub-sectors. Women were more likely to participate in the vegetables cultivation, cattle rearing, dairy, handicraft, and country chicken sub-sectors than men. The involvement of the marginal poor was quite prominent in crop and vegetable production, livestock, fish culture, small business, and day labor activity, while the involvement of the ultra-poor was mainly observed in dairy farming, country chicken and day labor alongside rice cultivation. That is livelihood options available for the ultra-poor people was limited.

As found by the study, the livelihood of the households of the study area were severely impacted by COVID-19 as 58.01 percent of respondents' families experienced reduced incomes and 33.18 percent of respondents became unemployed. Also, 5.87 percent of the respondents were victims of social harassment as they were discriminated against, stigmatized, and blamed for the spread of the disease.

Figure-07: **Negative Impact of COVID-19**



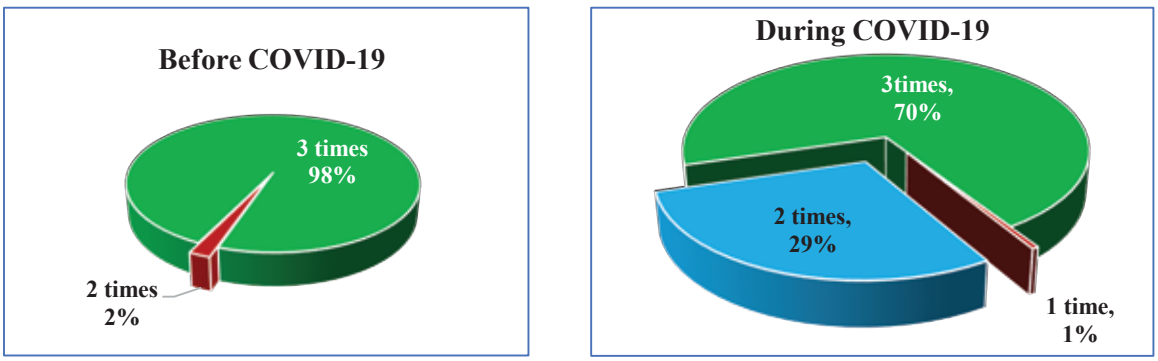
During COVID-19 to cope up with reduced income the household had to adapt their expenses. The households attempted to minimize their expenditure. During the pandemic, proportion of households spending BDT 5000-8000 shrunk to 35.0 percent from 37.5 percent. Similarly, the percentage of households with no educational expense rose from 22.6 percent to 28.0 percent.

Table-13: **Coping Mechanism during COVID-19**

Particulars	Monthly Expenditure (BDT)	Percentage of Respondents	
		Before COVID	During COVID
Expenditure on food	800 -3000	10.4	12.6
	3000 -5000	47.6	48.1
	5000 -8000	37.5	35.0
	8000 -12000	4.5	4.3
Expenditure on education	No expenditure	22.6	28.0
	100 -300	12.0	12.0
	300 -500	18.7	27.1
	500 -700	7.2	5.0
	700 -900	4.7	3.6
	900 -1200	14.7	11.1
	1200 -1500	6.8	3.4
	>1500	13.3	9.9
Medical expense	No expenditure	5.9	6.1
	30 -200	16.3	15.1
	200 -400	39.5	37.0
	400 -600	23.9	24.4
	>600	14.4	17.4
Loan repayment	No expenditure	47.4	39.7
	100 -1000	5.0	6.1
	1000 -2000	15.6	15.3
	2000 -3000	9.9	12.4
	3000 -4000	8.4	10.6
	4000 -5000	4.1	5.0
	>5000	9.7	10.8

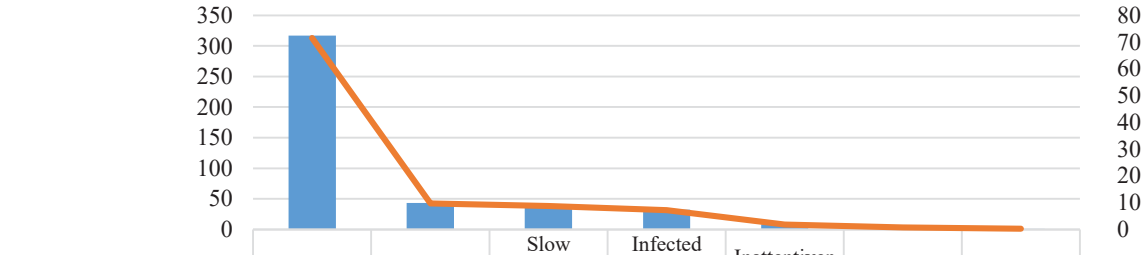
During COVID-19, household loan repayment spending rose substantially. As respondents' income sources were restricted, the households borrowed an increased amount of money and were compelled to repay any loans they had previously. To deal with COVID-19, the families had to cut back their food spending and the number of households eating three meals a day fell from 98 percent to 70 percent.

Figure-08: **Impact of COVID-19 on Consumption**



Children of 28.4 percent of households were found to be suffering from various health problems as a result of significant reductions in consumption spending. Consequently, children were suffering from malnourishment, sluggish physical development, and various diseases.

Figure-09: **Children's Health Problems**



	No problem	Malnutrition	Slow Physical Growth	Infected with Diseases	Inattentiveness	Low IQ	Others
Number of Respondents (n)	317	43	39	32	8	3	1
Percentage (%)	71.6	9.7	8.8	7.2	1.8	0.7	0.2

4.4 Access to Financial Services

Access to effective financial services is always crucial in reducing or eliminating poverty. In addition to a credit facility, effective savings provisions can change poor people's spending habits, allowing them to save more and secure assets in the long run. According to the findings, 72.7 percent of marginal and ultra-poor people had no savings. As shown in Table- 14, those who adopted institutional saving practices relied mostly on NGOs as saving resorts and ultra-poor respondents had a higher propensity to save compared to the marginal poor although the same could not be said for the women respondents.

Table-14: **Savings Practice among Respondents**

Savings	Total		Marginal		Ultra-poor		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	121	27.3	78	17.6	43	9.7	52	11.7	69	15.6
No	322	72.7	158	35.7	164	37.0	169	38.2	153	34.5
Total	443	100	236	53.3	207	46.7	221	49.9	222	50.1
Savings Institutions:										
• GO	13	3.0	9	2.1	4	0.9	6	1.4	7	1.6
• NGO	104	23.5	67	15.1	37	8.4	43	9.7	61	13.8
• Co-Operative Society	1	0.2	1	0.2	0	0.0	1	0.2	0	0.0
• Insurance Company	3	0.7	1	0.2	2	0.5	2	0.5	1	0.2

However, 61.9 percent of respondents informed the study team that they had access to institutional loans. They have received loans from different NGO and GO. Some of the respondents have also accessed loans from informal sectors, like, relatives. However, 38.1 of respondents did not have access to such financial services.

Table-15: **Access to Loan**

Loan	Total		Marginal		Ultra-poor		Male		Female	
	No.	%	No.	%	No.	%	No.	%	No.	%
No	169	38.1	86	19.4	84	19.0	86	19.4	84	19.0
Yes	274	61.9	150	33.9	123	27.7	135	30.5	138	31.1
Total	443	100	236	53.3	207	46.7	221	49.9	222	50.1

Loan Institutions:										
● NGO	231	52.1	128	28.9	102	23.0	113	25.5	117	26.4
● GO	34	7.7	20	4.5	14	3.2	20	4.5	14	3.2
● Relatives	5	1.1	2	0.5	3	0.7	1	0.2	4	0.9
● Others	4	0.9	0	0	4	0.9	1	0.2	3	0.7

The respondents have borrowed money for a number of reasons. Some respondents borrowed money to fix financial problems, and others borrowed to facilitate their earning activities. According to the study, 37.7 percent of respondents had taken out a loan to improve their livelihood. One of the most striking findings was that the respondents were borrowing money to repay past loans which without doubt illustrates respondents' financial illiteracy.

Table-16: **Purpose of institutional loan**

Purpose of Loan	Number of Respondents (n)	Percentage (%)
No Loan	171	38.6
To start business	167	37.7
To fix house	42	9.5
To repay previous loan	26	5.9
For treatment	26	5.9
Others	11	2.5

The amount borrowed by the respondents ranged from only BDT 1500.00 to more than BDT 60,000.00. The most frequently borrowed amount was BDT 10,000.00 to BDT 30,000.00. It should be mentioned here that 38.6% of respondents did not have any idea about the rate of interest they were paying.

Table-17: **Loan Amount, Installment Size and Rate of Interest**

Loan Amount	Percentage (%)
None	38.6
1500 -10000	6.1
10000 -20000	14.4
20000 -30000	10.8
30000 -40000	8.8
40000 -50000	6.3
50000 -60000	4.5
>60000	10.4

No. of Installment (Annual)	Percentage (%)
1-12	7.4
12-40	4.5
44-46	49.4
Rate of interest	**Percentage (%)**
3% -11%	9.3
11% -14%	11.7
14% -20%	1.8
Don't know	38.6

Respondents were willing to borrow money even though the interest was very high as they could avail the credit without any security. Around 45.8% of respondents' received loans without security whereas only 15.6% of respondents borrowed with security. Although, no security were required if the loan amount was lower than BDT 50,000.00.

4.5 Access to Technical Services, Technology and Information

Access to appropriate and timely technical services including quality input, technical training, new technology, and market information is crucial for maintaining a sustainable livelihood. As identified during the study, 67.5 percent of respondents did not use any forms of medicine and fertilizer as they were practicing traditional farming. On the other hand, 24.8% of respondents who were involved in the agriculture sector used all types of medicines and fertilizers.

Table-18: **Chemicals and Fertilizers Used in Production**

Chemicals and Fertilizers	Number of Respondents (n)	Percentage (%)
Do not use	299	67.50
Chemical	11	2.50
Chemical and Insecticides	15	3.40
Organic and Insecticides	06	1.40
Insecticides	01	0.20
All Types	110	24.80
Others	01	0.20

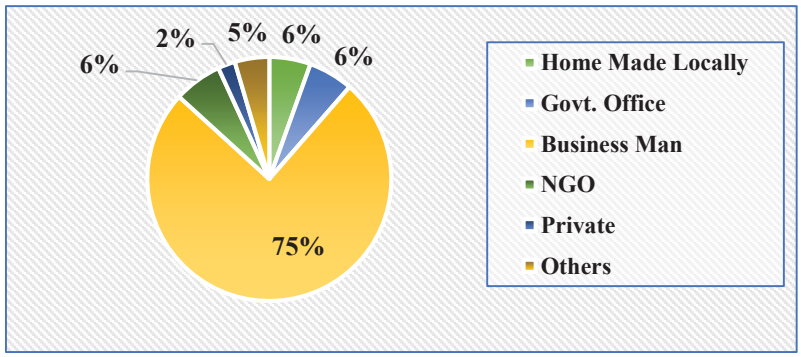
For chemicals, fertilizers and other inputs, marginal and ultra-poor producers were dependent on different sources. Apparently, 26.6 percent of farmers were collecting their inputs from the private sector and only 2.0 percent of producers were sourcing their inputs from GO. However, 1.4% of producers were using locally produced inputs.

Table-19: **Source of Inputs**

Source of Inputs	Number of Respondents (n)	Percentage (%)
Do not use	299	67.50
Locally Produced	06	1.40
GO	01	0.20
Businessmen/Private Sector	118	26.60
NGO	05	1.10
Others	06	1.40

According to the respondents, the quality of raw materials varied based on sources. About 75.34% of respondents replied that the best quality raw materials was provided by businessmen. However, respondents also informed the study team that homemade inputs were almost as much effective as the inputs provided by GO and NGO.

Figure-10: **Source of Best Quality Inputs**



The respondents identified several factors that hindered their raw materials collection process. Around 30 percent of respondents thought the price of the raw materials was often very high. Although, 10.40 percent of respondents cited the unavailability of raw materials accompanied by distant location and lack of transportation as one of the major constraints. Other than high prices, respondents of Dinajpur, Rangpur, Rajshahi, Bagerhat, Mymenshing, and Netrokona districts also mentioned distance, scarcity, and lack of transport as major constraints.

Table-20: **Problem Faced in Procuring Raw Materials**

Type of Problem	Total	Marginal	Ultra-Poor	Male	Female
No Response	224 (50.5)	106 (23.9)	118 (26.6)	80 (18.1)	144 (32.5)
High Price	133 (30.0)	77 (17.4)	56 (12.6)	91 (20.5)	42 (9.5)
Distance, Scarcity and Transport	46 (10.4)	28 (6.3)	18 (4.0)	30 (6.8)	16 (3.6)
Low Quality Product	13 (2.9)	7 (1.6)	6 (1.4)	05 (1.1)	08 (1.8)
Distant Location	12 (2.7)	10 (2.3)	2 (0.5)	07 (1.6)	05 (1.1)
Transportation	05 (1.1)	2 (0.5)	3 (0.7)	2 (0.5)	3 (0.7)
Unavailability of Raw Materials	02 (0.5)	1 (0.2)	1 (0.2)	0 (0.0)	2 (0.5)
Others	3 (0.7)	2 (0.5)	1 (0.2)	1 (0.2)	2 (0.5)
None	5 (1.1)	3 (0.7)	2 (0.5)	5 (1.1)	0 (0.0)
Total	**443 (100.0)**	**236 (53.3)**	**207 (46.7)**	**221 (49.9)**	**222 (50.1)**

*The number in the parenthesis shows percentage

As found by the study, 74.9 percent of respondents had not received any IGA related training. Although 12.9 percent and 6.1 of respondents had received training on livestock and crop cultivation but none of the ultra-poor had received any training on fisheries and handicrafts.

Table-21: **Types of Training Received (in Percentage)**

Types of Training	Total	Marginal	Ultra-poor	Male	Female
No Training	74.9	39.3	35.7	39.5	35.4
Livestock	12.9	5.9	7.0	5.4	7.4
Cultivation	6.1	3.4	2.7	3.2	2.9
Tailoring	1.8	1.4	0.5	0.2	1.6
Cultivation and Livestock	1.1	0.2	0.9	0.2	0.9
Fisheries	0.9	0.9	0	0.2	0.7
Handicraft	0.7	0.7	0	0.2	0.5
Above All	0.5	0.5	0	0.5	0
Others	1.1	1.1	0	0.5	0.7
Total	**100**	**53.3**	**46.7**	**49.9**	**50.1**

Many organizations and institutions provide training in the study area. As Table-22 shows, 20.3 percent of respondents had received their training from NGO, 4.3 percent of respondents had received training from GO and only 0.2 percent of respondents have received training from private sector.

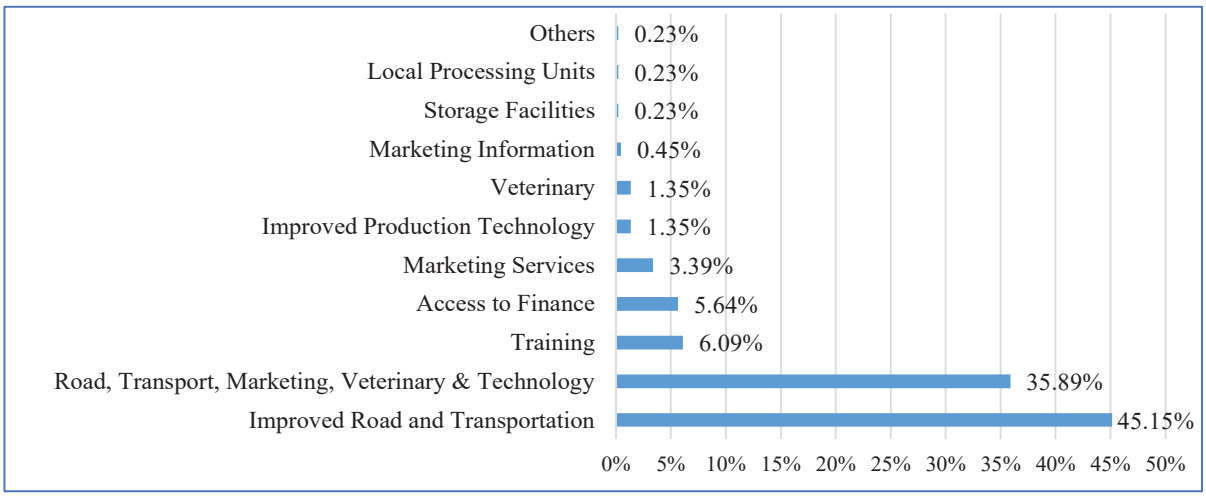
Table-22: **Training Providing Organization Type**

Type of Organization	No. of Respondents (n)	Percentage (%)
No Training	332	74.9
GO	19	4.3
NGO	90	20.3
Private Sector	1	0.2
Above All	1	0.2

As Figure-11 shows, numerous respondents replied that they had access to multiple infrastructure facilities. Such as, about 45.15 percent of respondents had access to both improved road and transportation facilities whereas alongside improved road & transportation facility 35.89 percent of respondents had access to

market information, veterinary services, and technology also. But, only a handful of respondents were found to have access to local processing units, storage facilities, and marketing information. More importantly, none of the respondents from Barisal, Jamalpur, and Nandai APC had access to financial services. Similarly, none of the respondents from Cox's Bazar and Rangpur APC had received any training.

Figure-11: **Access to Infrastructure Facilities**



Limited access to financial and technical services is hindering the livelihood activities of the target groups. In this study, 51.2 percent of respondents met with problems like lack of financial resources in improving their livelihood. Besides, 23.7 percent of respondents were facing multiple constraints including insufficient financial resources, marketing barriers, and training constraints. Problems like the unavailability of regular jobs and lack of financial resources were encountered by 11.3 percent of respondents. The constraints faced by the respondents are in improving their livelihood is shown below.

Table-23: **Major Constraints Faced in Improving Livelihood**

Major Constraints	Respondents (n)	%
Lack of Financial Resources	227	51.2
Lack of Financial Resources, Marketing Barriers & Training	105	23.7
Lack of Regular Job and Financial Crisis	50	11.3
Infrastructural Problems	20	4.5
Market Barriers and Reduce Market Competitors	19	4.3
Lack of Training	14	3.2
Marketing Barriers	3	0.7
Reduce Market Competitors	3	0.7
None	2	0.5

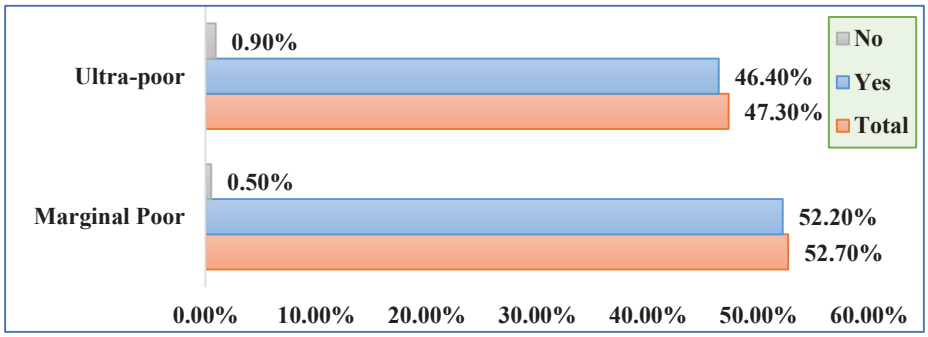
4.6 Women Economic Empowerment Status

Women's economic empowerment refers to the absence of gender discrimination, which means equal access to the existing market, livelihood activity, productive resources, and participation in decision making. According to UN WOMEN:

> Women's economic empowerment includes women's ability to participate equally in existing markets; their access to and control over productive resources, access to decent work, control over their own time, lives and bodies; and increased voice, agency and meaningful participation in economic decision-making at all levels from the household to international institutions. (2018)

To understand the economic empowerment status of marginal and ultra-poor women of the target area gender specific analyses were assume and gender specific data was collected from 222 female respondents. Additionally, to undertake Gender Equality and Social Inclusion (GESI) analysis through Access and Control Assessment, 24-hour day tool, and Social Norm Analysis were also conducted with different sub-population groups. During the household survey, when 222 women respondents were inquired about whether they were involved in or participating in any income generating activities about 98.6 percent of women respondents replied positively. But, the women respondents were associated with the IGAs as family helpers without remuneration. They were not recognized as earning members in most of the households even though they had substantial contributions.

Figure-12: **Women's Participation in IGA related activity**



However, gender dimensions in women's access to and control over resources and services were noticed. As a part of the social mapping exercise, the respondents identified deep tube well, irrigation pumps, roads, and haor as valuable resources. Respondents' access to and control over these resources varied from region to region and from person to person. Men, women, and adolescent boys had access to deep tube-well and irrigation pumps but adolescent girls' and disabled people's access to these resources was limited. Men held full control over irrigation pumps although women and boys said that they possessed partial control over this resource. Also, women, girls, and disabled persons did not have full access to even public goods or resources, like, road. Men had full control over the public resources whereas adolescent boys possessed partial control. Another resource that the respondents identified as valuable were the haor and only men had full access to this resource. Adolescent boys had some access to this resource but women and girls' access to and control over this natural resource was very much limited.

Other than women's participation in income generating activities, women's participation in livelihood and household decision is another important indicator of the economic empowerment status of women. In this regard, marginal and ultra-poor women respondents were questioned:

- Whether they, i.e., female respondents, had any participation in IGA related decisions made within their households in the past 12 months?
- How much did they, i.e. women, contribute to the IGA related decisions?
- Who decides on how to spend the income generated from the IGA?
- To what extent can they, i.e., female respondents, make their own decisions free of coercion/control?

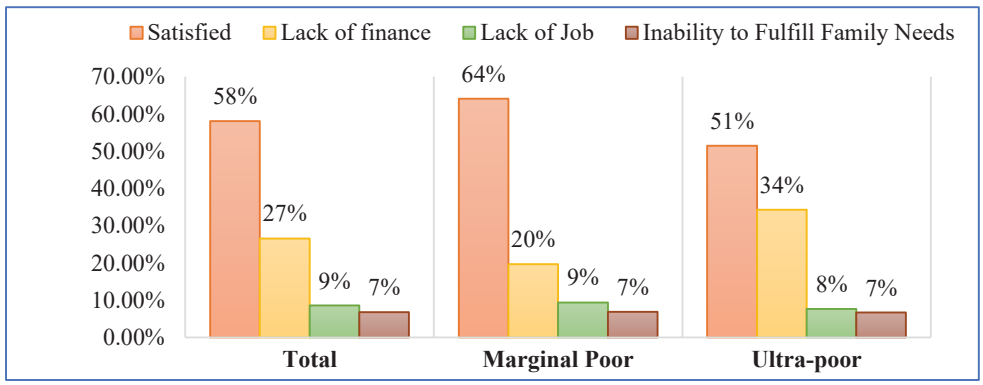
Around, 75.2 percent of women responded that they did not participate in food crop farmingrelated decisions of the household. Only 24.8 percent of respondents said that they had participated in such decision making activity where only 5.0 percent of them had significant input in the decision making process. Although, in 16.2 percent of cases the spouse made most of the decisions and in 2.2 percent of cases women could make a large extension in personal decision making.

In the case of non-agricultural economic decision making, about 64.0 percent of women never participated in such decision making process. Only 14.0% of respondents contributed significant input in non-agricultural economic decisions of the household. However, in 19.8 percent of cases, the spouse made most of the decisions even though the decisions were taken jointly, and in 9.5 percent of cases, women could have contributed in large extension in personal decision making.

In the case of skill and capacity building activity, 84.7 percent of women had no participation in the decision making process whereas only 5.0 percent of women could contribute some inputs in the decision making activity. However, 7.2 percent of women respondents replied that they have made such decisions themselves and only 5 percent of respondents could contribute in large extension. That is women were not allowed to participate if not permitted by the male household heads.

However, even though almost all the marginal and ultra-poor female respondents were involved in different IGA but 41.9 percent of female respondents were not happy with their current livelihood. They blamed financial constraints as the primary reason for such dissatisfaction.

Figure-13: **Reason behind Dissatisfaction over Livelihood**



It should be noted here that "Gender and Social Norms" analysis revealed that a significant number of respondents, including adult women, adolescent boys, and girls, still believed that men are justified to hurt their wives if women did not look after children properly, refuses to have sex or argues etc. A considerable number of women (9.9%) said they had been physically and psychologically tortured. They also identified self-awareness and improved social security as key actors in preventing such abuse.

Figure-14: **Victims of Domestic Violence**

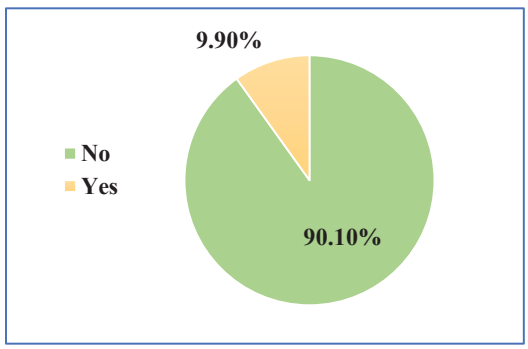
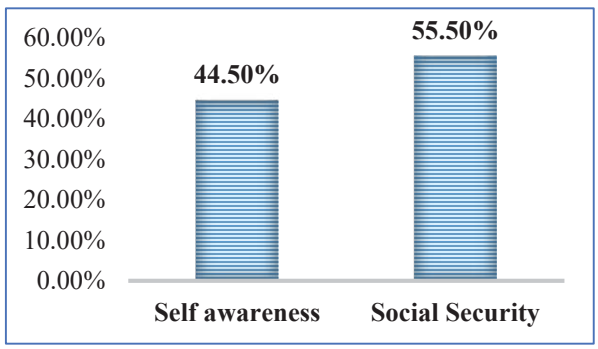
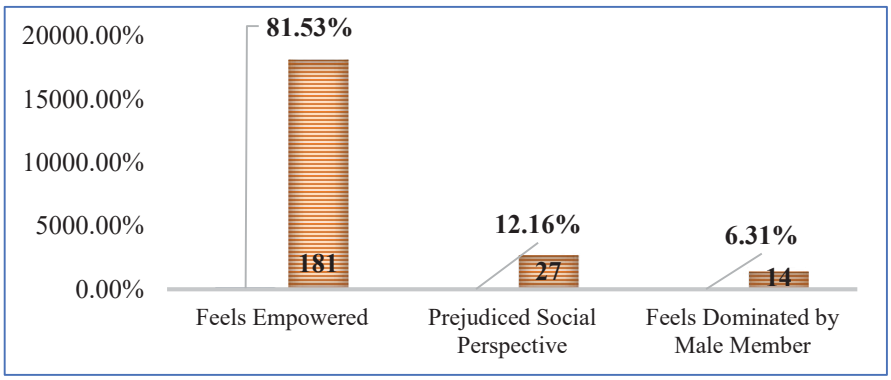


Figure-15: **Safeguard against Domestic Violence**



Finally, 81.5 percent of women of the study area responded that they feel empowered in the existing socio-economic context. However, 12.2 percent of respondents believed that they subject to prejudiced social perspectives. On the other hand, 6.3 percent of women respondents do not feel empowered due to extensive male domination in every aspect of society.

Figure-16: **Women Empowerment**



Analysis of roles and workloads found that reproductive tasks are performed by women, men, adolescent girls, boys and disable include cooking, cleaning, child rearing, water bringing, and others. The key observations on the gender roles, responsibilities, and time use are as below:

- Women member of the household spends almost six times as many hours as their spouses in cooking activity;
- The women are assisted by the adolescent girl members of the household who almost spends four times as many hours as boys.
- Women spend almost four times as many hours as their spouses or the adult male members of the household in cleaning activity;
- The adolescent girls almost spend four times as many hours as boys in cleaning activity;
- Women and girls spend 1 to 2 hours each day for bringing water as they had to collect water several times a day;
- Women are also responsible for the child caring. They such activities in association with adolescent girl member of the family.
- The men and boys spend much lesser time in reproductive activity.
- Mostly men and boys are held responsible for community tasks, such as, attending cultural functions, funeral, religious programs, and social services;
- Women are not allowed to participate in funerals and selective religious programs;
- In short, women have a significant role to play in both domestic and productive activities. But, due to social prejudice, their participation in community related task are limited.

The gender and social norms analysis adopted under this study also delineates a number of key findings as outlined below:

- All members of marginal and ultra-poor communities agreed that even though traditionally women perform household activities but men should also participate in such activities;
- But, adult women and adolescent girls believed that women cannot ask their spouses assistance in household work as many still considers such participation as degrading;
- Adult men, women, and adolescent girls argued that their community disapproved when a married woman was a breadwinner;

- However, the respondents of the Sylhet region and a few respondents of Muktagacha (Jamalpur APC), Purbadhala (Nandail APC), and Fulbaria (Mymensingh) mentioned that women's participation in the intervention programs had been appreciated by their community;
- The respondents from other APC responded that in their community spouses often did not allow their wives to participate in a project or public activity;
- As found by the study, most of the women respondents argued that they want to participate in IGA and but at the same time would like to stay close to their home;
- Women did not think their association in IGA restricted them from taking care of children;
- Almost all the respondents believed that a person with disabilities should not be involved in any form of economic and income generation activity;
- However, the respondents think that people with disabilities have the right to access resources and social services required for their well-being and their opinion must also be considered;

4.9 Key Findings

Even though the majority of the respondents in the study area, around 79 percent, were of working age, they were unable to build a sustainable life for themselves. A significant number of respondents (16%) earned their living as day laborers. Although 19% of respondents were participating in rice, maize, and other crop cultivation, and 14% were making a living via vegetable cultivation, they were largely engaged in subsistence and semi-subsistence farming, which was insufficient to alleviate poverty. Respondents are obligated to continue their traditional subsistence farming practices because they lack sufficient capital assets and access to business, financial, and technical services.

363 of the 443 respondents did not possess any cultivable land and frequently lease land from landlords in exchange for a part of the produced crops to be paid to the landowner. The marginal poor were more involved in crop and vegetable production than the ultra-poor, since the proportion of landless marginal poor (4.3 percent) was found to be lower than the proportion of landless ultra-poor (7.9 percent). Similarly, compared to ultra-poor (33.9 percent) a lower fraction of the marginal poor (29.4 percent) held less than 10 decimals of land property also. Irrespective of the type of the asset, ultra-poor household asset base also was much narrow than that of marginal poor.

The proportion of female household heads who possessed more than 5 decimals of land was just 0.4 percent of the total number of households surveyed. Women's control over land property was restricted in almost all AP, except in Amtali, Debhata, and Godagari AP, where women had no control over land. As a result, female respondents had somewhat higher animal ownership rates than males. Although men, women, and adolescent boys had access to agricultural inputs, but adolescent girls had restricted access to these resources, and very few disabled individuals had access to agricultural input as well.

Furthermore, target groups' access to financial services was severely constrained, with 72.7 percent of respondents having no savings and 31.8 percent having no access to institutional loans. However, in comparison to the marginal poor (17.6%), the proportion of ultra-poor (9.7%) with savings was significantly small making them more vulnerable to climatic and nonclimatic shocks. It is worth noting that a considerable proportion of respondents (38.6 percent) had no idea what interest rate they were paying. The respondents' lacked financial literacy as the proportion of marginal and ultra-poor respondents who passed Higher Secondary and above was significantly low.

Aside from that, both marginal and ultra-poor respondents identified lack of financial resources, high prices for quality inputs, unavailability of inputs, the remote location of marketplaces, and a lack of transportation as major impediments to improving their livelihood. Only a fraction of the respondents had access to marketing services, improved technology, storage facility and local processing units. The proportion of responders who had access to marketing services, enhanced technology, storage facilities, and local processing units was also negligible. Furthermore, 74.9 percent of respondents had no IGA-related training, therefore they lack technical knowledge, basic skill sets, and motivation to improve their livelihood into sustainable ones.

In short, while there was no significant difference between the marginal and ultra-poor, their lack of access to capital assets was noticeable. Although the majority of them were workingage population, they lack the necessary education, technical knowledge, and skill set.

Chapter 5: **Identification of Prospective Sub-Sectors**

5.1 Methodology

The objective of this section was to propose prospective sub-sectors for upward mobilization of marginal poor and sustainable livelihood options for ultra-poor graduation. In this regard, forty-two (42) workshops were conducted in different APs. Participants in the workshops included key stakeholders like producers, farmers, market actors, NGO and INGO representatives, and government officials.

To determine the most prospective sub-sectors for the marginal poor, the findings of the workshop were triangulated with cluster FGD and KII findings. Initially, the participants discussed and short-listed the livelihood options from the long list of sub-sectors as outlined in the literature review. To make the workshop participatory and limit the hindrance of the power dynamic, the participants were divided into four (04) homogeneous sub-groups, namely, Ultra & Marginal Poor Men, Ultra & Marginal Poor Women, Market Actors & Leaders and Govt., NGO & Service Providers. Thereafter, the participants were asked to rank the shortlisted sub-sectors against the selection criteria of the pre-formulated Priority Matrix under the broad criteria of:

- Market Size and Growth Potential
- Quick Win Potential
- Marginal Poor Friendly Production Process
- Income and Employment Potential for Marginal Poor
- Scope for Intervention and Liaison with Private Sector
- Availability of Business, Technical, and Financial Service
- Possibility of Inclusion of Marginal Poor within the Sub-sector
- Likelihood of Success

At the end of each workshop weighted ranking was conducted by multiplying the ranks assigned by the participants with the pre-assigned weights. Summing the weighted ranks received by each sub-sector under different criteria overall weighted rank was calculated to classify the highest ranking sub-sectors. The findings of the workshop were then validated and aligned with the findings of KII and FGD to determine the most prospective sub-sectors for marginal poor.

Most potential livelihood options for the ultra-poor were determined based on a number of key parameters, namely, income and employment potential, land asset requirement, and quick win potential. During the workshops, the respondents were asked to determine the potential livelihood options for the ultra-poor in each AP. The findings of the workshops were validated and supplemented through KII and FGD with the key stakeholders.

After summarizing the outcomes of the Workshops, KII, and FGD, two different lists of **Proposed Livelihood Options for Ultra-poor** and **Proposed Sub-sectors for Marginal Poor** were developed for each AP. Finally, the suggested livelihood choices and sub-sectors were disaggregated APC-wise to determine which livelihood options and sub-sectors are most suited for Bangladesh's plain land, Barendra land, coastal land, hill basin, river basin, and Haor basin.

5.2 List of Prospective Sub-Sectors by AP

Considering the opinion of all the sub-groups AP prospective sub-sectors and livelihood options were identified separately as shown below:

Table-24: **AP-wise Prospective Livelihood Options and Sub-Sectors**

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub sectors for Marginal Poor
		Workshop	KII & FGD		
Nilphamari	Nilphamari	Dairy Cattle Fattening Goat Rearing Poultry (Broiler Chicken)	Dairy Vegetables Cattle Fattening Maize Chicken/Duck Rearing Small Business	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Vegetables Cattle Fattening Maize Country Chicken
	Thakurgaon	Dairy Goat rearing Vegetables Poultry (Broiler Chicken)	Dairy Vegetables Cattle Fattening Maize Chicken/Duck Rearing Small Business	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Vegetables Cattle Fattening Maize Country Chicken
	Kishoreganj	Dairy Goat rearing Maize Poultry (Broiler Chicken)	Dairy Vegetables Cattle Fattening Chicken/Duck Rearing Goat Rearing Small Business	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Maize Vegetables Cattle Fattening Country Chicken
	Birganj	Dairy Small Business Goat Rearing Poultry (Broiler Chicken)	Dairy Vegetables Cattle Fattening Chicken/Duck Rearing Goat Rearing	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Vegetables Cattle Fattening Country Chicken

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Subsectors for Marginal Poor
		Workshop	KII & FGD		
Dinajpur	Dinajpur	Dairy Goat Rearing Vermi Compost Country Chicken	Dairy Vegetables Vermi Compost Chicken/Duck Rearing Goat Rearing Small Business Vegetables	Cow Rearing Chicken/Duck Rearing Vermi Compost Small Business Homestead Vegetables	Dairy Vegetables Vermi Compost Chicken/Duck Rearing
	Biral	Dairy Cattle Fattening Vegetables Poultry (Broiler Chicken)	Dairy Cattle Fattening Goat Rearing Maize Chicken/Duck Rearing Vegetables	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables	Dairy Maize Cattle Fattening Vegetables
	Kaharole	Vegetables Cattle Fattening Dairy Country Chicken	Dairy Cattle Fattening Maize Goat Rearing Chicken/Duck Rearing Vegetables Small Business	Cow Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Maize Cattle Fattening Vegetables

APC	AP	Sub-sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub-sectors for Marginal Poor
		Workshop	KII & FGD		
Rajshahi	Godagari	Dairy Goat Rearing Poultry (Broiler Chicken) Handicraft	Dairy Cattle Fattening Goat Rearing Vegetables Chicken/Duck Rearing Handicraft Small Business	Cow Rearing Homestead Vegetables Goat Rearing Chicken/Duck Rearing Handicraft Small Business	Dairy Vegetables Goat Rearing Cattle Fattening Handicraft
	Tanore	Dairy Goat Rearing Vegetables Potato	Dairy Vegetables Cattle Fattening Goat Rearing Chicken/Duck Rearing Small Business	Goat Rearing Cow Rearing Chicken/Duck Rearing Small Business Homestead Vegetables	Dairy Goat Rearing Poultry (Broiler Chicken) Duck Rearing Vegetables
	Paba	Dairy Vegetables Poultry (Broiler Chicken) Goat Rearing	Dairy Vegetables Goat Rearing Cattle Fattening Chicken/Duck Rearing Handicraft Small Business	Cow Rearing Homestead Vegetables Goat Rearing Chicken/Duck Rearing Handicraft Small Business	Dairy Vegetables Goat Rearing Cattle Fattening Handicraft
	hamoirhat	Dairy Vegetables	Dairy Vegetables Cattle Fattening	Cow Rearing Chicken/Duck Rearing	Dairy Vegetables Cattle Fattening

		Poultry (Broiler Chicken) Goat Rearing	Chicken/Duck Rearing Goat Rearing Small Business	Homestead Vegetables Goat Rearing Small Business	Chicken/Duck Rearing Goat Rearing

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Jamalpur	Muktagacha	Banana Vegetables Cattle Fattening Fish Cultivation	Vegetables Cattle Fattening Goat Rearing Small Business Fruits/Banana	Homestead Vegetables Cow Rearing Goat Rearing Small Business	Vegetables Cattle Fattening Goat Rearing
	Muktagacha South	Vegetables Cattle Fattening Country Chicken Handicraft	Vegetables Cattle Fattening Goat Rearing Country Chicken/Duck Rearing Small Business	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Vegetables Cattle Fattening Country Chicken
	Islampur	Small Business Cattle Fattening Goat Rearing Duck Rearing	Vegetables Cattle Fattening Goat Rearing Country Chicken Duck Rearing	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Vegetables Cattle Fattening Country Chicken Duck Rearing
	Jamalpur	Vegetables Cattle Fattening Chicken/Duck Rearing Goat Rearing	Vegetables Cattle Fattening Country Chicken/Duck Small Business Goat Rearing	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Vegetables Cattle Fattening Country Chicken Duck Rearing
	Fulbaria	Cattle Fattening Vegetables Rice Cultivation Fish Cultivation	Cattle Fattening Vegetables Rice Cultivation Goat Rearing Vermi Compost	Cow Rearing Goat Rearing Chicken/Duck Rearing Vermi Compost	Cattle Fattening Vegetables Rice Cultivation Vermi Compost

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Rangpur	Rangpur	Dairy Handicrafts Small Business Vegetables	Dairy Handicrafts Vegetables Small Business Van Puller Goat Rearing	Cow Rearing Small Business Van Puller Goat Rearing	Dairy Handicrafts Vegetables
	Mithapukur	Dairy Vegetables Rice Cultivation Goat Rearing	Vegetables Dairy Chicken/Duck Rearing Rice Cultivation Potato Cultivation Goat Rearing Small Business	Cow Rearing Chicken/Duck Rearing Goat Rearing Homestead Vegetables Small Business	Vegetables Dairy Chicken / Duck Rearing Rice Cultivation Potato Cultivation
	Pirganj	Dairy Vegetables Small Business Handicraft	Poultry (Broiler Chicken) Dairy Vegetables Country Chicken Goat Rearing Small Business	Cow Rearing Country Chicken Goat Rearing Small Business Homestead Vegetables	Vegetables Poultry (Broiler Chicken) Dairy Country Chicken
	Ghoraghat	Dairy Goat Rearing Poultry (Broiler Chicken) Vegetables	Vegetables Dairy Goat Rearing Maize Small Business	Cow Rearing Goat Rearing Homestead Vegetables Small Business	Vegetables Dairy Goat Rearing Maize

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Nandail	Nandail	Vegetables Cattle Fattening Country Chicken Duck Rearing	Vegetables Cattle Fattening Poultry (Broiler Chicken)	Homestead Vegetables Cow Rearing Country Chicken Duck Rearing	Vegetables Cattle Fattening Poultry (Broiler Chicken)
	Purbadhala	Duck Rearing Vegetables Country Chicken Cattle Fattening	Vegetables Cattle Fattening Poultry (Broiler Chicken) Country Chicken Duck Rearing	Homestead Vegetables Cow Rearing Country Chicken Duck Rearing	Vegetables Cattle Fattening Poultry (Broiler Chicken)
	Dharmapasha	Cattle Fattening Goat Rearing Country Chicken Duck Rearing	Cattle Fattening Goat Rearing Poultry (Broiler Chicken) Vegetables	Cow Rearing Goat Rearing Duck Rearing Homestead Vegetables	Cattle Fattening Goat Rearing Poultry (Broiler Chicken)
	Haor-1 (Dharmapasha)	Rice Cultivation Country Chicken	Cattle Fattening Poultry (Broiler Chicken) Vegetables Rice Cultivation	Cow Rearing Country Chicken Duck Rearing Homestead Vegetables	Cattle Fattening Poultry (Broiler Chicken) Vegetables Rice Cultivation

		Fish Cultivation Duck Rearing	Country Chicken Duck Rearing		

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Sylhet	Sylhet	Handicraft Cattle Fattening Chicken/Duck Rearing Vegetables	Dairy Cattle Fattening Chicken/Duck Rearing Rice cultivation Vegetables Handicraft Sheep Rearing Small Business	Handicraft Cow Rearing Chicken/Duck Rearing Sheep Rearing Small Business Homestead Vegetables	Handicraft Dairy Cattle Fattening Chicken/Duck Rearing Rice cultivation Vegetables
	Gowainghat	Sewing Work Handicraft Cattle Fattening Vegetables	Dairy Cattle Fattening Chicken/Duck Rearing Rice cultivation Vegetables Handicraft/Sewing Sheep Rearing Small Business	Handicraft Sewing Work Cow Rearing Sheep Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Handicraft Dairy Cattle Fattening Chicken/Duck Rearing Rice cultivation Vegetables
	Tahirpur	Cattle Fattening Rice Cultivation Vegetables Sewing Work	Cattle Fattening Dairy Rice Cultivation Vegetables Chicken/Duck Rearing Vegetables Small Business Sheep Rearing	Cow Rearing Chicken/Duck Rearing Homestead Vegetables Small Business Sheep Rearing	Cattle Fattening Dairy Rice Cultivation Vegetables Chicken/Duck Rearing Vegetables
	Sunamganj	Rice Cultivation Cattle Fattening Chicken/Duck Rearing Vegetables	Rice Cultivation Cattle Fattening Dairy Chicken/Duck Rearing Rice Cultivation Vegetables Small Business Sheep Rearing	Cow Rearing Chicken/Duck Rearing Homestead Vegetables Small Business Sheep Rearing	Rice Cultivation Cattle Fattening Dairy Chicken/Duck Reari ng Vegetables
	Haor-2 (Tahirpur)	Country Chicken Mixed Fish Rice Cultivation Cow Fattening	Chicken/Duck Rearing Dairy Mixed Fish Rice Cultivation Vegetables Small Business Sheep Rearing	Cow Rearing Chicken/Duck Rearing Homestead Vegetables Small Business Sheep Rearing	Chicken/Duck Rearing Dairy Mixed Fish Rice Cultivation Vegetables
	Haor-3 (Sunamganj)	Cattle Fattening Chicken/Duck Rearing Poultry (Broiler Chicken)	Cattle Fattening Dairy Chicken/Duck Rearing Vegetables Sheep Rearing Small Business	Cow Rearing Chicken/Duck Rearing Homestead Vegetables Sheep Rearing Small Business	Cattle Fattening Dairy Chicken/Duck Rearing Vegetables

		Vegetables			

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra -poor	Proposed Sub -sectors for Marginal Poor
		Workshop	KII & FGD		
Barisal	Barisal	Tea/Pitha Stall Grocery Shop Clothing Business Rickshaw/Van Puller	Dairy Vegetables Tailoring/Clothing Business Tea/Pitha Stall Grocery Shop	Tea/Pitha Stall Tailoring/Clothing Business Cow Rearing Homestead Vegetables	Dairy Vegetables Small Business (Grocery Shop)
	Wazirpur	Vegetables Rice Cultivation Fish Culture Dairy	Dairy Vegetables Rice Cultivation Duck Rearing	Homestead Vegetables Duck Rearing Cow Rearing	Vegetables Rice Cultivation Duck Rearing
	Pirojpur	Poultry (Broiler Chicken) Vegetables Rice Cultivation Day Labor	Dairy Goat Rearing Chicken/Duck Rearing Vegetables Small Business	Chicken/Duck Rearing Goat Rearing Cow Rearing Homestead Vegetables Small Business	Chicken/Duck Rearing Goat Rearing Dairy Vegetables
	Bhandaria	Dairy Betel Leaf Rice Cultivation Poultry (Broiler Chicken)	Dairy Goat Rearing Poultry (Broiler Chicken) Vegetables Rice Cultivation	Cow Rearing Poultry (Broiler Chicken) Homestead Vegetables Goat Rearing	Dairy Poultry (Broiler Chicken) Vegetables Rice Cultivation
	Amtoli	Rice Cultivation Mung Bean Poultry (Broiler Chicken) Vegetables	Dairy Rice Cultivation Vegetables Duck/ Chicken	Chicken/ Duck Rearing Cow Rearing Homestead Vegetables	Dairy Rice Cultivation Vegetables Chicken /Duck Rearing

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra -poor	Proposed Sub -sectors for Marginal Poor
		Workshop	KII & FGD		
Rampal	Rampal AP	Shrimp Dairy Poultry (Broiler Chicken) White Fish	Dairy Country Chicken Mixed Fish Vegetables	Cow Rearing Country Chicken Homestead Vegetables	Poultry (Broiler Chicken) Dairy Country Chicken Mixed Fish
	Kachua	Rice Cultivation Fish Cultivation Vegetables Poultry (Broiler Chicken)	Dairy Vegetables Country Chicken Rice Cultivation Mixed Fish	Homestead Vegetables Country Chicken Cow Rearing	Vegetables Country Chicken Rice Cultivation Mixed Fish
	Debhata	Rice Cultivation Vegetables Poultry (Broiler Chicken) Fish Cultivation	Vegetables Country Chicken Dairy Rice Cultivation	Homestead Vegetables Country Chicken Cow Rearing	Vegetables Country Chicken Dairy Rice Cultivation

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Chattogram Hill	Bandarban Sadar	Vegetables Papaya/Banana Country Chicken Mango	Vegetables Papaya/Banana Country Chicken Cattle Fattening Goat Rearing Small Business	Country Chicken Cow Rearing Goat Rearing Homestead Vegetables Small Business Papaya/Banana	Vegetables Country Chicken Cattle Fattening Goat Rearing Small Business
	Laksham	Vegetables Chicken/Duck Rearing Cattle Fattening Sewing Work	Vegetables Chicken/Duck Rearing Dairy Cattle Fattening Small Business	Homestead Vegetables Chicken/Duck Rearing Cow Rearing Small Business	Vegetables Chicken/Duck Rearing Dairy Cattle Fattening Small Business

APC	AP	Sub -sectors identified through		Proposed Livelihood Options for Ultra - poor	Proposed Sub - sectors for Marginal Poor
		Workshop	KII & FGD		
Cox's Bazar	Ukhiya	Dairy Betel Leaf Pegion Rearing Country Chicken	Chicken/Duck Rearing Dairy Cattle Fattening Goat Rearing Vegetables Betel leaf Small Business	Chicken/Duck Rearing Cow Rearing Goat Rearing Homestead Vegetables Small Business	Chicken/Duck Rearing Dairy Cattle Fattening Goat Rearing Vegetables
	Teknaf	Betel Leaf Country Chicken Betel Nut (Processing) Banana	Dairy Cattle Fattening Goat Rearing Chicken/Duck Rearing Dairy Vegetables Betel leaf Small Business	Chicken/Duck Rearing Cow Rearing Goat Rearing Homestead Vegetables Small Business	Dairy Cattle Fattening Goat Rearing Chicken/Duck Rearing Vegetables

Considering the number of APs where the subsectors have been found prospective, the livelihood options and sub-sectors can be arranged as below:

Table-25: **Most Prospective Livelihood Options and Sub-Sectors**

SL	Proposed Livelihood Options for Ultra-poor
1	Cow Rearing
2	Homestead Vegetables
3	Country Chicken
4	Duck Rearing
5	Small Business
6	Goat Rearing
7	Sheep Rearing
8	Handicraft
9	Vermi Compost
10	Poultry (Broiler Chicken)
11	Rice Cultivation
12	Sewing Work
13	Tailoring/Clothing Business
14	Van Puller
15	Papaya/ Banana

SL	Proposed Sub -sectors for Marginal Poor
1	Vegetables
2	Dairy
3	Cattle Fattening
4	Country Chicken
5	Duck Rearing
6	Rice Cultivation
7	Goat Rearing
8	Poultry (Broiler Chicken)
9	Maize
10	Handicraft
11	Small Business
12	Mixed Fish
13	Vermi Compost
14	Potato Cultivation

However, similar sub-sectors have been identified as prospective sub-sectors and livelihood options for various APs located in a certain APC as APs located in a particular region has a competitive advantage in analogous sub-sectors. To determine which livelihood options and sub-sectors are most suited for Bangladesh's plain land, Barendra land, coastal land, hill basin, river basin, and Haor basin APC-wise disaggregation is presented below:

Table-26: **APC-wise Proposed Livelihood Options and Sub-Sectors**

APC	Proposed Livelihood Options for Ultra poor	Proposed Sub sectors for Marginal Poor
Nilphamari	Cow Rearing Goat Rearing Chicken/Duck Rearing Homestead Vegetables Small Business	Dairy Vegetables Cattle Fattening Maize Country Chicken
Dinajpur	Cow Rearing Chicken/Duck Rearing Vermi Compost Small Business Homestead Vegetables Goat Rearing	Dairy Vegetables Vermi Compost Chicken/Duck Rearing Maize Cattle Fattening

APC	Proposed Livelihood Options for Ultra poor	Proposed Sub sectors for Marginal Poor
Nandail	Homestead Vegetables Cow Rearing Country Chicken Duck Rearing Goat Rearing	Vegetables Cattle Fattening Poultry (Broiler Chicken) Goat Rearing Rice Cultivation
Sylhet	Handicraft Cow Rearing Chicken/Duck Rearing Sheep Rearing Small Business Homestead Vegetables Sewing Work	Handicraft Dairy Cattle Fattening Chicken/Duck Rearing Rice cultivation Vegetables Mixed Fish

Rajshahi	Cow Rearing Homestead Vegetables Goat Rearing Chicken/Duck Rearing Handicraft Small Business	Dairy Vegetables Goat Rearing Cattle Fattening Handicraft Poultry (Broiler Chicken) Chicken/Duck Rearing
Jamalpur	Homestead Vegetables Cow Rearing Goat Rearing Small Business Chicken/Duck Rearing Vermi Compost	Vegetables Cattle Fattening Goat Rearing Country Chicken Duck Rearing Rice Cultivation Vermi Compost
Rangpur	Cow Rearing Small Business Van Puller Goat Rearing Chicken/Duck Rearing Goat Rearing Homestead Vegetables	Dairy Handicrafts Vegetables Chicken/ Duck Rearing Rice Cultivation Potato Cultivation Poultry (Broiler Chicken) Goat Rearing Maize
Barisal	Cow Rearing Homestead Vegetables Chicken/Duck Rearing Goat Rearing Small Business Poultry (Broiler Chicken)	Dairy Vegetables Small Business Rice Cultivation Chicken/Duck Rearing Goat Rearing Poultry (Broiler Chicken)
Rampal	Cow Rearing Country Chicken Homestead Vegetables	Poultry (Broiler Chicken) Dairy Country Chicken Mixed Fish Vegetables Rice Cultivation
Chattogram Hill	Cow Rearing Goat Rearing Homestead Vegetables Small Business Papaya/Banana Chicken/Duck Rearing	Vegetables Cattle Fattening Goat Rearing Small Business Vegetables Dairy
Cox's Bazar	Chicken/Duck Rearing Cow Rearing Goat Rearing Homestead Vegetables Small Business	Chicken/Duck Rearing Dairy Cattle Fattening Goat Rearing Vegetables

However, one can see that with the exception of vermi compost, marginal and ultra-poor people of the study area were already operational in almost all of the suggested sub-sectors. Despite this, the targeted groups continue to be susceptible and incapable of improving their livelihood. Hence, the function of target groups and other market actors within the present market structure must be assessed in detail through sub-sectors assessment. In the subsequent sections of the study, detailed sub-sectors assessment has been conducted on the sub-sectors proposed for marginal poor.

Chapter 6: **Sub-Sector Assessment**

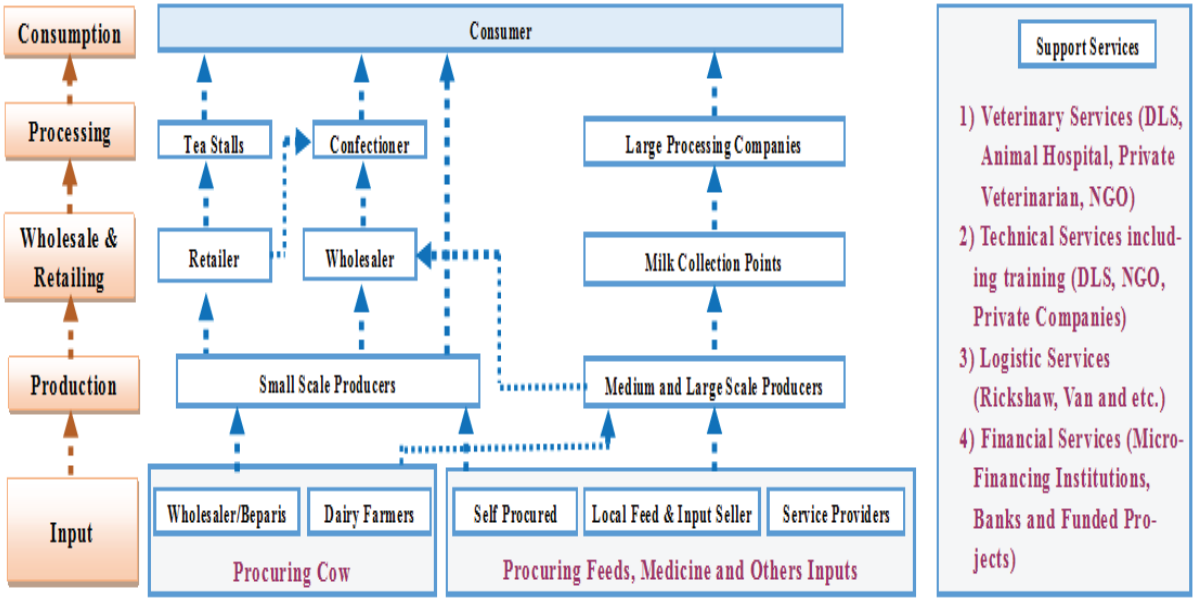
6.1 Methodology

The assessment of a particular sub-sector is a comprehensive process that requires the identification of market actors and evaluating their roles within the value chain with an objective of improvement. Roko and Opusunju (2016) explains that "value chain is a concept which can be simply described as the entire range of activities required to bring a product from the initial input-supply stage, through various phases of production, to its final market destination" (p.10). Under this study, the sub-sector assessment section aims to find out the actors of VC and the power dynamic between the actors in relevance to the target groups to identify the possible scope of improvements and associated challenges to overcome the bottlenecks to recommend 'Pro-Poor' strategies to be integrated with Livelihood Program interventions. Sub-sector assessment was conducted on the fourteen (14) sub-sectors classified as marketable, viable, and feasible for marginal poor in the study area. The methodology followed to conduct sub-sector assessment included developing and customizing checklists and conducting KII, FGD and vigorous field visit. Respondents of the KII and FGD included knowledgeable market actors (producers, input sellers, processing company, service providers), Deputy Assistant Livestock Officer, Upazila Agriculture Officer, representative of training institutes and NGO, market leaders etc. The survey covered all the eleven (11) APCs.

6.2 Dairy Sub-sector

In 2017-18, the contribution of the animal farming sub-sector in the GDP of Bangladesh was 1.53% (Bangladesh Economic Review, 2019). The livestock sub-sector of the country employs 20% of the total labor force directly and additionally employs another 45% indirectly (DLS, 2018). Even though annual milk production within the country has increased significantly from only 29.50 lakh metric tons in the year 2010-11 to 94.06 lakh metric tons in 2017-18, there remains an excess demand of 56.23 lakh metric tons (DLS, 2018). This illuminates the fact that domestic production is lagging significantly in meeting domestic demand leaving the window open for new producers to enter the market. Dairy cattle rearing has thus grown to be a viable livelihood option for the marginal and ultra-poor.

Figure-17: **Dairy Value Chain**



The core actors of the local dairy value chain and their role can be further summarized as below:

The table below estimates the procurement and rearing expenses incurred by small-scale dairy producers in detail and summarizes the profitability of the sub-sector. Since the costs and the prices fluctuate throughout the year, the figures below are indicative of the average of the expenses and prices.

Table-27: **Profitability of Dairy Farming (2 Cows)**

Particulars	BDT	
	Indigenous Breed	Cross Breed
Fixed Costs:		
Shed	5,000/-	8,000/-
Cow Purchase (@ BDT 18,000/ - for each Indigenous Breed Cow) (@ BDT 50,000/ - for each Cross Breed Cow)	36,000/-	1,00,000/-
Feed & Water Pot	2,000/-	3,000/-
Fan and Electricity line	-	3,000/-
Total Fixed Cost	**43,000/-**	**114,000/-**
Variable Costs:		
Shed Maintenance Cost	500/-	1,000/-
Feed (@ BDT 300/ - for each indigenous cow for 1 year) (@ BDT 800/ - for each cross breed cow for 1 year)	7,200/-	19,200/-
Medicine (@ BDT 100/ - for each cow for 1 year) (@ BDT 200/ - for each cow for 1 year)	2,400/-	4,800/-

Artificial Insemination (at most twice a year)	1,500/ -	1,500/ -
Urea Molasses Straw (UMS)	5,000/ -	5,000/ -
Transportation Cost	1,000/ -	1,000/ -
Others	2,000/ -	2,000/ -
Own Labor	10,000/ -	15,000/ -
Total Variable Cost	**29,6 00/-**	**49,500/ -**
Annual Revenue:		
Cow Sale Revenue (2 indigenous calf @ BDT 15,000/- each) (2 cross breed calf @ BDT 25,000/- each)	30,000/ -	50,000/ -
Total Milk Production (2 liters a day for 90 days by each indigenous cow) (5 liters a day for 180 days by each cross breed cow)	360 liters	1800 liters
Cow Milk Sale (@ BDT 40/- per liter)	14,400/-	72,000/-
Cow Dung Sale	4,000/-	10,000/-
Total Annual Revenue	**48,400/-**	**1,32,000/-**
Net Income (Total Annual Revenue - Total Variable Cost)	**18,8 00/-**	**82,500/-**

Source: Field Survey

The following tables summarize cost, price and margin of dairy product at different level. The prices were determined through KII and FGD conducted with different market actors. However, the prices always fluctuate, so following prices and margins are indicative of average market prices.

Table-28: **Price Margin at different Levels of Dairy Value Chain (per Liter) in BDT**

Items	Producer	Local Wholesaler	Retailer/ Local Processors	Consumers
Buying and Rearing Cost	-	40	55	70
Costs (Transportation/ Processing & Packaging)	-	5	5	
Price	40	55	70	
Margin	-	10	10	

Source: Field Survey

Within the value chain, the marginal and ultra-poor men and women are commonly associated as farmers/producers. They also adopt the role of the retailer when delivering their product (unboiled milk) to household consumers themselves. A noticeable number of marginal and ultra-poor men and women also work in the local processing companies.

Within the dairy value chain, the target groups play the role of small scale producers selling the output to retailers (goyalas) or wholesalers at a variable market price where the farmers or producers play the role of the price taker due to their limited market accessibility. The marginal and ultra-poor producers cannot generally sell their products to the processors or consumers directly due to distant locations. With the small scale of production, the farmers do not find it feasible to incur extra transportation costs. Consequently, retailers and wholesalers have control over the market price.

Furthermore, as chilling plants are not available locally and the farmers do not have access to any other forms of storage facility, the marginal and ultra-poor farmers are forced to sell the product within a few hours of milking. Since the retailers and wholesalers have refrigerators for storing milk, they hold a relative influence.

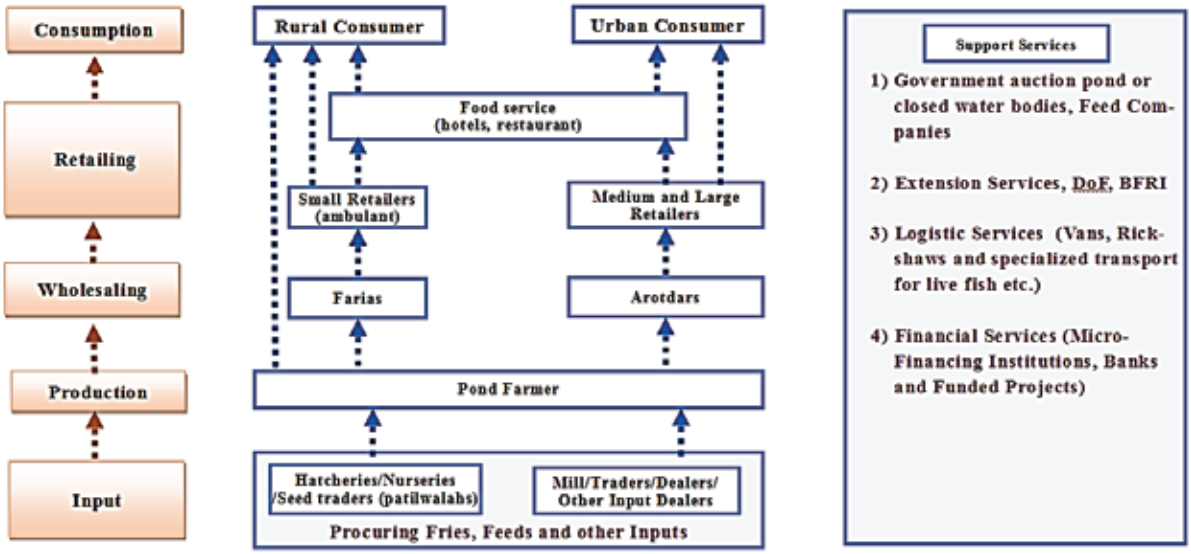
Although the large processing companies do offer a relatively stable price, small-scale producers often fail to fulfill the fat content requirement due to their inclination towards traditional rearing practices. Hence, retailers and wholesalers are dependent on local producers (confectioners or tea stalls) to sell collected milk. Another major constraint towards the inclusion of marginal and ultra-poor farmers within the value chain is the financial constraints and limited resources to invest in upgrading. Due to this, marginal and ultra-poor dairy farmers find input costs, including the price of cross bread cattle, feed, fodder, medicines, very high. Hence, they tend to adhere to the traditional production process where indigenous cow breeds are reared by feeding green grass, hay, husk, vegetables, and others. Hence, the milk production and the fat content of the milk remain low.

To promote marginal and ultra-poor farmers' accessibility within the value chain, enterprises are rarely interested in reducing the price of their products or services by appropriately reducing quality while maintaining safety standards. The enterprises do not consider the marginal and ultra-poor farmers their target market.

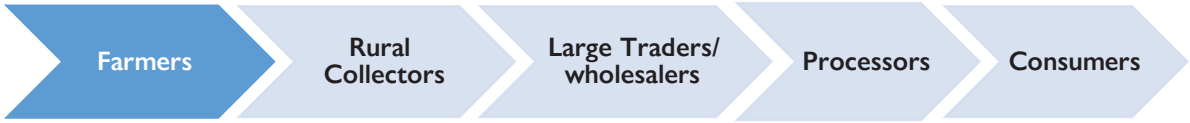
6.3 Cattle Fattening Sub-sector

Cattle are considered to be the major source of meat in this country. In FY 2018-19, annual meat production was 75.14 lakh metric tons with an annual growth rate of 3.50%. Even though annual meat production was only 19.90 lakh metric tons in the year 2010-11, it has increased significantly in recent times. In 2017-18, total meat production was 72.60 lakh metric tons where demand for meat was estimated to be 72.14 lakh metric tons (DLS, 2018). However, the demand for ruminants' meat is ever-growing which presents an opportunity for the marginal and ultra-poor households to operate within the cattle fattening sub-sector to generate increased income for alleviating poverty. Other than that cattle fattening is vital for ensuring food security. Besides, it has the potential to attract investment and generate significant employment opportunities.

Figure-18: **Cattle Fattening Value Chain**



The core actors of local cattle fattening value chain and their role can be further summarized as below:



An estimate of the rearing expenses and profitability of the cattle fattening sub-sector for smallscale farmers is summarized below.

Table-29: **Profitability of Cattle Fattening (2 Indigenous Cows)**

Particulars	BDT
Fixed Costs:	
Shed	5,000/-
Feed & Water Pot	2,000/-
Fan and Electricity line	3,000/-
Total Fixed Cost	**10,000/-**
Variable Costs:	
Cow Purchase (@ BDT 40,000/- for each Cow)	80,000/-
Shed Maintenance Cost	500/-
Feed (@ BDT 300/- for each cow for 6 months)	3,600/-
Medicine and Vaccine (@ BDT 300/- for each cow for 6 months)	3,000/-
Urea Molasses Straw (UMS)	5,000/-
Transportation Cost	1,000/-
Own Labor	5,000/-
Others	4,000/-
Total Variable Cost	**102,100/-**
Total Cost (Fixed Cost + Variable Cost)	**112,100/-**
Annual Revenue:	
Cow Sale Revenue (@ BDT 70,000/- each)	140,000/-
Cow Dung Sale	3,000/-
Total Annual Revenue	**143,000/-**
Net Income (Total Annual Revenue - Total Variable Cost)	**40,900/-**

Source: Field Survey

The table below estimates the procurement and rearing expenses incurred by small-scale dairy producers in detail and summarizes the profitability of the sub-sector. Since the costs and the prices fluctuate throughout the year, the figures below are indicative of the average of the expenses and prices.

Table-30: **Price Margin at different Levels of Cattle Fattening Value Chain (in BDT)**

Items	Farmer	Rural Collectors	Large Traders/ Wholesaler	Local Processor & Consumer
Purchase Price	40, 000	70,000	73,000	75,000
Rearing Cost	10,550	-	-	
Costs (Transportation/ Processing)	1,000	1,000	500	
Selling Price (after fattening)	70,000	73,000	75,000	
Margin	18,450	2,000	1,500	

Source: Field Survey

Within the value chain, marginal and ultra-poor men and women have noticeable participation in the production and processing segment. As smallholder farmers marginal households rear one or two cows at a time. It should be mentioned here that marginal and ultra-poor people consider cattle fattening as a yearly one-off income producing IGA as opposed to a source of consistent income throughout the year. Every year beef cattle experience a surge in demand during important religious festivals, and farmers primarily rear cattle targeting that market.

Activities related to beef cattle rearing including feeding, monitoring, and managing cattle waste are mostly performed by women whereas marginal and ultra-poor men predominantly perform the marketing and processing related activities. That is, within this sub-sector the association of marginal and ultra-poor women is limited within household activities. However, marginal and ultra-poor men also get employed in meat processing places or slaughterhouses. The involvement of marginal and ultra-poor men as traders within the value chain are quite limited because the purchase of beef cattle in bulk for further trade requires a substantial initial investment.

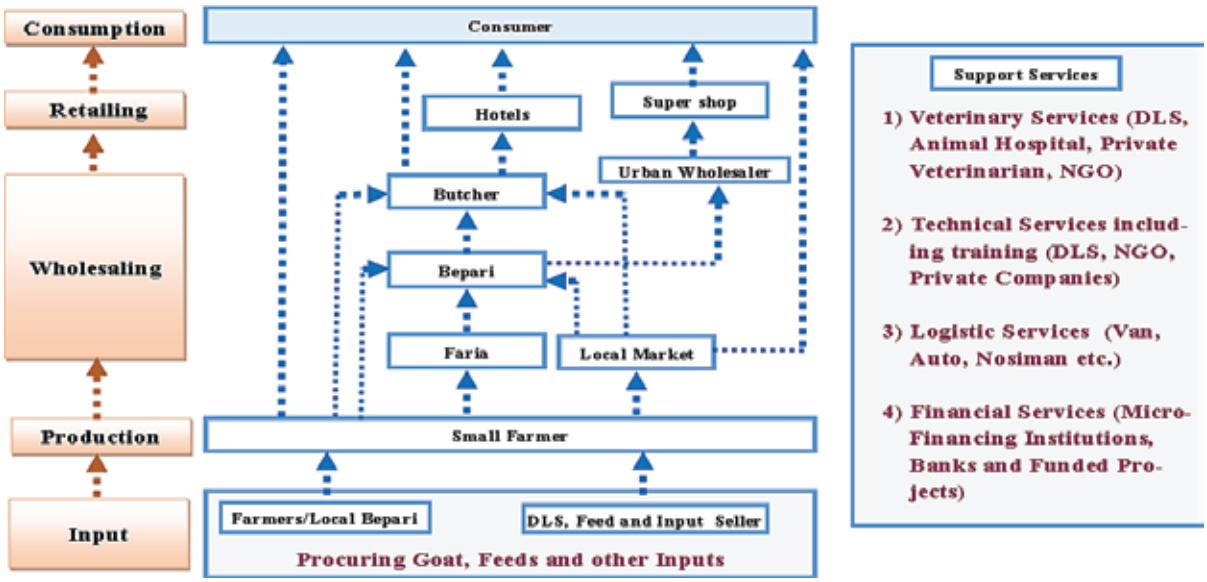
The price of beef cattle is generally determined by the retailers and wholesalers based on supply and demand. Price syndication by retailers and traders is a common phenomenon during festivals. Due to limited market access, the marginal farmers are often forced to sell their cattle at a low price in the local market or to the traders which in turn are sold at a higher price in the urban market. In other times, beef consumption remains relatively low compared to other consumer goods and no major regional supply gaps exist relative to demand.

However, the country is currently experiencing the growth of meat processing. But, the industry is not yet strong enough to challenge the traditional unorganized marketing setup. Within the unorganized market structure, the TGs suffer from reduced market accessibility due to high transportation costs. Other than that, due to high input costs, the TGs tend to adhere to the traditional low-cost production process. Hence, the meat production and profit margin remain low. Moreover, farmers sometimes administer human drugs for cattle fattening which comprises the nutritional value of meat. The hygiene and work environment in the slaughterhouse is also highly questionable. Regrettably, there are no monitoring authorities to control price variation, ensure quality feed and hygienic meat processing.

6.4 Goat Rearing Sub-sector

As a venture that requires relatively low working capital compared to other sub-sectors, like, dairy and cattle fattening, goat rearing is becoming increasingly popular among rural households. In 2018-19, the total goat population in Bangladesh stands 26.27 million goats (BBS, 2020). The recent establishment of a number of goat firms for commercial firming indicates the profitability potential of this sub-sector. This particular subsector has the potential to generate steady income for landless and small households. The flowchart below sequentially shows the different stages of the value chain of goat rearing:

Figure-19: **Goat Rearing Value Chain**



The core actors of the local goat rearing value chain and their role can be further summarized as below:

The table below estimates the procurement and rearing expenses incurred by small-scale farmers in detail and summarizes the profitability of the goat rearing sub-sector.

Table-31: **Profitability of Goat Rearing (4 Goat)**

Particulars	BDT
Fixed Costs:	
Shed	10,000/ -
Goat Purchase (@ BDT 8000/ - per goat)	32,000/ -
Feed & water Pot	2,000/ -
Total Fixed Cost	**44,000/ -**
Variable Costs:	
Shed Maintenance Cost	500/ -
Feed	20,000 /-
Medicine and Vaccine	2,000/ -
Urea Molasses Straw (UMS)	5,000/ -
Transportation Cost	1,000/ -
Others	1,000/ -
Own Labor	10,000/ -
Total Variable Cost	**39,500/ -**
Total Cost (Fixed Cost + Variable Cost)	**83,500/ -**
Annual Revenue:	

Goat Sale Revenue (12 goatling @ BDT 5,000/- each)	60,000/ -
Goat Milk Sale (360 liters in 180 days @ 20/- per liter)	7,200/ -
Total Annual Revenue	**67,200/ -**
Net Income (Total Annual Revenue – Total Variable Cost)	**27,700/ -**

Source: Field Survey

The following tables summarize cost, price and margin at different levels of the value chain. However, the price always fluctuates, so following prices and margins are indicative of average market prices in the target location throughout the year.

Table-32: **Price Margin at different Levels of Goat Rearing (1 indigenous goat) in BDT**

Items	Farmer	Faria/ Bepari	Local Wholesaler	Local Butcher House
Buying and Rearing Cost	13,000	16,000	17,500	18,500
Costs (Transportation/ Processing)	200	100	50	
Price	16,000	17,500	18,500	
Margin	2,800	1,400	9,50	

Source: Field Survey

Within this sub-sector, marginal and ultra-poor are significantly involved in all the segments of the value chain. However, the association of marginal and ultra-poor women is limited within household activities. That is feeding, monitoring and managing goat waste are the activities mostly performed by women. Fattened goat marketing and processing related activities are mostly performed by men. Marginal and ultra-poor men may also work in meat processing plants or slaughterhouses.

The marketing activities are predominately performed through the informal channel. Goat prices are largely decided by the middlemen based on supply and demand. Price syndication by the traders is a popular occurrence during festivals. Marginal and ultra-poor farmers' market access is limited to local marketplaces. They generally sell their goats at a low price in the local market or to traders, who then sell the outputs at a higher price in the urban market.

Besides, the input costs, such as feed, medicines, vaccines, and so on, are very high. The TGs, therefore, prefer to stick to the conventional low-cost production process. As a result, meat production remains poor which reduces profitability. In the slaughterhouse, a hygienic and clean working atmosphere is extremely rare. Unfortunately, there are no price and hygiene monitoring authorities in place to regulate price fluctuations, preserve quality feed, and ensure sanitary meat processing in slaughterhouses.

6.5 Poultry Sub-sector

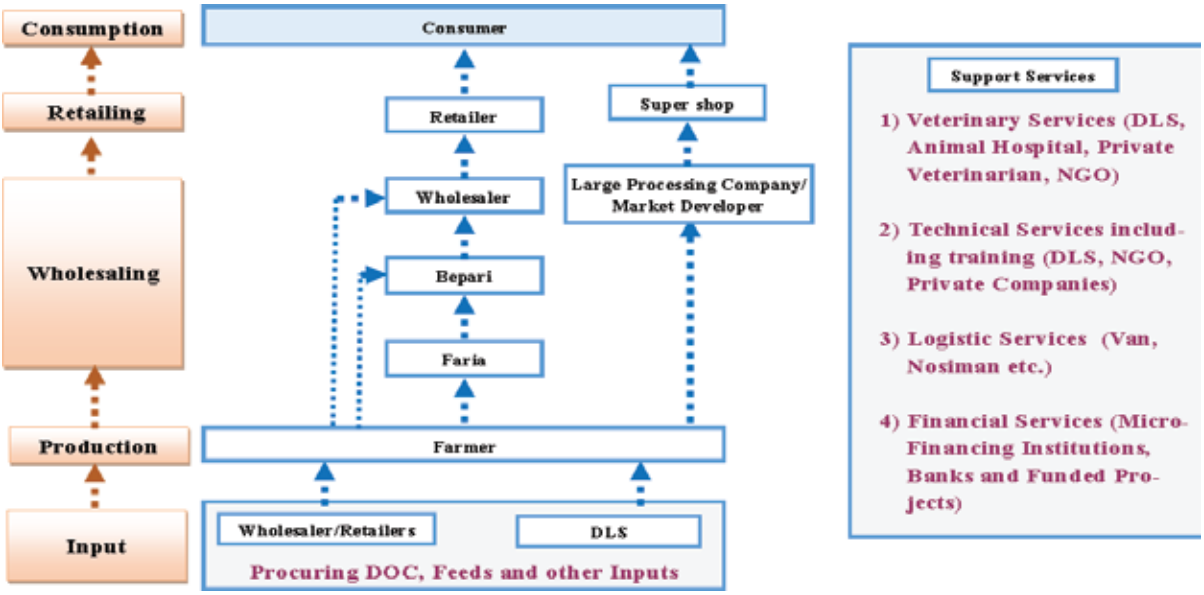
The poultry sub-sector of the country contributes the most in fulfilling national animal protein requirement. The advent of the poultry sector have increased meat production making animal protein affordable to all. Chicks and ducks are the dairy animals of the country. Presently, total poultry sub-sector of the country comprises of 289.28 million chicken and 57.75 million duck (BBS, 2020). However, poultry is also the major source of egg. In FY 2017-18, total egg demand was 1712.88 crore number whereas total egg production was 1552.00 crore numbers denoting a deficiency of 160.88 crore numbers (DLS, 2018).

In Bangladesh poultry are produced following semi-scavenging production process or commercial farming system. A number of households have adopted commercial farming system where they rear around hundred

chickens at a time. As this sub-sector requires small initial investment and can be produced in small scale also, hence it is considered one the most preferred IGA among the marginal and ultra-poor populace of the country.

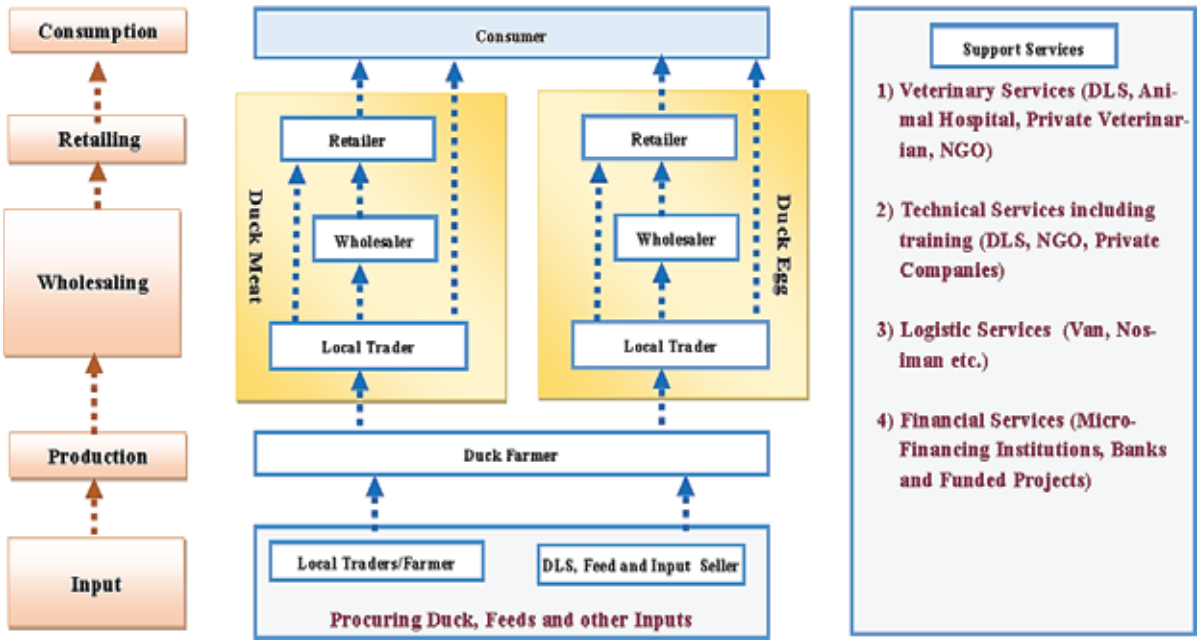
The value chain outlined below has been formulated through KII with market actors, Deputy Assistant Livestock Officer, Upazila Agriculture Officer, representative of local training institutes, NGO representatives, local and national market leaders and FGD with market actors and producers.

Figure-20: **Poultry (Chickens) Value Chain**



However, the value of the poultry (Duck) value chain can be furnished as below:

Figure-21: **Poultry (Duck) Value Chain**



However, the core actors of the poultry value chain and their role can be further summarized as below:

The table below estimates the procurement and rearing expenses incurred by small-scale poultry (broiler chicken) farmers in detail and summarizes the profitability of the sub-sector.

Table-33: **Profitability of 100 Poultry (Broiler Chicken)**

Particulars	BDT
Fixed Costs:	
Shed/House	20,000/ -
Water Pot and Others	5,000/ -
Fan and Electricity Line	3,000/ -
Total Fixed Cost	**28,000/-**
Variable Costs:	
Purchase DOC (@ BDT 30/- total 100 DOC)	3,000/ -
Shed Maintenance Cost	1,000/ -
Poultry Feed	10,000/ -
Medicine	2,000/ -
Transportation Cost	1,000/ -
Electricity Bill	1,5 00/ -
Others	1,000/ -
Own Labor	3,000/ -
Total Variable Cost	**22,5 00/-**
Total Cost (Fixed Cost + Variable Cost)	**48,5 00/-**
Annual Revenue:	
Chicken Sale Revenue (250 Kg. @ BDT 120/- per Kg.)	30,000/ -
Total Annual Revenue	**30,000/-**
Net Income (Total Annual Revenue – Total Variable Cost)	**7,5 00/-**

Source: Field Survey

Table-34: **Profitability of 5 Pairs of Poultry (Country Chicken)**

Particulars	BDT
Fixed Costs:	
Coop Construction	3,000/ -
Water Pot and Others	500/ -
Total Fixed Cost	**3,500/-**
Variable Costs:	
Chicken (@ BDT 300/ - each pair)	1,500/ -
Coop Maintenance Cost	500/ -
Feed	1,000/ -
Medicine and Vaccine	100/ -
Transportation Cost	50/ -
Others	100/ -
Total Variable Cost	**3,250/-**

Total Cost (Fixed Cost + Variable Cost)	**6,750/ -**
Annual Revenue:	
Chicken Sale Revenue (One Kg. each @ BDT 300/- per Kg.)	3,000/ -
Sales of Egg (400 eggs from 8 chicken sold @ BDT 8/- each)	3,200/ -
Total Annual Revenue	**6,200/ -**
Net Income (Total Annual Revenue – Total Variable Cost)	**2,950/ -**

Source: Field Survey

Table-35: **Profitability of 5 Pairs of Poultry (Duck)**

Particulars	BDT
Fixed Costs:	
Coop Construction	3,000/ -
Water Pot and Others	500/ -
Total Fixed Cost	**3,500/ -**
Variable Costs:	
Duck (@ BDT 300/- each pair)	1,500/ -
Coop Maintenance Cost	500/ -
Feed	1,000/ -
Medicine and Vaccine	100/ -
Transportation Cost	50/ -
Others	100/ -
Total Variable Cost	**3,250/ -**
Total Cost (Fixed Cost + Variable Cost)	**6,750/ -**
Annual Revenue:	
Duck Sale Revenue (@ BDT 250/- each)	2,050/ -
Sales of Egg (1600 eggs from 8 drakes sold at @ BDT 8/- each)	12,800/ -
Total Annual Revenue	**14,850/ -**
Net Income (Total Annual Revenue – Total Variable Cost)	**11,600/ -**

Source: Field Survey

The following tables summarize cost, price and margin of the value chain at different level. However, the prices always fluctuate, so following prices and margins are indicative of average market prices.

Table-36: **Price Margin at different Levels of Poultry (Broiler) Value Chain in BDT**

Items	Farmer	Wholesaler	Retailer	Processor & Consumer
Buying & Rearing Cost (100 Poultry)	21,5 00	30,000	32,500	35,00 0
Costs (Transportation/ Processing)	1,000	800	500	
Price	30,000	32,500	35,00 0	
Margin	7,5 00	1, 700	2,00 0	

Table-37: **Price Margin at different Levels of Country Chicken Value Chain at BDT**

Items	Farmer	Wholesaler	Retailer	Processor & Consumer
Buying Cost (each pair)	300	600	650	700
Feed and Medicine	150	-	-	
Costs (Transportation)	-	-	20	
Price	600	650	700	
Margin	150	50	30	

Table-38: **Price Margin at different Levels of Duck Farming Value Chain in BDT**

Items	Farmer		Wholesaler		Retailer		Consumer	
	Meat	Egg	Meat	Egg	Meat	Egg	Meat	Egg
Buying Cost (each pair)	350		650	180	700	190	750	200
Feed and Medicine	150	-	-	-	-	-		
Costs (Transportation)	-	-	-	3	20	5		
Price (per dozen egg)	650	180	700	190	750	200		
Margin	150	-	50	7	30	5		

In the poultry sub-sector, the participation of marginal and ultra-poor women is noticeable. This has created significant employment opportunities for the young populace of the country also. Within the value chain of this sub-sector women are largely associated with feeding, monitoring, and managing activities. Whereas the role of faria, bepari, wholesaler, and retailer are performed by marginal and ultra-poor men.

However, within the value chain, the marginal and ultra-poor farmers are reliant on wholesalers or retail and DLS for DOC but they often encounter problems with consistent availability of quality and disease-free chicks. The marginal and ultra-poor cannot always afford the high-cost input hence the dropout rate is also very high within the sub-sector. Due to a lack of awareness and training in biosecurity, the producers often suffer from losses from the abuse of antibiotics and other medications.

Lack of finance is another major challenge due to which the TGs cannot always afford highquality feed. Moreover, the low productivity of birds and low product demand in the local market are not remunerative either. Due to small scale production and limited access to the market, the TGs are forced to sell their products at a lower price rather than engaging in trade with large processing companies.

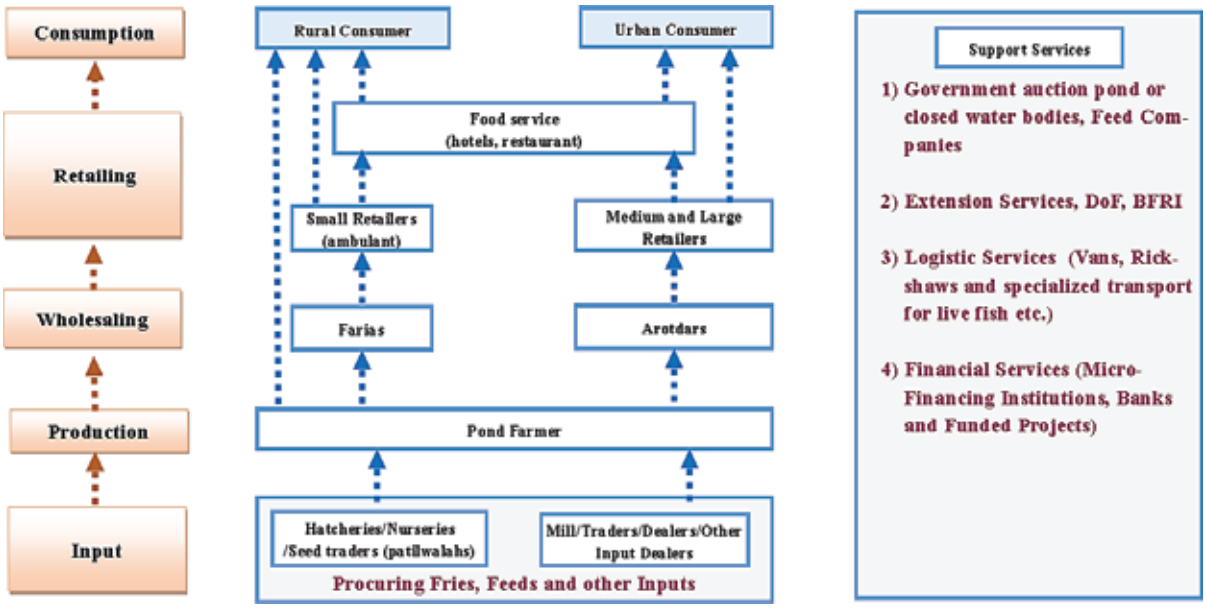
However, access to technical services provided by government organizations often remains inaccessible to the farmers due to distant locations. The technical and business support services extended by the private companies are often extended to the existing commercial poultry farmers rather than prospective marginal and ultra-poor farmers. Therefore, target groups' knowledge and practice on quality standards for feed, medicine, vaccination, and chicks are not sufficient for operating poultry commercial ventures.

6.6 Mixed Fish Sub-sector

Bangladesh is considered one of the most suitable regions for fisheries as it has one of the largest wetlands and aquatic in the world. The fishing industry of the country is divided into three categories: inland capture fisheries, inland aquaculture and marine fisheries. The fisheries sector is crucial to the national economy as it accounts for 3.61 percent of the country's GDP and 24.41 percent of agricultural GDP (MoF, 2018). Approximately 1.4 million women, depend on the fisheries sector for a living through fishing, farming, fish

handling, and processing (BFTI, 2016). Fishing has evolved into a viable livelihood option for the rural poor, especially the marginal and ultra-poor. This particular sub-sector has the ability to provide a stable source of income for landless and rural households. As identified during KII and FGD the value chain for mixed fish sub-sector can be presented as below.

Figure-22: **Mixed Fish Value Chain**



The core actors of the local mixed fish value chain and their role can be further summarized as below:

The table below estimates the costs incurred and revenue generated by small scale farmers in detail and summarizes the profitability of the sub-sector. Since the costs and the prices fluctuate throughout the year, the figures below are indicative of average of the expenses and the market prices.

Table-39: **Profitability of Mixed Fish Farming (per Bigha)**

Costs		BDT		Revenue	BDT
Lease Cost		20,000.00		Total sale volume	400 kg
Fingerlings, Feed and others	Rui (100 pcs)	7,000.00		Average sale price (per kg)	140/ -
	Katla (30 pcs)	2,500.00			
	Mirka (50 pcs)	5,000.00			
	Others (20 pcs)	2,500.00			
Harvest Cost		2,000.00			
Transport Cost		1,000.00			
Total Cost		**40,000.00**		**Total Annual Revenue**	**56,000/ -**
				Net Income	**16,000/ -**

Source: Field Survey

Hatcheries, nurseries, and patilwalahs provide pond farmers with fry and fingerlings. Farias and arotdars serve as intermediaries in the marketing process. Small and mobile retailers offer fish to rural and metropolitan customers. Men are reported as the primary players and decision-makers in all functions of the value chain by both men and women. Women are present in all roles, especially at the producing stage, but male

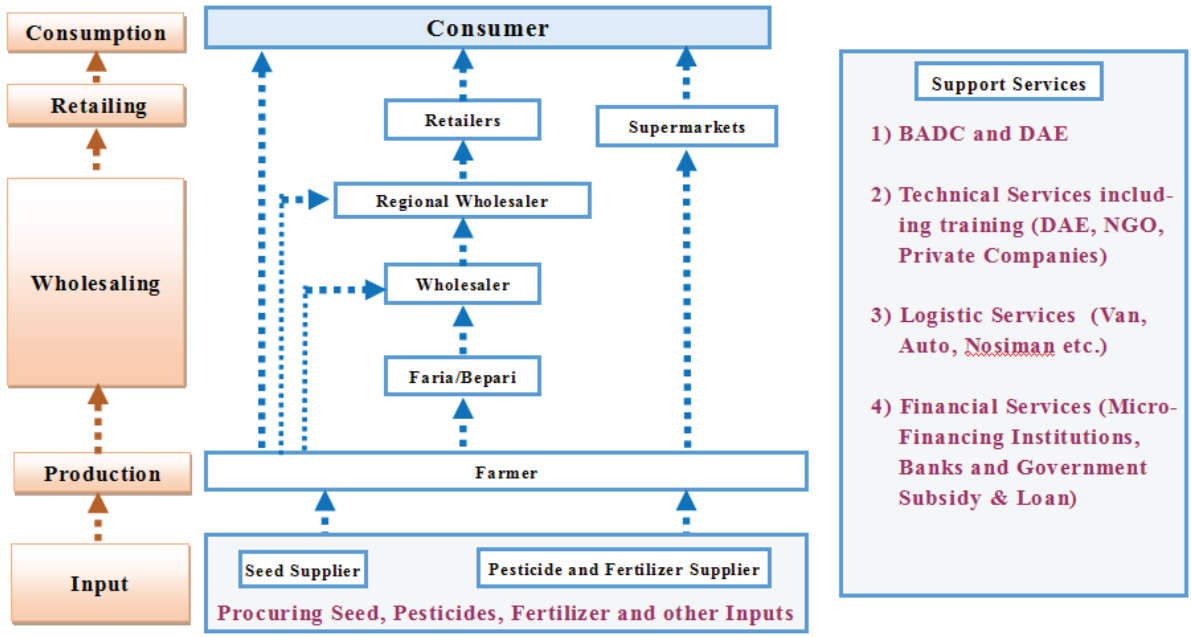
household members only consider them as supporting hands. Their culturally established position as housewife limits the amount of time they can spend in aquaculture, as well as their decision-making authority, and thus their capacity to fully engage in and profit from aquaculture.Women can also be seen in other roles along the supply chain as input suppliers, especially in the feed industry. Highvalue jobs, such as feed dealer, arotdars (agents), and hatchery owners, are only held by wealthy men of higher socioeconomic status and greater social relations. Patilwalahs are men from the lower social classes who are weaker.

6.7 Vegetables Sub-Sector

Vegetables as a sub-sector makes multiple contribution to the economy and food security of the country. Every year vegetables sub-sector makes significant contribution to the GDP and also earns foreign currency. It can be produced for commercial purposes or only to meet household food and nutrition demand. Vegetables of different verity can be grown throughout the year in the farm in large scale or in the homestead in a relatively smaller scale. Because of its labor intensive and low cost production process this sub-sector most suitable for marginal and ultra-poor people.

However, Potato is one of the important vegetables having commercial and nutritional value in the world. Bangladesh is one of the largest potato producing country in the world and the country produced 85 thousand M.Tons in 2018-19 (BBS, 2020). It plays an important role in national food security enhancement besides gaining income to the farmers of Bangladesh. It is a very important item in the food basket that have huge potential for further transformation. A significant proportion of rural households is involved in potato farming and potato is grown mainly in the northern districts. As identified during KII and FGD the traditional value chain of vegetables sub-sector presented as below:

Figure-23: **Vegetables Value Chain**



The key actors of the sub-sector can be further summarized as below:

Farmers/ Producers → **Faria/Bepari** → **Wholesalers** → **Regional Wholesalers** → **Retailers** → **Consumers**

The table below estimates the production costs in detail and summarizes the profitability of the sub-sector. Since the costs and the prices are indicative of average of the expenses and the market prices.

Table-40: **Profitability of Vegetables Cultivation per Bigha in Rabi Season (October to November)**

Particulars	BDT			
	Tomato	Pumpkin	Gourd	Red Spinach
Costs:				
Land Lease	7,000/ -	7,000/ -	7,000/ -	7,000/ -
Land Preparation and Cultivation	3,000/ -	2,000/ -	5,000/ -	3,000/ -
Building Trellis	-	-	9,000/ -	-
Seed	1,500/ -	500/ -	1,500/ -	1,000/ -
Fertilizer	2,500/ -	2,000/ -	6,000/ -	2,000/ -
Pesticides	1,500/ -	2,000/ -	2,000/ -	2,000/ -
Irrigation	2,000/ -	1,500/ -	1,500/ -	1,500/ -
Weeding	1,000/ -	1,500/ -	3,000/ -	1,500/ -
Harvesting	1,000/ -	1,000/ -	2,000/ -	1,000/ -
Others	500/ -	500/ -	1,000/ -	1,000/ -
Total Cost	20,000/ -	18,000/ -	38,000/ -	20,000/ -
Revenue:				
Sale Revenue (3000 Kg. Tomato @ BDT 15/- per Kg.) (1500 pcs. Pumpkin @ BDT 25/- each) (2000 pcs. Gourd @ BDT 35/- each)	45,000/ -	37,500/ -	70,000/ -	-
Selling Cress/Spinach and others	-	-	5,000/ -	37,000/ -
Total Revenue	**45,000/ -**	**37,500/ -**	**75,000/ -**	**37,000/ -**
Net Income (Total Revenue – Total Cost)	**25,000/ -**	**19,500/ -**	**37,000/ -**	**17,000/ -**

Table-41: **Profitability of Potato (Diamond) Cultivation per Bigha**

Particulars	BDT
Costs:	
Land Lease	7,000/ -
Land Preparation and Cultivation	1,000/ -
Seed	5,000/ -
Fertilizer	3,000/ -
Pesticides	2,000/ -
Irrigation	1,000/ -
Weeding	1,000/ -
Harvesting	2,000/ -
Others	800/ -
Total Cost	**22,800/ -**
Revenue:	

Potato Sale Revenue (60 Mon Potato @ BDT 800/- per Mon)	48,000/ -
Total Revenue	**48,000/ -**
Net Income (Total Revenue – Total Cost)	**25,200/ -**

The following tables summarize cost, price and margin of the value chain at different level. However, the prices always fluctuate, so following prices and margins are indicative of average market prices in the target location throughout the year.

Table-42: **Price Margin at different Levels of Vegetables Value Chain in BDT**

Vegetable (Tomato)					
Items	**Producer**	**Local Wholesalers**	**Regional Wholesalers**	**Retailers/ Supermarkets**	**Consumers**
Production / Buying Cost	-	15	21	34	50
Costs (Sorting/ Transportation)	-	2	3	4	
Price	15	21	34	50	
Margin	-	4	10	12	

Vegetable (Pumpkin)					
Items	**Producer**	**Local Wholesaler**	**Regional Wholesaler**	**Retailers/ Supermarkets**	**Consumers**
Production / Buying Cost	-	5.75	11.75	23.25	46.25
Costs (Sorting/ Transportation)	-	3.75	1.75	3.25	
Price	5.75	11.75	23.25	46.25	
Margin	-	2.25	9.75	19.75	

Vegetable (Gou rd)					
Items	**Producer**	**Local Wholesaler**	**Regional Wholesaler**	**Retailers/ Supermarkets**	**Consumers**
Production / Buying Cost	-	7.75	11.50	19	35
Costs (Sorting/ Transportation)	-	2.25	4.5	4	
Price	7.75	11.50	19	35	
Margin	-	1.50	3	12	
Vegetable (Red S pinach)					
Items	**Producer**	**Local Wholesaler**	**Regional Wholesaler**	**Retailers/ Supermarkets**	**Consumers**
Production / Buying Cost	-	14.50	28.50	43	75
Costs (Sorting/ Transportation)		4.30	2.50	4	
Price	14.50	28.50	43	75	
Margin	-	9.70	12	28	

Table-43: **Price Margin at different Level of Potato (Diamond) VC [Nov–Feb] in BDT**

Price Margin at different Levels of Traditional Value Chain					
Items	**Producer**	**Local Wholesaler**	**Regional Wholesaler**	**Retailers/ Supermarkets**	**Consumers**
Production / Buying Cost	-	20	24	28	34
Costs (Sorting/ Transportation)	-	3	2	2	
Price	20	24	28	34	
Margin	-	1	2	4	

****Price, cost and margin is calculated based on per kilogram*

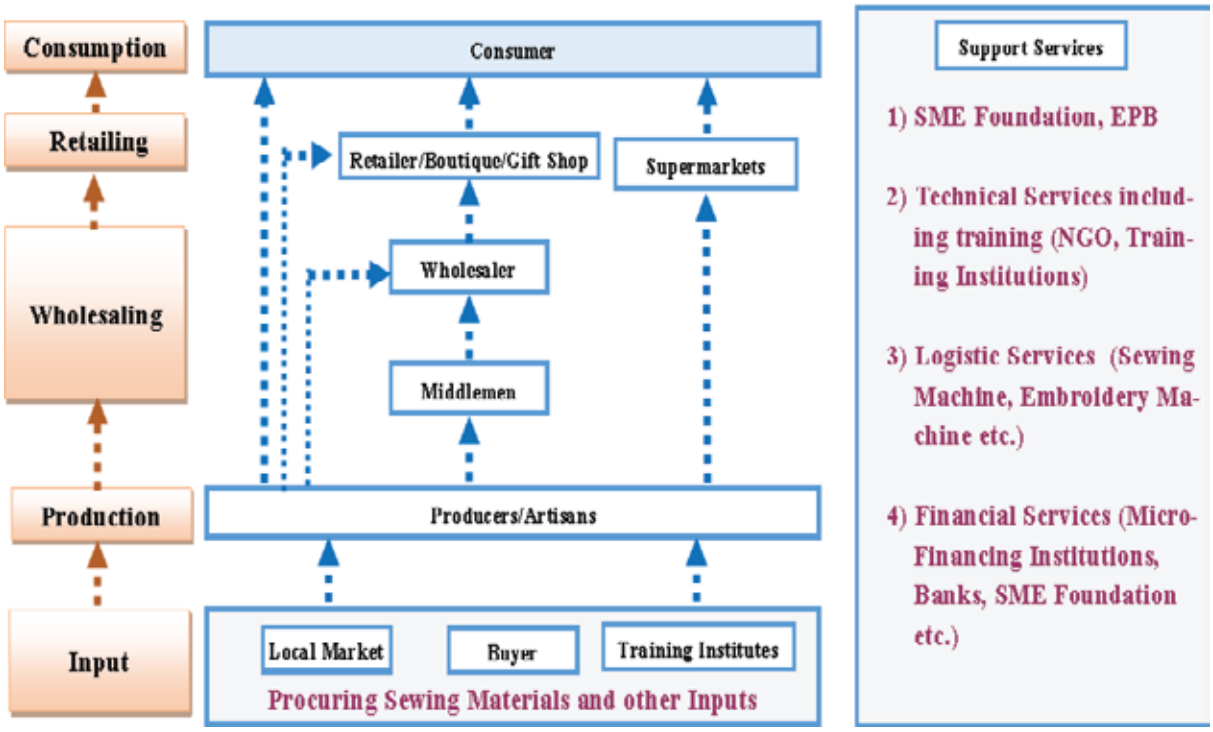
Vegetables are usually offered to nearby wholesalers otherwise called Faria or Bepari (local agents), who market the goods to the territorial or regional wholesalers, who sell it to retailers. The vegetables is then offered to the consumers in the market by the retailers. Semisubsistence cultivation is generally exercised by marginal and ultra-poor households. Homestead yield proficiency has improved over the long run, but producers are yet to reap the gains because the price premium has been largely consumed by wholesalers and retailers. Marginal and ultra-poor men and women's involvement is most noticeable in the farmer/producer segment of the value chain. Poor man and women also market the commodities in local market. Other than that, wholesaling and retailing segment of the value chain is mostly male controlled.

On the other hand, potato is traditionally sold to local wholesalers, who then market it to regional wholesalers, who then sell it to supermarkets. The potato is then distributed to the customer in the market by the retailer. Presently, processors also harvest potatoes from farmers via local suppliers or from contract farmers via hub representatives. Farmers earn a stable contracted price in the contract farming process, while the price of potato fluctuates often in the market. Semi-subsistence farming is commonly practiced by marginal and ultra-poor households. Farm yield efficiency has improved over time, but producers are yet to reap the benefits because the price premium has been largely consumed by wholesalers and retailers. As a result, the contract farming is gaining popularity. The role of marginal and ultra-poor men and women is most visible in the farmer/producer segment of the value chain. To lower manufacturing costs, the poor men and women use their own labor. The cold storage facilities employ a considerable number of marginal and ultra-poor men and women. Aside from that, the wholesale and retailing segments of the value chain are dominated by men.

6.8 Handicraft Sub-Sector

Handicraft is a rapidly growing sector. As a cottage based labor intensive industry, handicraft has proven to be much suitable for marginal and ultra-poor women. It has been generating employment opportunities for marginalized and poverty-stricken women since its inception. At the same time, this industry has been earning significant foreign exchange at an increasing rate. Domestic demand for handicraft products has also being growing in recent times. Major handicraft products produced in Bangladesh includes Nakshi Kantha, ShitalPati, Bamboo Craft, Jamdani, Clay & Metal Jewelry, Woodwork, Stonework, Knitting and Embroidery on Textile etc. Handicraft sector is the one of the few sectors which has encouraged women entrepreneurship and provided significant boost to the MSME expansion process in the country. As identified during KII and FGD the value chain of handicraft sub-sector can be presented as below:

Figure-24: **Handicraft Value Chain**



The following tables summarize cost, price and margin of the value chain at different levels. However, the prices always fluctuate, so following prices and margins are indicative of average market prices per kantha in the target location throughout the year.

Table-44: **Price Margin at different Levels of Handicraft Value Chain in BDT**

Price Margin at different Levels of Handicraft (Kantha) Value Chain					
Items	**Producer**	**Middlemen**	**Wholesalers**	**Retailers/ Supermarkets**	**Consumers**
Production Cost	-	1500	1800	2000	2500
Costs (Sorting/ Transportation)	-	100	50	50	
Price	1500	1800	2000	2500	
Margin	-	200	150	450	

Price Margin at different Levels of Handicraft (Nakshi Kantha)Value Chain					
Items	**Producer**	**Local Wholesaler**	**Regional Wholesaler**	**Retailers/ Supermarkets**	**Consumers**
Production Cost	-	5000	5500	6000	6500
Costs (Sorting/ Transportation)	-	100	50	50	
Price	5000	5500	6000	6500	
Margin	-	400	450	450	

Source: Field Survey

Marginal and ultra-poor are the life force of this sector. They work as the primary producer whereas young women entrepreneurs plays the role of retailer. Although, marginal and ultrapoor also work within the sector but the participation of women and the role played by them within the value chain is more significant. The artisans of this sector has significant bargaining power over other actors and play the role of price setter.

6.9 Vermi Compost Sub-sector

Even though, Bangladesh is considered to be an agricultural country, it not yet self-sufficient in producing fertilizer for its agriculture sector. In contrast, it is heavily dependent on the import of fertilizer. Extensive use of imported chemical fertilizer is both expensive and harmful for the environment. Being an agricultural country enriched in livestock, Bangladesh has the potential to produce enough organic fertilizer to satisfy domestic demand. Although, the production cost of Vermi Compost is very low but this product has high income generation potential. As an organic fertilizer Vermi Compost has significant market prospect. It is extensively used in flower, fruits, vegetables and crop fields. It possesses significant income generation prospect for marginal and ultra-poor people. As identified during KII and FGD the traditional value chain of vermin compost sub-sector can be presented as below:

The table below estimates the expenses incurred in detail and summarizes the profitability of the sub-sector. Since the costs and the prices fluctuate throughout the year, the figures below are indicative of average of the expenses and the market prices in the target location.

Table-45: **Profitability of Producing Vermi Compost (in Two Years)**

Particul ars	BDT
Fixed Costs:	
Room	15,000/ -
Big Earthen Bowls (8 Nos.), Gunny Bag, Shovel, Basket, Sieve, Gloves, and Red Earthworm	9,000/ -
Total Fixed Cost	24,000/ -
Variable Costs:	
Purchase of Cow Dung (10 Van)	1,750/ -
New Earthen Bowls (4 Nos.),	2,200/ -
Polythene Bag	1,500/ -
Total Variable Cost	5,450/ -
Depreciation Cost (20 percent of fixed cost each year)	9,600/-
Total Production Cost	15,050/-
Revenue:	
Sale s of Earthworm (11 Kg. @ BDT 2,000/- per Kg.)	22,000/ -
Fertilizer Sales (1,400 Kg. @ BDT 9/- per Kg.)	12,600/ -
Total Revenue	**34,600/ -**
Net Income (Total Annual Revenue – Total Variable Cost)	**19,550/ -**

The following tables summarize cost, price and margin of the value chain at different levels. However, the prices always fluctuate, so following prices and margins are indicative of average market prices.

Table-46: **Price Margin at different Levels of Vermi Compost in BDT (per kg)**

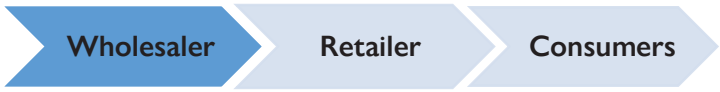
Items	Producer	Wholesaler	Retailer	Consumer
Buying Cost	-	9	11	13
Costs (Transportation/ Processing)	-	-	-	
Price	9	11	13	
Margin	-	2	2	

Source: Field Survey

Production cost of Vermi Compost is significantly low as it requires perishable food waste and animal extract. Vermi Compost is yet to reach its full market potential and so far is produced only for local consumer. Within the value chain of this sub-sector women are largely associated with the production process. Whereas the role of wholesaler and retailer are mostly performed by marginal and ultra-poor men. Vermi compost are required by local farmers who often procure them directly from producers.

6.10 Small Business (Grocery) Sub-sector

Small and micro-enterprises can have an extended impact on the economic growth prospects of a developing country. In many underdeveloped country, rural growth was triggered by intensive economic activity of micro-entrepreneurs. The broad scope of microenterprise incorporates small-scale manufacturing to informal trade units. Like all microenterprises, informal trade units, i.e., petty traders, can generate employment opportunities for one or more family members. As identified during KII and FGD the value chain of small business (grocery) sub-sector is:



The following tables summarize cost, price and margin of the value chain at different levels. However, the prices always fluctuate, so following prices and margins are indicative of average market prices.

Table-47: **Profitability of Small Business (Grocery) in BDT**

Items	Demand (Monthly)	Price/ Kg	Purchase Price	Transportation Cost	Sale Price	Profit
Rice (Najirshal coarse variety)	700 kg	40/-	28,000	500	30,1 00	1,6 00
Oil	100 kg	128/-	12,800	100	13,50 0	600
Flour	200 kg	42/-	8,400	100	9,000	500

Source: Field Survey

This sub-sector has significant potential for creating employment opportunities for marginal and ultra-poor men. Within the value chain of this sub-sector women are also largely associated with. The role of retailer can be performed by the female member or members of the marginal and ultra-poor household. Small grocery business can be operated within house premises, therefore women entrepreneurs would be able maintain to their household chores also.

6.11 Infrastructure and Support Services in APs

Infrastructure: The APs are reasonably well connected and have proper electric supply. During household survey the respondents of the APs confirmed that they have access to and control over road infrastructures.

The APs are also well connected to the city through paved and semi-paved roads. As transport rickshaw, van, auto van and auto rickshaw are available for input and output carrying from or to market place. However, it was found that in Haor -1 (Dhamapasha), Haor-2 (Taherpur), and Haor-3 (Sunamgong) road transportation facilities very unfavorable. Motorcycle is the most convenient but costly mode of transport. Other than that boats and trawlers are also used for transportation during rainy seasons. But, almost none of the respondents has access to storage Facilities and local processing units.

Supporting Functions: As major stakeholders, many government bodies, departments, and agencies function within the subsectors and provide assistance to farmers or producers. In addition, several NGOs and private sector engagement have been noted within the subsectors in different APs.

Sub-Sector	Government Services
Livestock & Fisheries (Dairy, Cattle Fattening, Goat Rearing, Poultry & Mixed Fish)	- DLS distributes free cattle, goats, DOC and improved varieties of grass seedlings. - DLS, veterinary hospitals and ULO offer AI, vaccination, free medicines and treatment. - Livestock officers extend treatment through field visit in exchange for fee. - DLS, DAE, DYD and ULO also extend micro-credit (at 5% service charge), advanced technology and organizes training and vaccination camps at regular interval. - GOs offer rehabilitation, input support & emergency services to reduce loss from disasters. - **HILIP** project of **LGED** provides training on dairy cow and goat rearing. - **NATP** (Phase-2) facilitates adaptation of improved technology by the farmers. - **FIAC** facilitates farmers' access to necessary information.
Farming (Rice, Maize, Vegetables and Potato)	Ministry of Agriculture (MOE) through different Department/Agency has been assisting and supporting the rice farmer in following ways: - To develop HYV & produce quality seed - Distribution of quality seed at low price - Irrigation infrastructure & input assistance - Importing fertilizer by BADC and BCCI - Providing subsidy on agriculture inputs - Incentives to flood-affected farmers - Disbursing agriculture loan - Establishing storage facility and AIC - Extending online services through call center and BRKB
Off-Farm (Handicraft, Vermi Compost & Small Bus.)	- SME Foundation, DYD, BB, CBs, and training institutions. - These organizations offer low cost loan and technical services to the producers/artisans. - Department of Agricultural Extension has been promoting Vermi Compost and providing filed level training on Vermi Compost production.
Sub-Sector	**Private Sector Engagement**
Dairy	- **BRAC** works on AI and offers free of cost cows to the poor in **Danajpur APC, Teknaf AP** and **Ukhiya AP**. - In Dinajpur APC, **ESDO, BASE, GUK & Pallishree** offer training & financial support. - Pallishree and **ESDO** operate in **Nilphamari APC** also. - **ESDO** extends training on cow rearing, financial supports and input in **Kishoreganj AP** - **Caritas Bangladesh** works on agriculture & livelihood in **Rajshahi APC**. - **DSK** provides training on cow rearing - **Lal Teer Livestock Limited (LTL)** also produces semen and provides AI service - National level companies, like, **Milk Vita, BRAC, ACI, Lal Teer, Pran Dairy** etc. produces cow feed, medicine and dairy products. - **Milk Vita** supports farmers, members of its cooperative society **BMPCUL**, with veterinary & AI services, quality fodder & feed, training and loan. - **Pran Dairy** distributes frozen semen and AI services to the selected Dairy Habs.

Sub-Sector	Government Services
	- **Pran Dairy** provides training on animal husbandry, treatment, medicine, vaccines, AI, animal feed etc. - **ACI** produces and distributes products, like, nutritional products, antibiotics, disinfectants, analgesic, and antihistamines. - **ACI** also delivers training under different projects of USAID, Sement, Swiss contact etc. where in some cases ACI even bore 30% of the expense.
Cattle Fattening	- In **Jamalpur** and **Islampur AP, Unnayan Sangha** provides free cows and training. - **Red Crescent** helps the poor in **Islampur** by providing funds for cows and medicine. - In **Teknaf** and **Ukhiya AP, Shushilan** NGO provides free cows to its beneficiaries. - **Caritas Bangladesh** had conducted free vaccination camp in **Dharmopasha** and **Nandail AP** to distribute deworming medicine for cows. - **Aman Feed Ltd., Kazi Feeds Ltd., Provita Feed Limited** etc. produce cow feed and medicines. - **Bengal Meat Processing Industries Ltd.** and **Northern Foods Ltd.**, produces improved varieties of grass including Napier as cow feed. - **Bengal Meat** provides training on cattle feeding and rearing to the farmers and collects fattened cattle for processing.
Goat Rearing	- **ACI feed** produces and distributes goat feed all around the country - **JAKAS Foundation** of Jaypurhat supports goat farmers of that region. - **CCDB** offers free of cost goats to the poor of **Muktagacha, Jamalpur** & **Islampur AP.** - **Unnayan Sangha** offers goats to the poor in **Jamalpur** and **Islampur AP**. - ESDO gives free of cost goat in Islampur and Jamalpur AP. - In **Teknaf** and **Ukhiya AP, Shushilan** and **SHED** also offer free of cost goat. - In **Teknaf** and **Ukhiya AP, Solidarities International, Shushilan,** and **SHED** provide animal husbandry training. - **CNRS** and **RIC** offer free of cost goat to the poor in their operation area. - **RIC** has vaccination program. - **BRAC** gives artificial insemination supports to its beneficiaries. - **PKSF, SME Foundation, BRAC, Grameen Bank, Proshika, Padakhep, ASA, Wave Foundation** etc. extend micro-credit to the small farmers - **Advance Animal Science Company, ACI AgroVet, Square AgroVet** etc. offer capacity building and technological intervention services. - Agro processing companies, **Bengal Meat** and **Pabna Meat**, extends partnership opportunities to the small farmers.
Poultry	- In **Sylhet AP, BRAC** often provides free of cost chicken to the poor. - **ACI Feed, Narish Poultry Feed, Quality Feed Ltd., Aftab Feed, CP Feed, Paragon Feed,** and **Kazi Feed** etc. are the leading poultry feed producers. - **ACI** and **Navana Pharmaceuticals Ltd.** are the main vaccine manufacturers companies. - **Paragon Agro Ltd.** extends partnership opportunities to the small farmers under **"Contract Farming System"**. - **Paragon Agro Ltd.** also provides DOC, poultry feed, medicine and relevant trainings to the small farmers. - **ACI Feed** also offers training on poultry feeding and vaccination techniques. - **Fresh & Green Frozen Food** processes country chicken and exports. - **Paragon Agro Ltd.** also procures and processes country chicken.
Mixed Fish	- **Fresh Feed, Quality Feed, Provita Feed, ACI Feed, Biofloc Feed** etc. are the prominent fish feed producer and distributor of the country. - **SME Foundation** and many NGO's, namely, **BRAC, Grameen Bank, ASA, TMSS** etc. work within the sub-sector for capacity building and technological intervention.

Sub-Sector	Government Services
	- National commercial banks, namely, **Sonali Bank, Krishi Bank, Janata Bank** etc. alongside different international organization **DFID, Danida, NORAD, JICA, World Bank, IMF, ADB** etc. provide grants and credits for aquaculture development.
Rice	- **ACI Ltd., Lal Teer Seed, and Syngenta** etc. produce and supply seeds - These companies also distribute other inputs including fertilizers and pesticides. - Number of superstores, namely, **Meena Bazar** (operated by Gemcon Group), **Agora** (operated by Rahimafrooz Superstores Ltd.) and **Swapno** (operated by ACI Logistics Limited) are also emerging as key market actor.
Maize	- **Asia Pacific, CP, ACI Ltd., Lal Teer Seed, Syngenta** etc. produce and supply seeds. - Micro-financing institutions, like, **BRAC, ASA, TMSS, Grameen Bank** and **RDRS** are operational within the sub-sector.
Vegetables	- **Lal Teer, Supreme Seeds, Syngenta, ACI Ltd.** etc. are involved in vegetable seed production and distribution. - **ACI Limited** and **Lal Teer** provide seeds and pesticides at a fair price to and organize training on vegetable cultivation. - **Unnayan Sangha,** operating in **Jamalpur** and **Islampur AP**, gives vegetable seeds to the poor and provide training on cultivation. - **Islamic Relief Bangladesh** also works in **Islampur AP** and provides free of cost vegetable seeds. - In **Teknaf** and **Ukhiya AP, Solidarities International** provides seeds for vegetable cultivation to the poor.
Potato	- **BRAC, Lal Teer, Supreme Seeds, ACI Ltd.** etc. are involved in potato seed production, distribution and research in small scale.
Handicraft	- Micro-financing institutions, like, **BRAC, ASA, TMSS, Grameen Bank** and **RDRS** offers credit facilities to the small scale producers. - A number of commercial brands, like, **Karuponno Rangpur, Dhaka Trade, Kumudini, Aarong, Nipun crafts, Creation** and **Pioneers** are emerging as key actors. - Associations, like, Bangladesh Handicraft Manufacturers and Exporters Association that also offer training.
Vermi Compost	- **Dhaka Ahsania Mission** produces training materials and provides training on Vermi Compost production. - In Rangpur APC, RDRS provides training on vermi compost production process. - **BOPMA** is working on promoting organic fertilizer.
Small Business (Grocery)	- Micro-financing institutions, like, **BRAC, ASA, TMSS** and **Grameen Bank** offer credit facilities to the small scale retailers.

The approval process for micro-credit and free cattle distribution involves the fulfillment of specific preconditions, like, training, submission of application, and shortlisting through scrutinization. Such provisions make it almost impossible for the marginal poor and less educated ultra-poor populace to access such service. Additionally, DLS is mostly concerned with treating sick animals while preventive care is being neglected. The services are often extended at the upzilla level and it's difficult for the distantly located farmer to access them on time. Services provided by the government often fall short of demand as the supply of vaccines and the manpower available for extending services are insufficient. Moreover, private sector engagement within the sub-sectors was not marginal and ultra-poor friendly.

6.12 Key Findings

Despite the fact that the dairy and cattle fattening sub-sectors require large initial investment and having adverse market dynamics, the marginal and the ultra-poor producers prefer these sub-sectors due to their

quick win potential. The stated constraints can be addressed with effective intervention, allowing these sub-sectors to be introduced as a sustainable livelihood option.

However, a few other sub-sectors, such as homestead vegetables, country chicken, duck rearing, goat rearing, small business, and sheep rearing, were more acceptable as sustainable livelihood. These sub-sectors can offer consistent revenue and can be run on a small scale with little initial investment. The ultra-poor people with no cultivable land can readily function in the small business, sheep breeding, and duck rearing sub-sectors.

Rice cultivation, poultry, maize cultivation, and mixed fish farming, on the other hand, have been identified as promising for the marginal poor mainly because these sub-sectors demand a major initial investment, and hence only medium to large-scale production will be financially feasible. However, landless marginal and ultra-poor people might operate within these subsectors on leased land.

Alongside handicraft, homestead vegetables, country chicken, duck rearing, goat rearing, small business, and sheep keeping are best suited for the marginal and the ultra-poor women because they rarely possess cultivable land. Furthermore, since such businesses can be run from their household premises with little investment, women will be able to fulfill their domestic obligations as well.

A relatively new technology, Vermi Compost has been suggested as a potential sub-sector in a few AP. Intervention in this sub-sector will serve two purposes: it will provide income for the poor while also creating low-cost organic fertilizer for local marginal and ultra-poor farmers.

Figure-25: Risks, Constraints and Recommendations

Risks within the Sub-Sectors

- ✓ Outbreak of disease
- ✓ Temperature variability
- ✓ Declining grazing land/ scavenging area
- ✓ Natural predators
- ✓ Thievery

- ✓ Floods, Droughts or other Natural disaster
- ✓ Increase in salinity
- ✓ Seasonal change in water level
- ✓ Volatile market price

Constraints and Recommendations

Constraints

- ✓ Scarce supply & high input price
- ✓ Insufficient Infrastructure
- ✓ Insufficient capital
- ✓ Lack of training
- ✓ Low price of product
- ✓ Insufficient veterinary services
- ✓ Lack of market access and information
- ✓ Traditional raring practice
- ✓ Unfavorable tenure system
- ✓ Semi-subsistence farming
- ✓ Lack of Technological knowledge
- ✓ Shortage of labor and high wage
- ✓ Unavailability of improved breeds of livestock
- ✓ Uncertain local market demand
- ✓ No linkage with private sector
- ✓ Lack of bio-security measures

Recommendations

- ✓ Formulation of producers group
- ✓ Capacity building of farmers
- ✓ Linkages with government programs
- ✓ Facilitating market information
- ✓ Networking with locally operational micro-financing institutions
- ✓ Linkages with private sector (input supplier and processing companies)
- ✓ Building capacity of rural veterinarians
- ✓ Establishment of local production center
- ✓ Organizing technical training
- ✓ Creating Storage Facilities

Chapter 7: **Proposed Intervention**

The target groups of the study area largely comprise working-age people with no major educational qualifications, ownership of cultivable land, job opportunities, and limited means to invest to improve their standard of living. Furthermore, with the advent of COVID-19, their incomes decreased dramatically leaving them particularly vulnerable and more than half of the TGs have experienced reduced income which has led to an extensive reduction in consumption and education expenditure. Consequently, children are suffering from various health problems. Hence, prior to implementing essential interventions to establish sustainable livelihoods, 'Consumption Assistance' should be extended. Alongside consumption assistance, other interventions should include the following:

Target Group Specific Recommendation:

- 12% of respondents were found to be landless people without their own house. Initially, the necessary initiative is needed to provide them with a housing facility. Necessary initiatives can be adopted to ensure their inclusion in the government's cluster village and housing project.
- Although most of the marginal and ultra-poor respondents were of working age, between the ages of 25 and 55, but they lacked proper education and business literacy to improve their livelihood. Hence, introducing adult literacy and business literacy program for the target groups would be effective.
- Since majority of respondents did not own cultivable land, livestock rearing on a small scale, such as country chicken, duck, goat, and sheep rearing, together with non-farm activities, such as small business, handicraft, and varmi compost, will be most effective in improving the livelihood of both the marginal and ultra-poor.
- As one-third of all respondents did not have access to institutional loans, marginal and ultra-poor households can be encouraged to improve their livelihoods in the dairy, cattle fattening, and poultry (broiler) subsectors if access to financial services is adequately assured through collaboration with micro-financing institutions.
- The involvement of the marginal poor was already quite prominent in crop and vegetables production sub-sectors. To facilitate their involvement further commercial farming must be promoted through IGA related training as around 74.9 percent of respondents had not received any training.
- Fish farming, rice, maize, and potato cultivation has been proposed for the marginal poor in a selective number of APs that is ultra-poor individual's association within these sub-sectors are not recommended as they lack access to necessary capital assets to succeed within these sub-sectors.
- Based on the findings of the sub-sector assessment, intervention should focus on promoting ultra-poor individuals' involvement within homestead vegetables, small business, duck, goat, and country chicken rearing sub-sectors as prospective livelihood options.

Recommendation on Inclusion of Women:

- Livelihood options that requires minimum cultivable land for production, like, Cow rearing, Goat rearing, Poultry (including duck and country chicken), Handicraft, Vermi Compost, Small Business etc. shall be promoted to marginal and ultra-poor women's as only 0.4 percent of the total households surveyed had female household heads who possessed more than 5 decimals of land property.

- To facilitate the marginal and the ultra-poor women's involvement in handicraft subsectors, necessary training must be extended and women's access to sewing materials and machines must be ensured as almost half of the women respondents did not have any sewing machine.
- Marginal and ultra-poor women shall be encouraged to participate in vegetables and organic fertilizer production so that they can cultivate vegetables in their backyard with minimum investment.

General Recommendation:

- Collaborating with DLS, DYD, private organizations and locally operational NGOs to provide capacity building and entrepreneurial mindset development training.
- Promoting and facilitating the small farmers inclusion into different cooperative society or producer group formulated by market leaders to access necessary services from the private sector
- Facilitating contact farming agreement with market leaders to improve producers/farmers access to quality inputs, improved technical services, stable price etc.
- Facilitating formation of producer group for increased market access to leverage private sectors interest as prospective source of input and if needed encourage selfmarketing of the products by target groups.
- Creating network between respondents and government's NATP (Phase-2) project, youth development department and NGOs that provide capacity building services.
- Collaborating with locally operational micro-financing institutions and developing marginal and ultra-poor inclusive financing schemes Other than that, if private sector's engagement can be ensured with proper intervention target groups access to different infrastructure facilities can be improved significantly. The overall intervention strategy shall focus on capacity building, promoting private sector engagement and facilitating target groups' access to business, financial and technical services.

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