

Changes in Livelihood of Ultra-poor through NGO Interventions

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Declaration

I declare that the thesis entitled “Changes in Livelihood of Ultra-poor through NGO Interventions” submitted (further revised) to the University of Dhaka, Dhaka, Bangladesh as a fulfillment of the requirements for the degree of Masters of Philosophy in Public Administration is an original work of mine. No part of it in any form has been submitted to any other university or institute for any degree or diploma.

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Declaration

This is to certify that Munirul Islam has prepared (further revised) this thesis on “Changes in Livelihood of Ultra-poor through NGO Interventions” under my direct supervision. This is his original work. This thesis or any of its part has nowhere been submitted for any degree or publication.

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Abstract

Understandably livelihood means the capacity of the people to afford productive and non-productive assets, human and management skills required for subsistence in a household as well as community sustainably. In Bangladesh the most livelihoods insecure persons/households include the ultra-poor, the landless, and the vulnerable people who can hardly cope-up with shocks and disasters. The ultra-poor in general have very limited access, availability to social, financial, human, natural and physical capitals for livelihoods. Moreover, they have very limited access to extension service providers, start-up capital and social safety nets.

The purpose of this study was to observe the changes in the livelihoods of the ultra-poor through NGO interventions in Bangladesh. There had been a number of NGO projects that worked towards improving livelihoods of the ultra-poor implemented by international/national NGOs along with local partners. This study was conducted in two European Union funded projects implemented by the CARE International and Padakhep Manabik Unnayan Kendra at Khaliajuri upazila in Netrokona district.

This study was intended to examine two selected projects namely VGDUP and FSUP implemented at Khaliajuri upazila of Netrokona district to identify the impact on food security and livelihood in the Haor¹ areas of Bangladesh. Further this study also indicates the socio-economic challenges and geographical vulnerability of the people living in haor area. Finally, this study advocates some recommendation based on the five livelihood capital i.e. social, financial, human, natural and physical capital.

Both quantitative and qualitative information were collected and used in this research. Primary data were collected from the direct beneficiaries of FSUP and VGDUP project. Household survey was conducted at 360 randomly selected respondents for quantitative analysis and six Focus Group Discussions (FGDs), ten in-depths interview and six case studies were conducted for qualitative analysis.

The overall objective of the study was to identify the changes in livelihood of ultra-poor through NGO interventions. However, the specific objectives of the study were (a) to understand the socio-economic and geographical vulnerability of the people living in *haor* areas of Bangladesh; (b) to identify the interventions of different NGOs and development partners implemented projects on the livelihood and food security; (c) to make some policy recommendations to improve service delivery system which will lead to improvements in livelihoods and food security of the ultra-poor in future.

¹ Haor is a wetland ecosystem in the north eastern part of Bangladesh.

Findings from this study show that these two projects have positive effects on changing the livelihoods of the intended beneficiaries i.e. income, food security, awareness on health, education, WASH in the study area.

Based on the findings the study recommendations include the very design of CBOs in livelihoods projects needs to be revisited to make them long lasting and sustainable in the long run. The productive asset transfer package should be livelihoods option specific considering the trade or business the household chooses or have the capacity to undertake. For livelihoods projects linkages with government extension service providers and private sector has to be institutionalized from the very outset of the project. Beneficiaries should be facilitated to determine livelihood options considering the climate change challenges. The researchers and policy makers should give serious thoughts as well on devising climate smart livelihoods option for the ultra-poor people living in the haor areas.

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ACRONYMS

ADB	Annual Development Budget
ADP	Annual Development Plan
BBS	Bangladesh Bureau of Statistics
BCCRF	Bangladesh Climate Change Resilience Fund
BCCSAP	Bangladesh Climate Change Strategy and Action Plan
BCCTF	Bangladesh Climate Change Trust Fund
BRDB	Bangladesh Rural Development Board
CAP	Community Action Plan
CBN	Cost of Basic Needs
CBO	Community Based Organization
CDMP	Comprehensive Disaster Management Programme
CFPR	Challenging the Frontiers of Poverty Reduction
CLP	Char Livelihood Programme
CRA	Community Risk Assessment
CRC	Community Resource Centre
CSO	Civil Society Organization
CVDP	Comprehensive Village Development Programme
DAE	Department of Agricultural Extension
DDM	Department of Disaster Management
DDMC	District Disaster Management Committee
DfID	Department for International Development
DMC	Disaster Management Committee
DPHE	Directorate of Public Health and Engineering
DRR	Disaster Risk Reduction
DSI	Direct Calorie Intake
DWA	Department of Women Affairs
EEP	Economic Empowerment of the Poorest
EGPP	Employment Generation Programme for the Poor
EU	European Union
FAO	Food and Agriculture Organization under United Nations
FFA	Food for Asset Creation
FFE	Food for Education
FFW	Food for Work
FGD	Focus Group Discussion
FoSHoL	Food Security for Sustainable Households Livelihoods
FPMU	Food Planning and Monitoring Unit
FPWG	Food Policy Working Groups
FSUP	Food Security for Ultra Poor
FSVGD	Food Security VGD

FY	Fiscal Year
GIS	Geographic Information System
GO	Government Officials
GOB	Government of Bangladesh
HH	Households
HTW	Hand Tube Well
ICCO	Interchurch Organization for Development Cooperation
IFADEP	Integrated Food-Assisted Development Project
IFPRI	International Food Policy Research Institute
IGA	Income Generating Activities
IGA	Income Generating Activities
IGVGD	Income Generating VGD
IMR	Infant Mortality Rate
INGO	International Nongovernmental Organization
KAP	Knowledge Attitude Practice
KII	Key Informant Interview
LDC's	least developed countries
LGD	Local Government Department
LGED	Local Government Engineering Department
LGI	Local Government Institution
LGRD&C	Local Government Rural Development and Cooperatives
LGRDC	Local Government, Rural Development and Cooperatives
LRRD	Relief-Rehabilitation and Development
M&E	Monitoring and Evaluation
M4C	Making Markets Works for the Jamuna Padma and Teesta Chars
MCSA	Monthly Cash Subsistance Allowance
MDG	Millennium Development Goal
MoDM&R	Ministry of Disaster Management and Relief
MoLGRD&C	Ministry of Local Government Rural Development & Cooperative
MOU	Memorandum of Understanding
MSA	Monthly Subsistance Allowance
NCM	National Consultative Meeting
NFPCSP	National Food Policy Capacity Strengthening Programme
NGO	Nongovernmental Organization
NNS	National Nutrition Survey
PIO	Upazila Project Implementation Officer
PMUK	Padakhep Manabik Unnayan Kendra
PWD	Person with Disability
RDA	Rural Development Academy
RDCD	Rural Development and Cooperative Division
RDRS	Rangpur Dinajpur Rural Service
REOPA	Rural Employment Opportunities for Public Assets
RIC	Resource Integration Centre

RMP	Rural Maintenance Programme
RRAP	Risk Reduction Action Plan
SAAO	Sub-Assistant Agricultural Officers
SDG	Sustainable Development Goal
SFDRR	Sendai Framework for Disaster Risk Reduction
SHG	Self Help Group
SHIREE	Stimulating Household Improvements Resulting in Economic Empowerment
SSN	Social Safety Net
SSNP	Social safety net programs
TOT	Training Of Trainers
TUP	Targeting the Ultra-poor Programme
UDMC	Union Disaster Management Committee
UJMS	Uttarayan Jana Kallyan Mohila Samity
UNO	Upazila Nirbahi Officer
UP	Union Parishad
VDC	Village Development Committee
VGD	Vulnerable Group Development
VGDU	Vulnerable Group Development for Ultra Poor
VG	Vulnerable Group Feeding
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme

CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1: Background

Bangladesh is commonly known as one of the poverty rich countries of the world with more than 160 million people of whom almost 24.8 percent live below the poverty line (BBS and Planning Commission, 2015). Needless to say, there are other issues that concern the citizens of this country including governance, transparency and accountability, protecting human rights and so on. Keeping all these in picture, Bangladesh got some visible success in enrolling kids in primary school, availability of pure drinking water and sanitation are a few of them. However, due to ever increasing population coupled with regular natural calamities which the poorest section of the citizen find it hard to cope with and ultimately become food insecure. The natural calamities and other man made calamities force the poorest section of the population to accept a circumscribed livelihoods option than the one they had been used to for generations. The situation is ever more a reality for the people living in the coastal, char and *haor* areas of the country. This forceful change in livelihoods often result in a reduced income, lack of availability of food, no access to health and education for the family members etc.

Bangladesh is characterized by over 4450 KM of low laying *haor* landmass (Sirajul et.al 2012). Geographically these wetland are shallow land covered by water over six months in a year. Alongside with geographical vulnerability and recent variability of climate change, people faces significant challenges to sustain their livelihood. In *haor* areas Non-Government Organizations (NGOs) have been virtually grown over the last two decades to improve livelihood, food security, and income. Historically, after the 1971 war of liberation NGOs started to play supplementary role along with Government. During 1971-72 different NGOs put emphasis on relief and rehabilitation work. Further between 1973-75 multiphase developments efforts of NGO's aimed towards community development. Later half decade was considered as sustainable development approach where the NGO's extended the breath of their programs through under taking large-scale program, supplementing the national development system and involving various organization and institutions. Currently, NGOs are working on advocacy to mainstream development. Since the independence, in *haor* areas through the concerted efforts different NGOs i.e. BRAC, Grameen Bank, ASA, Proshikha,

Padakhep Manobik Unnayan Kendra Concern Worldwide, Islamic Relief Bangladesh, CARE Bangladesh have been tried to enhance food security and scale up livelihood through support of productive asset, skill transfer, alternative income generation, health care, water and sanitation, awareness raising, networking and linkage with different extension service providers.

There have been so many efforts in Bangladesh to address this issue primarily from the government of Bangladesh. Government considers Social Safety Net as one of the most important tools in reducing poverty and to achieve the Sustainable Development Goal (SGD) 1 and 2. Social safety net in a society refers to measures taken in order to prevent the vulnerable section of its population to fall beyond a certain level of poverty. The social safety nets programs play primarily two roles (i) a redistributive and (ii) a productive, supporting moral philosophy as well as managing risks. These two are the major pillars that justify the existence of safety net programs where these are being implemented. It should be mentioned at the outset that the safety net programs were created as a path towards poverty reduction in the long run. They do not reduce poverty directly rather these programs tend to reduce transitional poverty through ensuring proper nutritional intake, education, health care etc. In other words, the safety net programs are methods through which poverty is expected to fall through investment in human capital. With about 24.8 percent of its population living below the poverty line and an increasing number of populations being added below the lower poverty line, safety net programs in Bangladesh are more than a necessary element in fighting poverty and changing the livelihoods of the ultra-poor (Planning commission,2015). Besides government initiatives, the development partners and International Non-Governmental Organizations (INGOs) also came up in supplementing governmental initiatives in this sector.

The Donor funded projects/ programs with more innovation and flexibility have been initiated to deliver tailor made solutions to the problem. They supported the ultra-poor people through livelihoods related projects/programs these include (i) European Union, (ii) USAID, (iii) DfID, (iv) FAO and (v) WFP. On some occasions donor funded projects are jointly implemented with government. In some other cases the donors implement project directly through local or international NGO partners.

Needless to say both the government and NGOs have been following a combination of direct and indirect livelihood, food security and safety net programs for poverty eradication addressing both human and income poverty.

The livelihood programs in Bangladesh are being implemented following three modalities, such as (i) Government implemented livelihood program (ii) Government and NGO jointly implemented and (iii) NGO implemented with donor funding. In the proposed study the researcher was focused on the NGO implemented livelihood programs in Bangladesh to identify the changes in livelihood of ultra-poor through NGO interventions.

Finally, in the proposed study the researcher focused on different NGO implemented programs to assess the changes on livelihood of the ultra- poor in terms of social and economic aspect. In addition based on the interventions that were implemented by different NGOs, this study also attempted to recommend future policy strategy to improve the livelihood and food security of the ultra- poor people living in *haor* areas of Bangladesh.

1.2: The Research Problem

The socio-economic condition of ultra-poor people living in the *haor* areas in Bangladesh is worse compared to the same group of people of other vulnerable areas. They have limited access to the financial and social resources. Their scope of employment is also limited to selling labour in agriculture, fisheries and domestic sector. However the scope of employment in the *haor* areas are limited due primarily to the very geographic condition which results limited social mobility, poor physical infrastructure and high vulnerability to shock and stress of natural disasters.

The ultra-poor people of this area in other words are the resource poor, food insecure marginal and landless and very vulnerable to shock and stress of disasters. Furthermore, they have very limited scope to own productive and non-productive assets due to lack of education, skill and financial resources. The level of awareness among the ultra-poor on health hygiene, safe drinking water, rights and entitlements are also very poor due to lack of knowledge. The ultra-poor in the remote areas like *haor* areas in Bangladesh never had scope to learn basic life-skills. They are not aware of their entitlement for extension services, health services and social safety nets programs. As a result, they are living below the poverty line. They could not afford 2,122 kcal a day (World Bank 2015). Even sometimes they could not avail 1805 kcal a day. Moreover, they never had access to sanitary latrine and safe drinking water. They often suffered from water borne diseases. They were used to getting health services mainly

from the Quack paying a large portion of their income. They did not know how to access health services from the government health service centre. They are not respected by the people of the community. The scope of their participation in decision making at community level is also limited. So, the ultra-poor people living in the *haor* areas have no access to fishing in the waterbodies (Jalmahal), *khas* land and other public resources. The livelihoods of the ultra-poor households are getting in worse situation after facing any disaster. Because they have less capacity to cope up with any disaster.

To improve the livelihoods of the ultra-poor the Government of Bangladesh (GOB) has offered social safety nets programs i.e. Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF), and fishermen focused Alternative Income Generating Activities (AIGAs) during the restricted period of fishing, Test Relief (TR), Food for Work (FFW), Institutional Feeding, Rural Infrastructure Maintenance, Risk Reduction and Road Maintenance Program (RMP) and distribution of subsidy for the vulnerable people like elderly people, freedom fighter, Widow etc.

Together with government, The NGOs have been playing a supplementary role to improve the livelihoods of ultra-poor. The local and International NGOs have been supporting the ultra-poor in Bangladesh through increasing the capacity of the ultra-poor. The NGO interventions include the distribution of relief, providing non formal education, health, social awareness, human rights, food security etc. However, since the last decade the NGOs offered the food security and livelihood programs for the ultra-poor to improve their situation. In most of the cases the NGOs were targeting ultra- poor, land less and marginal people, destitute and women headed households who have not any earning male members. These interventions included the distribution of productive asset, providing monthly cash subsistence allowance, awareness raising on health hygiene, environment, empowerment and skill development training etc.

After the NGO interventions for a long period of time it was expected that the NGO interventions would be sustainable for the ultra-poor in order to improve the socio-economic condition. Hence, it is important to think why the ultra-poor had not been able to changes their livelihoods sustainably. The government, NGOs and the development partners need to think about the program strategy, modalities of NGO interventions weather any modification or changes of the NGO interventions will be required for effectiveness and efficiency of the NGO interventions. It is also important to improve the service delivery system of the

NGOs considering the needs and priorities of the ultra-poor to bring any substantial changes in the livelihoods of the ultra-poor living in the *haor* areas. The government, development partners and the NGOs have been targeting the ultra-poor people for a long period of time. The target beneficiaries were not able to bring expected qualitative change in their livelihoods. Therefore, now it is important for the government as well as development partners to revisit their program strategy, implementation strategy to make significant change at policy and strategy level for designing future business strategy.

This study was an attempt to analyse the socio-economic vulnerability of the ultra-poor and review the changes brought to the life of the people in the study area as a result of NGO interventions and make some policy recommendations for making long lasting effect of the livelihood programmes in the near future.

1.3: Rationale of the Study

The *haor* basin is one of the poorest regions of Bangladesh. A number of studies have identified it as one of the 'hot spots' of poverty in Bangladesh (BARC,2007, Ministry of Water Resources, 2014, CARE,2010 and BBS, 2004). People living in *haor* basin are vulnerable to flash flood and annual flooding which causes loss of crops and livestock animals frequently. The living conditions and life opportunities of the people of this region are less equal as to those living in the mainland. Due to the unique geographical locations, people in *haor* areas are more vulnerable to severe food insecurity as well. According to the Food Security Atlas – 2004, World Food Program (WFP) observed extremely food insecure in the poorest *Haor* areas like Netrokona, Kishoreganj and Sunamganj. In 2010 it was estimated about 19 percent of the people in the areas experienced severe food insecurity (Kazal, M. M. H., et al. 2010), whereas IPC Chronic Food Insecurity Analysis in 2016 suggests that the people of Sunamganj, Netrakona and Habiganj have been experiencing chronic food insecurity (IPC Level 4). Food insecurity has in fact been reduced in *haor* basin compared to the situation prevailed in 2004. However, it is far from being over. Some studies (Care Bangladesh, 2010,BRAC 2007, Ministry of Water Resources, 2014) argued that the extreme poor people in *hoar* basin cannot easily connect with the mainstream economy because they lack assets (physical, financial and human) or because they lack voice and/or social capital. They are hardly able to afford productive and non- productive assets due to lack of capacity, human and management skills are required for subsistence at household as well as community sustainably. In Bangladesh the most livelihoods insecure persons/ households include the ultra-poor, the marginal and landless, and the vulnerable people who can hardly cope-up with shocks and disasters. As a result, their socio-economic vulnerability has been increasing day by day after any shocks and stress. The ultra-poor in general have very limited access, availability to social, financial, human, natural and physical capitals for livelihoods which is popularly known as five capital.

To keep this in mind different NGOs had undertaken initiatives to change the livelihood of ultra-poor through a range of activities. These programs tended to improve food security and scale up livelihood through support of productive asset, skill transfer, alternative income generation, health, wash, awareness raising, networking and linkage with different extension service providers. Even though many NGOs and the government agencies are still implementing different programs for ultra-poor people in *haor* basin but unfortunately the success, good

practices and lesson learnt of these projects were yet to disseminated among the practitioners, policymakers and researchers systematically.

Again, it needs to be mentioned that there are wide variations in the type of activities under livelihood and food security programs of different NGOs. The depth and intensity of programs varies among the NGOs and also among the intervention areas. Therefore, a study on the impact of such programme had to be studied for making common judgement and also generating knowledge of livelihoods changes through NGO interventions in Bangladesh. Besides, effectiveness of such programmes had to be studied as changes in livelihoods of late had become a concern for both the development partners and the Government of Bangladesh.

In this connection, it is essential to identify the changes in livelihood and food security of the ultra-poor. Hence, this study attempted to assess the impact of the project interventions made by two projects on the livelihood of the ultra- poor, in both the social and economic terms. Towards this end, baseline status of the intended beneficiaries of both the projects had to be reviewed for a better understanding of the issues. This allowed the researcher to understand the premise of the NGO interventions in changing the livelihoods of the ultra-poor people in the study areas.

Finally, the study would enable the intended readership a through idea of livelihoods and the effect of changes in livelihoods and future actions needed to be undertaken to have a long lasting impact of the life of the ultra-poor people in Bangladesh in general and the people in the study area in particular.

Last but not the least, the study findings will be used for dissemination, networking and advocacy on local and national level which will help to develop the existing strategies to recommend the future strategies.

1.4: Objectives of the study

The overall objective of the study was to identify the changes in livelihood of ultra-poor through NGO interventions. However, the specific objectives of the study were:

- To understand the socio-economic and geographical vulnerability of the people living in *haor* areas of Bangladesh;

- To understand the intervention modalities of different NGOs and development partners implemented projects on the livelihood and food security for changing livelihoods of the ultra-poor and ;
- To make some policy recommendations to improve service delivery system which will lead to improvements in livelihoods and food security of the ultra-poor in future.

1.5: Research Questions

This study was intended to answering the following questions:

- Whether the present interventions on improvements of livelihoods are adequately address the needs of the targeted ultra-poor people in *haor* areas?
- Whether there are gaps in the programs that hinders improvements on livelihoods of the rural ultra-poor?
- Whether the NGOs have understanding and capacity to render support for livelihoods improvements of the rural ultra-poor?

1.6: Methodology

The study is basically a mixed method design where both quantitative and qualitative data were used describe the situation. By design the study is descriptive in nature where an attempt was made to compare two sets of data collected at two different points in time. The study aimed at investigating the impacts of NGOs intervention on livelihoods changes in a specialized area of Bangladesh. The projects under study were similar in nature in terms of types of beneficiaries, project benefits, project locations and supported by the same development partner but implemented by two different NGOs with very different mode of operations. Thus a mixed method design was found to be very helpful in understanding the project interventions, outcomes, outputs and impact of the project under study and comparing the results with the baseline status. As multiple data sources used, the study results became more evidence based and reliable.

The study was designed with an integrated focus towards identifying changes in livelihoods of ultra-poor through NGO interventions. Both primary and secondary data and information were collected for this study. The primary data and information was collected from the study area. The secondary data and information were also collected through desk review which included review of

different literature, books, articles, journals, and evaluation reports of NGO implemented projects related to livelihood and food security and research works done earlier in this field.

1.6.1: Methods of Investigation/Data collection

In this study the following tools had been used to collect relevant data and information to fulfil the demand as envisaged in the study design towards responding to the research questions:

1.6.1.1: Observation:

The researcher used observation method to observe the behavioral changes of the NGO beneficiaries comparing the baseline status of the projects (VGDUP and FSUP) under the study. The observation visits to the selected ultra-poor households, community based organizations, local NGOs were made to acquire firsthand data and information. A detailed observation on the income generating activities, use of productive assets, participation in decision making at family level and community level, ownership of resources, personal health and hygiene were carried out using pre-designed observation checklists. Without observing the field reality by the researcher himself any changes depicted in the study would have been a partial picture of the situation. Because the qualitative inquiry sometimes might not cover all aspects to make evidence based conclusion. Thus the use of observation as a data collection tool was aimed at a drawing up a comprehensive picture of the situation after the project intervention in the study areas,

1.6.1.2: Household Survey:

The questionnaire based household survey was conducted among the selected households for collecting quantitative data. This enabled the researcher to compare the current state of the beneficiaries with that of the baseline. The survey was conducted with a pre-designed (and pre-tested) questionnaire. The questions included the changes in the social, financial, human, natural and physical capital popularly known as the five capitals in livelihoods literature) to assess the result or impacts of the NGO interventions in changing livelihoods of the respective beneficiaries in the study areas. The data collected through the survey enabled the researcher to in lights of the project objectives which were comparable to the baseline data of both the projects under study. Without this quantitative data the results of the projects under study could not be compared with that of the baseline in the project areas.

1.6.1.3: Focus Group Discussion:

The focus group discussions (FGD) were conducted using a pre-designed guideline for collecting qualitative data and information. The main purpose of the FGDs was to solicit information from the beneficiaries on the NGO interventions aimed at improving the livelihoods of the target beneficiaries. The issues covered in the discussions included the socio-economic changes, community acceptance, dignity, participation in decision making at community level etc. The FGDs enabled the researcher to compare the quantitative data collected through household survey along with the qualitative aspects of the issues of concerns for the study and come to a conclusion based on evidence.

1.6.1.4: Case study:

The case study method was also used for collecting qualitative data and information in particular from the selected brand of beneficiaries who had experienced significant changes in lives through NGO projects on livelihoods interventions in the study areas. Through these cases studies the success of the beneficiaries and failures as well were analyzed, synthesized and conclusions were drawn. These cases significantly contributed to the study in capturing the impacts of the NGO projects under study.

1.6.1.5: In-depth interview:

The in-depth interview method was used for collecting data and information from some of the key actors in the study areas who were well informed about the interventions under study. This helped the study to identify different dimensions prevailing in the study areas and the changes they had observed over time among the beneficiaries. The insights of the persons interviewed help in corroborating the data and information collected using other tools as they look at it from distance, i.e. neither project beneficiaries nor the livelihoods service providers.

1.6.2: Sampling Design and Sample Size

The required sample size was determined based on the confidence level and the degree of desired precision. The sample size was not determined depending on its size relative to the population being investigated, but on: (i) required level of probability (confidence level); (ii) required degree of precision; and (iii) variability of the population. The following formula was used to estimate the sample size.

$$n = \frac{z^2 \cdot p \cdot q \cdot N}{z^2 \cdot p \cdot q + (N - 1)e^2}$$

Where,

n = Sample size

z = Z value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal
(0.5 used for sample size needed)

q=1-p

e = confidence interval, expressed as decimal
(e.g., .05 = ±.05)

N= population (5277, total beneficiaries in the study areas of the two projects studied)

Based on the above mentioned formula “n” (sample size) was drawn at 358 for household survey. However it was rounded up at 360 for distribution of sample size in four unions.

1.6.3: The sample distribution and study location

The study was conducted in the *haor* area of Bangladesh. The ultra-poor households of Khaliajuri upazila were the recipient of grant from two food security projects namely "Vulnerable Group Development for Ultra Poor" and "Food Security for Ultra-Poor" funded by the European Union and implemented by a national NGO Padakhep Manabik Unnayan Kendra, and Sabalamby Unnayan Samity (SUS) as partner of Care Bangladesh respectively. Khaliajuri is the only upazila in Bangladesh where both the projects had been implemented and thus was considered as the best place to study the efficiency, effectiveness and result of the study as a whole to make recommendations and policy option for any such future endeavor. For quantitative data collection 360 randomly selected households were distributed among four UPs where both the projects were implemented. The distribution of sample households were as follows:

Table 01: Distribution of samples in four unions

Name of union	No of ward	No of respondents	Name of the project
Khaliajuri Sadar	9	90	VGDU
Mendipur	9	90	VGDU
Krishnapur	9	90	FSUP
Nagar	9	90	FSUP
Total	36	360	

The sampling design had been characterized 'multi-staged, stratified, purposive random sample. The stages of stratification have been the following:

Stage 1: Delineating the study area under broad category (only the *haor* region) of the VGDUP and FSUP project area) had been considered;

Stage 2: Delineation of the locations according to the common district in the *haor* region;

Stage 3: Purposive selection of the study upazilas from among other upazilas under VGDUP and FSUP respectively;

Stage 4: Random selection of unions within the selected unions (all wards will be covered)

Study Location Map



Figure 01: Map of the Study Area

For qualitative analysis 6 focused group discussions (FGDs) were conducted with the targeted beneficiaries and selected community people including local government representatives and other stakeholders using the FGD guide. The FGDs were considered as supplementary to the survey for validation of some selected findings of the sample survey and qualitative analysis. Six case studies were conducted (3 at VGDUP project area and 3 at FSUP project area). In addition, 10 KIs were conducted with the following stakeholders:

- Extension service providers (2);
- LGI representatives (2);
- NGO professionals (2);
- Former Grant Management Expert of VGDUP;
- Former Team Leader of VGDUP Technical Assistance Team
- Monitoring Expert of Project Support Unit, FSUP;
- Representatives of Development Partners.

1.6.3.1: Study locations:

Reasons for choosing Study Locations:

Livelihood programs had been implemented primarily in the very poor and food insecure areas and in physically distant places where State sponsored safety nets were found to be inadequate for the targeted people.

In Bangladesh food security and livelihoods programs had been implemented in different geographical areas such as Haor, Char, Coastal and Hilly areas were the livelihoods of the people were considered as big challenge, *Haor* is one of the less addressed areas by the State and non-state actors compared to other areas of Bangladesh. The haor area was selected for this study as two similar food security and livelihoods projects were being implemented in Khaliajuri upazila under Netrokona district and supported by the same development partner. Thus it was perceived that the difference of two interventions in the same upazila typically homogeneous by nature would be an interesting proposition. The issue considered among the two projects included- how the intervention modalities, approaches and specific style of project implementation produced results for the beneficiaries to be observed, analyzed and conclusion could be made as well. It was also helpful to capture the results of the NGO interventions as all other services were found to be similar for both the projects. These two projects were the firsts of its kind in the Haor areas and a positive outcome of the projects

could be a great learning opportunities for all future interventions there. Thus conducting this study in the Haor areas were important for generation of knowledge and also for making policy recommendation

1.7: Theoretical Framework of the Study

In Bangladesh the most livelihoods insecure persons/ households include the ultra-poor, the landless, and the vulnerable people who can hardly cope-up with shocks and disasters. The susceptibility of the ultra-poor people of *haor* area includes flash flood, river erosion, water-logging, cyclone and lightening due to its geographic location. The frequency and intensity of disasters has been increasing due to negative impacts of climate change and composing risks for the *haor* people in Bangladesh. The land less, poor and marginalized people as well as the ultra-poor people are more vulnerable to disasters as their capacity to cope up with the disaster is lower than the other sections of population. This happens due to poor housing condition, poor resource base, low income and lack of access to social and institutional networks and connections, lack of capacity (skill, knowledge and awareness). The socio-economic vulnerability is one of the dimensions of vulnerability encompass by the social, political and economic processes and structures. This leads to vulnerability to livelihoods of the ultra-poor. The livelihood includes the capacity of the people to afford productive and non-productive assets, human and management skills required for subsistence in a household as well as community sustainably.

The ultra-poor in general have very limited access, availability to social, financial, human, natural and physical resource for maintaining livelihoods. In *haor* areas their main scope of employment of the ultra-poor people are selling labour in agriculture. Due to modernization in farming system the scope of employment in the agriculture have been decreasing. In *haor* area, the demand of agro intensive labour is only for four months in a year. Their income is not sufficient to meet the basic necessities of life. The women headed households having no male members, or persons with disabilities are the most vulnerable to meet the basic necessities like food, shelter, safe drinking water, health and hygiene etc. Moreover, they have very limited access to productive asset, alternative means of income (on farm and off-farm) and social safety nets. Needless to say the ultra-poor people are living below the poverty line.

Considering the vulnerability of these ultra-poor people the Government and NGOs have been working towards changing livelihoods of the ultra-poor in Bangladesh since its independence in 1971. The NGOs are mainly

supplementing the government for making qualitative changes in the livelihoods of the ultra-poor in Bangladesh including the *haor* areas. The NGOs have offered demand driven and diversified projects aimed at improving livelihoods of the ultra-poor. The livelihoods interventions of NGOs can be described in three different phases.

Phase: I

The NGOs used to distribute unconditional cash grant as food ration of rice or micronutrient-fortified atta (whole-wheat flour), and conditional cash grant including literacy and numeracy training and awareness training on social issues. It was a combination of food and cash distribution to meet the nutritional demand of the ultra-poor households. These interventions contributed improving the food intake status of the ultra-poor households during the intervention period. Although project participants showed improvement in food security and livelihood indicators. Some of the beneficiaries were purchased asset. But they did not seem to be able to maintain these improvement after leaving the project (IFPRI,2007). The ultra- poor beneficiaries of those NGO interventions in general were not able to generate any substantial productive asset. Thus, the beneficiaries could not come out of the poverty line.

Phase: II

The NGO interventions included monthly food ration distribution as unconditional grant, food for asset creation (50 percent food distribution and 50 percent cash distribution for asset creation), food for education, mandatory savings, providing credit support, training on income generating activities (IGAs), life skills and basic literacy and numeracy, awareness raising on social, legal, health and nutrition.

This was a combination of food and cash as wage payment to workers in labour intensive public works program through providing both conditional and unconditional cash grant. The provision of mandatory savings and credit support aimed at sustaining productive asset. However, their ability to make decision at household level was increased. The mobility of the beneficiaries to choose wage employment were increased and they could mobilize resources during the project period. The mandatory savings had contributed to create some asset. Literacy training did not seem to be effective. More than 80 percent project participants of Income Generating Vulnerable Group Development (IGVGD) and Food Security for Vulnerable Group Development (FSVGD) projects remained illiterate even after 18 months of the program implementation (WFP, 2007).The size of the

transfers and their multiplier effect on income were not enough for most of the beneficiaries to move out of extreme poverty. So the targeted households remained in extreme poverty. So, without human and management capacity only resources cannot graduate the poorest people from the vicious cycle of poverty. The distribution of productive asset may benefit the poorest when they could manage it in a productive way efficiently and effectively.

Phase: III

Considering experience from the past livelihoods projects the development partners made some changes in livelihood program implementation modalities through introducing productive asset transfer, skill development, and networking, linkage and advocacy for accessing to financial, social and natural capital.

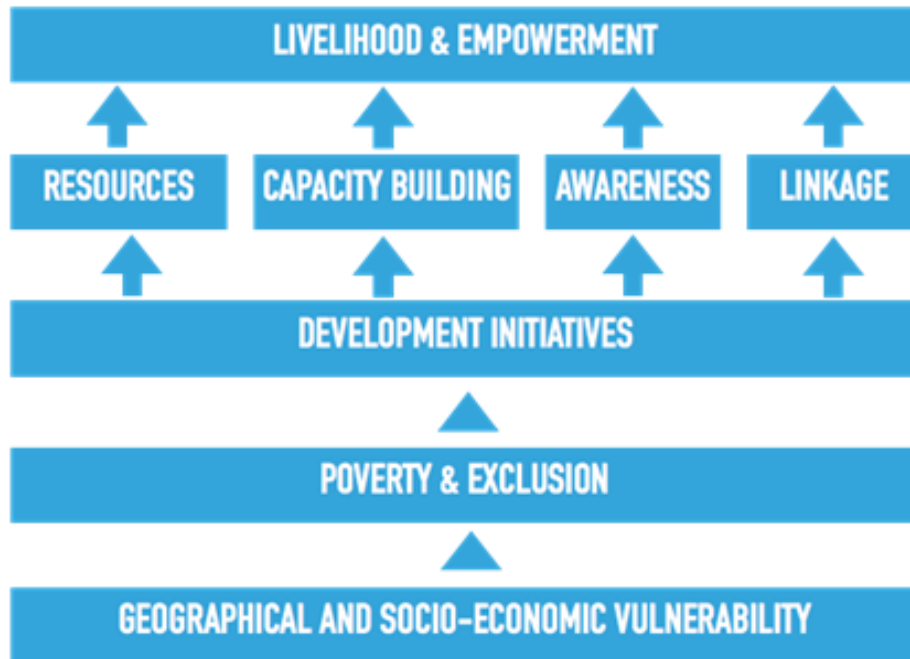
The NGOs had supported the ultra-poor beneficiaries through livelihood projects included the following interventions:

- Providing monthly cash subsistence allowance (MCSA);
- Providing training on life skill, IGAs and entrepreneurship development;
- Providing assistance to developing their own business plan for the beneficiaries;
- Distributing productive asset in cash or in kind considering the business plan developed by the beneficiaries as per their choice;
- Facilitating accumulation of group savings;
- Establishing linkage with the extension service providers;
- Facilitating to form Community Based Organizations (CBOs) and providing leadership development training;
- Facilitating community based disaster preparedness and community based adaptation;
- Providing awareness on health, education, water and sanitation, disaster preparedness and empowerment etc.;
- Advocacy for accessing *khas* land, water bodies and public resources, access to health service providers and providing primary health care services;
- Facilitating income generation through market access, establishing linkages with service and input providers, and improving enabling environment (regulatory frameworks and infrastructure); and
- Providing informal and non- formal education;

Capturing the experience of first two phases, the NGOs made some changes in the modalities of livelihood project interventions such as changes in mode of transferring productive asset and its package. The NGOs had facilitated in developing business plan by the beneficiaries by the own choice and they were provided skill training on two IGAs before transferring the asset in kind or in cash. The current study was designed to see whether the present interventions on improvement of livelihoods were adequately addressed the needs of the targeted ultra-poor people in the *haor* area.

The present study aimed at finding out whether the interventions of the NGOs could make any headway towards changing the livelihoods of the ultra-poor that envisaged during the phase III of their interventions, which could be depicted in the following diagram.

Fig – 02: Theoretical Framework



Source: Developed by the researcher

The flash flood, river erosion, waterlogging, and lightening were the causes of geographical and economic vulnerability in the haor area. The poor people living in the haor area were more vulnerable compared to other areas of the country and impacted the population negatively towards increasing poverty and exclude most of them from the resilience to disasters. The state and non-state actors (NGOs) had been implementing different development projects/programs for lifting the poorest people out of poverty line. These project interventions include - physical and financial resources, capacity building of the poorest people, increasing awareness and establishing linkage and networking with the extension service providers in order to change the livelihoods of the poorest people through accessing five capital of livelihoods (human, natural, financial, social, physical).

Considering the present vulnerabilities of the poorest people as well as geographical vulnerability they used to come across more often, access to five capitals were believed to be contributing factors to lift them out of poverty.

Without human and management capacity only resources cannot help the poorest people graduating out of the poverty. Therefore, the start-up capital

would benefit the poorest when they become able to manage the resources available to them and use those resources in a productive way but efficiently and effectively, i.e. multiplying and diversifying the portfolio of the income generating activities. The diversification of productive asset means alternative livelihood options which would eventually help them to cope up with shocks and stress if any.

The ultra-poor and vulnerable people need to be empowered through appropriate awareness program on their rights and entitlement so that they could claim their rights and participate in the decision making process, get access to health, hygiene, nutrition, savings, climate change and disaster risk reduction, education, etc. in an appropriate manner.

1.8: Chapter distribution

In this section the distribution of chapters has been described. The chapter has been organized according to the general norms of thesis presentation starting with the introduction and background and ending with recommendations of the study.

Chapter-1: Introduction and Background

This chapter describes the introduction and background of the study, objectives, research question, methodology, limitation, theoretical framework and operational definition of the study. Problem statement and study rationale, research questions were also discussed in this chapter. The methodology part covers the sampling procedure, data collection techniques and tools for data collection.

Chapter-2: Literature Review

This chapter focuses on review of technical literature concerning the livelihood, food security, income that examine of the changes of the livelihood of the ultra-poor through NGO interventions.

Chapter-3: Study projects

This chapter describes the study projects at a glance. This study covers two food security projects including “Vulnerable Group Development for Ultra-Poor (VGDUP) Programme” and “Food Security for Ultra Poor” project funded by the European Union and implemented by the NGOs in the study area at Khaliajuri upazila in Netrokona district. It also covers the NGO interventions had been

offered for the women headed food insecure ultra-poor households for enhancing their livelihoods through skill development, social empowerment and providing productive asset as means of start-up capital and subsistence allowance for food availability.

Chapter-4: NGO and beneficiary involvements

This section presents a detailed description of the socio-economic and demographic characteristics of the study area. These information used in this regard to measure the poverty indicators such as income, expenditure, literacy rate etc. It also describes landholding and housing pattern of the ultra-poor beneficiaries and their involvement with the NGOs and accessing livelihood support from the NGOs as means of productive assets and multiplication and diversification of productive assets to contribute reducing poverty.

Chapter-5: Findings of the study

The chapter five describes both qualitative and quantitative findings of the study. It includes the analysis of the changes in livelihoods of the ultra-poor comparing the benchmark status of the VGDUP and FSUP projects. The changes of the ultra-poor households in occupation, employment, economic condition, awareness and participation in decision making etc. were analyzed. The impact of the study projects in changing the livelihoods of the beneficiaries have been presented here which covers practicing sanitary latrines, regular food intakes, safer water and sanitation, ownership of livestock, accumulation of capital due to proper utilization of start-up capital and diversity of alternative income generating options. Moreover, it talks about the social empowerment, access to social safety-net program, and household level adaptation practices. Finally, it covers the livelihood capitals and asset pentagon to measure the changes of livelihood of ultra- poor through NGO interventions considering five livelihood capitals i.e. human, natural, financial, physical and social capital.

Chapter-6: Conclusion

The chapter six includes the conclusion of the study where the main idea of the study was described in a nutshell.

Chapter-7: Recommendation

The chapter seven advocates some policy recommendation focusing the changes of the livelihood of the ultra- poor through NGO interventions in Bangladesh.

1.9: Limitation of the study

It was a great experience to meet with various stakeholders including the respondents, local government representatives, local elites, extension service providers and other important stakeholders for in-depth interview, focus group discussion and observation at the respondents' house. However, the researcher had to face some limitation during his course of action. In most cases the respondents had shown a less interest to provide data and information, especially data about income and age. The researchers and the interviewer had to meet the interviewee several times at their locations. It would have been better if the researcher could work with little larger sample, for validity and reliability and to make the research more representative. Keeping the time and available resources in mind, the researcher had to minimize sample size as thin as statistically justified. The study limitation in brief has been provided below:

- **Remoteness of the study area:** The road networks and communication in the study area was very remote. The enumerators and researcher had to spend additional time to reach the respondents at their locations.
- **Extended Rainy season during data collection:** The study area, khaliajuri upazila in Netrokona district is a deep *haor* and prone to flash flood, chronic wave action, lightening and annual flooding and much of the road networks under submerged from April to October in a normal year. Considering this situation, the researcher had to wait about eight months for household survey after finalization of the survey tools.
- **Time and Resource Constraints:** The research team confronted with for the study is the time and resource constraints. The researcher had to finance for data collection and field work for conducting FGD and KII. The Respondents and the FGD participants were less interested as there was no incentive for them to participate.
- **Respondent Selection:** Considering the remoteness and absence the beneficiaries of the study project in the working hour the enumerators and supervisor had to consider early morning and late afternoon for data collection. Moreover, some of the respondents were out of station. So, the enumerators had to search next door to find respondents.

Chapter 2

LITERATURE REVIEW

2.1: Introduction

This research contains a review of the literature concerning the livelihood, food security, income that examine the Livelihood of Ultra-poor through NGO Interventions. Although there have been dearth of literature especially on empirical works on livelihoods issues, few literature available on livelihood projects whilst the literature offers some following discussions:

The Government of Bangladesh (GoB) is committed to ensure food security and development for ultra-poor households in Bangladesh. Article 15 (a) of the Constitution of Bangladesh confirms the responsibility of the state to secure for its citizens *“the provision of the basic necessities of life, including food, clothing, shelter, education and medical care”*. To fulfil the constitutional obligation, the GoB is also committed to achieving various national and international food security targets such as:

1. Achieving Sustainable Development Goal (SDG) -1: end poverty in all of its forms everywhere;
2. Achieving SDG -2: end hunger, achieve food security and improved nutrition and promote sustainable agriculture;
3. Reducing the number of undernourished people by half within 2015 (World Food Summit); and
4. Increasing access to food and ensuring adequate nutrition for all (National Food Policy 2006) and the National Food Policy Plan of Action (2008-2015).

The food security strategy under the 7th Five Year Plan will be in line with three objectives of the National Food Policy 2006 and National Food policy Plan of Action (2008-2015). The 7th Five year plan had estimated for reducing the extreme poverty by about 4.0 percentage points. It was expected that by the end of the 7th Five Year Plan, extreme poverty would be around 8.9 percent. One of the goals of the 7th Five Year Plan was to substantially reduce extreme poverty, defined as people living below the lower poverty line, which, at the start of the

Seventh Plan, afflicts 12.9 percent of the population, or about 20 million people (7th Five Year Plan 2016-2020). The development partners, Non-Government Organizations (NGOs) has also been playing supplementary role with the government for achieving the national as well as global targets set by the SDG, Sendai Framework for Disaster Risk Reduction (SFDRR), and Conference of The Parties (COP-22) to the UN Framework Convention on Climate Change (UNFCCC).

2.2: Livelihood

The most widely accepted definition of livelihood stems from the work of Chambers and Conway (1992): *“A livelihood comprises the capabilities, assets (including both material and social resources), and activities required for a means of living”* (Carney 1998). Ellis (2000) suggests a definition of livelihood as *“the activities, the assets, and the access that jointly determine the living gained by an individual or household.”* *“A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base”*(Chambers and Conway, 1992). This discussion on livelihood has been summarized from materials posted at the Wageningen University website, One feature that these definitions and interpretations share is that they underline the generally accepted idea that “livelihood” deals with people, their resources, and what they do with these. Livelihoods also have to do with creating and embracing new opportunities. Bebbington (1999) has developed a framework to understand rural livelihoods in terms of: (a) people’s access to five types of capital assets; (b) the ways in which they combine and transform these assets in the building of livelihoods that, as far as possible, meet their material and experimental needs; (c) the ways in which people are able to expand their asset bases by engaging in other action through relationships governed by the interactions of the operations of the state, market and civil society, and (d) the ways in which they are able to deploy and enhance their capabilities both to make living more meaningful and to change the dominant rules and relationships governing the ways in which resources are controlled, distributed and transformed in society. Bebbington also draws upon Sen (1997) who argues that the possession of human capital not only implies that people produce more efficiently; it also gives them the capability to engage more fruitfully and meaningfully with the world, and most importantly, it connotes the capability to change the world.

The FAO livelihood framework consists of a number of key elements like (a) Livelihood assets and activities (b) Vulnerability and coping strategies (c) Policies, institutions and processes (d) Livelihood outcomes. The livelihood framework contains a “core” in which assets are put into use through certain strategies and activities to produce certain livelihood outcomes. This core exists in a context characterized by existing institutions and policies affecting people, from the extended family and local community to the larger context of the national state and beyond, and the vulnerability context which describes the set of external social, economic and political forces and stresses to which people are subject (FAO and ILO, April 2009).

The most common unit of livelihood analysis is the household, though for some purposes (such as employment) information may be collected at the level of individuals, and in other respects (such as natural resources) it may be gathered at the level of zones, villages, ethnic groups or some major or minor administrative geographical divisions. A livelihood can be classified as sustainable, if it is resilient in the face of external shocks and stresses, if it is independent from external support, if it is able to maintain the long-term productivity of natural resources and if it does not undermine the livelihood options of others. (Kollmair et al., 2002).

The DFID framework sets out to conceptualize: (a) how people operate within a vulnerability context that is shaped by different factors – shifting seasonal constraints (and opportunities), economic shocks and longer-term trends (b) how they draw on different types of livelihood assets or capitals in different combinations which are influenced by the vulnerability context, a range of institutions and processes and how they use their asset base to develop a range of livelihoods strategies to achieve desired livelihood outcomes (de Stagé et al., 2002). “...The framework depicts stakeholders as operating in a context of vulnerability, within which they have access to certain assets. Assets gain weight and value through the prevailing social, institutional and organizational environment (policies, institutions and processes). This context decisively shapes the livelihood strategies that are open to people in pursuit of their self-defined beneficial livelihood outcomes” (Kollmair et al., 2002).

As the livelihoods approach is concerned first and foremost with people, it seeks to gain an accurate and realistic understanding of people's strengths (here called "assets" or "capitals"). It is crucial to analyse how people endeavour to convert these strengths into positive livelihood outcomes. The approach is founded on a belief that people require a range of assets to achieve positive livelihood outcomes. Therefore, the sustainable livelihood framework identifies five types of assets or capitals upon which livelihoods are built, namely human capital, social capital, natural capital, physical capital and financial capital. The FAO added another capital namely political capital with the five capitals of DfID. Increasingly, it is being recognized that in addition to these five categories, it is important to include analysis of political capital. This goes beyond social capital, in that, an individual's stock of political capital will determine his/her ability to influence policy and the processes of government. An understanding of political capital is important in determining the ability of households and individuals to claim rights to assistance after a disaster. The description of five capitals are:

- (a) Human capital: labour power, health and nutritional status, skills and knowledge;
- (b) Natural capital: access to land, water, wildlife, flora, forest;
- (c) Social capital: refers to those stocks of social trust, norms and networks that people can draw upon to solve common problems. It is mediated through kin networks and group membership;
- (d) Physical capital: houses, vehicles, equipment, livestock;
- (e) Financial capital: savings, gold/jewellery, access to regular income, net access to credit, insurance.

The importance of policies, institutions and processes cannot be overemphasized, because they operate at all levels, from the household to the international arena, and in all spheres, from the most private to the most public. They effectively determine access (to various types of capital, to livelihood strategies and to decision-making bodies and source of influence), terms of exchange between different types of capitals, and returns to any given livelihood strategy (DFID, 2000). Policies, institutions and processes have a direct impact upon weather people are able to achieve a feeling of inclusion and well-being. Because culture is included in this area they also count for other 'unexplained' differences in the 'way things are done' in different societies. (DFID, 2000) Policies, institutions and processes can determine access to assets and influence decision making processes.

Livelihood strategies comprise the range and combination of activities and choices that people make/undertake in order to achieve their livelihood goals. It should be understood as a dynamic process in which people combine activities to meet their various needs at different times. Different members of a household might live and work at different places, temporarily or permanent. (DFID, 2000) Livelihood strategies are direct dependent on asset status and policies, institutions and processes. Hence that poor people compete and that the livelihood strategy of one household might have an impact (positive or negative) on the livelihood strategy of another household. The livelihood outcomes are the achievements or outputs of livelihood strategies, such as more income, increased well-being, reduce vulnerability, improved food security and a more sustainable use of natural resources. When thinking about livelihood outcomes.

2.3: The vulnerability context

The Vulnerability Context frames the external environment in which people exist. People's livelihoods and the wider availability of assets are fundamentally affected by critical trends as well as by shocks and seasonality – over which they have limited or no control (DFID April 1999). Mahabub Hossain and Abdul Bayes , Rural Economy and Livelihoods Insights from Bangladesh 2010, Empirical evidences show that different types of trends and external factors impinge negatively on the livelihoods of the poor. For example, floods, cyclones, erosion of river-banks or insecurity from lawlessness, abnormal increase in food prices in the international market etc. could adversely affect the livelihoods of the people and their asset endowments. If unaddressed, such conflicts can marginalize low-income households already on the fringe of a fall from the fortunes. In a rural setting, it may be necessary to find answers to understand the demographic structure and its change, utilization and accumulation of assets, level and distribution of income, the intensity and the severity of poverty, and the capacity of coping with external shocks.

Bangladesh is one of the most climate change vulnerable countries in the world and the impact of climate change may be even worse than anticipated (MoEF, 2008). Floods, tropical cyclones, storm surges and droughts are likely to become more frequent and sever in the coming years. The 4th IPCC Report predicts that seasonal (pre-monsoon) rainfall will increase up to 31 percent in 2099, resulting in higher river flow during monsoon season. Global warming will cause sea level to rise between 0.18 and 0.79 meters in 2099. In response to this, the GoB adopted the National Adaptation Programme of Action Plan (NAPA; MoEF, 2005)

in 2005 and has developed the Bangladesh Climate Change Strategy and Action Plan (BCCSAP; MoEF, 2009) for building a climate resilient development framework through adaptation and mitigation. Adaptation for physical infrastructure is one of the six pillars in the BCCSAP, which stresses the need to deal with the likely impacts of climate change.

2.3.1: Vulnerability of *Haor* people

Haors with their unique hydro-ecological characteristics are large bowl shaped floodplain depressions located in the north-eastern region of Bangladesh covering about 1.99 million hactor of area and accommodating about 19.37 million people. There are about 373 haors/wetlands located in the districts of Sunamganj, Habiganj, Netrokona, Kishoreganj, Sylhet, Maulavibazar and Brahmanbaria. These 373 haors cover an area about 859,000 ha which is around 43 percent of the total area of the haor region. It is a mosaic of wetland habitats including rivers, streams and irrigation canals, large areas of seasonally flooded cultivated plains and hundreds of *haors* and *beels*.” (Hussain & Salam 2007: 3).The total area of *haor* type wetland ecosystem in Bangladesh is 8 million hectares. It includes about 47 major *haors* and 6300 *beels* of varying size of which about 3500 are permanent and 2800 are seasonal.” (Hussain & Salam 2007: 3).

2.4: Poverty:

Social scientists have looked at poverty in many ways. Concepts of poverty sometimes overlap with each other but there are certain distinctions. All the concepts of poverty that different scientists understand are broadly categorized in three ways (i) Material Concept, (ii) Economic Position Concept and (iii) Social Position Concept. According to material concept poverty is viewed as the lack of command over resources which may come from income, wealth or any other sources to satisfy basic human needs such as food, shelter, health, drinking water, sanitation, education, information etc. This concept puts importance on meeting ‘needs’ that human being requires. According to Deleeck, poverty is not restricted to one dimension, e.g. income, but it manifests itself in all domains of life, such as housing, education, health. (Deleeck et al1992:3). Second school of thought has sought poverty as economic position which creates class among people in community. So it is classifying people based on their economic position. Although it looks quite similar to earlier material concept, there is

difference in sense. People, whose basic needs are met, may still be considered poor based on their economic position, standards of living etc. Social scientist Miliband argues: The basic fact is that the poor are an integral part of the working class – its poorest and most disadvantaged stratum. ... Poverty is a class thing, closely linked to a general situation of class inequality. (Miliband 1974-184-5). Third school of thought sees poverty as social position based on dependency, exclusion, lack of security etc. The sociologist Georg Simmel argued that 'poverty', in sociological terms, referred not to all people on low incomes, but to those who were dependent. The poor person, sociologically speaking, is the individual who receives assistance because of the lack of means. (Simmel 1908-140). So, a unified understanding of poverty which world Bank have tried, through its study 'The Participatory Poverty Assessments' implies a definable set of interrelated problems and clear criteria. These are precarious livelihoods, excluded locations, physical problems, gender relations, problems in social relationships, lack of security and abuse by those in power, disempowering institutions, weak community organizations and limitations on the capabilities of the poor

According to the Report of the Household and Income and Expenditure Survey-2010, about 17.60 percent of households in Bangladesh lived in extreme poverty, by 2015, the poverty rates dropped 6.5 percent (Schreiner, M. 2015). This reduction confirms that Bangladesh continues to make meaningful progress to reduce levels of poverty in the country. However, with an estimated population of almost 40 million, today there remain around 25 million people living in extreme poverty (World Bank 2015). According the 7th Five Year Plan the incidence of poverty falls to below 25 percent while that of extreme poverty declines to below 13 percent. Importantly, Bangladesh achieves the MDG target of halving the incidence of poverty between 1990 and 2015. The 2015 estimated headcount poverty is below the MDG target of 28.5 percent for 2015 (7th Five Year Plan-2016-2020, Planning Commission).The Bangladesh Bureau of Statistics uses different approaches to measure poverty: the direct calorie intake (DCI) method, and the cost-of –basic-needs (CBN) method. The DCI method measures the calorie intake per capita per day. If this is below 2,122 kcal, it is defined as “absolute poverty”, whilst “hard-core poverty” refers to a calorie intake of less than 1,805 kcal per capita per day. In the CBN method, poverty lines are calculated based on the per capita expenditure required to meet basic food needs plus an allowance for non-food consumption. Firstly a food poverty line is established which is equal to the cost of a fixed food bundle, providing the minimum nutritional requirement of 2,122 kcal per day. Then a non-food

allowance is added: The “lower poverty line” adds an amount equal to the typical non-food expenditure of households whose total expenditure is equal to the food poverty line. The “upper poverty line” adds an amount equal to the typical non-food expenditure of households whose food expenditure is equal to the typical non-food expenditure of households whose food expenditure is equal to the food poverty line. Because prices vary among geographical areas, poverty lines are calculated separately for different regions. Thus in the Atlas, extreme poverty refers to those people living below the lower poverty line (The Food Security Atlas of Bangladesh, 2004).

2.4.1: Ultra-poverty in Bangladesh

Although the notion of ultra-poverty refers to the households living far below the national poverty line, there is no uniform definition of ultra-poverty in Bangladesh. There are sometimes distinctions made based on direct calorie intake measures. According to household income expenditure survey of 2010, individuals consuming less than 1805 and 1600 Kcal a day are defined as hard-core poor and ultra-poor respectively.

Sen and Ali (2015) note that a number of terms such as ‘extreme poor’, ‘poorest of the poor’, ‘hardcore poor’, ‘ultra-poor’ are used to roughly refer to the same group who are at the bottom of the consumption groups below the lower poverty line. Although the report does not provide the national statistics of these poverty rates based on direct calorie intake, the correlation between household expenditure and calorie intake are quite strong. For example, the bottom 12 percent of the household expenditure group has average per capita intake of less than 1805 kcal per day. The households below the lower poverty line, which is lower than the international 1.25 dollar a day cut off, are in general considered to be ultra-poor¹. The decline in poverty headcount ratio was greater than population growth during 2005-2010 period, which led to a decline in the absolute number of the poor people. The number of people crossing the upper and the lower poverty lines during this period are 8.58 million and 8.61 million respectively. The real per capita consumption expenditure during the 2005-2010 increased at an average annual rate of 16.9 percent, with a higher rate of increase in rural areas compared to urban. This shows that the economic conditions and incomes of rural people, especially the poor, have improved

¹ As per World Bank definition it is now 2 US\$

significantly as a result of the pro-poor and pro-rural policies of the government (General Economics Division, Planning Commission, 2015). The poverty headcount ratio for 2015 is estimated to be 24.8 percent. Bangladesh has already met one of the indicators of target-1 by bringing down the poverty gap ratio to 6.5 against 2015 target of 8.0. The estimated figures suggest that the MDG target of halving the population living below the poverty line (from 56.7 percent to 29.0 percent) has been achieved well ahead i.e. by 2012 (MDG progress report 2015, Planning Commission). Despite this progress, 17.6 percent of the population of the country was living below the national lower poverty line in 2010 with much higher concentration of poverty in rural areas (Table 2).

Table-2: Decline in poverty headcount ratio (by poverty line) between 1991 and 2010

FY	National	Rural	Urban
1991-92	41.1	43.8	24
1995-96	35.2	39.5	13.7
1999-2000	34.3	37.9	20
2004-2005	25.1	28.6	14.6
2009-2010	17.6	21.1	7.7

Source: BBS, 2011

It is increasingly appreciated, both by practitioners and academics alike, that extreme poverty (or ultra-poverty) is qualitatively different from other forms of poverty and deprivation (see, IFPRI 2007), Matin et. al. (2008), WDR (2006), Lipton (1983). Although there is a growing consensus that extreme or ultra-poverty is an important and difficult problem requiring novel intervention strategies, the concept of “ultra-poverty” remains unsettled. Lipton (1983) defines ultra-poverty in terms of a calorie intake threshold (a person is ultra-poor if he/she gets 80 percent or less calorie of an appropriate poverty line calorie benchmark). IFPRI report (2007) identifies an individual as ultra-poor if he/she lives on less than 54 cents per day. The BRAC definition refers to “not being able to meet even the barest of the basic needs”. Banrejee et. al. (2008) and Sulaiman and Matin (2006). Ultra-poverty differs from conventional poverty in terms of depth (degree of deprivation), length (duration of time) and breadth (the number of dimensions such as illiteracy, malnutrition etc.).The possible complementarity among the different dimensions is argued to potentially result in multiple mutually reinforcing poverty traps. This makes ultra-poverty a qualitatively different problem to address than conventional poverty.

2.5: GOB and NGOs contribution

In Bangladesh, both government and non-governmental agencies implement a wide range of social safety nets interventions. Unlike in many other countries, social safety nets programmes in Bangladesh often adopt “a net-and-ladder approach” which attempts to address the structural issues of inequality in access to income sources and assets by combining programme elements to provide safety nets and also to assist the eventual graduation out of poverty through improved income-generating skills and opportunities (Planning Commission, 2005). Besides the safety nets programme the GO-NGO collaboration has played a significant role in the health sector development in Bangladesh. The Government views NGOs as a way of extending their reach, particularly in the implementation of national strategies and policies. NGOs have developed strong capacity and innovative delivery models that have prompted a two-way learning exchange between government and non-governmental entities. Moreover, non-health activities like poverty reduction initiatives have played an important factor in Bangladesh's progress. Participation in microcredit programmes has been connected to better child survival and the expansion of electricity coverage, and road infrastructure has assisted the roll out of immunization programmes to rural areas.

2.5.1: GOB interventions in collaboration with NGOs:

Several anti-poverty activities are currently being implemented by both governmental and nongovernmental organizations (NGOs). These efforts contribute to the enhancement of entitlements for the poor, increasing awareness and empowerment, and helping them improve their quality of life. In addition several other programs such as the Food for Work (FFW) and the Vulnerable Group Development (VGD), and construction and maintenance of rural infrastructure efforts, etc. are generating employment opportunities for the rural poor. Several education programs such as cash for education, special stipend and financial assistance, and free primary education also contribute to the human development of the poor.

The government is currently implementing as many as over 90 different programs (including SSNs) through different ministries and departments in order to support disadvantaged people, including women, children, elderly, and the disabled. These programs include cash-transfer programs, food security

programs, microcredit for self-employment, and funds for poverty alleviation. The government has set up the Bangladesh Climate Change Trust Fund (BCCTF) supported through domestic resources. 60 percent of funds was provided for over 200 projects, which include food security, social protection and health, disaster management, infrastructure, knowledge management, climate change mitigation, and capacity building and institutional strengthening. The government and its bilateral partners have jointly set up the Bangladesh Climate Change Resilience Fund (BCCRF) to support the implementation of BCCSAP. 10 percent of the fund goes towards NGOs conducting small-scale community based projects to build local level adaptive capacity. BCCRF has allocated US \$10 million to fund subprojects in the three most climate-vulnerable zones in Bangladesh (7th Five Year Plan, 2016-2020). Some of the important cash transfer programs include: the 100-days employment generation scheme, old age allowance, widow allowance, and disability allowance. Major food assistance programs include the FFW, VGD, and the Vulnerable Group Feeding (VGF) programs. Both the amount of resources allocated and the number of beneficiaries have increased over time for each program. 2.02 percent of GDP in FY 2015 was spent. Public expenditure on social protection will increase from 2.02 percent of GDP to 2.3 percent of GDP by FY 2020 (Planning Commission, 2016).

Various studies point out that the existing SSN programs in Bangladesh provide limited coverage which cannot address the magnitude of extreme poverty and marginality that exists in the country. In 2011 the SSNs covered about 15 million people (9.4 percent of the population) and consequently fall drastically short in coverage for approximately 28 million people (17.6 percent of the population) who belong to the 'extremely poor' category alone. Furthermore the SSNs mostly cover the rural poor, whereas the number of urban extreme poor is also large and the nature of urban poverty is more severe than rural poverty in certain respects. An evaluation of food assistance programs in Bangladesh observed that the VGD, Food for Education (FFE) and VGF programs targeted to the poor reasonably well (World Bank 2003). The study notes that several factors underlie the pro-poor distribution of benefits. First, the targeting criteria used to select beneficiaries narrowed the eligible population to a degree that ensured that more than half of the beneficiary group was from the bottom two-fifths of the population. Second, even among the eligible beneficiaries it appears that local program administrations go beyond the criteria to identify the poor from among the eligible populations. Thus, even among a group of eligible beneficiaries, a

person from the lowest quintile is about 2.5 times as likely to be selected for the program as an individual from the highest quintile. Third, in the case of the FFE program part of the reason the distribution is pro-poor is simply because poor households tend to have more children of primary school age. (please see *Zulfiqar Ali and Mustafa K.Mujeri, 2016*)

The Bangladesh government currently has over 140 social safety net programmes, covered 25 percent households and 1.6 billion US\$ disbursed to date. The incidence of poverty and extreme poverty have both exhibited significant reduction, falling below 25 percent and around 12 percent respectively, achieving the MDG target of halving the incidence of poverty between 1990 and 2015. '*Ekti Bari Ekti Khamar*', 'Food for All' and 'Shelter for all' are examples of a caring government focused on identifying citizens and communities living on the margins and reaching out to them. Seasonal starvation in northern region is now firmly a thing of the past. Large national work fare programmes like the Food for Work Programme (FWP) and the Employment Generation Programme for the Poor (EGPP) disburse as much as BDT 45 billion annually and help create employment in rural areas during agricultural slack periods for those who need them, especially women. ICT has been leveraged for financial disbursements under *Ekti Bari Ekti Khamar* to reach out to the beneficiaries, expand the network cooperatives in all Union Parishads across the country and forced savings among members which are matched by the government, ensuring not only credit but also promoting savings behaviour among poor women (Planning Commission, 2016).

Char Livelihood Programme (CLP) has improved the livelihoods security of char people living within the riverine areas of the Jamuna-Brammaputra River in the north west of Bangladesh, and lifted 700,000 char peoples out of the extreme poverty and protected from vulnerability of yearly flooding.

“Economic Empowerment of the Poorest in Bangladesh (EEP)” project aims at livelihood improvement of 10 lac hard core poor people who are unable to meet their daily income needs and suffer from food insecurity particularly in vulnerable environment and remote areas of Bangladesh including flood prone river island (*chars*) and *haors*, water-logged areas, cyclone prone coastal regions, river erosion and other areas.

Comprehensive Village Development Programme (CVDP) is being implemented to promote overall development of all segments of population of a village under a single co-operative organization. A total number of at least 641,250 co-operators

have been directly benefited. Employment opportunities created as a result of continuous training and operation of societies own credit Programme.

As the largest public sector organization, Bangladesh Rural Development Board (BRDB) is engaged in rural development and poverty alleviation programmes; and has so far formed 79,335 cooperatives and 73,762 informal groups helped capital formation of about BDT 572 crores, provided training to about 50 lacs beneficiaries, provided micro-credit facilities of about BDT 9,627 crore. Over all beneficiaries of the social safety net Programme is about 38 lacs.

The Rural Development Academy (RDA), Bogra as a specialized rural development institution for training, research and action research has been implementing some projects to integrate water management projects, poverty alleviation through livestock management and bio-gas bottling project and command area development using surface water for rural livelihood improvement. Under these projects 31,000 people throughout the country have been benefited through installation of community bio-gas plants.

The project “Making Markets Works for the Jamuna, Padma and Teesta Chars (M4C)” being implemented since May, 2013 is facilitating better access of *char* people’s agricultural products to markets, improved business services and job opportunities in the selected market systems relevant to the active *char* dwellers at 10 northern districts of Bangladesh. M4C is assisting to create major opportunities to achieve technical improvement in productivity, reduction in wastage and transaction/ transportation cost in the selected products benefitting 60,000 marginal and small-scale farming households in its agricultural sectors (e.g. chili, maize, jute, ground nut, mustard etc.) and reducing vulnerability of the entire *char* population by increasing income by 15 percent to 20 percent in a sustainable manner.

The Department of Co-operatives has been expanding cooperative based milk production in greater Faridpur, Barisal and Khulna district for reduction of poverty and socio-economic development. These projects provided support to 4,250 specially selected unemployed youth and women through providing training on cross breed cow management and provided credit support for buying two heifers for each family.

IFPRI and WFP (2007), The Department of Women Affairs (DWA) under the Ministry of Women and Children Affairs (MoWCA) was implemented a numbers

of food security project with the financial assistance of European Union. The Integrated Food-Assisted Development Project (IFADEP), IFADEP 1 Bridging, and Food Security for Vulnerable Group Development (FSVGD) projects were implemented between 1996 and 1999 by the ministry. It aimed to develop replicable models on the best use of food aid as a development of an appropriate manner of food security projects. In view of the Governments interest for the EU in continuing support for similar activities, IFADEP-1, a bridging project was agreed and implemented from March 2000 – March 2001. Funds were channeled through WFP, who facilitated and coordinated implementation on behalf of the EU. Around 90,000 women participated in the IFADEP-1 project, and another 52,000 in the bridging project. Both projects worked in 23 upazilas of 3 districts. Women in those upazilas received training in income-generating skills and life-improvement issues, together with a monthly allocation of 30 kg/head of wheat for eighteen months. The IFADEP projects were followed-up by the Food Security for Vulnerable Group Development (FSVGD) project. This was implemented in three cycles between July 2001 and December 2006 and supported about 256,000 beneficiaries in 57 upazilas of 7 districts. The methodology was initially similar to IFADEP-1, but in May 2004 the monthly allowance of 30kg of wheat was adjusted to a ration of 15kg fortified flour plus a cash allowance of BDT150. Contracted NGOs facilitated weekly group meetings providing a selection of training in nutrition and empowerment topics and ran short courses in IGAs. In addition, from July 2003 (i.e. before the cash allocation was introduced) a compulsory savings scheme was included in the programme. Cunningham J and Ali A.M (2013),

The VGDUP executed by the Ministry of Women and Children Affairs and implemented by the Department of Women Affairs introduced the compulsory savings scheme for the female headed ultra-poor beneficiaries which helped them for fund accumulation for further investment after the end of project. (Evaluation Report, 2013). The FSUP and Food and Livelihood Security- 2009 projects were implemented following the model of productive asset distribution in cash and providing monthly cash subsistence allowance with increasing skill and knowledge of the targeted ultra-poor households. (Evaluation Report, 2014)

The SHOUHARDO II Program (2010-2015), was also one of the largest nonemergency food security programs funded by the USAID and government of Bangladesh and implemented by INGOs and local NGOs. This was focused on reaching the most socially, economically, and politically marginalized women, the rural ultra- poor and communities prone to disasters and environmental change

in the most vulnerable char, haor and coastal areas in Bangladesh. The project supported ultra-poor people in area of agriculture and livelihoods; health, hygiene, and nutrition; women and girl's empowerment; governance; and resilience (disaster risk reduction and climate change adaptation).

The Government of Bangladesh (GoB) under the Rural Development and Cooperative Division (RDCD) of the Ministry of Local Government, Rural Development and Cooperatives (LGRD) implemented a project for poverty eradication of the ultra-poor namely Stimulating Household Improvements Resulting in Economic Empowerment (SHIREE) in partnership with the UK Department for International Development (DFID). The International and local NGOs were involved as implementing partners. SHIREE had targeted 1 million ultra-poor people to lift them out of extreme poverty by 2015. The worth of this project was over £71 million (around USD\$110 million) in 8 year period (2008-2015). The main purpose of this project was to support GoB in *achieving the Millennium Development Goal (MDG) 1 of eradicating extreme poverty and hunger by 2015*. The SHIREE had offered challenge fund and innovation fund for the NGOs to address the ultra-poor and lift them out of poverty.

The National Food Policy Capacity Strengthening programme (NFPCSP 2009-2012) project was jointly implemented by the Food Planning and Monitoring Unit (FPMU) under the Ministry of Food and Agriculture Organization under United Nations (FAO). The FPMU coordinated 11 inter-ministerial food policy working groups (FPWG). This group was responsible for coordination with 11 ministries and departments in four thematic areas; (i) food availability, (ii) economic access, (iii) social and physical access and (iv) food utilization for balance nutrition. This program conducted food security research that promoted evidence-based policy making. It also contributed in increasing capacity of the government in producing quarterly food situation report, the fortnightly food grain outlook and the national food policy plan of action monitoring report.

2.6: Non- Government Organization (NGO)

The NGOs work outside the government structure but operate within the legal framework of the country. They are registered under the Societies Registration Act (Act XXI of 1860) either as society or foundation under the Joint Stock Companies & Firms. Moreover, some NGOs are registered with the Department of Social Welfare. Moreover, the NGOs are registered with the NGO Affairs

Bureau under Foreign Donation Regulation Ordinance, 1978. Recently, the Parliament of Bangladesh passed the Foreign Donations (Voluntary Activities) Regulation Bill 2016. Once the bill is transformed into a law with assents by the President, it will repeal the Foreign Donation (Voluntary Activity) Regulation Ordinance 1978 and the Foreign Contribution (Regulation) Ordinance, 1982,

NGOs are involved in direct action oriented projects, sometimes combined with study and research. Their target population are primarily the rural poor (Huda,1984). Initially, NGOs were mostly involved in relief work, among the people affected by different calamities. But later on, they involved themselves in the construction of houses for the displaced families, mobilization and reconstruction of transport facilities, development of physical infrastructure, distribution of productive assets, etc. (Huda, 1984). Eventually, the NGOs have become part of the institutional framework for rural development, poverty alleviation and disaster management in Bangladesh. In recent years, the NGOs have entered into an operational arena which has traditionally been the 'exclusive domain' of the public sector. As a matter of fact, given their operational efficiency and experienced manpower, the NGOs are entering into the development scenario with increasing forces. Dr. David Korten described the evolution of the NGO's sector in Bangladesh within the framework of the four generation of NGO's:

First generation: NGO's put emphasis on relief and rehabilitation work (1971-72).

Second generation: Development efforts of NGO's are aimed towards community development (1973-75) with a number of sectoral activities.

Third generation: This is known as sustainable system development where the NGO's extend the breath of their programs, enormity sustainability through under taking large-scale program, complementing the national development system and involving various organization and institutions.

Fourth generation: Which entirely depends on the development phase of NGO's in realizing their vision of society characterized by strong people's movements.

Buckland, J. (1998) acknowledged that NGOs in Bangladesh have established innovative development models that have improved participants' livelihood,

through in income-generation, social-service provision, and capacity building of the community based organizations. However, the dominant focus of most agencies in Bangladesh - including Bangladesh Rural Advancement Committee (BRAC), the *Grameen Bank*, and Proshika Manabik Unnayan Kendra -in income-generation, often at the expense of longer-term structural change associated with the extension of human and social capital. NGOs have expanded community norms and networks, but this has been largely between agency practitioner and participant, as opposed to within the participant community.

Hulme, D. et al. (2007) describes BRAC's Challenging the Frontiers of Poverty Reduction-Targeting the Ultra Poor Programme (TUP) designed to reach the poorest people in Bangladesh. The project aimed at improving their immediate situation and to give them the assets and other skills to move out of poverty and dramatically reduce their vulnerability. It then reviews what is known about the impacts of targeting the ultra-poor, and finds evidence that the programme is both reaching significant numbers of Bangladesh's poorest people and improving their socio-economic condition. The concluding sections draw lessons from the TUP about the types of programme design features and the processes required in order to develop such ambitious initiatives.

Islam, M. R. et al. (2012) studied the role of NGOs in terms of their capacity for social capital development and community empowerment. The article is based on qualitative research focusing on two NGOs in Bangladesh: Proshika and Practical Action Bangladesh, and their work in two communities, one urban and the other rural. The author focused on data obtained from two indigenous occupations: blacksmiths and goldsmiths. He argued that there were specific problems within these communities and that NGOs' capacities for social capital development and community empowerment were limited.

Brockles, M. A. et al. (2003) examines the development programme design, using the Chars Livelihoods Programme in Bangladesh as a case study. The focus of the programme was determined as the need to address the deep structural barriers preventing the exercise of voice by the extreme poor. The author described how this issue was tackled in the design process. It was also explored the room for man work to engage in processes of social development relating to extreme poverty by focusing on citizens' participation, their collective voice and responsiveness. The author argued that within the confines of a conventional, bureaucratic planning process, opportunities to be innovative might be limited. However, to refuse the challenges, is to disregard the role design

plays in opening up spaces for future action. The author concluded by arguing that design was an inherently politicized process, which involved choices about whose voice was heard, whose power was respected and whose was not respected. This issue could not be ignored by initiatives that seek to eliminate extreme poverty through peoples' participation in development.

Datta, D. (2007) advocated based on his two decades of grassroots experiences, Concern Bangladesh had developed a federation structure to ensure the sustainability of community-based organizations (CBOs). Despite capacity-building inputs to all federations, only a few of them had been able to operate without substantial external aid. This lack of progress relates to a 'one size fits all' capacity-building strategy and other sociopolitical issues such as the disaffection of federations from the wider community and to political manipulation. Successful federations demonstrate that a committed leader who ensures participation, respects transparency and accountability, and promotes second line leadership can contribute positively to sustainability, even in an adverse sociopolitical context, and with limited capacity-building support.

Hossain, N. et al. (2007) drew preliminary lessons from the experience of engaging village elites in support of a BRAC programme for ultra-poor women in rural Bangladesh. It described the origins, aims, and operation of this programme, which provides comprehensive livelihood support and productive assets to the ultra-poor. Based on field research in the rural north-west, the article examined the conditions under which elites could support interventions for the ultra-poor, and the risks and benefits of such engagement. It described the impact of committees mandated to support ultra-poor programme participants, and attempted to understand the somewhat inconsistent success of this intervention. Conclusions and lessons from the experience involve revisiting assumptions that dominate scholarship and programmes relating to the politics of poverty in rural Bangladesh.

Gibson et al. (2004) studied into rural women's livelihoods in Bangladesh found that women and girls were, however, breaking new ground: the situation for women was very dynamic as increases in non-farm work and urbanization of rural life were affecting society (Toufique and Turton, 2003). Women, who work, especially poor women, work in employment that was poorly paid, insecure and often seasonal. Women's contribution to readymade garment exports and crop production, as well as their contribution to the remittance economy was highlighted in the study report. Secondary school education was becoming more

frequent for women, and their health status was improving (Asian Development Bank, 2004). The reasons given for women's increased participation in the labour force include poverty and necessity, making a better life (if not on the poverty line), more healthy hands (due to improvements in maternal mortality particularly), changing social norms, new opportunities for work and better infrastructure and access to work.

Toufique K.A et al. (2002) argued NGO interventions had created new livelihood opportunities for the poorest people through emerging non-farm and social business sector. The numbers of small shops, tailoring and other craft enterprises, rickshaw pullers, petty traders in villages and local bazaar centers were grown substantially. Some people had been unable to hold change and the new opportunity. For many of the poor, who had little or no access to land, their primary asset remains their labour. But whether they were engaged in agricultural laboring or in the non-farm sector they continued to be marginalized from the development process.

Ahmed, A. U. et al. (2007) acknowledged that NGOs have attracted growing criticism for being unrepresentative of and unaccountable to the poor people for whose well-being they claim to work. They suggested that this happened in part because the chronic weakness of popular organizations makes it difficult for NGOs to reach the poorest groups. However, such problems of representation also occurred because trends within the aid chain have made it increasingly difficult for NGOs to understand livelihood dynamics or new organizational possibilities among rural populations. Informed by out-of-date and agrarian representations of these groups, interventions became biased toward the less poor.

Ali A. (2005) studied in the sub-district of Saturia in the district of Manikganj, Bangladesh, to examine the role of social capital of households and individuals in achieving livelihood and food security. In addition, panel data collected by the International Food Policy Research Institute (IFPRI) during 1996-1997 (pre-flood) and 1999-2000 (post-flood) in the same area were analysed. It was shown that gender of the household head did not make a difference in achieving food security at the household level. However, gender of the household member was crucial for attaining individual level food security. Social capital played an important role in averting vulnerability and sustaining livelihood, and was influenced by the landholding status of the household, which seems to function as collateral. The qualitative data revealed that women's social capital, when

defined in a broader way, did play a crucial role in achieving household food security and preventing vulnerability.

Matin, I. et al. (2003) examined a livelihood program that seek to reach Bangladesh's "hardcore poor" by combining elements of livelihood protection (food aid) with livelihood promotion (skills training and microfinance). Bangladesh Rural Advancement Committee's Income Generation for Vulnerable Group Development Program had deepened the outreach of its poverty-reduction activity and achieved impressive results. Detailed local-level fieldwork revealed, however, that program practice differed significantly from program plans. This was found to have important implications for both future program design and the understanding of "who" did not benefit from such innovative programs. It was concluded that while such programs, mixing livelihood protection and promotion, should be a major focus for anti-poverty strategies there would remain a role for more traditional social welfare schemes.

Chapter three

VGDUP AND FSUP PROJECT AT A GLANCE

This study covers two largest food security projects funded by European Union (EU) implemented in the north-east and north-west of Bangladesh including the *haor* region at Khaliajuri upazilla of Netrokona district. The purposes and main interventions were homogenous in nature. Although the major interventions were similar but the project management system was different by nature. The FSUP project was implemented by international NGOs in partnership with local NGOs on a contrary the VGDUP project was implemented by Ministry of Women and Children Affairs in partnership with different local NGOs. Hence, these two projects were selected purposively for this study to get a thorough understanding of the food security projects in the same geographic location. In the following section the details of the projects are discussed accordingly.

3.1: Vulnerable Group Development for Ultra-Poor (VGDUP) Programme (2009 to 2011)

The VGDUP programme was the European Union's fourth consecutive food security and social safety net programme executed by the Ministry of Women and Children Affairs, and was implemented by the Department of Women Affairs with the support of four implementing partners in the field including Rangpur Dinajpur Rural Service (RDRS), Resource Integration Centre (RIC), Utrayan Janakallyan Mohila Samity (UJMS) and Padakhep Manabik Unnayan Kendra (PMUK). GFA consulting group provided the technical assistance to the project. It was designed to reach 80, 000 rural ultra-poor women beneficiaries (households) in 36 upazilas of 8 districts in Bangladesh. The project locations were selected on the basis of poverty incidence and level of food insecurity as identified in the Food Security Atlas of Bangladesh (2004) prepared jointly by GoB and World Food Programme.

3.1.1: Objectives: The overall objective of the VGDUP was to reduce the level of deep poverty and food insecurity by enhancing the capacity of the ultra-poor, landless and women headed households to encourage the long term sustainable socio-economic development of rural Bangladesh to contribute to achieve the 1st goal of Millennium Development Goal (MDG). The project purpose was to

improve and sustain socio-economic conditions and food security of the target 80,000 ultra-poor women beneficiaries.

The VGDPUP implemented by four NGOs with 8 local partners as per following orders:

No	Implementing NGO	No of beneficiaries	District	No. of Upazila	Unions
1	RDRS	20,000	Kurigram	9	73
2	RIC	22,222	Nilphamary, Gaibandha and Rangpur	10	100
3	UJMS	22,222	Jamalpur, Sirajganj and Mymensingh	10	104
4	PMUK	15,556	Netrokona	7	59
		80,000	8 districts	36	336

3.1.2: Beneficiary Selection Criteria

The criteria specified the conditions that needed to be met by women to be eligible to join the VGDUP programme as eligible beneficiaries were:

- Women headed households ultra- poor woman (widow, unmarried, abandoned, divorcee)
- Ownership of land is less than 10 decimals (0.04 ha);
- Own no productive assets;
- No active adult male household members and scope of employment is limited to day-laboring or domestic help.

3.1.3: Project Interventions

The beneficiaries were supported through a monthly cash subsistence allowance and a capital investment grant to invest in appropriate IGAs with the objective of improving socio-economic conditions, food security and sustainable income. The project components were as follows:

- Component-A: Capacity building of the beneficiaries through IGA and social development training;
- Component-B: Monthly cash subsistence allowance for 24 months with compulsory savings provision;
- Component-C: Productive asset transfer to the project beneficiaries;

3.1.3.1: Key Activities:

- Formation of Self Help Groups (SHGs) and establishment of Community Resource Centre's (CRCs) at ward level and Community Based Organizations (CBOs) at union level;
- Development of Risk Reduction Action Plan (RRAPs) following a participatory risk assessment process;
- Distribution of monthly cash subsistence allowance of BDT 400 per month per beneficiaries to purchase food stuff and other basic commodities with a provision of compulsory savings of the beneficiaries;
- Skill development and social awareness training of women beneficiaries for capacity building on human development issues, literacy/numeracy, legal rights and social awareness aimed to encourage positive change in behaviors' and attitudes;
- Awareness training on food security and nutrition including child nutrition. The awareness training for health and nutrition and disaster risk reduction was also provided to all group members;
- Distribution of productive assets in cash as start-up capital of BDT 7500 per beneficiary;
- Strengthening managerial capacity building of DWA and Local Government Institutions (LGIs) through exposure visit to Nepal and Indonesia ;

The main interventions of VGDUP were designed to create income generating opportunities for 80,000 ultra-poor women and the landless to improve nutritional status and food intake, improve human and social capital and to strengthen capacity of DWA and LGIs to better manage and respond to the needs of the ultra-poor.

3.2: Food Security for Ultra Poor (FSUP)-2009-2013

The "Food Security for Ultra Poor" programme was complementary to other EU-funded food security interventions. i.e. Rural Employment Opportunities for Public Assets (REOPA), VGDUP and the activities under the food security programme 2003 all focused on supporting landless poor (mostly ultra-poor women). While actions under the Food Security Programme 2006 in Bangladesh and the on-going Food Security for Sustainable Households Livelihoods (FoSHoL) project target other food insecure groups such as children and marginal farmers in fragile areas. The FSUP interventions were to benefit from a

large range of experiences and ground work done by the EC's food security projects and other innovative interventions such as the Challenging the Frontiers of Poverty Reduction (CFPR) project and the Comprehensive Disaster Management Programme (CDMP). Under CDMP's community empowerment focal area, a comprehensive and participatory Community Risk Assessment (CRA) methodology had been developed and successfully piloted, leading into RRAPs at union level. The Poverty Reduction Strategy (PRS) defines food security as a core element of the broad front against poverty. The National Food Policy (ratified in 2006) recognized the need to strengthen safety net type development efforts in order to enhance wider access to food by ultra-poor households. In this context the FSUP was designed to support innovative interventions targeting the most disadvantaged ultra-poor to overcome the root causes of poverty and food insecurity in a sustainable manner, taking into consideration the reduction of long term risks.

3.2.1: Objectives of FSUP

The overall objective of FSUP project was to improve food security in favour of the poorest and the most vulnerable and contribute to achieving the first Millennium Development Goal (MDG)². The main objective of the programme was to contribute to the reduction of extreme poverty and food insecurity of the most vulnerable women and their dependents, with special focus on capacity development, establishment of means for income generation and ensuring household food security. It had promoted application of successfully tested innovative approaches (for example transfer of productive assets and intensive coaching for ultra-poor beneficiaries) to achieve accelerated and strengthened reduction of vulnerability and food insecurity.

3.2.2: Beneficiary Selection Criteria

The project participants were the most vulnerable women and their dependents who met the following criteria:

- Widowed, abandoned, divorced or unmarried women;
- employment limited to daily wage or domestic help;
- owning less than 20 decimal lands; no ownership of productive assets and
- No active adult member in the household.

² The first MDG is to eradicate extreme poverty and hunger, by halving between 1990 and 2015 the proportion of people (a) whose income is less than a dollar per day and (b) who suffer from hunger.

The FSUP targeted 1,35,000 rural ultra-poor households located in eight of the most vulnerable and disaster prone districts of north west and north east part of Bangladesh including the study area of Khaliajuri upazila under Netrokona district. Four international agencies CARE International, Interchurch Organization for Development Cooperation (ICCO), Islamic Relief Worldwide and UN World Food Programme (WFP) in partnership with 14 local NGOs were responsible for implementation of FSUP. Project locations and distribution of beneficiaries are as follows:

Name of NGOs	No of Beneficiaries	Name of District	Upazila
CARE International	55,000	Sunamganj,	Dharampasha, Bishwambarpur, Tahirpur, Dakshin Sunamganj, Derai, Jagannathpur, Austagram,
		Kishorganj,	Nikli, Mithamain, Karimganj, Hossainpur, Itna,
		Netrokona	Kalmakanda Madan, Mohanganj, Durgapur, Khaliajuri
Islamic Relief Worldwide	10,000	Rangpur	Gangachara, Tarakanda, Kaunia
WFP	30,000	Pabna,	Bera, Sujanagar, Bhangura,
		Sirajganj,	Sirajganj sadar, Belkhuchi, Shahjadpur,
		Bogra	Sariakandi and Dhunat
ICCO	35,000	Gaibandha	Gaibandha Sadar, Gobindaganj, Palashbari, Fulchhari, Saghata, Sadullapur, Sundarganj
Total	135,000	8 Districts	35 Upazillas

3.2.3: Project interventions

The project interventions include the following:

- Productive asset transfer in cash as start-up capital;
- Formation of SHGs/Village Development Committees (VDCs);
- Skill development training on IGAs as well as on nutrition, primary health, human rights, gender, disaster preparedness and environment issues.
- Awareness raising and advocacy in the area of human rights and access to local services and resources;
- Monthly cash subsistence allowance distribution;

- Community disaster risk assessment, preparedness and management;

The project interventions of the VGDUP and FSUP were almost similar. Both the projects had productive asset in cash transfer for subsistence allowance distribution as well as awareness on health hygiene and nutrition to address the food security and bring the targeted ultra-poor out of poverty through creating alternative income generating options considering their vulnerability. On the other hand both the projects were covered the study upazila, Khaliajuri.

Chapter four

NGO AND BENEFICIARY INVOLVEMENT

This chapter presents a detailed description of common socio-economic and demographic characteristics of the study area. It also includes the land holding size and pattern of the housing and involvement of the beneficiaries with the NGOs and benefits received from the NGOs.

4.1: Socio-economic and Demographic Characteristics

The socio-economic and demographic characteristics describes the population characteristic of the study population which includes the population size, growth, mortality and literacy rate, household income and expenditure and source of income. The main information was used in this regard to measure the poverty incidence in the study area.

4.1.1: Population Characteristics: According to the population and housing census 2011, the total population of four study unions namely Khaliajuri, Krishnapur, Mendipur and Nagar was 62,885 of which 32,045 were male and 30,840 were female.

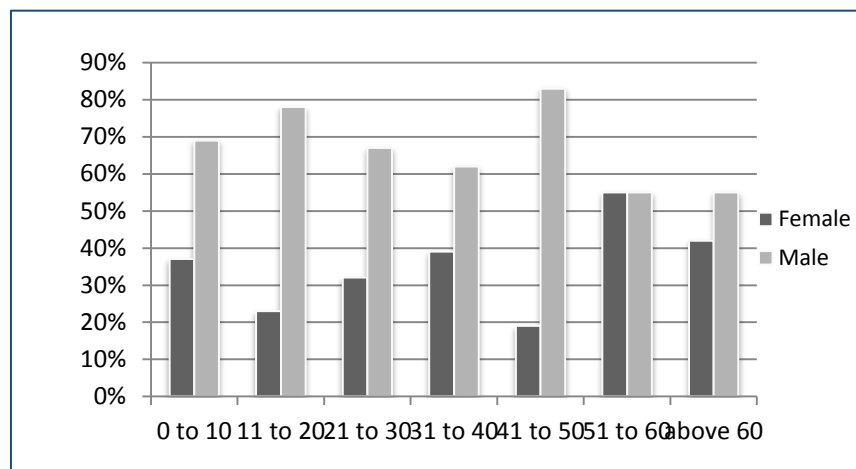
Table 03: Population characteristics of the study area

Union	All ages		Total
	Male	Female	
Khaliajuri sadar	7755	7084	14839
Krishnapur	7391	7057	14448
Mendipur	12202	11968	24170
Nagar	4697	4731	9428
Total	32045	30840	62885

Source: BBS, 2011

The sex ratio of the four unions is 103 males per 100 females (BBS, 2011). The population growth rate for the Khaliajuri upazila is 5.8 percent between the years 2001 and 2011 while annual compound growth rate is 0.56 per cent (BBS 2011). Figure 03 presents that the proportion of the population between age intervals 41 to 50 years, the male is significantly higher than the female. In middle age interval (51-60) the proportion is, however, same between male and female but it differs significantly in younger age interval.

Figure 03: Age and sex composition of the households



Source: BBS, 2011

4.1.2: Mortality Rate: In absence of district level data on mortality, national statistics on Infant Mortality Rate (IMR) and age specific mortality are presented in table 4 below. The infant mortality rate in Netrokona district was 60.59 percent in 1997 and 55.94 percent in 2007. Moreover, the data table below shows that the mortality rate is higher in the lower age interval (15-19) and higher age interval (41-49). Moreover, the mortality rate is higher among female as compared to male in the various age groups mentioned. Lack of knowledge of women’s reproductive health and lack of access to health service are leading factors causing high mortality rate.

Table 04: Infant mortality rate and age specific mortality rate

Infant Mortality Rate		Age Specific Mortality Rate in 2007-2009							
		Age 15-19		Age 20-24		Age 25-39		41-49	
1997	2007	M	F	M	F	M	F	M	F
60.59	55.94	6.5	8.3	4.2	6.5	3.7	4.8	2.1	11.9

F=Female, M= Male

Source: BBS, 2011

4.1.3: Literacy Rate: At union level, literacy rate is growing over the years, but there exists inequity in it. As from the table-05, the highest literacy rate was observed in Nagar union (36.9 percent), followed by Krishnapur (30.4 percent), Mendipur (29.6 percent) and Khaliajuri (28.5 percent). Educational attainment is

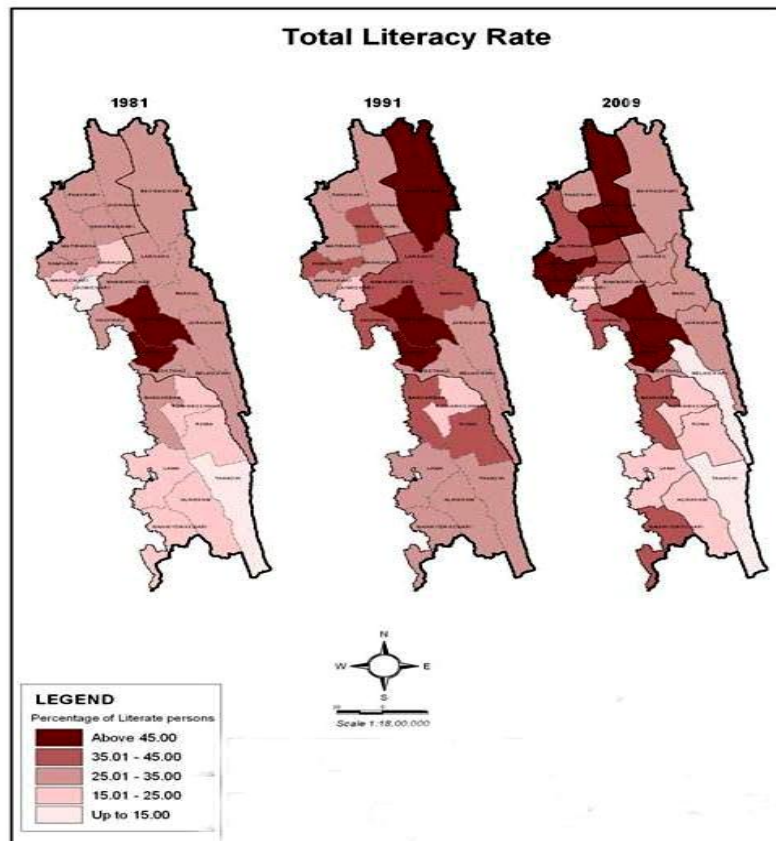
highest among male as compared to female. Figure 4 shows that the highest numbers of educated persons were concentrated on a specific area in 1981, while it has been expanded across the whole Netrokona Upazila in 1991, and the picture dramatically changed in 2009.

Table 05: Literacy rate

Union	Literacy Rate + 7 Years		
	Male	Female	Average
Khaliajuri	30.7	26.0	28.5
Krishnapur	32.6	28.1	30.4
Mendipur	31.3	27.9	29.6
Nagar	38.1	35.7	36.9

Source: Field Survey, 2015

Figure-04: Total literacy rate



Source: BBS, 2011

4.1.4: Religion

Table 6 shows the religious status of respondents. Out of 360 respondents 196 were Muslims (almost 54 percent) and 164 were believer of Hinduism (46 percent).

Table 6: Household distribution according to religion

Religion	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Hindu	63	18	101	28	164	46
Muslim	117	32	79	22	196	54
Total	180	50	180	50	360	100

Source: Field Survey, 2015

4.1.5: Physically Challenged Person: The below table represents the distribution of physically challenged persons. 16 physically challenged persons were found out of 360 sample household which is about 4 percent.

Table 7: Household distribution by physically challenged persons

Physically Challenged		VGDUP		FSUP		Total	
		F	%	F	%	F	%
Blind	Male	3	1.67	0	0	3	0.83
	Female	1	0.56	0	0	1	0.28
Lame	Male	2	1.11	2	1.11	4	1.11
	Female	0	0	0	0	0	0
Deaf	Male	4	2.22	0	0	4	1.11
	Female	2	1.11	0	0	2	0.56
Others	Male	0	0	0	0	0	0
	Female	2	1.11	0	0	2	0.56
Grand Total		14	7.78	2	1.11	16	4.45

Source: Field Survey, 2015

4.1.6: Profession of the respondents: The economy of Netrakona is predominantly agricultural. Out of the total sample households, 35 percent are engaged in agriculture, 34 percent in livestock and 13 percent in fisheries, followed by small business (12 percent), Rickshaw, van and motorcycle pulling (4 percent), and agricultural nonagricultural labour (2 percent).The people who are engaged in Agriculture, they produce varieties of crops, such as local and HYV rice, wheat, vegetables, spices, pulses, and others. Various fruits like banana, betel nut, guava, coconut are also grown. Fish of different varieties overflow in

the district. Varieties of fish are caught from rivers, channel and creeks and from paddy fields during rainy season. Catching fish is an important source of income to the fishermen. Table-8 below shows that almost half of the population depends largely on agriculture and livestock for their subsistence. Due to seasonal variation in agricultural activities there is a significant diversity in the haor area.

Table 8: Profession of the respondents in the study area

Profession	Percent
Agriculture	35
Livestock	34
Fishery	13
Agriculture and non- agricultural labour	2
Small business and handicraft	12
Transport (rickshaw,van pullar, motorcycle etc)	4

Source: Field Survey, 2015

4.1.7: Main Earning Member of the Family: The direct beneficiaries of both the projects were mostly female or female headed households. Therefore, the main earning members of the family were generally the female. As from the table -9 in Khaliajuri most of the earning member were female themselves (53 percent), whereas in Krishnapur the rate was slightly increased to 54 percent. In both areas male person of the household significantly lower than that female. In very few cases, the son respondents act as main earning member in the family. Data shows that about 17 percent, 21 percent, 17 percent and 28 percent household's son contributing as the main earning member in Khaliajuri Krishnapur Mendipur and Nagar union respectively.

Table 9: Earning members of the family

Main Earning Member	Regions (%)			
	Khaliajuri	Krishnapur	Mendipur	Nagar
Respondent Herself	53	54	51	45
Husband	21	17	30	22
Son	17	21	17	28
Daughter	9	8	2	5
Total	100	100	100	100

Source: Field Survey, 2015

4.1.8: Household Income from Primary Sources: Table -10 shows that, the annual income of the household from primary sources ranged between BDT 65,001 to 85,000, were 34.3 percent at Krishnapur union, followed by 24.2

percent, 23.1 percent and 22.5 percent respectively at Nagar Mendipur and Khaliajuri union. The second annual income of the respondents were ranged between BDT 45,001- 65,000 by 33.5 percent at Mendipur, 23.5 percent at Krishnapur 21.9 percent at Khaliajuri, and 21.4 percent at Nagar union. The annual income of the respondents above BDT 1,25,000 were 5.3 percent at Mendipur, 4.7 percent at Khaliajuri, 3.4 percent at Nagar and 3 percent at Krishnapur union. According to the baseline survey, the average monthly income of VGDUP and FSUP project beneficiaries were BDT 2040 and 3680 respectively.

Table 10: Household income from primary sources

Income (In BDT) per year	Percentage			
	Khaliajuri	Krishnapur	Mendipur	Nagar
< 25000	4	3.2	4	7.4
25001 – 45000	11.1	9.9	7.9	7.3
45001 – 65000	21.9	23.5	33.5	21.4
65001 - 85000	22.5	34.3	23.1	24.2
85001 – 105000	28.5	16.1	18.4	33.4
105001 – 125000	7.3	10	7.8	2.9
>125000	4.7	3	5.3	3.4
Total	100	100	100	100

Source: Field Survey, 2015

4.1.9: Household Income from Secondary Sources: In Natrokona Upazila the secondary occupations are mainly small-scale trade, day labor, working in nearest husking mill. Statistical data shows that only 41.9 percent households of Krishnapur, 40.4 percent households of Khaliajuri ,39.5 percent households of Mendipur and 37.3 percent households of Nagar union had annual income from secondary source BDT 15,001 to 30,000. The percentage of annual income form the secondary source above BDT 15,001 to 30,000 are very few. The Table 11 also reveals that, in Khaliajuri and Krishnapur union there was no household whose annual income from secondary source was above BDT75000. Only in Mendipur 5.3 per cent households' income from secondary source were above BDT 75000.

Table 11: Household income from secondary sources

Income (In BD) per year	Khaliajuri	Krishnapur	Mendipur	Nagar
Below 15000	21.1	12.9	7.9	12.2
15001-30000	40.4	41.9	39.5	37.3
30001-45000	18.5	27.2	21	28.5
45001-60000	18.5	16.21	18.4	20.5
60001-75000	1.5	1.79	7.9	1.2
Above 75000	0	0	5.3	0.3

Total	100	100	100	100
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Source: Field Survey, 2015

4.2: Landholding and housing of the project beneficiaries

This section provides information on landholding, land type and housing typology of the project beneficiaries. Here the deep *haor* areas are classified by distinct categories of land, landholding and housing type.

4.2.1: Land ownership: The table-12 below reflects the status of landholdings of the beneficiaries. About 83 percent of the respondent (298 beneficiaries out of 360 beneficiaries) have own land and rest of the beneficiaries (17 percent) do not have own land. Figure 5 shows the example of various types of land ownership in the study area.

Table 12: Ownership of land

Ownership of Land	VGDUP		FSUP	
	F	%	F	%
Have Ownership	148	82.22	150	83.33
Own land	130	72.22	126	70.00
Lease out	1	0.56	4	2.22
Lease in	1	0.56	6	3.33
Khash	1	0.55	0	0.00
Share	15	8.33	14	7.78
Do not have ownership	32	17.78	30	16.67
	180	100.00	180	100.00

Source: Field Survey, 2015

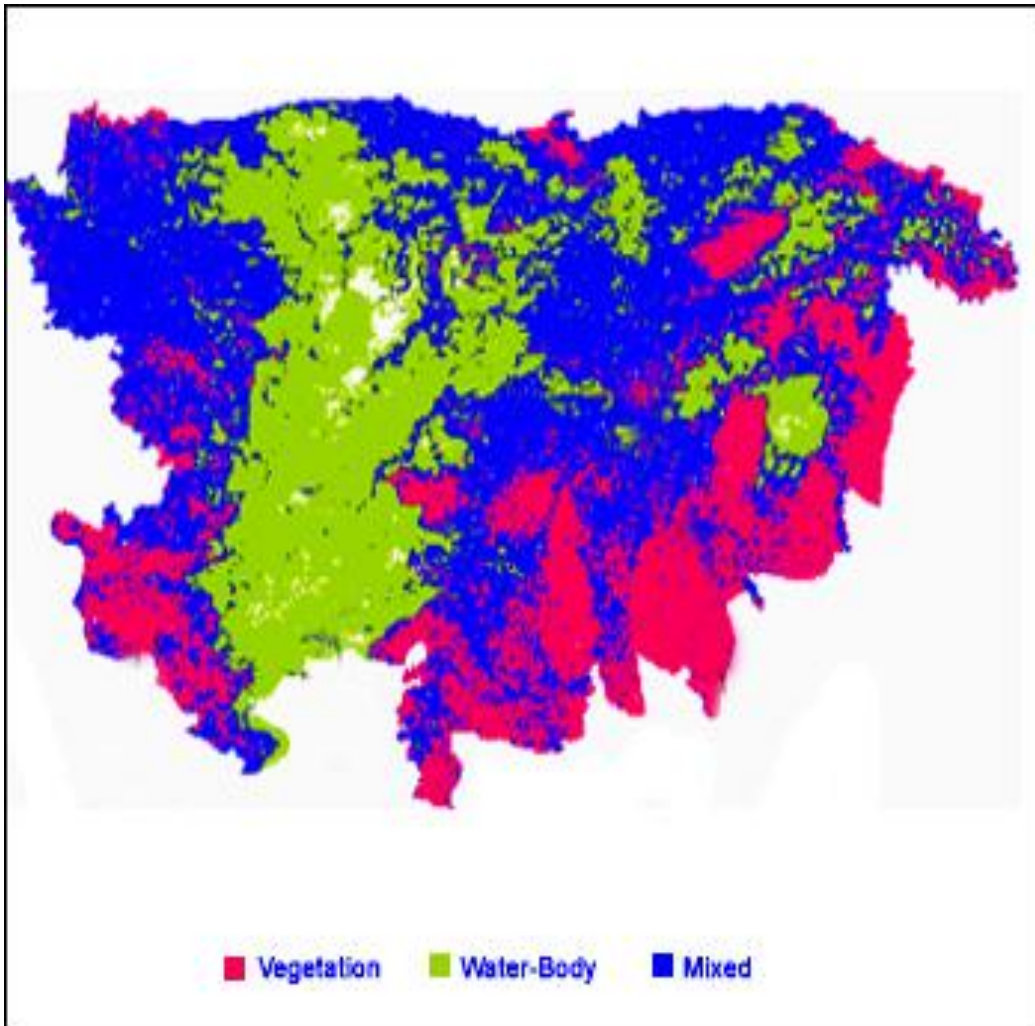


Figure 05: Land cover changes using MODIS satellite data

4.2.2: Land distribution:

According to baseline survey the average land ownership of VGDUP and FSUP was less than 10 and 20 decimal respectively, whereas in this study it was found that the average land ownership in VGDUP project increased slightly to 12.09 decimal on a contrary in FSUP project the average land ownership increased visibly (36 decimal) almost double compared to the baseline.

Table 13: Land distribution

Land Description	VGDUP	FSUP
	Mean (\bar{x})	Mean (\bar{x})
Own land	12.09	36.00
Lease out	1.00	13.18
Lease in	2.00	3.00
<i>Khash</i>	0	0

Source: Field Survey, 2015

4.2.2.1: Ownership and type of house:

Table 14 revealed that about 84 percent of the ultra-poor own houses. They live in their dwelling conditions had also been significantly improved as the study found that majority of the respondents had a place to live in compared to about 14 percent of the respondents who had to live in others houses and 1 percent of the respondents leave in rented house and 1 percent live in *khas* land.

Table 14: Ownership pattern of the surveyed households:

Ownership Type	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Own	147	41	154	43	301	84
Living with neighbor's house	29	8	22	6	51	14
Rented house	2	1	1	0	3	1
<i>Khas</i> Land	1	0	0	0	1	0
Lease	1	0	2	1	3	1
Others	0	0	1	0	1	0
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

4.2.3: Type of housing

The table 15 indicates that 57 percent residence, 59 percent kitchen, 93 percent cow shed and 70 percent granary are built up with chaff, mud and bamboo sticks.

An average 69.75 percent (average of the four) household are habituated with the housing Typology-B. Based upon housing construction materials Type-A, Type-B, Type-C and Type-D are all in category of Kacha house. Whereas Typologies F and G, which include tin, tiles, bamboo mats etc. for main (residential). The structure and typology of housing of the project beneficiaries were improved comparing the baseline data. About 100 percent of the beneficiaries' house were made of natural resources i.e. bamboo, straw, jute, stick and corrugated iron sheet (tin). The survey data shows that the project beneficiaries were able to change their housing type to different categories.

Table 15: Structure and type of housing

Housing Typology			Different units (%)			
			Main unit	Kitchen	Cow Shed	Granary
Kacha	Type-A	Roof-Tiles, Wall-Mud & Date leaf	2	0	0	0
	Type-B	Roof- Golpata/ Dead leaf, Wall- Mud & Bamboo stick	57	59	93	70
	Type-C	Roof- Golpata, Wall-Bamboo mat	11	13	1	0
	Type-D	Roof- Coconut leaf, Wall- Bamboo mat	5	26	6	0
Medium Kacha	Type-E	Roof- Golpata, Floor- Bricks	8	0	0	20
	Type-F	Roof- Tin, Wall-Bamboo	6	0	0	0
	Type-G	Roof- Tiles, Wall-Mud & Bamboo mat	5	2	0	9
Pacha	Type-H	Roof- Tin, Wall-Bricks	5	0	0	0
	Type-I	Roof- Concrete, Wall- Bricks	1	0	0	0
Total			100	100	100	100

Source: Field Survey, 2015

The respondents were asked about the support they received to build their houses. Majority of them (73 percent) replied that they had constructed their house structure of their own income, followed by inherited (21%), and donated by the NGOs (3%) and other sources (3%) respectively. The other source include using money of productive asset and monthly cash subsistence allowance (table 16).

Table 16: With what support you have made this structure

With What Support	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Inherited	40	11	36	10	76	21
Constructed by own earning	133	37	131	36	264	73
Donated by the Govt	0	0	1	0	1	0
Donated by NGOs	5	1	5	1	10	3
Others	2	1	7	2	9	3
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

The analysis of the table-17 is based on the experience from the past 5 years in Khaliajuri upazila, where respondents were asked to explain damages of housing by seasonal flood. Comparing mean value it has been clarified that the mean value of completely damaged houses in Khaliajuri 66.6, Krishnapur 68.5, Mendipur 50.5 and Nagar 82.5, there were higher mean value of completely damaged houses in Mendipur compare to the other region the most damages were incurred.

Table 17: Damages of housing by seasonal flood

Damages in Khaliajuri					
	Foundation	Plinths	Frame	Roof	Mean Value (BDT)
No Damage	9.3	8.79	7.1	6.04	7.8
Partial damage	26.4	29.2	25.3	21.4	25.6
Completely damage	64.3	62.1	67.6	72.5	66.6
Total	100	100	100	100	0
Damages in Krishnapur					
No damage	7.3	6.6	9.3	6.0	7.3
Partial damage	19.3	30.2	26.4	21.0	24.2
Completely damage	73.4	63.2	64.3	73.0	68.5
Total	100	100	100	100	0
Damages in Mendipur					
No damage	13.2	12.3	11.2	14.2	12.7
Partial damage	33.3	31.2	34.0	32.7	32.8
Completely damage	53.5	56.5	45.2	46.9	50.5
Total	100	100	100	100	0
Damages in Nagar					
No Damage	2.3	2.5	2.1	3.6	2.6
Partial Damage	17.3	16.4	14.7	11.2	14.9
Completely Damage	80.4	81.1	83.2	85.2	82.5
Total	100	100	100	100	0
Mean Value		Khaliajuri	Krishnapur	Mendipur	Nagar
Mean Value of Completely Damaged		66.6	68.5	50.5	82.5
Mean Value Partial Damage		25.6	24.2	32.8	14.9

Source: Field Survey, 2015

The table-18 below explicitly list out the cost matrix format which describes the cost for different typologies of houses. It provides an immense financial loss for different income strata. Thus from findings, analyses of collected data and from the above cost-matrix analysis come out as seasonal flooding and flash flood. The matrix below reveals that the total cost for the housing typology “H” is higher than housing typology “A”. It indicates that the post flood repair and maintenance cost of poor housing structure is higher than strong housing structure.

Table 18 Cost matrix for different of typologies of house.

Housing Typology	Cost (in BDT)					Total Cost (in BDT)
	1 Main Unit (180 Sq. ft.)	1 kitchen (120 Sq. ft.)	1 Cow Shed (150 Sq. ft.)	1 Granary (100 Sq. ft.)	Toilet (49 Sq. ft.)	
Type-A	600	130	330	143	140	1,343
Type-B	830	155	370	149	171	1,675
Type-C	932	170	381	160	181	1,824
Type-D	1,013	191	410	180	200	1,994
Type-E	1,320	260	450	200	230	2,460
Type-F	1,500	276	543	250	270	2,839
Type-G	1,570	340	571	290	281	3,052
Type-H	2100	1,050	510	310	293	4,263

The average cost (Mean) value is represented in the table.

Source: Field Survey, 2015

The table 19 showed the average damage of the respondents due to flood. Experience from the past 5 years in Khaliajuri upazila the average frequency of flash flood is 3 times a year which causes a huge damage each year. In rainy season, to some extent, the villagers faced the water stagnation which was termed as flood problem. According to baseline information average damage for each household incurred BDT 3017, whereas this study revealed that the loss of damages reduced to BDT 2431.

Table 19 Types of natural calamities, damages and assistance from different sources:

Natural Calamities		Damage					Avg. Damage a year (in BDT)	Assistance (in BDT)		
Type	Avg. frequency in a year	Main Unit (per cent)	Kitchen (per cent)	Cow shed (per cent)	Granary (per cent)	Garden (orchard) (per cent)		NGO	Govt.	None
Flash flood	3	0	0	0	0	0	2431	-	-	-

Source: Field Survey, 2015

4.3: Involvement with NGOs and benefits received

In *haor* area the ultra-poor families are the poorest among the population with a few or no asset base, highly vulnerable to any shocks and mainly depending on wage labour. The main cause of their poverty, especially in *hoar* areas is loss of income due to flash fold. This section describes the types of benefits received by the ultra-poor beneficiaries after enrollment with VGDUP and FSUP project.

4.3.1: Involvement of the ultra-poor with the NGOs

Table -20 represented the involvement of the respondents with NGOs. Out of 360 respondents 50 percent respondents (180) were involved with FSUP project and rests of 180 respondents 50 percent were involved with VGDUP project. After completion of VGDUP and FSUP projects, out of 360 respondents 227 respondents, 63 percent had been affiliated with NGOs and local Community Based Organizations (CBOs) and rest of the respondents had not been affiliated to any NGOs or CBOs. According to baseline information none of the respondents had any affiliation with any NGOs and or CBOs. Whereas the end line report of VGDUP and FSUP project advocated that 100 percent beneficiaries had affiliation with CBOs. The FGD findings revealed that the CBOs and Village Development Organizations (VDCs) were not functioning smoothly due to conflict between the CBO/VDC leaders and members and lack of leadership capacity.

Table 20: Involvement with any NGO/CBO

	VGDUP		FSUP		Total	
	F	%	F	%	F	%
YES	90	25	137	38	227	63
NO	90	25	43	12	133	37
Total	180	50	180	50	360	100

Source: Field Survey, 2015

Out of 227 respondents 62 respondents (about 27.31 percent) were affiliated with BRAC, followed by Grameen Bank 14.98 percent, Shabolombi 13.66 percent, POPY 12.78 percent and ASA 11.45 percent respectively. The table - 21 below represents the distribution of respondent's membership with the local NGOs and CBOs.

Table 21: Distribution of The respondent's membership with local NGOs

NGO/CBO	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Ekti Bari Akti Khamar Project	3	3.33	2	1.46	5	2.20
ASA	13	14.44	13	9.49	26	11.45
BRAC	31	34.44	31	22.63	62	27.31
BRDB	2	2.22	4	2.92	6	2.64
DSK	3	3.33	5	3.65	8	3.53
GRAMEEN Bank	13	14.44	21	15.33	34	14.98
Local CBO	19	21.12	7	5.11	26	11.45
POPY	6	6.68	23	16.79	29	12.78
Shabolombi	0	0.00	31	22.63	31	13.66
Total	90	100.00	137	100.00	227	100.00

Source: Field Survey, 2015

Table - 22 below reflects the membership of the respondents with the NGOs and CBOs. Out of 360 respondents 201 respondents (56 percent) were affiliated with NGOs and 26 respondents (7 percent) were affiliated with the local CBOs. 133 respondents (36.94 percent) were not affiliated with any NGOs or CBOs after completion of the project.

Table 22: Affiliation of the respondents with NGOs/CBOs

NGO/CBO	VGDUP		FSUP		Total	
	F	%	F	%	F	%
NGO	71	39.44	130	72.22	201.00	55.83
Local CBO	19	10.56	7	3.89	26.00	7.22
Not involve	90	50.00	43	23.89	133.00	36.95
Grand Total	180	100.00	180	100.00	360.00	100.00

Source :Field Survey: 2015

All beneficiaries (100 percent) of VGDUP and FSUP project received support as grant. Table 23 below shows the status of receiving support of the beneficiaries from the NGO projects financed by the European Union.

Table 23: Status of receiving support

Support	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	180	50	180	50	360	100
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

4.3.1.2: NGO support for the Ultra-poor

Table 24 below shows the distribution of beneficiaries of VGDUP and FSUP projects who were the grant recipient. They were provided hardware and software support from the project as grant. The household survey data shows that 100 percent beneficiaries of VGDUP and FSUP project received productive asset either in cash or in kind as their start-up capital after receiving skill development training of their choice and previous knowledge and skills. The value of the productive assets of VGDUP and FSUP beneficiaries were BDT 7,500 and BDT 4,700 per beneficiaries respectively. The beneficiaries developed their own business plan in consultation with the project staff. Out of 360 respondents 180 respondents of VGDUP project had received monthly cash subsistence allowance form the project. The final evaluation report of the VGDUP project indicates that all beneficiaries of VGDUP project had received monthly cash subsistence allowance of BDT 350 per month per beneficiary for 24 months. About 18 percent beneficiaries of FSUP project and 1 percent beneficiaries of VGDUP project had received food stuff from the Shabalomby Unnayan Sangstha (SUS) during disaster. Moreover, 2 percent beneficiaries of the sample survey took shelter and 10 percent got relief. About 16 percent of the beneficiaries of VGDUP and 9 percent beneficiaries of the FSUP had received loan from other NGOs.

Table 24 Grants/supports received from the project

Support	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Productive asset ³	180	50	180	50	360	100
Monthly cash subsistence allowance ⁴	180	50		0	180	50
Shelter	2	1	4	1	6	2
Relief	1	0	35	10	36	10
Food stuff	3	1	66	18	69	19
Training (Skill development and social awareness)	180	50	180	50	360	100
Loan	57	16	32	9	89	25
	The calculation is based on multiple response.					

Source: Field Survey, 2015

Table 25 below shows the how much time it took to earn from the productive assets had been provided by the project to the beneficiaries of VGDUP and FSUP project. Seven percent of the sample survey beneficiaries were able to earn immediately after a week and seven percent of them were able to earn by a month. Furthermore, 26 percent of them earned by a year which is followed by nine months, six month and three months respectively by 16 percent, 11 percent and 13 percent. The study found that three percent of respondents did not procure any productive asset after receiving cash for productive asset from the project and three percent had sold their productive asset after purchase. Another nine percent had lost their asset of which six percent lost their asset due to death of livestock and three percent due to damage during disaster. About two percent of the survey households used the money of productive asset to build house and one percent of them spent the money of productive asset in daughter's wedding. The FGD findings revealed that the majority of the beneficiaries were involved with the poultry rearing either as primary income generating options or secondary options for income generating. They were able to make earning through selling eggs. The beneficiaries who were involved with the small business, tailoring were able to get earnings within a month after investment. The majority of the respondents invested in goat or sheep rearing and were able to make profit within nine months to twelve months period.

³ BDT 7500 for VGDUP and BDT 4700 for FSUP beneficiaries

⁴ BDT 350 per month for 24 months with a provision of compulsory savings of BDT 50 per month

Table 25: Time required for earning from productive assets

Time took	VGDUP		FSUP		Total	
	F	%	F	%	F	%
1 week	16	4	10	3	26	7
1 month	18	5	7	2	25	7
3 months	28	8	18	5	46	13
6 months	19	5	20	6	39	11
9 months	26	7	34	9	60	16
12 months	49	14	45	13	94	26
Above 1 year	0	0	2	1	2	1
Asset damage during disaster	1	0	10	3	11	3
Asset died after purchase	6	2	17	5	23	6
Asset sold after purchase	5	1	5	1	10	3
Did not purchase	3	1	7	2	10	3
Expenses for treatment	1	0	0	0	1	0
Expenses in daughter marriage	3	1	0	0	3	1
Expenses to build house	4	1	3	1	7	2
No income from asset	1	0	2	1	3	1
Grand total	180	49	180	52	360	100

Source: Field Survey, 2015

The table 26 below shows the average earning of the beneficiaries from the productive asset per month. Out of 360 respondents 292 respondents (81 percent) had been able to earn BDT 2,135.45. It indicates that average earning of VGDUP beneficiaries (87 percent) was BDT 2,888.14 per month from the productive asset, followed by BDT 1,272.06 per month of 76 percent beneficiaries of FSUP project. The contribution of income from productive asset had contributed increasing total average household income of the beneficiaries as reflected in the monthly average income of the beneficiaries.

Table 26: Contribution of productive asset for enhancing average household income

	VGDUP			FSUP			Total		
	F	%	Average income (BDT)	F	%	Average income (BDT)	F	%	Average income (BDT)
income from IGA	156	87	2888.14	136	76	1272.06	292	81	2135.45
No income from IGA ⁵	24	13	0.00	44	24	0.00	68	19	0.00
	180	100	2888.14	180	100	1272.06	360	100	2135.45

Source: Field Survey, 2015

The table 27 below shows that 76 percent households had been planning for multiplication and diversification of productive assets and rest of 24 percent households did not have any plan to multiply and diversify their productive assets.

Table 27: Productive asset Multiplication and Diversification Plan

	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	157	44	116	32	273	76
No	23	6	64	18	87	24
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

The respondents who had multiplication and diversification plan were facing some difficulties to implement their plan. The respondents were asked what initiative would have been taken for proper management in order to multiply their start up productive asset. Majority of them replied that they need land to manage their assets properly. About 30 percent of the respondents out 360 had given emphasize on having leased land, followed by purchase of land (21 percent), increasing capital for further investment (9 percent) lack of extension services (5 percent) respectively. About seven percent of the survey respondents thought that they had lack of skill managing income generating activities they undertook with project support. Rest of the respondents replied that they need to purchase cow (1 percent), boat and net (1 percent), appropriate business portfolio (1

⁵ Invested the money of productive assets to house repair, treatment, daughter's wedding etc.

percent), and sewing machine (1 percent).The table 28 below represents the distribution of the respondents that they need to have appropriate planning for multiplication and diversification of their start up productive asset.

Table 28: Multiplication and diversification of productive asset

	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Boat and net		0	4	1	4	1
Increasing capital	20	6	10	3	30	9
Cow purchase	4	1	0	0	4	1
Increase port-folio	5	1	0	0	5	1
Lease land	48	13	61	17	109	30
Purchase of land	54	15	22	6	76	21
Sewing machine	2	1	1	0	3	1
Skill management training	11	3	13	4	24	7
Lack of extension service	13	4	5	1	18	5
Had no appropriate business plan	23	6	64	18	87	24
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

Table 29 below shows the requirement of the respondents who had multiplication and diversification plan against respective income generating activities have been initiated out of cash received from the project as startup capital as well as means of production. The FGD data showed that the project had provided follow-up support to the beneficiaries through establishment of linkage with the extension service providers, market actors, exposure visit to the successful project participants, facilitation in the group meeting, counseling during household visit of the project staff, providing refresher training to the beneficiaries who were lagging behind. Moreover, the VGDUP project provided entrepreneurship training to increase IGA management skill of the beneficiaries. The respondents were asked during sample survey what plan they had to multiply and diversify their IGA's and how far they were able to manage it. The respondents had replied that they took revised plan to multiply their asset and diversify their IGA portfolio from original IGA having more supplementary IGA to contribute increasing income. The sample survey revealed that majority of the beneficiaries about 76 percent had been able to multiply their income as well as diversify their means of income according to their business plan. The table below shows that out of 76 percent beneficiaries 54 percent had chosen on farm

income generating activities such as agriculture (about 23 percent), followed by fishing (18 percent), cattle rearing (6 percent) and poultry rearing (5 percent) respectively. Moreover, about 22 percent of the respondents had chosen off farm income generating activities such as small business (16 percent), rickshaw and Van pulling (2 percent), tailoring (1 percent) and carpentry (1 percent) and Vaccinator (1 percent) respectively.

Table 29: Requirement for multiplication and diversification of IGA

	VGDUP		FSUP		Total	
	F	%	F	%	F	%
On Farm IGA						
Agriculture	49	14	33	9	82	23
Land purchase	3	1		0	3	1
Land lease	5	1	1	0	6	1
Poultry rearing	18	5		0	18	5
Cattle rearing including goat and sheep	15	4	6	2	21	6
Fishing	28	8	35	10	63	18
Off Farm						
Job	0	0	3	1	3	1
Small business	29	8	30	8	59	16
Rickshaw and van pulling	3	1	3	1	6	2
Tailoring		0	4	1	4	1
Carpentry	2	1	1	0(2	3	1
Vaccinator	5	1		0	5	1
Did not have plan	23	6	64	18	87	24
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

The respondents were asked if they did face any challenge to multiply their productive assets. Out of 360 respondents 277 about 77 percent replied that they had to face some challenges in multiplying productive asset. Rest of the respondents 23 percent did not reply.

Table 30: Challenges for asset multiplication

	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	159	44	118	33	277	77
Did not reply	21	6	62	17	83	23
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

Table-31 below shows the main challenges had been facing by the respondent in multiplying productive assets. About 15 percent of the respondents mentioned that the lack of sufficient capital and land was one of the main challenges in multiplying productive asset, followed by flash flood and water logging (15 percent), lack of agricultural input and cropping intensity (14 percent), lack of cattle food and treatment facilities (9 percent), lack of management skills (8 percent), poor transportation and communication system (7 percent) and lack of access to wetland (5 percent). Another two percent respondents mentioned that they were forced to sale their products to the *Mahajan* as they used to take *dadan* from the traditional money lender or *Mohajan*.

Table 31: Main challenges for asset multiplication and diversification

Main challenges	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Lack of agricultural inputs and cropping intensity	25	7	24	7	49	14
Insufficient capital and land	34	9	22	6	56	15
Flash flood, water logging	34	9	19	5	53	15
Lack of management skill	18	5	11	3	29	8
Lack of cattle food and treatment facilities	20	6	14	4	34	9
Poor transportation and communication	14	4	10	3	24	7
Lack of access to wetland	7	2	12	3	19	5
Dadan/force sale to <i>Mahajan</i>	3	1	3	1	6	2
Others(old aged, loan re-payment, housing etc.)	4	1	4	1	8	2
Did not reply	21	6	61	17	82	23
Grand Total	180	50	180	50	360	100

Source: Field Survey, 2015

Besides the capital investment grant as means of startup productive asset, the beneficiaries of VGDUP were provided through a monthly safety net supplementary allowance⁶ of BDT 400 per month for a period of 24 months. The table 32 below represented the distribution of the participants in terms of the use of monthly cash subsistence allowance. Out of 180 respondents of VGDUP 22 percent had spent 100 percent money to purchase food stuff, four percent respondents had spent to meet medical expenses and two percent had spent for house repair. Rest of the respondents mentioned multiple heads of expenditure.

⁶ Each beneficiary received BDT 400 per month for a total of 24 months, of which per beneficiary BDT 50 they deposited in the bank as monthly savings. The beneficiaries received their cash subsistence allowances every two months as financial means, the purpose of which was to contribute towards beneficiaries' ability to purchase food and other essentials for themselves and their dependents

About 32 percent beneficiaries mentioned purchase of food stuff and medical expenses, which was followed by (i) purchase of food stuff, school fees and medical expenses, and (ii) purchase of food stuff, repayment of loan and medical expenses respectively by four percent and 36 percent. The FGD findings revealed that the VGDUP beneficiaries had been able to improve their food intake thrice a day using the money. The most of the beneficiaries were able to meet their nutritional demand using the money of subsistence allowance. It also supported them to purchase productive assets and increase investment capital at the later part of the project.

Table 32: Use of monthly cash subsistence allowance

	VGDUP	
	F	%
Purchase food	41	22
Medical expenses	6	4
Purchase food and medical expenses	58	32
Purchase food and repayment of loan	1	0
Purchase food and purchase asset	1	0
Others (house repair)	2	2
Purchase food, school fees and medical expenses	6	4
Ceremony	1	0
Purchase food, repayment of loan and medical expenses	64	36
Grand Total	180	100

Source: Field Survey, 2015

Chapter 5

STUDY FINDINGS

This chapter describes quantitative analysis of household survey. It includes some important indicators i.e. occupation, employment, economic condition, sources of knowledge, awareness, household decision making etc. In addition, other important indicators i.e. use of latrines, safe drinking water, food intake, human and social capital are also considered. Here the qualitative analysis also considered comparing the benchmark status of the ultra-poor households of the study area.

5.1: Changes in Livelihoods of ultra-poor after Project Interventions

The present and previous means of livelihood options and changing pattern of the beneficiaries were investigated in the household survey. The accumulation of capital, changes in the pattern of ownership of cattle, poultry birds, on-farm and off-farm livelihood options, changes in occupation of the ultra-poor due to project intervention and reasons behind the improvement in economic condition of the respondents has been presented in this section.

5.1.1: Changes in occupation of the ultra-poor after project interventions:

Both VGDUP and FSUP project beneficiaries were involved either in agricultural or non agricultural investment after receiving support from the project. Before enrolment in the project they had limited access to investment in agriculture sector. Table 33 described the respondent's agricultural non agricultural investment, social investment for four years after receiving start-up capital from the project. The table below indicates the inclination of the respondents for agricultural investment is emerging up in an ascending order with project assistance. The first year after project starting around 37.2 percent beneficiary amassed fairly 1,000 to 2,000 BDT for agricultural investment, which had become 4,001 to 5,000 BDT by the fourth year of project intervention. In addition, people in *haor* region had been losing propensity towards non-agricultural as well as social investment since project starting. From first year of project the volume had been increasing exceedingly, (table 33) around 33.1 percent and 19 percent had invested nearly 4,001 to 5,000 BDT for non-agricultural and social investment respectively, whereas at first year of project about 43.3 percent

beneficiary invested on non-agricultural activities an amount of BDT 1,000-2,000. Now people from *haor* area in Bangladesh are moving forward to assure their future well being in accordance with agricultural cropping intensity. The benchmark status of the respondents indicates that they were not able to invest in the agriculture as they did not have enough income (less than 1 US\$). About 56 percent (VGDUP) beneficiaries income was BDT 1001-2000. On the other hand the average monthly income of the FSUP beneficiaries was BDT3,680. The monthly expense data of both the project beneficiaries during baseline reflected that none of the beneficiaries had any investment in agriculture. They had to spend all of their income (100 percent) to meet household expenses like food, medicine, clothes etc.

Table 33: Accumulation of capital after joining with the project by age of membership

After Project Intervention	Agricultural Investment		Non Agricultural Investment		Social Investment	
	%	Amount	%	Amount (BDT)	%	Amount (BDT)
One Year	37.2	1000-2000	43.3	1000-2000	19.5	1000-2000
Two Years	41.3	2001-3000	34.2	2001-3000	24.5	2001-3000
Three Years	47.7	3001-4000	32.4	3001-4000	19.9	3001-4000
Four Years	47.9	4001-5000	33.1	4001-5000	19	4001-5000

Source: Field Survey, 2015

Table- 34 shows the changing pattern of owning livestock animal and poultry birds after project intervention. During survey it was found that around 21.8 percent had owned poultry (chicken and duck), which was barely 7 percent at the time of joining. During household survey of the present study 4.5 percent and 4.9 percent of the respondents had approximately three and four or more than above number of cattle (cow, goat and sheep) respectively. Whereas the benchmark status shows that none of the beneficiaries had any cattle like cow, goat and sheep before the project intervention. The multiplication of assets was possible in accordance with project engagement in Khaliajuri, Krishnapur, Mendipur and Negar union in Netrokona district.

Table 34: Ownership of livestock before and after project intervention

Number of Animal	Before (%)		After (%)	
	Poultry	Cow,goat and sheep	Poultry	Cow, goat and sheep
One	5	0	23.8	13.8
Two	7	0	21.8	11
Three	0	0	6.4	4.5
Four and above	0	0	3.5	4.9
Nil	88	100	44.5	65.8
Total	100	100	100	100

Source: Field Survey,2015

Changing trends of occupation as a result of project intervention i.e. cash transfer among the beneficiaries as start-up capital were reflected in the below table 35. The respondents' in the study area started to depend mostly over agriculture, livestock and fisheries after joining the VGDUP and FSUP project using the money of productive asset. About 35 percent beneficiaries had taken agriculture as their main occupation, where 26.80 percent respondents were female. Involvement of female respondents in agricultural activities had been increased compared to the baseline (0.25 percent) after receiving support from the project. Moreover, approximately 34 percent beneficiaries representing both male and female depended on livestock i.e. cattle (cow,goat and sheep) and poultry (duck and chicken) rearing activity to support themselves as well as their dependents. Because of project assistance the respondent's occupation as wage labour in Agriculture and domestic labour were reduced to 1.3 percent from 43.44 percent. About 13.30 percent respondents had adapted fishing as their main occupation. None of the beneficiaries were involved in fishing before the project intervention. Most of the women used to work as day labourer or domestic labour, after receiving support from the project they were involved with on-farm and off farm activities for income generation. The FGD and KII findings also revealed that the beneficiaries of VGDUP and FSUP were able to diversify their means of income utilizing the cash of productive asset received from the project. Majority of the beneficiaries had more than one income generating options as they could manage their start-up capital to diversify their income effectively.

Table 35: Changes in occupation after project intervention

Principal occupation	Before			After		
	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
Agriculture	0.20	0.25	0.45	8.30	26.80	35.10
Agricultural wage labour/day labour/domestic labour	13.44	30.00	43.44	1.10	0.20	1.30
Livestock (cattle and poultry rearing)	0.40	11.50	11.90	6.41	27.60	34.01
Handicrafts	0.00	1.79	1.79	0.40	3.00	3.40
Small business	1.50	0.55	2.05	3.50	4.30	7.80
Rickshaw/van pulling	0.00	0.00	0.00	4.50	0.00	4.50
Fishing	0.00	0.00	0.00	7.00	6.30	13.30
No productive occupation /unemployed	2.57	36.40	38.97	0.00	0.59	0.59
Others	0.00	1.40	1.40	0.00	0.00	0.00
	100.00			100.00		

Source: Field Survey, 2015

During survey, 35.10 percent respondents were involved with crop and vegetable cultivation to secure their income, which was very insignificant only 0.45 percent before project intervention. Employment activity has been accelerated mostly through crop and vegetable cultivation sector, barely 34.65 percent, the highest one among all sectors which is followed by the livestock, fisheries and small business respectively by 22.11 percent, 13.30 percent and 5.75 percent. Moreover, the agriculture and non agricultural labour has lost its priority significantly from 43.44 percent to 1.3 percent. The FGD findings showed that with the earnings the beneficiaries were able to plan for alternative livelihood options to multiply their assets, securing their food security, children education and house repair.

Table 36: Increase in employment in activity by occupation (primary and secondary)

Occupation	Before (%)	After (%)	Increase in employment (%)
Agriculture	0.45	35.1	34.65
Livestock (cattle and poultry rearing)	11.9	34.01	22.11
Fisheries	0	13.3	13.3
Small business	2.05	7.8	5.75
Rickshaw/van pulling	0	4.5	4.5
Handicraft	1.79	3.4	1.61
Agricultural wage labour/day labour/domestic labour	43.44	1.3	-42.14
Unemployed	38.97	0.59	-38.38
Others	1.4	0	-1.4

Source: Field Survey,

2015

The table 37 below describes the perception on changing financial condition after project intervention of project beneficiaries. About 93 percent respondents of the VGDUP and 90 percent respondents of FSUP project from the study area reported that their financial conditions had improved through project support. The FGD participants reported that presently they could easily manage their family expenditure along with their children education and health care expenses. Even their savings with the local NGOs as well as in local bank had increased the persecution for future requirement. About 5 percent of the VGDUP beneficiaries and 6 percent of the FSUP beneficiaries told that their financial condition remained same as before. About two percent of the FSUP and one percent of the VGDUP beneficiaries reported that the project did not make any change to their financial condition. The FGD findings showed that some of the beneficiaries were not able to increase their skill from the skill development training for income generating activities. As a result, they lost their livestock animals due to death of animal.

Table 37: Perception of the respondents about the changes in financial condition after project intervention

Changes in household economy	VGDUP	FSUP
Improved	92.70	90.00
Remain the same	5.20	6.20
deteriorated	1.40	2.20

No response	0.70	1.60
Total	100	100

Source: Field Survey, 2015

The reasons behind the improvement in financial condition of the project beneficiaries' in northeast *haor* belt of Bangladesh has been reflected in the table 38. All respondents were asked to mention the secrets behind the improvement in financial condition after the project intervention. Majority of the respondents about 93 percent mentioned that the accumulation of capital had been playing a key role for flourishing their financial condition. About 53 percent respondents replied that the project interventions had created opportunity of self-employment. About 32 percent respondents opined that the project interventions had created scope of more investment in agriculture which contributed to change their economic condition. About 30 percent respondents mentioned that the reason behind their success avoiding the traditional money lenders which is followed by increase in wage rate (22.36 percent), skill training and establishing linkage with the extension service providers (16.20 percent), opportunity to more investment in livestock and poultry (11.18 percent) and more involvement in vegetable and fruits growing (5.20 percent) respectively.

Table 38: Reasons behind the improvement in financial condition after project intervention

Multiple reasons	(%)		
	Male	Female	Total
Free from the clutches of <i>Mahajon</i>	10.40	19.24	29.64
Accumulation of capital	35.36	55.56	90.92
Scope of self employment through asset multiplication and diversification of business portfolio	22.36	30.16	52.52
Increase in wage rate	5.72	16.64	22.36
More involvement in livestock and poultry rearing	8.58	2.60	11.18
More involvement in vegetable and fruits growing	2.08	3.12	5.20
More investment in Agriculture	13.26	18.72	31.98
Skill training and linkage with extension service providers	2.60	13.60	16.20

Source: Field Survey, 2015

5.1.2: Changes in health, hygiene, education, food security, sanitation and environment

The study was an attempt to determine the changes in livelihood of ultra-poor through the NGO interventions. The health, hygiene, sanitation and environment

had been playing an important role in changing the livelihood of the ultra-poor. The level of knowledge on health practice behavior, hygiene practice, sanitation and environment related issues of the surveyed households were investigated to measure the changes in the livelihood of ultra-poor due to NGO interventions. These issues among others included, accessing health service, personal health and hygiene, access to safe drinking water, knowledge of killer diseases, immunization, family planning, and waste disposal and improved cooking burners etc.

5.1.2.1: Health Service

Almost all surveyed households were aware of health services providers locally available at union and upazila level such as primary health care center, mother and child health centre, upazila health complex and other hospitals. The respondents were asked where they used to go when she or her family members got sick. About 59.45 percent respondents replied that they first went to primary health care centers when any of their family members got sick, followed by upazila health complex and village doctors respectively by 36.11 percent and 4.44 percent (Table 39).

Table-39: Family members first go to the health service centre when they get sick

Name of health service centre	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Primary health care centre	102	56.67	112	62.22	214	59.45
Upazila health complex	66	36.67	64	35.56	130	36.11
Traditional village doctor	12	6.66	4	2.22	16	4.44
Total	180	100.00	180	100.00	360	100.00

Source: Field Survey, 2015

The sample survey (Table -40), represents the health service seeking behaviors of the VGDUP and FSUP project beneficiaries. About 35 percent beneficiary households of VGDUP and 27 percent beneficiaries of FSUP project reported that they had taken treatment from the government hospital. Before joining the project it was 15 percent. The percentage of receiving treatment from government hospital had been increasing compared to the benchmark status. 24 percent beneficiary households of VGDUP project reported that they had taken treatment from local satellite clinic. Whereas, 26 percent beneficiary of FSUP project received treatment from it. A large proportions (14 percent in FSUP and 11 percent in VGDUP) of beneficiaries household received treatment from the

local medicine shops. It had been increasing comparing to the baseline data (1.99 percent). On the other hand the percentage of receiving health services from the quack had been reducing significantly. Before the project interventions, a large numbers (62.02 percent) of the beneficiaries used to go for treatment to the quack. It is reduced by three percent and two percent respectively in case of VGDUP and FSUP beneficiaries. Moreover, it is very significant that none of the project beneficiaries went to the *Kabiraj/Ojha* for treatment in last 12 months, which was about 21 percent before project intervention. The FGD findings revealed that the beneficiaries of the project received social awareness training on different issues including personal health and hygiene. They had been able to be united to accessing the services for which they are entitled for. Earlier, they hardly received any health services free of cost from any government hospital. Receiving training from the project, they are now aware of their rights and entitlements and they are now confident enough accessing extension services including the health services from the government hospitals.

Table 40: Health seeking behaviors form the sick family members in last 12 months

Health seeking behaviors	VGDUP (%)	FSUP (%)	Before joining the project (%)
Didn't take any treatment	3.00	4.00	0.00
Local satellite clinic	24.00	26.00	0.00
Government Hospital	35.00	27.00	15.04
Private Hospitals/ Clinics	7.00	6.00	0.00
MBBS doctor at local pharmacies	6.00	9.00	0.00
Local medicine shop	11.00	14.00	1.99
Ayurvedic medicine	7.00	5.00	0.00
Homeopathy	4.00	7.00	0.00
Quack	3.00	2.00	62.02
Kabiraj/Ojha	0.00	0.00	20.95
Total	100.00	100.00	100.00

Source: Field Survey, 2015

5.1.2.2: Safe drinking water:

All of the VGDUP and FSUP beneficiaries reported that they had access to safe drinking water. They used to drink water from arsenic free hand tube wells as the main source of drinking water. However, majority of the respondents did not have own source of safe drinking water. But they had to collect arsenic free safe drinking water from the community owned hand tube well (HTW) or from their

neighbors HTW. The table 41 below represents the FSUP and VGDUP beneficiaries' access to safe drinking water sources. All respondents (100 percent) reported that they have access to safe drinking water. The baseline data says that it was 86 percent and 89 percent in case of VGDUP and FSUP beneficiaries' respectively. The FGD finding showed that the beneficiaries were aware of arsenic and water borne diseases. They use to collect safe drinking water for their own interest and to avoid water borne diseases.

Table-41: Access to safe drinking water sources

Status having safe drinking water sources	Before project intervention		After project intervention	
	VGDUP	FSUP	VGDUP	FSUP
	%	%	%	%
Yes	86.04	89.00	100	100
No	13.96	11.00	0	0
Total	100.00	100.00	100	100

Source: Field Survey, 2015

5.1.2.3: Child Education:

The table 42 represents the status of schooling of the VGDUP and FSUP beneficiaries' school going aged children. Before joining the project 42.47 percent beneficiaries used to send their children to school which was increased by 98.08 percent. The percentage of left out from the school had been decreased from 42.47 percent to 1.92 percent. All beneficiaries who had school going aged children were giving importance to children's education. The FGD findings revealed that before the project interventions they used to involve their kids to household activities. They did not have ability to purchase pen, paper and other study materials. They also mentioned that after the project interventions they had been able to meet expense of tutor. Majority of the beneficiaries children were going to the government primary school.

Table-42: Status of sending children school

Status of schooling	Before project intervention		After project intervention	
	N	%	N	%
Yes	340	57.53	612	98.08
No	251	42.47	12	1.92
Total	591	100.00	624	100.00

Source: Field Survey, 2015

The table 43 represents the types of school where the beneficiaries' children were studying. 59 percent respondents reported that their children went to the government primary school, followed by high school, BRAC school and others respectively by 22 percent, 17 percent and two percent. The beneficiaries also reported that they did not face any challenges during enrollment of their children to the school.

Table-43: Types of school

Types of school	Children	
	N	%
Government Primary school	362	59
High school	137	22
BRAC school	101	17
Others	12	2
Total	612 ⁷	100

Source: Field Survey, 2015

5.1.2.4: Nutrition Status

Table 44 reveals the food consumption along with nutritional attainment. Presently people of study area are mostly able to manage their three times meal in a day. About 96 percent of the respondents were succeeded to have their daily meal three times after pulling in VGDUP project intervention. Whereas, before project intervention it was around 0.58 percent, which had been increased by 95.42 percent. In addition from 6 percent, the dietary food intakes for thrice a day had been promoted to 97.5 percent subsequent to FSUP intervention which had been increased by 91.5 percent comparing the benchmark status in the study area.

Table 44: Change in composition of nutritional intake (changes in food consumption score)

Parameter		VGDUP	FSUP
One Meal		0.0	0.0
Two Meal		0.0	0.0
Three Meal	Before Project Intervention	0.58	6.0
	At the time of Survey	96.0	97.5
Increase (%)		95.42	91.5

⁷ Multiple response

Source: Field Survey, 2015

Table -45 below describes the status of food intakes of beneficiaries in consistence with national nutritional volume. Here the food intake of beneficiary in consistence with national nutritional volume are summarized in grams. Under VGDUP and FSUP projects most of the beneficiaries had been able to manage their daily meals with nutritional attainment entirely. Nearly 49 grams protein as (meat, fish etc) were obtained by beneficiaries in study area. The national nutritional survey volume is around 30 grams. The VGDUP and FSUP project assisted the ultra-poor beneficiaries to include cereal food as well as vegetables, almost 501 grams and 307 grams consumed fairly as rice, wheat and vegetables by the beneficiaies as their daily food intake. The FGD findings showed that the beneficiaries were able to keep stock of cerial foods for the lean period. Their food security status was year round surplus, no deficit even in the lean period. They had been able to proper use of cash subsistance allowance, in a productive way capitalizing their expertise and skills. As a result, they are now food secured.

Table 45: Food Intakes of beneficiary and non-beneficiary in consistence with national nutritional volume

Food Groups	Beneficiary Intake VGDUP and FSUP(GMS)	National Nutrition Survey(GMS)
Cereal (rice, wheat)	501	456
Animal (meat, egg, fish and milk)	49	30
Other plants and vegetables	307	220
Total	857	706

Source:FGD findings, 2015

5.1.2.5: Sanitation practice:

In rural areas, especially in the *haor* areas safe drinking water and sanitary latrines were seemed as luxury items. Among the poorest families, almost one in three people defecate in the open spaces. Open defecation exposes children to feces in their living environment. Before project intervention none of the VGDUP project beneficiaries had access to sanitary latrine. During household survey, they had proper sanitation practice i.e. use of hygienic toilet, use of clean water etc. Currently People of *haor* area were habituating with hygienic sanitation practice, they completely isolate excreta from the human environment through the use of a water seal U bend or some other lid or barrier. People in *haor* area were changing their sanitation practices considering hygiene practices. About 87

percent beneficiary under FSUP project had ameliorated their sanitation practices after joining the project, which was 2.6 percent before project period. Under VGDUP project because of watersel the sanitation practice of 73.2 percent beneficiary had been improved extensively in comparing before and after period.

Table 46: Sanitation Practices

Project	Percent of Beneficiary		
	Before Project Intervention	At the time of Survey	Percent of Change
FSUP	2.6	87.0	84.4
VGDUP	0.0	73.2	73.2

Source: Field Survey, 2015

Based on Table 47 awareness building has been one of the impacts of the program. Lifestyle has shown positive changes in that the use of sanitary toilets. About 47.2 percent beneficiaries were using sanitary toilet. Respondents were asked to give their opinion about the use of ring-slab latrine; it was found that 36.2 percent beneficiaries were using ring slab latrine where the main three condition of hygienic latrine had been considered. The uses of sanitary latrine (47.20 percent), rig slab (36.20 percent) and pit latrine (12.70 percent) had been increased significantly among the project beneficiaries comparing the benchmark status before joining the project. It indicates that the project interventions could bring significant improvement in the sanitation practice of the ultra-poor of the study area.

Table 47: Use of latrines by the beneficiaries

Use of different types of latrine	Beneficiary		
	Before joining the project (FSUP)	Before joining the project (VGDUP)	During sample survey (VGDUP and FSUP)
Mud/Khola/Kancha	44.40	77.93	0.00
Hanging	12.00	0.00	2.60
Pit	19.00	0.00	12.70
Ring slab	2.00	0.00	36.20
Sanitary	2.60	0.00	47.20
Open air	18.00	22.07	0.00
Others	2.00	0.00	1.30
Total	100.00	100.00	100.00

Source: Field Survey, 2015

The sample survey reveals that about 79 percent of the respondents were aware of homestead waste management to keep their homestead environment friendly and they had waste disposal place at their homestead. Rest of the respondents (21 percent) did not have any separate place for homestead waste disposal (table-48). The FGD finding revealed that almost all beneficiaries were taking care of their homestead cleanliness. They used to throw away the household waste in a side of the homestead making a hole. They were using the waste of cattle and poultry birds separately to use as natural fertilizer in their farm.

Table 48: Homestead waste disposal

Have a place to homestead waste disposal	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Yes	138	76.67	147	81.67	285	79.17
No	42	23.33	33	18.33	75	20.83
Total	180	100	180	100	360	100

Source:Field Survey, 2015

The table 49 reveals the respondents idea on compost making. All respondents were asked whether they had any idea on compost fertilizer making. About 94 percent of the respondents said that they had idea on compost making. The Rest of the respondents (about 6 percent) told that they had no idea on how to make compost fertilizer. The FGD and KII findings revealed that the beneficiaries who were involved with on-farm livelihood options in the *kanda* (not in the deep *haor*), were making compost fertilizer and used at their crop field. They also told that the compost fertilizer is environment friendly and helpful for moistening soil fertility.

Table- 49: Respondents idea of compost making

Have idea of compost making	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Yes	168	93.33	171	95.00	339	94.17
No	12	6.67	9	5.00	21	5.83
Total	180	100	180	100	360	100

Source:Field Survey, 2015

The table 50 represents the awareness of the respondents about the improved burner which produces less smoke and carbon. All respondents were asked whether they know about the improved burner. Of 360 respondents 346 (about

96percent) replied that they knew about the improved cooking burner. Rest of the respondents (about 4 percent) told that they did not have any idea of it. The FGD findings revealed that a small number of the beneficiaries were using improved burner as they were not aware of health hazards of the traditional burner.

Table-50: Idea of the respondents about improved burner

Have awareness of improved burner	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Yes	172	95.56	174	96.67	346	96.11
No	8	4.44	6	3.33	14	3.89
Total	180	100	180	100	360	100

Source: Field Survey, 2015

The table 51 reflects the respondent's use of traditional burner and improved burner. It revealed that most of the beneficiaries (about 88 percent) used traditional burner, rest of the beneficiaries (about 12 percent) used improve burners. During FGD most of the beneficiaries told they had realized the health hazards of using traditional burner. But they became habituated to using the traditional one. Nevertheless, they were ready to get healthy burner as they got the purchasing power.

Table-51: Mode of beneficiaries cooking burner

Type of burner	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Traditional burner	157	87.22	161	89.44	318	88.33
Improved burner	23	12.78	19	10.56	42	11.67
Total	180	100	180	100	360	100

Source: Field Survey, 2015

5.1.2.6: Source of knowledge on environmental issues

Table 52 shows different source for raising environmental knowledge. Here, 29 percent beneficiaries reported that the community *radio* was the most important source in raising awareness on environment. About 19 percent respondents gained environmental awareness through bill board which is followed by television (15 percent), training (9 percent) and NGO workers (7 percent) respectively.

Table 52: Source of knowledge on environmental issues

Source of knowledge on environmental issues	VGDUP		FSUP		Total	
	N	%	N	%	N	%
Community Radio	54	30.00	50	27.78	104	28.89
Television	23	12.78	31	17.22	54	15.00
Relatives	8	4.44	7	3.89	15	4.17
Neighbor	5	2.78	6	3.33	11	3.06
Poster/ Bill board	37	20.56	31	17.22	68	18.89
Hospital	5	2.78	6	3.33	11	3.06
Friends	3	1.67	4	2.22	7	1.94
Social Worker	6	3.33	5	2.78	11	3.06
Newspaper	4	2.22	3	1.67	7	1.94
Training	17	9.44	15	8.33	32	8.89
NGO worker	10	5.56	16	8.89	26	7.22
Do not have idea	8	4.44	6	3.33	14	3.89
Total	180	100.00	180	100.00	360	100.00

Source: Field Survey, 2015

The status of awareness on environmental issues represented in the table -53. The FGD participants of VGDUP and FSUP were asked to mention initiatives to be taken to keep the environment free from pollution. About 31 percent respondents suggested using sanitary latrine, 20 percent encouraged planting trees, 5 percent discouraged to use poly bag, 9 percent suggested to keep environment beautiful for the interest of all, 14 percent suggested to decrease use of insecticides and pesticides, and 19 percent suggested to use compost, and 7 percent mentioned to participate in different environmental programs with members.

Table 53: Status of awareness on environmental issues

Initiatives mentioned by FGD participants (multiple answer)	%
Suggest to use sanitary latrine	31
Suggest to throw waste in specific place	15
Encourage planting tree	20
Forbid smoking	5
Suggest to decrease use insecticides and pesticides	14
Suggest to use compost	19
Discourage to use poly bag	5
Participate in different environmental programs with members	7
Reduction on carbon emission (CO2) into the atmosphere	4
Suggest to keep environment beautiful for the interest of all	9
Environmentally friendly practices	4

Source: FGD Findings, 2015

5.1.2.7: Women’s participation in decision making at household and community level

Both the household survey and FGD findings appeared that women were participating in decision making on various issues both at the household level as well as at the community level. Table 54 shows that almost all women beneficiaries (100 percent) were involved in the decision making process. The benchmark data indicates that the status of women involvement increased significantly by 59 percent.

Table-54: Status of participation in decision making before and after the project interventions

Respondents	After project interventions		Before project interventions
	N	%	%
VGDUP beneficiaries	180	100	41
FSUP beneficiaries	180	100	
Total	360	100	

Source: Field Survey, 2015

The survey findings show that women had been participating in the process of decision making either individually or jointly together with the male member of the households. They participated in almost all the listed issues in the table- 55 below. It has been an encouraging status and more desirable that ultra-poor women were participating in the decision making process at household and community level. To some extent both men and women were jointly taking household decisions. The table below reflects that the scale of ultra-poor women’s participation in at increasing trend compared to the benchmark scale in all aspects of decision making. However, their participation in child education, crop cultivation and marriage of sons and daughters had been increasing significantly. The FGDs and KIIs with the selected project beneficiaries and stakeholders revealed that about 43 ultra-poor women beneficiaries had participated in the union *parishad* election in 2010 out of them 15 got elected as Member of union parishad. They were participating in the decision making process of local government. The FGD and KII findings showed that in relation to participation in household decision making is statistically significant. The majority of the beneficiaries interviewed said that the project’s interventions were designed to build women’s confidence, address negative social attitudes and

behaviors, and increased respect from family members and the wider community.

Table 55: Participation in household decision making before & after project interventions

Decision making aspects	VDGUP (Before)	VDGUP (After)	FSUP (Before)	FSUP (After)
Child education	0.43	0.67	0.41	0.45
Buying household items and dress	0.26	0.31	0.23	0.30
Buying agricultural inputs	0.14	0.24	0.13	0.21
Avail treatment/Health service	0.36	0.39	0.33	0.36
Selection of profession for the family members	0.19	0.32	0.12	0.29
Business/small business	0.34	0.29	0.31	0.33
Food management	0.31	0.33	0.29	0.30
Family planning	0.21	0.27	0.20	0.24
Land purchase and sell	0.20	0.27	0.21	0.23
Marriage of son/daughter	0.32	0.49	0.31	0.40
Crop production	0.37	0.51	0.33	0.52

Note: A three point scale was constructed to measure the level of participation in household decision making both before and after becoming project member. Values are: Participation not at all = 0.00, Jointly Participation = 0.50, Exclusive Participation (solely/individually) = Above 0.50 up to 1.00

Source: Field Survey, 2015

The beneficiaries of the VGDUP and FSUP project had been able to increase financial resources as a result of assistance received from the project. The ultra-poor women beneficiaries had started homestead poultry and livestock rearing, homestead gardening including small business, tailoring and other income generating activities from the project support. The empowerment of these women largely depends on the husband's behavior. The women through these activities could generate additional income for the family. Several questions constituted this factor analysis. These questions included husband's treatment of his wife (-0.823), wife's knowledge of IGA (0.781), contribution to the day-to-day expenses of the family (-0.774), acceptance of IGAs by the husband (0.610), and freedom to sell IGA products (0.550). The negative factor loading for the husband's treatment of his wife (-

Rina Akhter of Krishnapur union under Khaliajuri upazila a beneficiary of VGDUP had been elected as UP member, he said "No more exploitation now. I am confident enough to run a business even I could help the vulnerable group members even my husband to restart business again. We are capacitated enough having skill training as well as social awareness training from the VGDUP project"

0.823) and for the financial contribution of women (-0.774).The second factor which determined the empowerment of rural ultra-poor women involved different IGAs was independence in spending money for the betterment of their families. In case of poultry rearing the lack of husband's influence on the use of money earned from business (0.850) and the capability to operate the business (0.774) constituted the second factor. The ultra-poor women were empowered when the husband found that his wife was quite competent in managing a small-scale home-based poultry, goat and sheep rearing and homestead gardening project that is earning money for the family and allows the wife to manage her own finances.

Table: 56: Factors associated with empowerment of rural ultra-poor women in the study area

	Variables	Factor⁸
1	I feel that my husband treats me as an equal in the family	- 0.823
2	My husband knows that I can treat sick poultry and livestock animals	0.781
3	I contribute to meet the day-to-day expenses of my family	-0.774
4	My husband accepts my expertise in rearing practices	0.610
5	I have the freedom to go to market or sell the IGA products and can possess the money from the sale of produces	0.550
6	My husband does not have influence over the use of money earned from IGAs	0.850
7	I believe that I am quite capable of operating these IGAs	0.774
8	I make decisions to expand my business	0.813
9	I have the freedom to initiate and run the business	0.614
10	I have control over the income of IGAs	0.580
11	I extend financial help to my husband when we buy productive assets for the family	0.891
12	I use the profits to satisfy my own and my children's needs	0.559
13	I have full control over running and maintaining the business	0.745
14	I believe that what I am doing is meaningful for my family	0.738
15	I contribute to the educational expenses of my children	0.636
16	I think that my position in the family is better now	0.713
17	My husband allows me to do the small business	0.622
18	I include my husband and other family members in running this rearing practice	-0.446
	Significant= 0.50 and above up to 1.00	

Source: FGD Findings, 2015

⁸ Significant= 0.50 and above up to 1.00, Moderate=0.01 to 0.49, Insignificant= -0.01 to -1.00) scale: significant = positive reply of at least 13 variables (score 0.50 to 1.0 and 0.1 for each variable from 14th to 18th variables) Moderate = positive response to 1-12 variables weight per variable is 0.041

5.1.2.8: Accessing social safety net:

The VGDUP and FSUP project has built strong relationships between UPs and extreme poor people. This has been done by strengthening or creating spaces through which the state and citizen can have a dialogue, contest and negotiate for rights and entitlements. Participation and negotiation have increased the potential opportunities. This has led to new issues being raised, new channels being used to access the entitlement of the ultra-poor to the social safety net programmes. The sample household survey indicates that among the project beneficiaries about 17 percent destitute women of FSUP project beneficiaries and 16 percent of VGDUP beneficiaries were receiving allowances for widow whereas about 15 of the VGDUP beneficiaries and 12 percent of the FSUP beneficiaries were enrolled in the 100 days employment programme. About 12 percent of the VGDUP and 11 percent of the FSUP beneficiaries were enrolled for food for work programme. The sample household survey data shows that the involvement of both the project beneficiaries were considerably higher than the pre project situation. The baseline data of the VGDUP revealed that none of the beneficiaries were enrolled in any social safety net programme earlier. The FGD finding showed that in the study VGDUP beneficiaries had representation at the UPs as Ward Member. So, the Ward Members had ensured access of the fellow ultra-poor women to the social safety net programs of the government.

The elected ward member of Khaliajuri union Bannya Rani Das told that it was a great opportunity for her that she had been able to do something for the ultra-poor women beneficiaries as she was also from the beneficiaries of Self Help Group of VGDUP project. She had ensured the access of VGDUP beneficiaries as well as other ultra-poor women to the health service and other extension services like agriculture, livestock and fisheries.

Table 57: Involvement in social safety net programme

Type of Programme	Name of Program	VGDUP (%)	FSUP (%)
Allowances for Vulnerable Groups/ Persons with Special Needs	Elderly allowance	11	9
	Allowances for widowed, deserted and destitute women	16	17
	Honorarium for insolvent freedom fighters	6	4
	Allowances for the financially insolvent disabled	4	3
	Grants for orphan students in government and non-government orphanages	1	3
	Honorarium for Injured Freedom Fighters	1	1

Type of Programme	Name of Program	VGDUP (%)	FSUP (%)
Food Security and Disaster Assistance	Vulnerable Group Feeding (VGF)	8	4
	Test Relief (TR)	6	5
	Vulnerable Group Development (VGD)	3	8
	Block Allocation for Disaster Management	3	3
	Economic Empowerment of the Poorest	3	7
Public Works/Employment Generation	Food-for Work (FFW)	12	11
	100 days Employment / Employment Generation for the Poorest (EGPP)	15	12
Human Development and Social Empowerment	Stipend for Primary Students	3	3
	Maternal Health Voucher Scheme	7	9
	Secondary Education Stipend Project	1	1
Total		100	100

Source: Field Survey, 2015

5.2: Livelihood Capitals and Asset Pentagon:

The present study found that overall human capital was higher in the study area with a value of 0.41 out of 1 VGDUP (0.34) and FSUP (0.41) respectively. Respondents of VGDUP had better accomplishment in human capital. On the contrary, VGDUP (0.50) had higher natural capital than FSUP (0.57). It was due to the higher access to island and common natural resources such as Kanda land, grazing lands and khas lands. Higher access to such resources had attracted many migrants to settle in the study area. Therefore, natural capital index reveals relatively higher value which indicates that there was no significant difference among the study unions in terms of financial capital. However, though statistically significant difference did not exist but financial capital index value of VGDUP beneficiaries was comparatively higher than FSUP beneficiaries. Higher physical capital index value revealed that respondents had higher access and ownership of physical assets such as fishing and agricultural inputs.

Table 58: Table Livelihood assets index by village and livelihood groups.

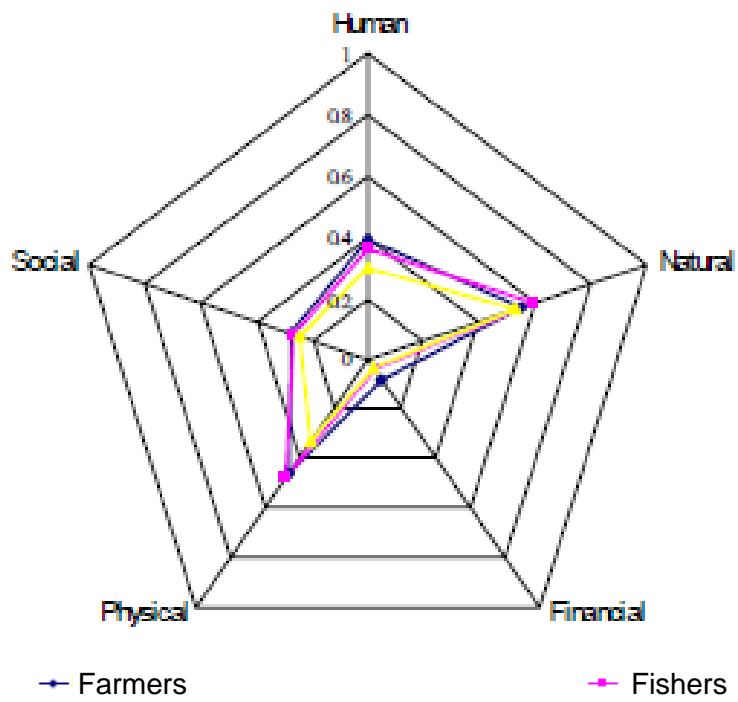
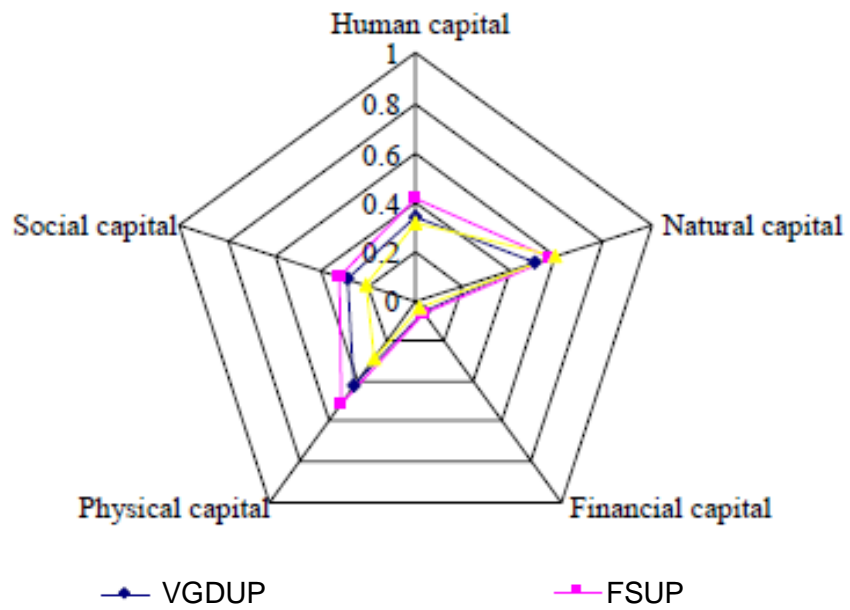
Livelihood Capitals	VGDUP	FSUP	ANOVA
Human	0.34	0.41	F = 11.87*
Natural	0.50	0.57	F = 39.64*
Financial	0.49	0.55	F = 22.55*
Physical	0.42	0.52	F = 54.71*
Social	0.29	0.32	F = 17.69*

P < 0.05, ** p < 0.01

Source: FGD findings, 2015

Radar diagrams are plotted based on the calculated scores of five livelihood capital indices to present in livelihood asset pentagon (below figures). The shape of pentagon represents the variations in villagers' and livelihood groups' access to five livelihood capitals. The centre point of the pentagon represents the zero value in terms of access to assets. While, deviations from the centre point of pentagon to the outer sides represents higher values of livelihood capitals. Figures present the livelihood asset pentagon to depict the overall access to five livelihood capitals by FSUP and VGDUP groups.

Figure 6: Livelihood capitals and asset pentagon



Source: FGD findings

5.3: Livelihoods Affected by Climate Change and Natural Disaster

This section focuses on the natural resources for maintaining livelihoods of the ultra-poor, their perception on environmental degradation and changes in livelihood options due to negative impact of climate change. It also covers the possible way forward for adaptive livelihood options for the respondents as well as trend of occupational changes of the respondents.

5.3.1: Dependent on natural resources for income and consumption:

The FGD data revealed that the ultra- poor beneficiaries of VGDUP and FSUP had been facing negative effect of different hazards resulting from climate change. The cropping intensity had been decreasing day by day in the study area due to sedimentation of river bed, land siltation and water logging. The biodiversity of the wetland adversely affected due to climatic and non-climatic hazards. The scope of fish culture was also negatively affected due to siltation of river bed. The changes in rainfall, precipitation, weather conditions, deforestation and global warming affect the brooding of fish species and damaged fishes' natural habitat. The scope of poultry and livestock rearing was also decreasing due to demolishing cattle fodder and natural poultry feed. The crop calendar and schedule had been changing due to adverse effect of climate change in the study area. Table 59 represents the status of beneficiaries' dependency on natural resources for their income and consumption. About 68 percent respondents reported that they had been dependent on natural resources for their income and consumption. Rest of the respondents (32 percent) reported that they were not dependent to the natural resources for their income and consumption.

Table 59: People dependent on natural resources for income and consumption

Dependency on natural resource for income and consumption	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	115	63.89	128	71.11	243	67.50
No	65	36.11	52	28.89	117	32.50
	180	100.00	180	100.00	360	100.00

Source:Field Survey, 2015

The table- 60 below reflected the distribution of livelihood means depends on natural resources. Out of 243 respondents (who told that they are dependent on natural resource for their income and consumption) 178 respondents (73.25 percent) beneficiary household members were involved in fishing, followed by crop cultivation (16.46 percent), collection of snail, water lily and crab (1.24 percent) and livestock (9.05 percent) respectively.

Table-60: Livelihood options dependent on natural resources

Livelihood options	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Fishing	84	73.04	94	73.44	178	73.25
Crop cultivation	17	14.78	23	17.97	40	16.46
Collection of snail, water lily and crab	2	1.74	1	0.78	3	1.24
Livestock rearing	12	10.44	10	7.81	22	9.05
Total	115	100.00	128	100.00	243	100.00

Source, Field Survey, 2015

The household survey indicates the perception of the respondents regarding environmental degradation (table-61). About 20 percent (48 out of 243 respondents) reported that collection of the above mentioned things were harmful for environment. About 33 percent (80 respondents) reported that these things were not harmful for the environment. The rest of the respondents (47.33 percent) did not know whether collecting these things would be harmful for environment or not. The FGD findings revealed that catching brood fish, destroying fishes' natural wetland, catching migratory birds, eradicating fodder and poultry feed were harmful for the ecology.

Table 61: Perception of respondents as regards to environmental degradation

Perception of environmental degradation	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	25	21.74	23	17.97	48	19.75
No	44	38.26	36	28.13	80	32.92
Do not know	46	40.00	69	53.90	115	47.33
Grand Total	115	100.00	128	100.00	243	100.00

Source, Field Survey, 2015

Table-62 reflected the respondents' satisfaction on present form of livelihoods. The study found that 13 percent of the survey households were satisfied with their present livelihood options. However, 87 percent of the households were not happy with their current livelihood options. The FGD revealed that due to negative effect of climate change the inherent on-farm livelihood options had been damaged such as cropping pattern and intensity have been changing. The scope of employment in the agriculture and fisheries sector is very limited comparing earlier generation.

Table 62: Satisfaction on present form of livelihood

Satisfaction	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	21	11.67	26	14.44	47	13.06
No	159	88.33	154	85.56	313	86.94
Grand Total	180	100.00	180	100.00	360	100.00

Source, Field Survey, 2015

Table -63 represents the challenge of ensuring livelihoods of the ultra-poor in the study area. The household survey data showed that the ultra-poor household members had to face many problems ensuring livelihood. 18.05 percent household members said that they had to face problem of river erosion and siltation of the river bed subsequently they lost their cultivable land, which was followed by water logging and flash flood respectively by 63.05 percent and 5.28 percent. The FGD revealed that the frequency of flash flood had been increasing in the study area, almost once in every two years and period of monsoon has also been increasing up to eight months a year. Moreover, the water flow causes erosion of homestead every year and they had to spend a significant amount for homestead rising.

Table 63: Challenge for ensuring livelihood options

Challenges	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Damage land due to erosion and siltation of river bed	32	17.78	33	18.33	65	18.05
Water logging	116	64.44	111	61.67	227	63.05
Flash flood	10	5.56	9	5.00	19	5.28
Drought	1	0.55	1	0.56	2	0.56
Do not face problem	21	11.67	26	14.44	47	13.06
Total	180	100.00	180	100.00	360	100.00

Source, Field Survey, 2015

Table -64 represents the decreasing income of the respondents due to negative effect of climate change. About 56 percent of the survey household members told that their income had decreased due to effect of climate change. Rest of the household members (44 percent) told that their income had not been decreased due to effect of climate change.

Table 64: Decreasing income due to negative impact of climate change

Status of income	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Income decreased	105	58.33	96	53.33	201	55.83
Income not decreased	75	41.67	84	46.67	159	44.17
Grand Total	180	100.00	180	100.00	360	100.00

Source, Field Survey, 2015

5.3.2: Adaptive Livelihood options:

The FGD findings revealed that the climate change had multifaceted impacts on the ultra- poor households of the study area. The area has been exposed to multiple climatic hazards which were being impacted to the livelihood means. Table-65 shows the alternative options to meet the household expenses. As majority respondents thought that their income had been decreasing due to negative impact of climate change. They were asked what they did to meet the household expenses. The diversification and multiplication of on-farm and off farm livelihood options had been identified as significant adaptation strategy by the FGD participants. Increasing the portfolio of livelihood means they might have been able to decrease risk of climatic hazards and increased resilience of livelihood. The household survey data showed that out of 201 respondents 86 respondents (43 percent) meet their household expense through alternative livelihood options. 40 percent through selling labour which is followed by diversification of livelihood options, minimizing living cost, small business and employment in garments factory respectively by 5.47 percent, 3.98 percent, 2.99 percent and 2.49 percent of the respondents.

Table-65: Alternative way to meet the household expense

Alternative options	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Alternative Livelihood Options ⁹	37	35.24	49	51.04	86	42.79
Diversification of livelihood option	7	6.67	4	4.16	11	5.47
Employment in Garments factory	2	1.90	3	3.13	5	2.49
Labor Sell	47	44.76	34	35.42	81	40.30
Minimizing living cost	4	3.81	4	4.16	8	3.98
Livestock	4	3.81	0	0.00	4	1.99
Small Business	4	3.81	2	2.08	6	2.98
Total	105	100.00	96	100.00	201	100.00

Source, Field Survey, 2015

⁹ Adaptive livelihood options during the monsoon when the scope of employment is limited for the ultra-poor in the haor area.

The table 66 below reflects the distribution of respondent's idea regarding climate adaptive livelihoods. The respondents were asked whether they had any idea about climate adaptive livelihood options. Out of 360 respondent households 215 (59.72 percent) household members reported that they had idea about it and 128 household members (35.56 percent) reported that they did not have clear idea about it. Rest of the respondents (4.72 percent) did not reply.

Table-66: Respondents idea about climate adaptive livelihood options

Idea about climate adaptive livelihood options	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	127	70.56	88	48.89	215	59.72
No	41	22.78	87	48.33	128	35.56
No response	12	6.66	5	2.78	17	4.72
Total	180	100.00	180	100.00	360	100.00

Source, Field Survey, 2015

Table 67 represents the distribution of respondents practicing adaptive livelihood options. Out of 215 survey households 151 (70.23 percent) reported that they were practicing adaptive livelihood options and 64 respondents (29.77 percent) were not practicing so far.

Table-67: Distribution of respondents practicing adaptive livelihood options

Practicing adaptive livelihood options	VGDUP		FSUP		Total	
	F	%	F	%	F	%
Yes	99	77.95	52	59.09	151	70.23
No	28	22.05	36	40.91	64	29.77
Total	127	100.00	88	100.00	215	100.00

Source, Field Survey, 2015

Table 68 represents how the beneficiaries learnt about the adaptive livelihood options. About 27 percent ultra-poor household members reported that the climate adaptive on-farm and off farm livelihood options had been adapted by the community people following the changing pattern of crop varieties considering the seasonal flood and flashflood. About 21 percent of the respondents reported that they learnt it through learning by doing using indigenous knowledge. About 16 percent respondents reported that they were replicating following their neighbors. 11.63 percent respondents did learn from their relatives. About 25

percent reported that they learnt from the training. During FGD with the beneficiaries, the ultra-poor household members reported that the adaptation technique and technologies were yet to be facilitated by the extension service providers to be replicated by the community people. However, the beneficiaries told that they had been replicating the climate adaptive alternative livelihood options by their own initiative i.e. introducing short time matured varieties, sheep rearing, and water tolerant tree plantation.

Table-68: Methods of learning adaptive livelihood

Source/method	VGDUP		FSUP		Total	
	F	%	F	%	F	%
From neighbor	23	18.11	12	13.64	35	16.28
Indigenous Knowledge	31	24.41	14	15.91	45	20.93
Introduce early variety considering the seasonal flood and flash flood	35	27.56	22	25.00	57	26.51
Relatives	11	8.66	14	15.91	25	11.63
Training	27	21.26	26	29.54	53	24.65
Total	127	100.00	88	100.00	215	100.00

Source, Field Survey, 2015

In study area, there exist three main occupational classes of people i.e. farmer, fisherman and day laborer. As an overall trend, currently 38.3 percent people are engaged with agriculture production whereas only 11.67 percent people were engaged with agriculture before project intervention. The reason for increasing engagement of ultra-poor to agriculture due to advancement in agricultural practices. Only 13.33 percent people were employed as day laborer whereas the percentage was 48.33 before project period. However, the agriculture intensive employment was not full time employment for the ultra-poor. According to the figure as comparing the rate of garments employee 13.33 percent people worked in garments but this rate was increased to 16.67 percent during the data collection, because the region as a whole has been shattered economically and that more people are now working hard to earn a modest sum just for their survival.

Table 69: Occupational change trends

Types of Occupation	Before project intervention (%)	After project intervention (%)
Agriculture	11.67	38.33
Fishing	5.00	15.00
Daily Laborer	48.33	13.33
Businessman	6.67	8.33
Fire wood collection	10.00	3.33
Government employee	5.00	5.00
Private employee including garments factory	13.33	16.67
	100	100

Source: Field Survey, 2015

Downscaling approach is used in the table-70 below. A three point scale i.e. no, moderate and exclusive was constructed to measure the level of participation in different household adaptation practices both before and after becoming project beneficiary. It was found that a significant number of beneficiaries were practicing homestead gardening. During FGD these beneficiaries added that after project intervention homestead gardening was recognized a widely accepted practice in the study area, mainly managed by women which was enhancing livelihoods of poor people. The respondents were aware of household adaptation practice had been reflected in the below table. They became aware on homestead raising, food stock and tree plantation, use of alternative energy. However, they thought about crop and cattle insurance, early variety and homestead gardening as appropriate for climate change adaptation.

Table 70: Household level adaptation practices

Adaptation practices	VGDUP (Before)	VGDUP (After)	FSUP (Before)	FSUP (After)
Homestead Raising	0.11	0.57	0.07	0.59
Food Stock	0.07	0.53	0.05	0.51
Shelter	0.00	0.35	0.07	0.39
Tree Plantation at Household Level	0.09	0.49	0.07	0.59
Social Forestation	0.24	0.89	0.21	0.79
Preservation of Drinking Water / Rain Water Harvesting	0.11	0.69	0.14	0.61
Disaster Tolerant Variety Cultivation/ Introduction of stress tolerant seeds and their technology	0.14	0.81	0.15	0.87

Adaptation practices	VDUP (Before)	VDUP (After)	FSUP (Before)	FSUP (After)
Changes in Cropping Pattern	0.17	0.80	0.12	0.81
Early/ Late Variety Cultivation	0.02	0.80	0.03	0.81
Improved Storage Facilities	0.27	0.94	0.12	0.81
Using Silage on Land or Cow feed	0.05	0.55	0.07	0.56
Alternative Energy (Solar, Improved Cooking Stove)	0.06	0.61	0.07	0.67
Homestead Gardening	0.11	0.93	0.17	0.91
Off farm employment	0.22	2.42	2.20	2.43
Introduce crop and cattle insurance	0.23	2.43	0.21	2.45
Total				
<p>Note: A three point scale was constructed to measure the level of participation in different household adaptation practices both before and after becoming project beneficiary. Values are: Participation not at all = 0.00, Moderate Participation = 0.50, Exclusive Participation = 1.00</p>				

Source: Field Survey, 2015

5.4: Qualitative findings:

The qualitative analysis represents the FDG and KII findings as well as, the case studies of the project beneficiaries of the VGDUP and FSUP project. The qualitative findings reveals the changes in livelihood of ultra-poor through NGO interventions in the study area.

5.4.1: Social Awareness:

Most of the respondents mentioned the stress they had to cope with during lean period. When we asked how their involvement with VGDUP and FSUP had helped them manage this situation, the women mentioned that the projects had encouraged them to stand together and had given them the confidence to step outside in order to participate in non-conventional activities that allowed them to gain a much needed income supplement. Tara Banu, from the village of Khalijhuri says:

“Being a member of FSUP has taught me to help my cause myself. The confidence I have gained has given me the courage to participate in economic activities; I do cropping on other people’s land. Despite teasing, harassment and negative comments I often receive from the men working the same field. I never stopped working or complained to anybody. I have been a member for 3 years and I now have the confidence to educate other women in the village how to do their own work. I can see that we are now freer to step outside, go to the market and seek wage-labour, which would not have been possible in the past”.

As such, one of the recurring themes that constantly arose during the interviews was that of self-confidence and empowerment; all the women who were interviewed mentioned that the one of the most notable impact of their membership with these two projects was that they had been made aware that, as women, they had rights equal to those of men. The fear of harassment, social exclusion, and ridicule is what often stops women in their desire to speak up or integrate the public sphere. And thus these projects efforts to foster empowerment enable an essential shift in perspectives. Lalmoti Banu explained:

“FSUP project made me aware that, as a woman, I possess certain rights. I believe that my fellow group members and myself are much more independent now. We are self-confident and we

speak up for ourselves. I even travel alone to meetings, and I stand up to my husband when he tells me it isn't acceptable for me to leave the house on my own; he is so surprised at my boldness that nowadays, he doesn't bother anymore. My active role within my community gives me a certain amount of dignity."

VGDUP and FSUP projects encouraged the creation of joint savings accounts, where the amount that was put aside each weekly or monthly was equivalent to what the poorest member can afford. This enabled all to participate in the savings scheme. Projects also provided support to participants with a sense of accountability towards one another and a feeling of community that is often lost. When one relies on individual loans from micro-credit institutions now another one come to support her. The money amassed is reserved to settle problems that arise within the group such as divorce, lack of food after a bad harvest, health care, education and so on. Rahela Bibi, speaks of the benefits of group savings:

"When the project initiated, we started collecting small rations of rice from every member in order to sell them in the market. We created a joint savings account with the money we made, and we share the money when problems arise; it makes us feel more secure and independent"

Joint savings and an increased participation in income-generating activities, coupled with the confidence gained by their involvement with other female members of their community. Which enabled women to raise their voice in favour of greater participation in household decision making. It gives them a say in determining how and when the money to be spent. Most of the respondents mentioned that, when their husbands realized they were able to earn and manage their own money effectively, they were more open to accept opinions of their wives regarding spending and income management into account. Asima Khatun said:

"I participate in joint savings accounts and work as a day labourer in the field. My husband respects my opinion and values my input regarding household spending. We take decisions jointly, and he helps me with household chores like cooking and bathing our grandchildren; he even washes my saris when I am sick or busy with other work."

Despite being illegal under Bangladeshi law, practices such as child marriage and dowry are still widespread amongst communities in Khaliajuri upazila in Netrokona district. Extreme poverty, the weight of tradition, and miss-conceived religious knowledge enable these customs to go on. The dowry system represents an unlawful, massive financial burden for the bride's family, which often forced the family to get money as loans in order to get their daughter(s) married. Child marriage is also prevalent in very poor households, simply because the younger the daughter, the lower the dowry. As such, families are often eager to give their daughters away at an early age in order to escape crippling debt. VGDUP did a lot to make beneficiaries aware of the curse of child marriage. As Amena Begum described:

“Child marriage, dowry, polygamy, domestic violence and divorce have all been reduced in my village, due to project influence. When these cases occur, we, inform the authorities immediately. People fear of our influence, dare to hold child marriage”

The majority of respondents insisted that their membership with VGDUP and FSUP projects had provided them with the knowledge and tools necessary to educate their fellow community members—both men and women— as to the dangers and harmful prevalence of such practices. A project beneficiary explained:

“Before my involvement, I didn't know there was such a thing as ‘women's rights’. Now, I can educate others on the harmful practices of dowry and child marriage. We also talk about domestic violence and its bad effect to family and community. Through our efforts, we see that the influence of religious social norms has lessened within our community.

5.4.2: When Community Cares

Case-1

The young lanky plants wet from the drizzle look greener than usual. Mehra rubs her wet face with the *anchal* of her sari as she carefully pulls off the four feet high mahogany plants. The tiny mahogany leaves on the tender branches are glistening as the mild, soft raindrops seep into them. Mehra piles them in one corner of the rectangular nursery and says that she has received an order for 50 mahogany plants in the local market. "They will sell at BDT 15 apiece, and 50 times 15 equals BDT 750, of which my profit will be BDT 400 to BDT 450" she said enthusiastically. Exactly three years and seven months back Mehra had to do an altogether different kind of calculation. Deserted by her husband, Mehra with her four minor, had to live on BDT 800 a month that she earned working as a housemaid. "BDT 800 would vanish in the first week and for the remaining days of the month I had to live on by borrowing and begging," Mehra recalls her desperate days. Many days the mother and four children passed having just one meal a day. The straw house where Mehra and her four children huddled together, could not protect them from the rains and cold. Now, corrugated iron sheets have replaced the flimsy straw on her roof and she has extended her home with two more rooms and Mehra no longer has to worry about getting "three meals a day" for her and her children.

Case-2

About 40 km north to Netrakona town lies a small village Khaliadhuri. The narrow snake-like earthen road has a pleasant shadow over it, courtesy of all sorts of trees that line up on both sides of road. Small ponds with shining water mirror back the tall and lean betel nut trees and all on a sudden a vast lush rice field gives out gracefully completing the peaceful scene. But amid this image of beauty, one also certainly catches sights of obvious poverty. Bare children, run-down huts and villagers wearing old and torn clothes come in sight with disturbing frequency. Towards the middle of this poor village lives Shaharbanu with her only son and three cows. Barely two years into her marriage 17-year-old Shaharbanu's husband Hazrat Ali took a second wife and subjected Shaharbanu to all sorts of physical torture to drive her away from home. But holding her 10-month-old son Rubel tight, Sharbanu clung on to her husband's house bearing with all sorts of disgrace and humiliation, because as she puts it, "I had nowhere to go to". Hazrat suddenly died and Shaharbanu's last consolation that she at least had "a husband" was gone. The mother worked as a maid in a household and the son roamed around the rice field picking up grains of rice left behind, plucking unknown leaves from nearby bushes and fishing with the lower part of his lungi. "Our main meal consisted of boiled kachu and during the rainy season shapla dogo," recalls the mother. Being a beneficiary of VGDUP Sharbanu also received a stipend of BDT 400 per month in the first year. Over the last two years she has managed to save BDT 1500 with which she set up a grocery shop.

The most distinguishing feature is asset transfer from these projects. A recipient can choose from six different enterprise activities poultry, goat rearing, cow rearing, vegetable cultivation, horticulture nursery, and non-farm business to spend on. If one chooses poultry she is provided with chickens, one year's poultry feed. Along with that a rigorous training programme over the two year programme cycle period plays a vital role in making their effort fruitful. Those who choose vegetable cultivation is provided with 25 decimal of land lease plus all other inputs necessary for the business; the ones who select goat-rearing are given away three goats, goat feed, vaccines, medicines etc. The package of productive asset was BDT 7500 in case of VGDUP beneficiaries and BDT 4700 in case of FSUP beneficiaries.

After getting involved with the VGDUP and FSUP projects these ultra-poor women have not only changed their financial state ;but also learned to look after their own health as well as their children's and have installed tube-wells and sanitary latrines in their houses.

An official of Livestock Department, said, "We try to pay extra attention to these poor rural women.

Chapter 6

CONCLUSION

This research initiative is based on the EU financed VGDUP and FSUP project which were implemented from October 2008 to September 2012. After five years of the project interventions this study attempted to review on-going livelihoods of the ultra-poor households, living in Netrokona District of Bangladesh. These projects contributed to improve the livelihoods of the most vulnerable households in *haor* areas by enhancing income through the provision of productive assets, poultry rearing, goat and sheep rearing, and vegetable cultivation on their homesteads.

From the collected data and information it was found that most of the beneficiaries of VGDUP and FSUP met the selection criteria. They were from the households headed by women with no adult male income earner and no productive assets. However, it was also revealed that almost 25% of the beneficiaries were selected from male headed households but with no or very meager income from the male counterpart in the family.

Findings from this study showed that these two projects had positive and significant impact in changing livelihoods of the ultra-poor. These include – increasing asset base such as human, social, natural and physical assets of the targeted ultra-poor households and contributed to lift them out of poverty.

The project interventions i.e. monthly cash subsistence allowance and transfer of productive asset in cash helped almost all the beneficiaries to change their food security status i.e. they could manage three meals a day. Moreover, most of the beneficiaries could keep food at their households to survive during the lean period.

The project interventions helped the beneficiaries to increasing their skills to multiply and diversify their income. The project activities guided the ultra-poor households in improving capacity to plan for the future and managing risk. The women headed ultra-poor households had been able to rapidly develop alternative sources of income beyond day labor. The monthly income of both the project beneficiaries had been increased to BDT 5000 to BDT 10,000 from primary sources, which was only BDT 3680 at baseline. However, most of these households had additional income from other sources as well. Their additional income ranges from BDT 15,000 to BDT 60,000 annually. It needs to be

mentioned here that during the baseline the project participants did not have any additional income from secondary sources.

It is also evident that the community members in *hoar* areas were not aware of their *children's* education due primarily to lack of financial capacity but after project intervention with increased financial capacity of the households promoted school enrollment among the beneficiary households. Subsequently, drop-out of primary school students belong to beneficiary households had also reduced. The study found that the project beneficiaries were aware of sanitation practice i.e. using sanitary latrine and drinking safe water. They had access to sanitary latrines and tube wells for drinking water.

The study found that the Community Based Organizations (CBOs) and Village Development Organizations (VDOs) formed in the project areas during project period were found to be non-functional at the time of data collection. As observed there had long been internal conflict about selection/election of the leaders at different levels. Thus the beneficiaries had very little motivation to continue with their CBOs and VDOs. However, some of the CBOs/ VDOs are still alive as these helped them access to MFIs to receive collateral free credit. This could be manifestations of relative less attention in institution building. If the projects had taken the institution building activities little more seriously, the project impact could have been much better and long lasting.

The findings of the study showed that the implementing NGOs had acceptance among the beneficiaries, the local community, Vulnerable Group Development committee members, local government representatives, department of women affairs. The NGOs were involved in the process of beneficiary selection with the department of women affairs and VGD committee and contributed through capitalizing their expertise of beneficiary selection and targeting the appropriate women headed ultra- poor for both the projects.

The NGOs were primarily selected to implementing the projects with their demonstrated capacity in doing the same in haor and other areas. Thus the NGOs had adequate capacity to delivery skill development and life skill training, distribution of productive asset and monthly cash subsistence allowance effectively and efficiently involving the VGD committee, local government institutions, and department of women affairs.

The NGOs authorities had given enough attention to administer the innovate approaches to structure the project set-up within the given resources by introducing skilled staffs to achieve the sustainability of the project benefits. The NGOs were able to establish linkage of the beneficiaries with the micro-finance institutions, local government institutes and extension service providers (Agriculture, Livestock, fisheries, hospitals etc.).

The NGOs could understood the importance of the increasing awareness of the beneficiaries towards their rights and entitlements and motivated the beneficiaries on various social development issues, mainly discrimination against women, gender equality, gender based violence, and improved quality of life with better living condition.

The NGOs had the experience and expertise to work with the local partners which helped the beneficiaries accessing follow-up support even after completion of the project. The NGOs demonstrated experience of working with other stakeholders (the local bodies, extension services etc.) also enabled them to better support the beneficiaries by ensuring local support needed.

Chapter 7

RECOMMENDATION

The findings of the study indicate that majority of the farmers in the haor areas were usually vulnerable to different types of seasonal shocks and disasters mainly due to the special geographical condition of the region. It could be concluded that without strengthening the capacity of farmers in haor in terms of their livelihoods and farming, they would not be free from any form of vulnerability of permanent inundation. The existing social safety net programmes are not the effective solution of their poverty. The Government should undertake specific poverty reduction programmes for ultra-poor in the haor areas. Such programmes should include encouraging the private entrepreneurs to establish factories and business in vulnerable areas instead of Dhaka and big cities, initiating special programmes for income generation (training, microcredit, advisory service and marketing opportunity) in collaboration with the NGOs, distribution of khas land (government owned land) and water bodies among the community based organizations of ultra-poor farmers and fishermen, undertaking special poverty reduction programmes in haor areas like *monga* prone, char land and coastal areas, working with NGOs and other organizations towards fair distribution of social safety net benefits, promoting appropriate agricultural technologies for resource poor farmers etc. Based on the findings the study recommendations include the following:

- The very design of CBOs in livelihoods projects needs to be revisited to make them long lasting and sustainable in the long run;
- Productive asset transfer package should be livelihoods option specific considering the trade or business the household chooses or have the capacity to undertake;
- For livelihoods projects linkages with government extension service providers and private sector has be to institutionalized from the very outset of the project;
- Beneficiaries should be facilitated to determine livelihood options considering the climate change challenges;
- Researchers and policy makers should give serious thoughts on devising climate smart livelihoods option for the ultra-poor people living in the *haor* areas.

- Without any major public- or private-sector intervention to create new markets, household-level enterprises can be severely constrained. Because even limited markets are never static, it is important for programs to continuously monitor bottlenecks and opportunities in order to readjust interventions.
- The local level livelihood adaptation issues can be linked with national and regional regulatory, institutional and policy issues.

In this respect, along with the above stated recommendations as of immediate action the awareness raising and experience sharing for livelihoods adaptation to climate change are essential. And for future long-term adaptation innovation, technologies appropriateness and alternative adaptation measures need to be studied further.

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Annex-01: Questionnaire for the Household Survey

This questionnaire has been prepared to conduct a research work on Changes in Livelihood of Ultra poor through NGO Interventions by an MPhil researcher of Dhaka University. The collected data & information will be used only for the purpose of social research. The researcher is highly committed to maintain secrecy of all collected data & information. Your cooperation will be immensely supportive to the research endeavor.

Sample no.	
Code no.	
Respondent ID no.	
Landmark identity	
Cell phone number (if any)	

Section-1: Demographic Information

1: Name of respondent:

.....

Relationship with the Household head (If household head is not found, then write the name of household head):

.....

2: Name of Father/Husband

.....

3: Address:

Village		Union	
Upazilla		District	

4: Information of family members								
	From elder to younger	Sex ¹⁰	Marital status ¹¹	Age	Education (Year of schooling) ¹²	Main occupation ¹³	Secondary occupation ¹⁴	Average monthly income (BDT)
1.	HH head							
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Question	Code (circle the number)
5: Religious faith (Only one code)	Islam =1, Hindu =2, Christian =3, Buddhist =4,Others (please specify)=99

6: Number of persons physically challenged (if any)	Types of Challenges	Number of family members	
		Male	Female
	Blind		
	Lame		
	Deaf and dumb		
	Others (please specify)		

¹⁰ Code: Sex 1=Male, 2=Female

¹¹ Code: Marital status:1= Married,2= Unmarried,3= Widow,4= Separated,5= Divorced,6= Destitute

¹² Code: can sign=99, can't sign=0

¹³ Code: Main occupation:Day laborer=1, Agriculture=2, Fishing=3, Crab cultivation/fattening=4, Cow rearing=5, Goat rearing=6, Sheep rearing=7, Duck rearing=8, Chicken farming=9, Pigeon rearing=10, Rickshaw/van pulling=11, Driver of motor bike/taxi=12, Grocery shop=13, Tailoring=14, Mat/reed production=15, Hawker=16, Maid servant=17, Teacher/house tutor=18, Student=19, Other=99 (Please specify here.....)

¹⁴ Code: Same as main occupation

Housing pattern and Access to landholdings

	Question	Code (Circle the number)
	What is the ownership of present house where you live?	Own=1, Rental=2, Mortgaged=3 Living free with neighbour /relative=4 Khas land=5, Others (please specify)=99
	What is the type of your housing structure?	Pucca - 1, Tin roof with side brick wall--2 Tin roof with bamboo wall--3, Mud house with straw roof--4, Thatched house (Chapra)--5, Straw roof with bamboo wall--6 Others (Specify)=99
	With what support you have made this structure?	Inherited=1, Constructed by own earning=2, Donated by the government organization=3, Donated by NGOs=4, Others (Please specify)=99

Access to Landholdings (agricultural and dwelling)

10: Do you possess any land (Circle the code)? Yes1

No.....2

11. If yes, please provide description of land					
Types of land	Own	Lease out	Lease in	Khash	Share cropping
Decimal					
12. Types of Land used with area					
Decimal	Homestead	Cultivable	Pond	Un cultivable land	Others-

Section-2: Occupation-Income-Expenditure-Asset Profile

1: Sources of Income

Sources	:	Agriculture	Fisheries	Livestock	Off Farm	Laborer	Others (specify)
Income in BDT	:						

2: Expenditure

Types of expenditure	Total amount (monthly)
Food	
Cloth	
Housing	

Education	
Health	
Transport	
Festivals	
Wedding	
Loan repayment (if any)	
Others (specify)	

Migration/Seasonal migration

3	Do you require migrating in other places for your livelihoods?	Yes=1, No= 2
3.1	If yes, please provide description of the following	

Number of Family Members		Where do you go (code) urban area=1 rural area=2	For What business (code) Day laborer=1, Hawker=2, Rickshaw/van pulling=3, Bus driver/helper=4, Garment worker=5, Other= 6 (especify)	When in the year	
Male	Female			Name of the Months	Number of Months work in migration

Section 3: NGO Involvement:

1	Are you involved with any NGO/Community Based Organization?	Yes =1, No= 2
	If yes, in which organization are you involved?	NGO=1, Local CBO=.2, SMC=3, Mosque Committee=4, Other (specify)=99
2	If NGO, Please mention the name the NGO	
3	If belong to any (beneficiary) committee what is your position in the organization you are member of?	President= 1, General Secretary= 2, Executive Committee Member=3 General Member= 4
4	Do you hold any position in any other forum/group / institute in your locality?	Yes=1 No=2
5	If yes, what type of organization/s?	Farmers Group=1, Self Help Group=2, Business Group=3, Community Based Organization=4, Other=99
6	If you hold any position, please mention..	President=1, General Secretary=2, Executive Committee Member=3, General Member=4
7	Have you received any support from the NGO?	Yes=.1 No=2
8	If yes, which support have you received?	Productive asset=1, Food stuff=.2, Subsistence allowance in cash=3, Health

		support=.4, Education support=5, Shelter=.6 Relief=7, Training=8, Microcredit =9 Others (Please specify)=99
9	Have you received any services from the NGO/ government that relate to your livelihoods/or food security?	Yes 1; No 2

10. If yes, Grants/supports received from the project/ program:

Nature of supports	Types/Nos	Frequency	Amount	Total
Productive Asset	Cash=1, Kinds=2, Both=3			
Monthly cash subsistence allowance	Cash=1, Kinds=2, Both=3			
Health	Medicine= 1, Prescription=2, Diagnosis=3			
Education	Adult literacy=1, Children education=2			
Shelter	House=1, Sanitary Latrine=2 Hand tube well=3			
Relief	Cash=1, Kind=2, Cash for work=3			
Food stuff	Rice=1,Wheat=2, Oil= 3, Dry food=4, Fortified biscuit=5 Others=99			
Training	IGA=1, Life skill=2, Social Awareness=3 Entrepreneurship development=4, other 5			
Microcredit	Cash (loan amount). Tk.			

11. If received Productive assets

S I	Question	Code (circle the no.)
1	How much time it took to earn from the productive assets you have received?	One week=1, 1 month=2, 3 months= 3, 6 months=4, 9 months= 5, 12 months=6, Others (specify)= 99
2	How much did you earn?	BDT
3	Did you plan to progressively multiply this asset?	Yes= 1, No=2
4	If yes, what was required to multiply it?	Land purchase=1 land rent= 2, Others (specify)=99
5	What plan do you have to multiply it and how much will you multiply?	
6	If there any challenge to multiply your assets?	Yes=1, No=.....2
7	What are the main challenges in multiplying your assets/developing your IGA?	

12. If received food stuff

1	What kind of food items did you receive?	Rice=1,Wheat=2, Oil= 3, Dry food=4, Fortified biscuit=5, Others=99
2	How many months/times did you receive the food items?	

13. If received Monthly Subsistence Allowance (MSA)

1	What did you do with this money of MSA?	Purchase food=1, School fees=2, Medical expenses=3, Ceremony=4, Repayment of loan=5, Purchased asset (sewing machine, chicken, goat, etc=6, Others (please specify)= 99
2	Did you spend all the money you received from the project/entities you just mentioned?	Yes=1, No=2
3	If no, please mention where did you spend	Purchase food=1, School fees= 2, Medical expenses=3, Ceremony=4, Repayment of loan=5 Purchased asset (sewing machine, chicken, goat, etc=6, Others (please specify)=99

14. If received Health Services

	Question	Code (circle the no.)
	What kinds of health services did you receive?	Medicine= 1, Prescription=2, Diagnosis=3 Counseling=4, Others(specify)=99
	Did you have to pay money to have any service?	Yes=1 , No=2
	If the answer is yes, for what service you had to pay money	Consultation with the Doctor=1, , Medicine=2, Diagnosis =3; Others (specify)=99

15. If received Education support

SI	Question	Code (circle the no.)
1	Did you receive adult literacy?	Yes=1 , No=2
2	Did you receive any support for your children's education	Yes=1 , No=2
3	If yes, what kind of support did you receive?	study materials=1, stipend=2, food=3, cash=4, others (specify)=99

16.If received Shelter

SI	Question	Code (circle the no.)
1	What type of shelter support did you receive?	House=1, Materials for house repair =2 Sanitary Latrine=2, Hand tube well=3
2	If materials for shelter, what kind of materials did you receive?	Tin=1, Bamboo=2, Pillar=3, plinth raising=4, others (specify)=99

17.If received Relief

SI	Question	Code (circle the no.)
1	What kind of relief did you or your family members receive?	Dry food=1, Heavy food=2, Cash for work support=3, Cash=4, others (specify)=99
2	If cash, How much did you receive?	
3	If kind, please mention the package	

18.If received nutrition support

SI	Question	Code (circle the no.)
1	Did you ever receive any nutrition support from the NGO you are involved with?	Yes = 1; No = 2
2	If yes, what type of support you received	Counseling =1; Milk for kids =2; Meals for lactating mother =3; vegetable seeds for homestead gardening =4; Milking cow = 5; Packaged fish =6; other =99

19. If received Training on IGA

SI	Question	Code (circle the no.)
1	Is there any one in your family received training on IGA which you have adopted for self-employment?	Yes=1, No=.2
2	Mention the names of training courses you received. (Multiple responses)	Homestead Garden= 1, Fish culture=2, Poultry=3, Goat & sheep rearing=4, Cattle rearing= 5, Mechanics=6, Small business=7, Vocational training=8, Crop production= 9, Tree Nursery=10 Handicrafts=11, Tailoring=12,Others (specify)=99

20. If received microcredit

SI	Question	Code (circle the no.)
1	Are you or any member of your family is a member of any MFI (e.g. occupation based somity, bazaar somity etc.)?	Yes=1 No=2
2	If yes, have you or your family member ever received a loan?	Yes=1 No=2
3	If received a loan, please name the NGO	
4	What amount have you received from other sources?	Amount in BDT.....
5	What was the purpose of taking loan?	Agricultural inputs= 1, Business= 2 Consumption=3 Repay Dowry= 4, Treatment=5, Religious festival=6 House repair/make= 7, Purchase land=8, Purchase poultry/ livestock= 9, Repay loan=10, Children's education=11 Repair/buy agricultural equipment=12, Others(specify)=99
6	How did you repay your loan?	From Income=1 Sold/mortgaged household assets=2 Sold/mortgaged loan=3 By taking another loan=4 Others (specify)=99
7	Did you or any member of your family receive a loan from other sources?	Bank =1, Somity =2, Money Lender/Mohajan= 3, Friends/Relative= 4, Others(specify)= 99

21. If Received DRR and CCA support to cope up with the changing situation:

1	What type of service you are receiving from the NGOs you are affiliated in order to cope with climate change?		
2	If yes, what are these?	a. b. c. d.	
3	What other support do you think would benefit you in this regard?	Code	Remarks of the respondents
	Homestead land raising	Yes=1 No=2	
	Food Stock	Yes=1 No=2	
	Shelter	Yes=1	

		No=2	
	Tree plantation at hh level	Yes=1 No=2	
	Social Forestation	Yes=1 No=2	
	Drinking water preservation	Yes=1 No=2	
	Disaster tolerant variety cultivation/ Introduction of stress tolerant seeds, and their technology	Yes=1 No=2	
	Change in cropping pattern	Yes=1 No=2	
	Early / late variety cultivation	Yes=1 No=2	
	Improve storage facilities	Yes=1 No=2	
	Using silage on land for cow feed	Yes=1 No=2	
	Introduce crop/cow insurance	Yes=1 No=2	
	Alternative energy	Yes=1 No=2	
	Homestead gardening	Yes=1 No=2	
	Others (please specify)	Yes=1 No=2	

Section-4: Current livelihood options and opportunities, market accessibility

Livelihood options based on natural resources

Are you dependent on natural resources for your income and consumption?	Yes = 1	No= 2
If yes, what do you do for livelihoods?	Catching fish=1 crop cultivation=2 snail collection=3 water lily (shaluk)=4 crab collecting=5 livestock rearing (including poultry)=6 Others (please specify.....)=6	
Do you think, collecting this/these is/ are harmful for the natural environment? (Circle the number)	Yes =1	No=2 Don't know=3
Are you satisfied with the present form of livelihood?	Yes =1	No=2

If no, what are the problems you are facing to ensure your livelihood?	Damage land due to erosion=1; Water logging=2; Flash flood = 3;Drought=4;Cyclone=5 Other (Specify)..... =99
Has your income decreased due to the effect of climate change?	Yes =1 No=2
If yes, what do you do to meet the household expenditure	
Do you have any idea about the climate adaptive livelihood options?	Yes=1 No=2
If yes how do you learn this?	
If yes, are you practicing it at present?	Yes=1, No=2
Have any one following it?	Yes=1, No=2
If yes, who?	Own household level = 1, Friends = 2, Relatives = 3, Neighbours = 4, Neighbouring community/village = 5, Others = 6 (Please specify.)

13 Access to the Market					
1	Where do you sell your product you produce or collect?	At farm -1	Local Market-2	Regional Market-3	Loan provider -4
2	Mode of transaction	Cash -1	Credit-2	Bank Cheque-3	Others -4
3	How do you get market information	Mobile-1	Lead farmers-2	Traders-3	Others -4
4	Do you have any producer group in the community?	Yes=1		No=2	
5	Are you member of any producer group?	Yes=1		No=2	
6	If yes, please mention the benefits of affiliation with such groups?				

14. Household Savings

Sl.	Question	Code (circle the no.)
1	Do your household have any form of savings?	Yes= 1, No=2
2	If yes, please fill-up table bellow	
3	Place of savings	Amount of Savings (Taka)
	Bank	
	NGO/Samity	
	Others (please specify)	

Section-5: FOOD SECURITY AND NUTRITION

S.N	Question	Code (circle the no.)
Household Food Situation		
1	Do you have three meals a day regularly?	Yes=1 no=2
2	Which meal did your family take yesterday? (multiple circle)	Breakfast= 1; Mid morning Snacks=2; Lunch =3;..... Afternoon Snacks= 4; Dinner= 5
3	With current income earning, do you think you or your family are able to have three meals a day?	Yes=1 no=2
4	If yes, can you keep having three meals a day the year round?	Yes=1 no=2
5	If no, how can you describe the situation	Year round food deficit=1 Partial deficit (70% time, 9 months in a year =2 Deficit for 6 months =3 Surplus for 9 months=4 Food surplus=5
6	In which month do you have food deficit?	Falgun- Chaitra=1 Arshin-Kartik=2 No deficit=3 Other (specify)=4
7.8	How many times do you have meal during the lean season?	Once a day=1 Twice a day= 2 Thrice a day= 3 Some days in a week=4

9. Household Food Security Category

SI	Question	Code (circle the no.)
Household food stock		
1	Do you manage to keep food stuff for the lean period?	Yes=1 no=2
2	Do you have food grain storage facilities?	Yes=1 No=2
3	If do not have where do you store to keep your food?	
4	Do you have any stock of food grain in your household?	Yes=1 No=2
5	If yes, for how long the stock will meet your demand of main food?	10-12 months= 1 , 7-9 months=2, 6-8 months= 3, 3-5 months=4., 2 months= 5, 1 month=6, Less than a month=7
6	Mention the quantity of food stock (in Kg)	Rice=1 Wheat=2 Pulse=3 Potato=4 Others (specify)=5

Section-6: Knowledge and Health Practices Behavior

Question	Code (circle the no.)
What were the common diseases you or your family members experienced in the last year?	a. b. c.
Do you have any health service available in your locality?	Yes=1 No=.2
If yes, what type of health services available in your locality?	Government "House to house" Health Service Providers=1, Community Clinic=2, Family Welfare Center (FWC)=3, Government Union Health Center=.4, Government Upazila Health centers=.5, Government District hospital=.6
Where do you go first when you or any of your family members are sick?	Primary healthcare centre=1 Upazila Health centre=2 Mother and child health centre=3 clinic= 4 Private clinic= 5 District Hospital=6 MBBS Doctor=7 Traditional Village Doctor =8 Trained Birth Attendants=9 Pharmacy=10 Rural health worker =11 Kabiraj/Ojha= 12 No where=13
What other places you go for treatment of your family member? Multiple answers	Primary healthcare centre=1 Upazila Health centre=2 Mother and child health centre=3 clinic= 4 Private clinic= 5 District Hospital=6 MBBS Doctor=7 Traditional Village Doctor =8 Trained Birth Attendants=9 Pharmacy=10 Rural health worker =11 Kabiraj/Ojha= 12 No where=13
Do you know the seven killer diseases	Yes=1 No=2
If yes, please name the seven killer diseases (For interviewer: TB, Polio, Tetanus, Pneumonia, Hopping cough, Hepatitis B and Measles)	Can say all=1 Can say only one=2 Can say 2 – 3 =3 Can say more than 3= 4
Do you know about Immunization Program of the government?	Yes=1 No=2
Are you aware about Family Planning	Yes=1 No=2
If yes, did you avail any method?	Yes=1 No=2
Did you receive any health care services from any health service providers?	Yes=1 No=2
If yes, what types of support did you receive?	Reproductive health service=1 Maternity=2 Child care=3 General

	diseases=4, Skin diseases= 5 Eye care= 6 Disability services = 7 Others (specify= 99
--	--

Section-7: Water and Sanitation

SI	Question	Code (circle the no)
1	Do you have own source of water?	Yes=1 No=2
2	What is the main source of drinking water in your family?	Hand Tube-well=1 STW/Deep tube-well=2 Rain water=3 Tap water=4 Own pond=5, Public pond=6 River/ditch/canal=7, Others (specify)=8
3	What are the sources of water for washing utensils in your family?	Hand Tube-well=1 STW/Deep tube-well=2 Rain water=3 Tap water=4 Pond/river/ditch/canal=5 Others (specify)=6
4	Do you know about the quality of water?	Yes=1 No=2
5	Do you know about arsenic in the water?	Yes=1 No=2
6	(If they use 'tube-well' as source of drinking water or for washing utensil) Do you know whether the water of that tube well is contaminated by arsenic?	Yes=1 No=2
7	Do your family members wash their hands before having their meals?	Yes=1 No=2
8	If yes, what they use to wash their hands?	With only water=1 with water and soap=2 using ash, sand and water=3 Others (specify)=4
9	Do you have own latrine?	Yes=1 No=2
10	What types of latrine do your family use?	Sanitary Latrine=1, Ring-Slab latrine = 2 Pit /Kancha =3 Hanging=4 Open space=5, Septic tank=6
11	Do your family members wash their hands after using toilet?	Yes=1 No=2
12	If yes, what they use to wash their hands?	With only water=1 with water and soap=2 using ash, sand and water=3 Others (specify)=4
13	Do you clean your courtyard and living room regularly?	Yes=1 No=2
14	If yes, how frequently do you clean	Daily=1 Once a week= 2 Twice a week=3 Thrice a week=4 Once a month=5 Never= 6 Others (Please specify)=7
15	Do you clean house hold useable goods	Yes=1 No=2
16	If yes, how frequently?	Daily=1 Once a week=2 Twice a week=3 Thrice a week=4 Once a month=5 Others (Please specify)=6
17	How is the sanitation practice of your household?	No regular measure for waste disposal=1, Wastage stockpiled on the courtyards=2, Drainage system=3, local government representative takes measures=4

18	Do you brush your teeth regularly?	Yes=1 No=2
19	Do your family members cut nails regularly?	Yes=1 No=2

Section-8: Basic reading and numerical skills of beneficiaries and their kids education

SI	Question	Code (circle the no.)
1	Can you read	Yes=1 No=2
2	Can you write	Yes=1 No=2
3	Are you able to count number (confirm with display)?	Yes=1 No=2
4	Are you able to do simple calculation? (ask example)	Yes=1 No=2

5	Do you have any school in your locality	Yes=1 No=2
6	If yes, what type of school is near to your household	Government primary schools/high school=1, Government Madrasha=2, Non-government Madrasha=3, school/Charity school=4
7	Do you have your children in the school?	Yes=1 No=2
8	If yes, what type of school they are studying in?	Government primary schools/high school.=1, Government Madrasha=2, Non-government Madrasha=.3, school/Charity school=.4
9	What kind of facilities you children are receiving at the school?	Receive free studentship=1, Receive free text books=.2, Receive dresses=3, Receive stipends=4, Others support (specify)=99
10	Did you face any problem in enrolling your children in the school?	Yes=1 No=2
11	If yes, what are the problems?	Lack of information about how to get children enrolled=1, School is too far away=2 School teachers do not approach parents=3, Children have no time to go, being engaged in household work=

		4, since the children is physically challenged (PWD)=.5, others (specify)=99
--	--	--

Section-9: Participation in Social institutions, social safety-net and decision making and social awareness

SI	Question	Code (circle the no.)
1	Are you or any member of your family is a member of social institutions (e.g. salish committee, mosque/temple committee, madrasa committee, puza committee, school committee, Union Parishad etc.)?	Yes=1 No=2

2. If yes, what are those institutions?

Position code
UP Chairman=1 UP member=2 General member=3 Secretary= 4 Others (Specify)=99

Name of institution	Position
Mosque/ temple/ masdrasa/ puza committee	
Primary school committee	
High school/college committee	
Bazaar committee	
Union Parishad	
Shalish Committee	
Union Level Disaster Management Committee	
Other (Specify)	

3. Participation in Social safety-net program

SI	Question	Code (circle the no.)
1	Other than NGO program, did you ever receive any support from any other government project?	Yes=1 No=2
2	If yes, under which program did you receive support?	VGD=1 Elderly allowance=2 Food for work=3 Allowance for vulnerable work= 4 Food for education=5 Widow allowance=6, Freedom fighters allowance= 7, Others (specify)=99

4. Participation in decision making and women empowerment (For Female respondents only)

SI	Question	Code (circle the no.)
1	Do you participate in the decision making process of your family?	Yes=1 No=2
2	If yes, who takes decision on the following:	
3	Food management	Male=1 Female =2 Joint=3
4	Crop production	Male=1 Female =2 Joint=3
5	Marriage of son/daughter	Male=1 Female =2 Joint=3
6	Selection of profession for the HH members	Male=1 Female =2 Joint=3
7	Children's education	Male=1 Female =2 Joint=3
8	Health/Treatment	Male=1 Female =2 Joint=3
9	Business/small business	Male=1 Female =2 Joint=3
10	Purchase of dress	Male=1 Female =2 Joint=3
11	Land purchase and sales	Male=1 Female =2 Joint=3
12	Promote family planning method	Male=1 Female =2 Joint=3
13	Other household expenses (specify)	Male=1 Female =2 Joint=3
14	Can you protect early marriage of your family?	Yes=1 No=2
15	Does your husband or any male member dominant in your family level decision making process?	Yes=1 No=2

4. Questions for the male respondents only

SI	Question	Code (circle the no.)
1	Does your wife or any female member participate in making your family decisions?	Yes=1 No=2
2	If yes, who plays leading role in making the following decisions:	
a	Food management	Male=1 Female =2 Joint=3
b	Crop production	Male=1 Female =2 Joint=3
c	Marriage of son/daughter	Male=1 Female =2 Joint=3
d	Selection of profession for the HH members	Male=1 Female =2 Joint=3
e	Children's education	Male=1 Female =2 Joint=3
f	Health/Treatment	Male=1 Female =2 Joint=3
g	Business/small business	Male=1 Female =2 Joint=3
h	Purchase of dress	Male=1 Female =2 Joint=3
i	Land purchase and sales	Male=1 Female =2 Joint=3
j	Promote family planning method	Male=1 Female =2 Joint=3
k	Other household expenses (specify)	Male=1 Female =2 Joint=3

5 LEVEL OF KNOWLEDGE ON SOCIAL ISSUES

Sl.	Question	Code (circle the no.)
1	Do you know that accepting dowry a criminal offence according to the law of land?	Yes=1 No=2
3	Knowledge of how a man/ woman divorce his/her husband/wife?	Yes=1 No=2
4	If yes, then how (specify)	A woman cannot divorce her husband=1 If husband recite 'Talak' three times=2 Report to UP and related parties=3 Don't know=4

Section-10: LEVEL OF KNOWLEDGE ON ENVIRONMENT ISSUES

Sl.	Question	Code (circle the no.)
1	Do you have a place to dispose your daily household's waste?	Yes=1 No=2
2	Do you know how to prepare compost fertilizer?	Yes=1 No=2
3	Do you know about improve burner?	Yes=1 No=2
4	If yes, from where did you learn?	worker=1 Radio=2 Television=3 Relatives=4 Neighbor=5 Poster/Bill board=6 Milking=7 Hospital=8 Friends=9 Social worker=10, News paper=11 Training=12 Others (specify)=13
5	What types of burner do you use for cooking?	Traditional burner=1 Improve burner=2

Thank you for your valuable responses

Annex-2: FGD guideline for qualitative data collection

FGD Guideline

FGD venue: Selected locations within the VGDUP and FSUP project area at 4 selected unions of Khaliajuriupazila under Netrokona district

Participants Type: Representatives of the project beneficiaries including other project Stakeholders (Project beneficiaries, project personnel, Extension service providers, UP Representatives and other relevant persons at the local level.

No. of Participants: 10-12 each

Tools of FGD

The following Tools have been used in conducting FGD:

1. Social mapping;
2. Venn Diagram;
3. Seasonal calendar;
4. Food Nutrition Chart

The FGD checklist

- (i) Income and expenditure;
- (ii) Productive assets profile and ownership index
- (iii) Health practice behavior (knowledge and practice)
- (iv) Personal health and hygiene (knowledge and practice)
- (v) Social empowerment, social participation and decision making
- (vi) Children education
- (vii) Food security issues
 - Food security status calendar
 - Pattern of food intake (nutrition)
 - Food availability
 - Food stock and purchase
- (viii) Rights and access to services and social safety net programs;
- (ix) Life skill and skill development training related information;
- (x) Group approach in developing participatory enterprises/group enterprise;
- (xi) Awareness of environmental issues, climate change and disaster risk reduction;

(xii) Check list for household dietary diversity

SI. No.	Food item	Quantity per person
1	Any rice, bread/roti, noodles, biscuits, or any other foods made from rice, wheat or any other grain?	
2	Any potatoes, or any other foods made from roots or tubers?	
3	Any pumpkin, carrots, or sweet potatoes that are orange inside + other locally available vitamin-A rich vegetables (e.g. red sweet pepper)?	
4	Any dark green/leafy vegetables (such as spinach, lalshak, napashak etc.)?	
5	Red Pulm oil, Pulm nut etc	
6	Any vegetables (tomato, onion, eggplant, including wild vegetable?	
7	Any ripe mangoes, jackfruit, water melon, ripe papaya, + other locally available vitamin A-rich fruits?	
8	Any other fruits including wild fruits?	
9	Any liver, kidney, heart or other organ meats or blood-based foods?	
10	Any beef, iamb, goat, chicken, duck, or other birds?	
11	Any chicken, duck, or any other egg (EGG)?	
12	Any fresh or dried fish or shell fish (FISH)?	
13	Any beans, peas, lentils, nuts, seeds or foods made from these?	
14	Any milk, yogurt or other milk products?	
15	Any food made with oil, fat, or butter?	
16	Any sugar or molasses made jilapi, misti, murali, goja, etc.	
17	Any other foods, such as coffee, tea?	
18	Ketchup, sauce, chips, chutneys, pickles	

Annex-3: Key Informants Interview (KIIs) Checklist

The selected individuals have been interviewed (discussed with) about different aspects of the study project namely, project design, implementation and management, and impact of the project changing livelihood of the ultra- poor of the study area. The stakeholders are:

- Extension service providers;
- Local Government Representatives;
- NGO professionals;
- Former Grant Management Expert of VGDUP;
- Former Team Leader of VGDUP Technical Assistance Team
- Monitoring Expert of Project Support Unit, FSUP;
- Food Security Desk Manager of European Union.

The KII checklists:

- (i) Relevance of the VGDUP and FSUP project
- (ii) Effectiveness
- (iii) Efficiency
- (iv) Sustainability
- (v) Impact of the project
- (vi) Access to extension service
- (vii) Participation in decision making and social empowerment
- (viii) Health, education and personal hygiene
- (ix) Food security
- (x) Disaster Risk Reduction
- (xi) Overall comments on changing livelihoods of the project beneficiaries through NGO interventions;