Baseline Survey Report

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Local Government Initiative on Climate Change (LoGIC) Project
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Message

Bangladesh is one of the top climate-vulnerable countries in the world. It is exposed to many climate-induced slow onset and rapid extreme-weather events, such as increased salinity and cyclones in the coastal areas, endured floods and droughts and erratic rainfall. According to integrated assessment models of climate change, climate-induced damages lead to significant loss of Gross Domestic Product (GDP) in the long run, which is likely to affect the country's commitment to achieve the Sustainable Goals (SDGs) and 'Vision 2041' to become a developed country. Since the exposure of these disasters are more severe on the poor and vulnerable people living in most climate-affected areas, the role of Local Government Institutions (LGIs), specifically Union Parishads (UPs) is instrumental to extend hand to enhance the climate change adaptation and resilience to local communities as it stays at arm's length of local citizens.

Given this context, Local Government Initiative on Climate Change (LoGIC) is a multi-donor collaborative initiative of Government of Bangladesh (GoB), United Nations Development Programme (UNDP), United Nations Capital Development Fund(UNCDF), European Union (EU) and Swedish International Development Cooperation Agency (SIDA). The project intends to enhance the capacity of vulnerable communities, LGI and NGOs for planning and financing climate change adaptation solutions in selected climate-vulnerable districts in coastal areas, wetland and flood-prone areas. Local Government Division (LGD) is the implementing lead of the project while UNDP and UNCDF for technical and management support.

The baseline survey was conducted at all seven districts of LoGIC intervention unions and its socio-economically comparable control unions. This report provides a comprehensive set of findings on socio-economic and environmental characteristics of the surveyed households, as a valuable source of knowledge regarding the socio-economic vulnerability of the households due to climate change, awareness and participation in planning and budgeting of the UPs and capacity of the UPs to allocate resources for adaptation and resilience schemes.

I hope the report will be helpful as a reference book for policymakers, government and non-government agencies, and donors for learning and undertaking programmes on climate change in Bangladesh.

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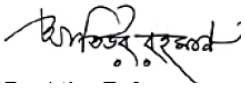
Mohammad Emdad Ullah Mian

Acknowledgement

Local Government Initiative on Climate Change (LoGIC) project is being implemented across 20 upazilas of 7 districts in Bangladesh that are highly vulnerable to climate change, which are located in coastal, wetland and flood-prone districts. This project intends to improve inclusive local level planning and budgeting for community-based climate change adaptation (CCA).Like any other similar intervention, success of LoGIC also relies to a significant extent upon a comprehensive understanding of the current situation, i.e., the local level climate change related challenges, the demand of the local people, the available resources and opportunities, etc. The baseline survey report is an attempt to present the pre-project benchmark of the situation in the project area.

This survey conducted at the household levels and at local government institutions (LGIs)at 108 unions in the intervention districts of LoGIC project, which include 72 project unions and its socio-economically comparable 36 control unions. The survey aims to reveal the livelihoods, health and drinking water sources, knowledge about community based natural resources, exposure to climate change, disaster risk management, current capacities and practices of households and LGIs regarding CCA and climate resilience. It is expected that these findings will inform those involved with LoGIC project and enable them to implement the project effectively and efficiently.

I would like to extend my sincere appreciation to the Local Government Division (LGD), Government of Bangladesh for undertaking the LoGIC project towards enhancing CCA and resilience of local people though LGIs.I would also like to express my gratitude to United Nations Development Programme (UNDP) for entrusting Unnayan Shamannay to conduct the baseline survey and subsequent evaluations. I acknowledge the excellent support and cooperation of Mohammad Emdad Ullah Mian, NPD, LoGIC project, AKM Mamunur Rashid, Climate Change Specialist, UNDP Bangladesh;Selina Shelley Khan, Project Coordinator, TM Selim, Monitoring Specialist and other officials ofLoGIC projectat UNDP Bangladesh during the survey and preparation of the report.I also thank our field level partners, namely Population Crisis Control & Mass Education Committee (PCC & MEC) to facilitate the survey in coastal districts, Uttara Programme Development Society (UDPS) in Kurigram and Jaintia Shinnomul Songstha (JASHIS) in Sunamganj. Finally, I would like to appreciate Dr Saleemul Huq, Director, International Centre for Climate Change and Development; Dr Md Rafiqul Islam, Deputy Director, Bangladesh Bureau of Statistics (BBS); and representatives from LGD and Local Government Engineering Department (LGED), other government agencies and Non-Governmental Organizations (NGOs)for valuable comments and feedback during the national consultation workshop on the report.



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Acronyms

CRA	Community Risk Assessments
CSO	Civil Society Organisation
DRM	Disaster Risk Management
GPS	Geographical Positioning System
IGAs	Income-Generating Activities
IRC	International Rescue Committee
JASHIS	Jaintia Shinnomul Songstha
LDP	Local Development Plan
LG	Local Government
LGI	Local Government Institution
LoGIC	Local Government Initiative on Climate Change
MIC	Middle Income Country
NGO	Non-Government Organisation
PCC & MEC	Population Crisis Control & Mass Education Committee
UN	United Nations
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UN-OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UDPS	Uttara Programme Development Society
UNEP	United Nations Environment Programme
UP	Union Parishad
UZP	Upazila Parishad
UNO	Upazila Nirbahi Officer
WS	Ward Sabha

Executive Summary

According to the Global Climate Risk Index 2019, Bangladesh ranks seventh among those 10 countries in the world that are most vulnerable to climate change-induced extreme-weather disasters. The country has been experiencing changes in rainfall pattern, increased temperature, high frequency of extreme-weather events, *i.e.*, flooding in the river basins, widespread droughts in the North and cyclones in coastal areas. These are, in turn, exacerbating the long-term effects, such as increased salinity in water and crop land, extended water shortage, sea and river erosion, severe high tide and sea level rise, etc. The Government of Bangladesh has aptly recognised the importance of climate change threats to the transformation into a developing country and has been actively engaged in reducing this challenge. Elected local Government Institutions (LGIs) in Bangladesh are mandated to address such issues by harnessing the potentials within the community in providing appropriate services in such needs. However, the LGIs fall short of fulfilling this responsibility. Communities and households face difficulties in securing access to the local planning and financing mechanism for sustainable development solutions including climate change responses. Considering these gaps, challenges and opportunities in this arena, the "**Local Government Initiative on Climate Change (LoGIC)**" plans to promote local action on climate change adaptation at scale. It is a multi-donor collaborative initiative of Government of Bangladesh (GoB), United Nations Development Programme (UNDP), United Nations Capital Development Fund (UNCDF), the European Union (EU) and the Swedish International Development Cooperation Agency (SIDA), aiming to address climate change impacts in climate-vulnerable areas of Bangladesh.

The expected outcome of the project is improved and inclusive local level planning and a strengthened financing mechanism for community-based Climate Change Adaptation (CCA) solutions through local governments. The project's planned outputs are: (i) strengthened capacity of local governments, households and other local stakeholders to develop local plans that integrate climate change adaptation measures and disaster risk management; (ii) established financing mechanism to fund local governments and communities for implementing climate change adaptation measures, and (iii) experience, inform and contribute to further improvements in policies and practices for UPs and national systems in relation to climate change adaptation. The project will be implemented in 72 unions of 20 upazilas in 7 districts, *viz*. Kurigram, Sunamganj, Khulna, Bagerhat, Barguna, Patuakhali and Bhola, covering approximately 200,000 households (17,000 direct and 183,000 indirect). Priority will be given to women-headed households.

This is a report of the baseline survey. The survey assessed the pre-project benchmark including the potentials and gaps in the LoGIC intervention areas, the findings of which may assist policy makers to take necessary actions in strengthening the project to fulfill its mandate. The survey was conducted at 4,827household (3,174 treatment and 1,653 control), and 108 UPs and 20 Upazila Parishads (UZP).

Climate Change Vulnerability at Household Level

Vulnerabilities in Terms of Human Assets

Education. Education is considered as a proxy measure of vulnerability in human asset in sustainable livelihoods framework (SLF). Level of education is of the household-level respondents has been found to be low, which is one of the important vulnerability factors to build resilient human asset. Majority of the respondents have either no education or attended primary level. Thus, human asset/capital base is low that indicates widespread vulnerability at the households due to low capacity to cope up with natural disasters and CCA according to SLF.

Poverty and food security. Very high incidence of poverty has been found at the households compared to Household Income and Expenditure Survey (HIES) 2016 of Bangladesh Bureau of Statistics. As high as 84.3 and 74.4 percent households lived under upper and lower poverty lines, respectively during the survey time

(January 2018), while the corresponding figures at national level were 24.3 and 12.9 percent, respectively according to HIES 2016. It indicates that the incidence of poverty is very high in the districts which are heavily affected by climate change.

Health. Health and physical well-being are considered to be important elements of human asset or capital. More than one-fifth (21.1 percent) of the surveyed households take two meals a day, which indicates that a considerable proportion of climate-affected households remain food insecure. Moreover, according to the self-reported prevalence of chronic diseases during survey time, 43.5 percent of households were suffering from any diseases. However, 18.2percent household members reported suffering from hypertension, 12.6percent from heart diseases 11.2percent has skin diseases, 7.2percent has diabetes and 7.2 percent has dysentery. Food insecurity and high prevalence of diseases deplete health stock and reduces physical well-being of the household members.

***Source of drinking water*.** Salinity in drinking water is a major problem among the surveyed households. Pond is important primary source of drinking water in Bagerhat and Khulna, while rain water is important secondary source in Khulna, Bagerhat and Khulna.

Vulnerabilities to Income and Financial Assets

Income. Average household income is found to be very low, only Tk.9,133 per month. It is about half of that of national average household income (Tk.15,945 according to HIES 2016). Average income of LoGIC households in lower than that of control households (Tk.9,453 control and Tk.8,967 treatment). The quality of life and widespread poverty among the surveyed households in climate-affected areas are intrinsically interwoven with their low level of income.

Occupation. Most of the husbands/household heads depend on vulnerable occupations (60.9 percent) that generate low income, such as agriculture and manual unskilled labour in agricultural non-agricultural occupations. Also, there is no regular income from secondary sources in two-thirds of treatment households.

Financial inclusion. Widespread poverty and vulnerability persist among surveyed households due to lack of financial asset/capital (inclusion). It has been found that about 86 percent households have no savings, and nearly half (48 percent) respondents took loan from any source (mostly from non-governmental organisations (NGOs) or development project). However, nearly half of them did not repay the past loan due to poverty and lack of regular income. More than three-quarters respondents are not interested to take loan because of lack of viable alternative income source.

Alternative livelihood options. Cash crop, handicraft, cooperatives and small enterprise are some of the viable alternative livelihood options available according the respondents. However, nearly all households did not opt for any alternative livelihood options. Some of the respondents who failed in alternative options mentioned that lack of capital, support and experience were the main reasons of failures.

Vulnerabilities to Household's Physical Assets

Housing quality. Quality of housing materials among the surveyed households is well below the quality of rural average of the country as per the HIES 2016. About 4 percent% of total houses were made by CI sheet (55 percent as per HIES), and 26 percent of total household were made of mud and CI sheet, about 13% of total house were made of brick (wall) and CI sheet (roof) and only 2 percent houses were completely made of brick and cement (20.2 percent as per HIES).

***Household assets*.** The surveyed households mostly suffer from lack of diversified economic asset that could provide regular return (income) and support in CCA and climate resilience. The main physical assetsare solar power, mobile phone, television and bicycle; the main economic asset is livestock (30.6 percent); and the only natural asset is own land (46 percent).

Vulnerability to natural resource

Crop cultivation. Most of the households in the survey areas are found to be highly vulnerable due to lack of agricultural diversification and less dependence of cash crops. They are overwhelmingly dependent on cultivation of paddy (93 percent), followed by pulse (20 percent) and vegetables (10 percent). Paddy cultivation is susceptible to both extreme weather and slow onset events of climate change.

Dependence on natural conservation area. Even though the livelihoods of the surveyed households are highly vulnerable, they are less dependence on natural conservation areas adjacent to their houses. Few surveyed households (about 2 percent) have natural conservation areas or restricted park land adjacent to their houses. Some of them use these areas frequently (daily or few times in a week).

Vulnerability to social assets

Migration and dislocation. In the last five years, 3 percent adult household members were relocated permanently from the survey areas. At least one male member was relocated in about 42 percent of 144 households, while one female member was relocated in 53.5 percent of those households. Lack of livelihood options is the most important driver of migration in the climate change affected areas followed by damage to house by cyclone or flood, crop failure and problem in drinking water.

Role of UPs in livelihood training. Even lack of viable alternative livelihood options is a major driver of vulnerability among the climate-affected households, the UPs has not yet appeared as a visible social entity through livelihood training and support in livelihoods. UPs did not initiate any educational or training programme about alternative income-generating activities (IGAs) in the last 12 months. However, only 5.5 percent of total respondents knew about support of the UPs to people living under lower poverty line.

Vulnerability and Capacity of Local Institution (UP) on Climate Change

Demand Side of Climate Service of the UPs: Community Awareness and Participation

Participation of local people in the functions of (UP) is already mandated under the Local Government (Union Parishad) Act 2009. The survey data, however, reveals that overall people's participation in any kind of UP meeting is very low. Only about 3 percent of respondents have ever participated in any kind of UP meeting. Local people's participation in open meetings of is also very low. Only 2 percent of total respondents participated in Ward Sabha (WS) in 2016-17. Very small number of respondents participated in annual development plan (ADP) and five-year plan (FYP) (less than 1 percent).

Supply Side of Climate Service: Capacity and Role of the UPs

Community Risk Assessment (CRA) meetings are very important selecting climate-sensitive schemes in ADP and FYP. CRA were organised in about three-quarters UPs and discussed in equal proportion of WS. About one-fourth UPs conducted CRA meeting in the most recent years. LoGIC UPs are lagging behind in conducting CRA meetings because all UPs have not conducted CRA even though they are heavily climate-affected unions.

The surveyed UPs have not demonstrated pro-active implementation of scheme on gender-sensitive disaster management and CCA. About 7.4 percent of 108 unions implemented gender-sensitive scheme (5.6% in control and 6.9percent in LoGIC unions). Nearly one-fifth (22.2percent) of 108 unions implemented any scheme related to disaster-affected vulnerable women and children (19.4percent in control and 23.6percentin LoGIC unions). About 12percent of total unions implemented schemes for disaster-affected marginalised population (13.9percent in control and 11.1percent in LoGIC unions).Only one-third UPs had any climate-

sensitive investment in their annual budget. Around one-fifth ADPs and slightly higher than half of the five-year plans contain climate-sensitive schemes.

Key Plausible Entry Points for LoGIC Project

Diversification of crop and livelihood options may be promoted for greater resilience and adaptation. UPs and Upazila Parishads (UZPs) can play a pro-active role through training and orientation to the local communities. Training particularly to women on entrepreneurship, cottage industry and handicrafts as alternative livelihoods can bring about effective change and relief to the affected households. Skills in developing floating garden and hydroponics are two potential areas of training and support. UPs can also provide the required linkages of the farmers with NGOs and local/national markets. In addition, there is a need to increase availability of safe and fresh drinking water especially in Khulna and Bagerhat districts.

There is a need for improving the level of people's knowledge and satisfaction about the performance of the UPs in terms of planning and budgeting. Knowledge of and participation of the community in LGI functions is essential for useful adaptation to climate change effects. For this it is important to strengthen the capacity of the local governments in providing support to households in the above-mentioned functions for improving resilience and adaptation to climate change.

The LoGIC project may include promoting practice of discussing climate change and related projects for transparency leading to accountability to all stakeholders. It can be brought in the Ward Sabhas, along with increased disclosure of audit reports, financial information as well as status reports of implementation of decisions. Promoting people's knowledge and ensuring active participation, particularly of women in UP activities, including planning processes, ADP schemes, five-year plan, should be taken up in the LoGIC Project.

LoGIC project may consider forming a Standing Committee on Climate Change at UPs. It can be done under the provision in the UP Act 2009, which allows forming additional standing committees if needed with prior approval of the Local Government Division. Since climate change is the leading problem in the surveyed areas, the UPs under LoGIC project may proceed to form this Standing Committee.

Assessing community risk must be a pre-requisite in initiating schemes and projects on resilience and adaptation. The survey findings, however, show that about half of control and two-fifths of treatment UPs did not hold any meeting on CRA, and a notable proportion of UPs could not show the CRA reports. These issues may be addressed in the LGI capacity development plans of the Project

LGSP and ADP schemes must be adequately climate-sensitive. Most of the control and treatment UPs did not implement mentionable numbers of schemes on climate change. Nearly all UPs have no record of any women/children-climate sensitive schemes or of any that is potentially beneficial to other disaster-affected marginalised population. Poor households, which are generally excluded, must be taken on board in all UP activities, planning, budgeting and scheme selection.

Finally, women-headed households and women in general should be brought in Ward Sabha, ADP, five-year planning and budgeting. They are the most excluded though they are likely to be worst affected by the climatic changes. The data indicates women to be least aware of and less representative in these important UP activities. It is imperative that the project provides focused attention to the realities of the women in the intervention areas and accordingly design and implement.

Chapter 1

Introduction

1.1 Background

According to the Global Climate Risk Index 2019, Bangladesh ranks seventh among those 10 countries in the world that are most vulnerable to climate change-induced extreme-weather disasters.[1] The country has been experiencing changes in rainfall pattern, increased temperature, high frequency of extreme-weather events (*i.e.*, flooding in the river basins, widespread droughts in the North and cyclones in coastal areas). These are, in turn, exacerbating the long-term effects, such as increased salinity in water and crop land, extended water shortage, sea and river erosion, severe high tide and sea level rise, etc. Regular annual flooding inundates one-fifth of the landmass, while major floods like that in 2017 inundated around half of the country including hill districts. The frequency of cyclones during November and May over the North Indian Ocean increased twofold in the last 122 years.

Being home to the world's largest river systems and delta, the country has a very low and flat topography. UNEP (1989)[2] predicted that 1.5 meter rise in sea level by 2030 may submerge 22,000 square kilometers, or 16 percent of the country's total landmass, and affect some 15 percent of the total population of Bangladesh. Using the Bay of Bengal in a hydrodynamic model, the World Bank has estimated an escalation of impact, whereby cyclone exposed areas in Bangladesh will increase by 26 percent, and the affected population will grow as high as 122 percent by 2050.[3]It is estimated that between 1991 and 2000, a total of 93 disaster events occurred resulting in 200,000 deaths and US$5.9 billion in economic damages. A report of the Government of Bangladesh estimated the costs of abnormal monsoon flooding in 2007 at US$1.1 billion and the directly attributable costs of Cyclone Sidr at US$1.7 billion.[4] While the country made progress in reducing the death toll resulting from natural disasters, the remaining challenge is to protect livelihoods which push people below the poverty line, force them to migrate to urban areas in search of work and excludes them from a rightful participation in shaping local level decision making and service provisioning in favour of them. However, the sheer magnitude of poverty, underdevelopment and massive impact of climate change related events have compelled large sections of the population to continue to remain vulnerable.

On another front, Bangladesh has made considerable progress in terms of economic growth, poverty reduction and improvements in health and educational status. As a result, during the years 2010-2016, the rate of poverty fell by 1.2 percentage point every year: dropping from 31.5 percent in 2010 to 24.3 percent in 2016.[5] The Government of Bangladesh has aptly recognized the importance of

[1]David Eckstein, Marie-Lena Hutfils and Maik Winges (2018), *Global Climate Risk Index 2019: Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2017 and 1998 to 2017*, Bonn: Germanwatch.
[2]UNEP, 1989.Retrieved from http://www.grida.no.
[3]Susmita Dasgupta, Mainul Huq, Zahirul Huq Khan, Manjur Murshed Zahid Ahmed, Nandan Mukherjee, MalikFida Khan and Kiran Pandey (2010), Vulnerability of Bangladesh to Cyclones in a Changing Climate: Potential Damages and Adaptation Cost, *Policy Research Working Paper 5280*, Washington, DC: World Bank.
[4]UNDAF 2012-16, p. 24.
[5]BBS (2017), *Preliminary Report on Household Income and Expenditure Survey 2016*, Dhaka: Ministry of Planning, Government of Bangladesh.

climate change threats to the transformation into a developing country and has been actively engaged in reducing this challenge for quite some time.

The Bangladeshi people, despite vulnerabilities, have developed their home-grown adaptability measures to deal with natural disasters — although the sheer magnitude of multiple impacts of disasters often overwhelms the traditional coping mechanisms at the local level. The vulnerable population is experiencing climate change impact, but most often do not have adequate access to information and the capacity to explain the circumstances, and devise term strategies and remedies. Access to information, financial resources and technology are major challenges for people to adapt to climate change both at household and local level. Thus, the effectiveness of climate actions remains contingent upon how the priorities and concerns of the most vulnerable sections, including women, children, ethnic minorities and people with disability, are addressed.

A recent analysis of the expenditure pattern on climate change[6] indicates that the Local Government Institutions (LGIs)[7] receive regular development finance and other safety net resources (*e.g.*, food) from different sources. They also generate their own revenue from local sources as mandated by the law. The LGIs have been drawn into the implementation of several regular development programmes and provide a platform for long term interventions. Their growing involvement in working closely with national programmes has led to a degree of improvement in capacities and systems. However, the existing development schemes of LGIs at the community level remain confined mainly to infrastructural development. As a result, the vulnerable households face two-fold challenges in addressing climate risks at their level firstly, they do not have direct access to resources, and secondly, they cannot adequately influence the planning and budgeting of the local government.

At the local level, despite being a repository of local knowledge and information, the LGIs fall short of harnessing the full potential from the local community. The mechanism for formulation of the LDPs has scope to engage the poor and vulnerable groups in a participatory way to reflect their climate-related needs and demands. Communities and households face difficulties in securing access to the planning and financing mechanism for sustainable development solutions. On the otherhand, the Civil Society Organisations (CSOs) and local institutions who have long been functioning a local level also shy off the process owing to inadequate capacity and means.

Considering the above gaps and challenges in this arena, the United Nations Development Programme (UNDP) and United Nations Capital Development Fund (UNCDF) jointly developed the project titled **"Local Government Initiative on Climate Change (LoGIC)"** in Bangladesh, which plans to promote local action on climate change adaptation at scale. The project will address climate change impact in Bangladesh. Lessons from the UNDP and UNCDF experience suggest that integration of climate change in the actions of LGIs, CSOs and the local institutions working at the sub-national level can help effective delivery of resources meant to address climate change vulnerabilities faced by the local communities.

[6] Public Expenditure for Climate Change: Bangladesh Climate Public Expenditure and Institutional Review, General Economic Division, Planning Commission Government of the People's Republic of Bangladesh in 2012. This is further confirmed by Finance Division's Climate Fiscal Framework in 2014

[7] A two-tier local government structure of which 4,500 Union Parishads constitute the lowest structure with both an elected body as well as a civil administrative unit.

1.2 A Brief Overview of LoGIC Project

LoGIC is a multi-donor collaborative initiative of Government of Bangladesh (GoB), UNDP, UNCDF, European Union (EU) and Swedish International Development Cooperation Agency (SIDA). It aims to enhance the capacity of vulnerable communities, LGI and CSOs for planning and financing climate change adaptation solutions in selected climate vulnerable areas. Local Government Division (LGD) is the implementing lead of the project in partnership with UNDP and UNCDF for technical and management support.

The project aims to address gaps at local and national levels based on which the results have been envisaged. Incentives in the form of technical support, access to finance and leadership can unleash the potential for the country to deliver climate finance targeting selected vulnerable areas and associated climate-vulnerable population.

Vulnerable people living in disaster-prone areas of Bangladesh have developed strategies and practices to cope with these natural events. However, they have inadequate empowerment to influence over development planning in their communities. In order to address the vulnerabilities to climate change in Bangladesh, the project envisages the following priority areas of action:

a) Building capacities of individuals and households with information, knowledge, skills and technology to adapt to climate change as well as leadership skills to influence the local planning process.
b) Build capacity of the local NGOs, CBOs, local institutions and LGIs, particularly Union Parishads (UPs) in climate change integrated planning, budgeting and implementation with high degree of accountability and inclusive practice.
c) Provide funds to LGIs and vulnerable households to plan and implement climate-resilient activities and interventions at community and household level.
d) Generate knowledge and mobilise opinion for shaping a Local Climate Fiscal Framework and enhance readiness of both LGIs and the LGD to utilise national and international climate finance in an accountable way.

These priorities will be addressed through three sets of core actions: capacity building, providing access to climate change funds and policy advocacy. During the planned support period, LoGIC project is expected to produce three key results.

First, the capacity of local governments, households and other local stakeholders will be increased enabling them to enhance existing and future local development plans by integrating climate change adaptation solutions.

Second, a financing mechanism for local governments to implement climate change adaptation solutions will be established. Performance Based Climate Resilient Grants (PBCRG) will be established and aligned with the current system of fiscal transfers to LGIs using and improving it. It also covers the design and implementation of a Community Resilience Fund (CRF) that will provide resources for community and household level climate change adaptation solutions for vulnerable households.

Third, it is of upmost importance that the pilot experience gained at the community and local level is informing wider policy and practice and ultimately aim at improving and reforming the planning

and financing system of the GoB for Climate Change Adaptation (CCA) at local and community level, thereby ensuring sustainability beyond the project.

The project is designed to support roughly 200,000 most vulnerable households (17,000 directly and 183,000 indirectly) in 72 unions in 7 districts, *viz*. Kurigram, Sunamganj, Khulna, Bagerhat, Barguna, Patuakhali, and Bhola. The benefits are expected to come out of climate change adaptation actions at various levels, scaled up through LGIs — incorporating avenues for high quality accountability and participation of the most vulnerable people. This concept evolved around six strands:

i) Building capacity, awareness and empowerment of the vulnerable people to generate plans;
ii) Development of capacity of the LGIs to integrate climate change into their local development plans;
iii) Building capacity and engagement of local actors and government extension workers at local level to work as drivers for accountability of climate action;
iv) Provide grant to local government (PBCRG) as additional resource to climate-proof their investment on community-based adaptation work;
v) Provide direct support to the vulnerable households to meet their adaptation needs; and
vi) Promote a local climate financing mechanism through evidence-based advocacy for delivering climate finance at scale.

The expected outcome of this project is: Improved and inclusive local level planning and a strengthened financing mechanism for community-based climate change adaptation solutions through LGIs.

By achieving objectives and results, the project will contribute to the reduction of vulnerability and poverty in Bangladesh. The project is expected to produce following output through activities designated under each output:

- **Output 1:** Strengthened capacity of local governments, households and other local stakeholders to develop local plans that integrate climate change adaptation measures and Disaster Risk Management (DRM).

  Activity 1.1: Capacity enhancement plan developed and implemented
  Activity 1.2: Inclusive community-based adaptation plans developed
  Activity 1.3: CRF operationalised to finance community-based innovative solutions for households through the CSOs and local institutions

- **Output 2:** Established financing mechanism to fund local governments and communities for implementing CCA measures.

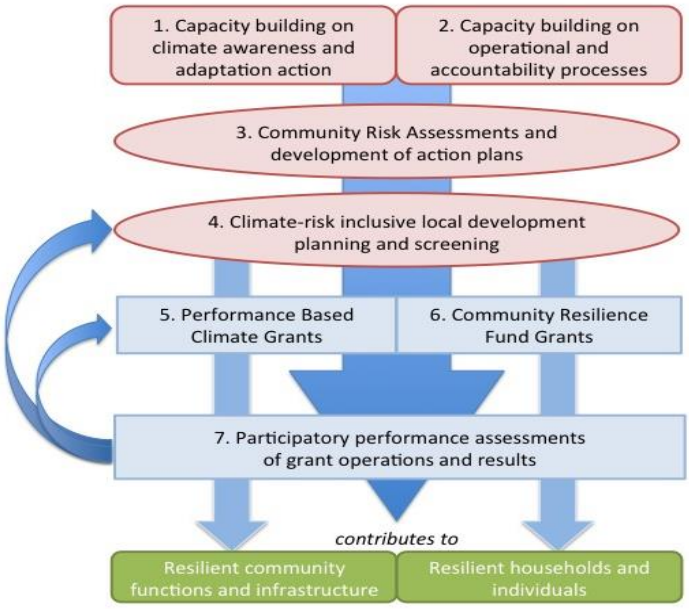
  Activity 2.1: PBCRG system is developed and implemented through LGIs
  Activity 2.2: Performance of LGIs is assessed for compliance with mandatory requirements and superior performance
  Activity 2.3: CRF operationalised
  Activity 2.4: CCA-DRR financing at local level enhanced by the active participation and scrutiny of communities and CSOs, local stakeholders and institutions

- **Output 3:** Experience and evidence inform and contribute to further improvements in policies and practices for UPs and national systems in relation to CCA.

  Activity 3.1: Systems are designed and implemented to learn lessons at the local level and informing the policy dialogue at the national level.
  Activity 3.2: Experiences supporting and hindering the process on local climate financing are collected and shared.
  Activity 3.3: Adoption of national policies are informed and advocated that embrace the project methodology.
  Activity 3.4: Lessons from local climate fiscal framework are integrated into the national climate fiscal framework.

The project will address gaps at a few levels based on which the results have been designed. Despite being a repository of local knowledge and information, the LGIs fall short of harnessing the potentials from the local community at local level. The mechanism for formulation of the Local Development Plan (LDPs) has scope to engage the poor and vulnerable groups in a participatory way to reflect their climate-related needs and demands. Communities and households face difficulties in securing access to the planning and financing mechanism for sustainable development solutions.

Figure 1.1: Project Strategic Approach (a sequential approach)



The baseline survey has been conducted to document generate the benchmark scenarios in the intervention areas. It covers critical variables related to the present phenomena and lay the benchmark for undertaking impact evaluation at the end of project implementation. An in-depth analysis of potentials and gaps of the project have been examined. In this context, this study assessed the pre-project conditions at the LoGIC project area for helping policy makers to undertake necessary actions in strengthening the LoGIC project towards fulfilling its stated mandate and objectives. The baseline data will be compared with endline data during the evaluation at the end of project.

1.3 Study Methodology

The rationale and purpose of collection of baseline information is to capture and develop a reasonably precise idea about the present status of key project stakeholders, viz. project community and LGIs, in the light of LoGIC project. The process includes attempting an in-depth study on the climate change impact on selected development policies and programmes implemented under the auspices of LGIs— especially at UPs and household levels.

1.3.1 Study Objectives and Scope

The overall objective of the baseline survey is to assess the pre-project reference point of local community and LGIs in comparison to control counterpart. The specific objectives of the baseline survey are to:

- Collect comprehensive baseline information regarding different aspects of community and LGIs that provide a situation analysis of existing scenario from the project importance;
- Generate a set of starting points of references for measuring progress, achievements and success of the project in terms of climate change resilience through local government's initiative; and
- Create a benchmark to assess the possible impacts at both community and local government level in comparison to control at the end of LoGIC project.

The scope of the study at household and local government includes the following:

Household level

- Demographic and socio-economic information of community
- Livelihood, health and drinking water sources
- Knowledge about community based natural resource, climate change adaptation, disaster risk management, migration/displacement
- Understanding about UP functionaries, participation in planning and budgeting

Local government level

- General information about the project UP
- Information about Ward Sabha, open budget meeting, annual and five-year planning meeting
- Climate change related standing committees and their planning at local level
- UP budget, audit and resource mobilisation and status of supervision
- LGIs and local actors' thinking, understanding and contribution in addressing climate change
- LGIs involvement in the policy regarding climate change, programme and financing to mitigate the effect of climate change

1.4 Design and Methodology

1.4.1 Part 1: Baseline Assessment at Household Level

The purpose of household level baseline survey is to collect their current demographic and socio-economic information, their understanding about UP functionaries, participatory processes, planning, budgeting, knowledge about community based natural resource, status of financial inclusion, CCA, DRM, livelihood, health, migration/displacement and drinking water sources.

The project will be implemented in 72 unions of 20 upazilas, which will cover approximately 200,000 resident households. In the baseline study, an 'unbalanced' study design with the ratio of treatment union: control union is 2:1 was followed. The justification of taking double treatment per one control is explained below.

The first rationale is that we need more baseline information of project unions and beneficiaries because as per the baseline data analysis report the design of intervention might be changed. Different people of different area live in different geological, political, social and economic contexts with different cultural attributes. Opportunities, constraints and the local resources are different for various climate change affected areas of LoGIC project. More information regarding the communities and LGIs of project area are necessary for the efficacy, viability and sustainability of the project.

The second rationale is that during selection of control we need similar geographic and socio-economical union matched with treatment unions. As LoGIC project is covering the most vulnerable 72 unions in the disaster-prone districts, it was difficult to find an equal number of control unions.

For the above-mentioned reasons, we took 72 treatment unions and matched 36 control unions. From the methodological perspective of an evaluation study, we proposed an unbalanced quasi-experimental design to evaluate the intervention impact of LoGIC project.

Thus, treatment and control groups were specified as follows:

i. **Treatment:** It includes the randomly selected participants from randomly selected ward of project unions of project upazilas. Treatment of this study was taken from all 72 intervention unions of LoGIC project.

ii. **Control:** The control union was any geographically matched union to treatment unions, which will be not covered by LoGIC project but in same upazila. If similar geographically matched control union was not found within same upazila then similar matched control union was chosen from same district. The control participants were randomly selected participants from randomly selected wards of that control union.

Table 1.1: Selected Treatment and Control Unions

District	Upazila	Treatment Union	Control Union
Kurigram	Char Rajibpur	Char Rajibpur, Kodailkati, Mohanganj	
	Roumari	Roumari, Bandabeer, Dantbhanga, Saulmari	Jadurchar
	Ulipur		Bozra
	Chilmari	Ashtamir Char, Raniganj, Thanahat	Nayarhat, Romna, Chilmarisadar
Sunamganj	Tahirpur	Dakshin Sreepur, Dakshin Baradal, Uttar Sreepur, Balijhuri	Badaghat
	Dirai	Bhati Para, Charnar Char, Derai Sarmangal, Rafinagar	Karimpur, Jogdol, Kulonj, Razanagar, Tarul
	Salla	Atgaon, Bahara, Habibpur, Sulla	
Khulna	Koira	Dakshin Bedkashi, Koyra, Maheshwaripur, Uttar Bedkashi, Maharajpur	Bashbari, Amadi
	Dacop	Banisanta, Pankhali, Kamarkhola, Sutarkhali, Tildanga	Laudope, Bajua, DacopeSadar
Bagerhat	Mongla	Chandpi, Sundarban, Suniltala, Mithakhali	Chila, Burirdanga
	Sharonkhola	Dhansagar, Khontakata, Royenda, Dakkhinkhali	Bohorbunia
	Morelganj	Baraikhali, Jiudhara, Morrelganj, Nishan Baria	Hoglabunia, Bolobunia, Khaolia
Barguna	Pathorghata	Kakchira, Kathaltoli, Nachna Para, Raihanpur	Charduari, Kalomegha
	Sadar	Badarkhali, Burirchar, Dholua, Naltona	Gaurichanna, M.Baliatoli
	Taltoli	Barabagi, Nishanbaria, Sonakata, PanchaKaralia	Koroibaria, Sarikhali
Patuakhali	Rangabali	Rangabali, Bara Baisdia, Chhota Baisdia, Char Montaz	Bohorampur, Chaltebunia
	Dashmina	Char Borhan, Ranagopaldi	Bashbaria
Bhola	Sadar	Dhania, Kachia, Rajapur, Dakkhin Dighaldi	Char Shibpur, Modonpur
	Doulatkhan	Uttar Joynagar, Char Khalifa, Saidpur, Dakkhin Joynagar	Vobanipur, Gongapur
	Borhanuddin	Bara Manika, Deula	Chacra
7 District	**20 Upazila**	**72 Union**	**36 Union**

1.4.2 Part 2: UP and Community Level Baseline at Local Government

A comprehensive quantitative survey and in-depth and semi-structured interview were conducted on the LG actors for their perspective in the climate change issue at their context. The UP Chairman/Secretary, Upazila Parishad (UZP) Chairman and UpazilaNirbahi Officer (UNO) were interviewed as important parts of the LG actors. The UP and community level baseline consisted with the following components and contents.

Component 1: UP Level Survey

A broad quantitative survey was conducted on UP Chairman or UP Secretary to all selected treatment and control union parishad. The purpose of undertaking the survey at UP level was to collect the quantitative information about the general geographical location, proximity and resources, information about meeting at Ward Sabha, climate change related, planning at local level, standing committee, UP budget, audit and resource mobilisation and status of supervision.

Component 2: Broad Open-Ended and Semi Structured Interview to all Local Government's Actors

Some open-ended questions were asked to UP chairman, UZP chairman and UNO of project area. The open-ended checklist was included the perceived effect of climate change on development policies/programmes, the actual impact of climate change on existing policies/programmes and some general funding, decision-making and implementation questions related to climate change and planning. In addition to the qualitative information, some additional semi-structured information, for example, community level effect of climate change, involvement in the policy regarding climate change, programme and financing to mitigate the effect of climate change, the manpower and institutional capacity and the success, failure, learning and the problems of different programme implementation were collected from both intervention and control unions.

1.4.3 Baseline Data Collection and Quality Control

Data collection: Quantitative data collection was fully automated and conducted electronically. Tabwas used in this survey to collect the real-time survey data from field in which date, starting time and ending time of survey were automatically recorded in the survey data set against each respondent ID. The data collector sent the data to server immediately after finishing the survey through mobile internet. Data couldbe viewed in server or couldbe downloaded instantly. Some summary statistics could be viewed in server output window. During interview the GPS location of each household was taken by the enumerator. The date, starting time and ending time including the GPS tracking were considered a strong tool of immediate verification and supervision of data collection.

Questionnaire programming and data transfer platform: KoBo Toolbox platform was used for questionnaire programming and real-time data transfer tool from field.[8] Both the sender and recipient end of the data server were password-protected. Thus, the data security was encrypted and ensured in these platforms. Some pre-specified validation check and logical check were programmed in Tab. In addition, auto skip was also programmed which reduced the typing error of interviewers. Each day after downloading from server, the data were checked the completeness with standard data management or statistical software.

District data collection partners: There were three districts level partner NGOs of Unnayan Shamannay, which mainly supervised and managed the data collection from UP and household level. The expert team of Unnayan Shamannay rigorously trained the local study coordinators and district data collection supervisors firstly at the head office of Unnayan Shamannay. During the field level training,Unnayan Shamannay's core staffs visited the field and provided the training support to the enumerators. During the data collection phase, the core staffs provided the supervisory support to control the quality of data collection.

Pre-test, training and quality control: The engagement of local partners and field level engagement of core staffs were increased the quality of field level data. LoGIC project team initially developed and validated the data collection instruments. At the first stage the experts of Unnayan Shamannay rechecked questionnaire and made some initial changes. Then after the pre-test all data collection

[8]KoBo Toolbox have a strong data transferring and data server network which is jointly managed and maintained by UN OCHA, Harvard Humanitarian Initiative (HHI) and the International Rescue Committee (IRC).

instruments were finally modified. All field and all core project staff were adequately trained up by expert team. Then the trained project staffs, coordinators and district level supervisors, in turn, conducted a rigorous in-house and field training to the enumerators.

1.4.4 Sample size for household level baseline

1.4.4.1 Methods and formula for the sample size for unbalanced quasi experimental design[9,10]

Consider two independent samples of sizes n_1 and n_2. Let x_{11},, x_{1n1} be a random sample from a binomial distribution with the success probability p_1. We refer to this sample as a control group. Let x_2, x_{2n2} be a random sample from a binomial distribution with the success probability p_2, the experimental group. Let $x_{ij} = 1$ denotes a success and $x_{ij} = 0$ denote a failure. The two samples are assumed to be independent. The sample proportions and their respective standard errors are:

$$\widehat{p_1} = \frac{1}{n_1}\sum_{i=1}^{n_1} x_{1i} \quad \text{and} \quad se(\widehat{p_1}) = \sqrt{n_1\widehat{p_1}(1-\widehat{p_1})}$$

$$\widehat{p_2} = \frac{1}{n_2}\sum_{i=1}^{n_2} x_{2i} \quad \text{and} \quad se(\widehat{p_2}) = \sqrt{n_2\widehat{p_2}(1-\widehat{p_2})}$$

A two-sample proportions test involves testing the null hypothesis H_0: $p_1 = p_2$ versus the two-sided alternative hypothesis Ha: $p_1 \neq p_2$, the upper one-sided alternative Ha: $p_2 > p_1$, or the lower one-sided alternative Ha: $p_2 < p_1$.

The measures of risk or effect size can be defined in a number of ways for the two-sample proportions test. The effect size is the difference between the experimental-group proportion and the control-group proportion.

$$\delta = p_1 - p_2$$

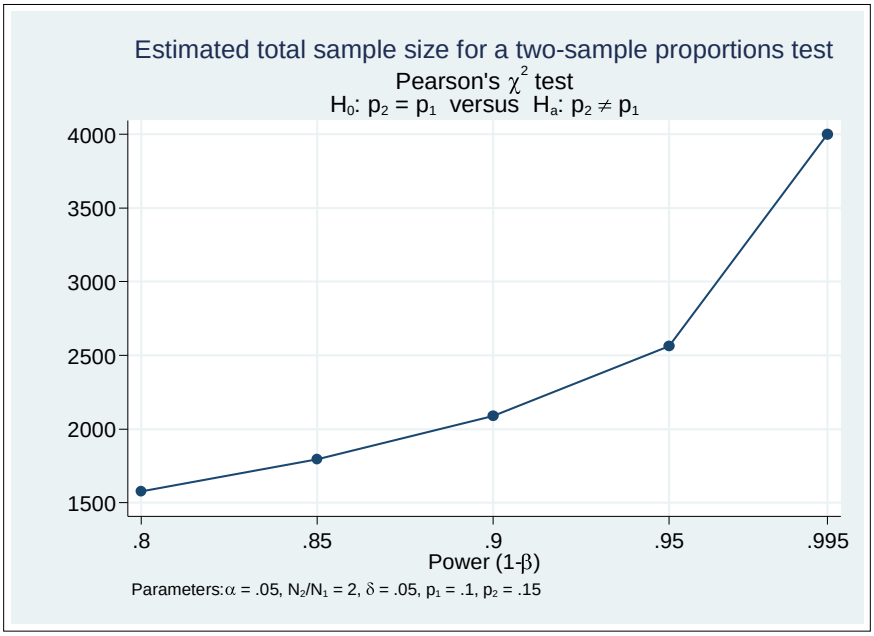
Let for the unbalanced design, $R = \frac{n_1}{n_2}$ denotes the allocation ratio. Then $n_1 = R \times n_2$ and power can be viewed as a function of n_2. Therefore, for sample-size determination, the control-group sample size n_1 is computed first. The experimental-group size n_2 is then computed as $R \times n_1$, and the total sample size is computed as $n = n_1 + n_2$. By default, sample sizes are rounded to integer values. The above formulas are based on Fleiss et al. (2003) and Agresti (2013).

1.4.4.2 Calculation

Considering 50% effect size, 99.5% power and 5% level of significance at unbalanced experimental design, the calculated initial sample size is 4,002, of which 1,334 is for control arm and 2,668 is for treatment arm. The sample size for different power of test is depicted in the graph below.

Figure 1.2: Estimated Total Sample Size and Power of Test for Quasi-Experimental Design

[9]Agresti, A. 2013.Categorical Data Analysis. 3rd ed. Hoboken, NJ: Wiley.
[10]Fleiss, J. L., B. Levin, and M. C. Paik. 2003. Statistical Methods for Rates and Proportions, 3rd ed., New York: Wiley.



Considering 15% non-response and migration in endline, the total sample size of this survey is 4,827. We have 72 treatment unions and 36 control unions. The samples are divided as 3,174 for treatment unions (42 per treatment union) and 1,653 for control unions (44 per control union).

As this is not a clustered randomised control trial (RCT), the design effect is not considered to calculate the final sample size. In community-based experimental trial (RCT or quasi-experimental trial) ≥80% power is considered as a scientific standard[11,12] and 80% cut-off is used for most of the community trial. In this study, sample size is calculated with 99.5% power. So, from statistical point of view the sample size provides enough power to detect the impact differences between the treatment and control arms.

1.4.4.3 Sampling and survey methods household and community level survey

The LoGIC project will be implemented in 72 unions of 20 upazilas of 7 climate change affected district of 4 divisions of Bangladesh. For the impact assessment of LoGIC project on both household and UP level local governance, two separate surveys will be conducted in both household and UP. A multi-stage random sampling method is followed in identifying the sample households and sample UPs, which is described below:

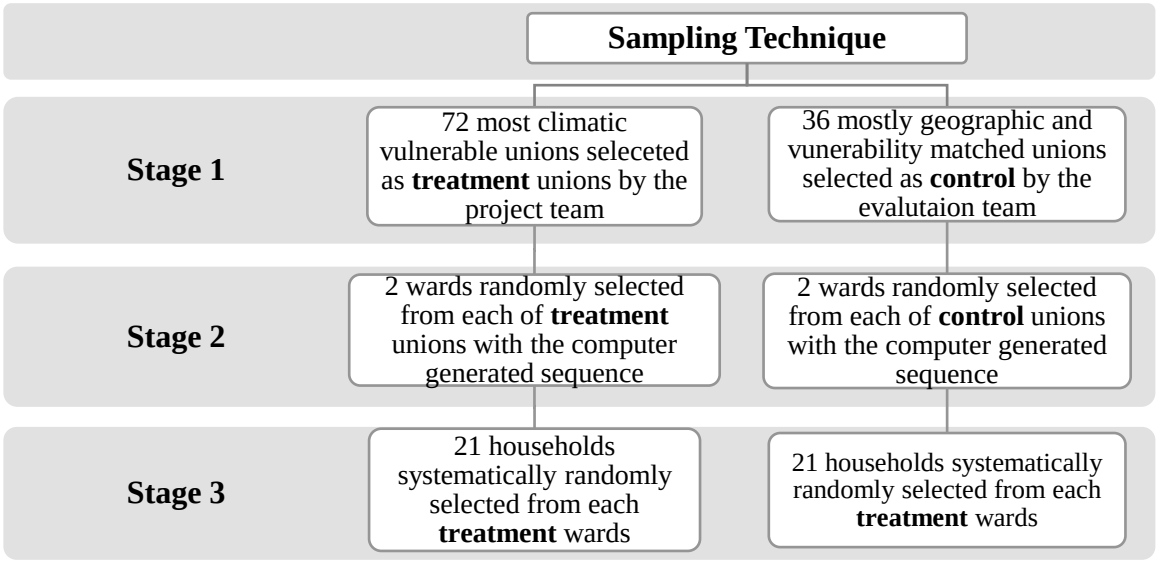
Stage 1: The survey is conducted in all 72 unions of 20 upazilas of 7 districts. In terms of climatic disaster vulnerability, the number of intervention unions varied 2-5 in those project upazilas. At the first stage we select the treatment and control unions. We select all project unions from all project upazilas as treatment unions. In case of control union selection, treatment-control ratio is 2:1 and in some project upazilas number of project unions is odd. But total number of project unions per district is even. Hence, we take half number of control unions from each project district. We

[11]Donner, A., &Klar, N. (1996).Statistical considerations in the design and analysis of community intervention trials. Journal of clinical epidemiology, 49(4), 435-439.

[12]Bloom, H. S. (1995). Minimum detectable effects: A simple way to report the statistical power of experimental designs. Evaluation review, 19(5), 547-556.

selected one control union per two treatment unions. We fixed two step inclusion criteria during the selection of control union. First step, the geographical location must be between or adjacent to that two treatment unions. Second step, if we found two or more adjacent control unions then we tried to match with the patterns/types of vulnerabilities with that two treatment unions.

Figure1.3: Sampling Tree Diagram for Multistage Sampling for 2:1 Quasi-Experimental Design



Stage 2: In the second stage, two wards are randomly selected from each of previously selected treatment unions and control unions. This was done thorough computer-generated random number with fixed seed number performed by Stata.

Stage 3: After determining all sample wards from all treatment and control unions, we adopted the systematic random sampling technique to select the survey participants from previously randomly selected wards. For the treatment wards 21 samples were selected and for the control union 22 sample are selected. Firstly, the field enumerator team collected the household numbers of selected wards from the UP office. Secondly, sampling interval was calculated by dividing ward-wise total number of households by the number of ward wise samples (21 for treatment ward and 22 for control ward). Thirdly, the first household of each ward were selected randomly by lottery method. Then the subsequent sample households were selected by following the sampling interval. In case of absence of household heads and wife of household heads the enumerators was instructed to interview the adjacent household.

The field enumerators conducted some additional household interviews in most of the unions. The field enumerators interviewed **4,827** household interviews in total, of which **3,174** interviews in treatment households and **1,653** interviews in control households. We keep those additional interviews and includes those data in our analysis, as increasing the sample size increases the power of the study and the degrees of freedom of the statistical test(see Table 2.1 in Annex for the upazila-wise sampling distribution).[13]

[13] Each day after downloading the data from the server, the Data Assurance Officer checked the completeness and validity of the data with the guidance of Data Scientist. Data Assurance Officer generated the data error report and shared to field management team regularly. Field management team provided feedback to the enumerators and also corrected the earlier mistake and then sent it back to Data Assurance Officer. Then data assurance officer corrected

1.4.4.5 Methods for UP and Community Level Baseline

A part of the situation analysis of local government and the actors of local government some open-ended qualitative interview, small scale UP level survey and semi-structured interview were conducted to UP Chairman, UZP Chairman and UNO to understand the perception and scope of local government engagement to build a climatic disaster resilient community (Annex Table 2.2).

1.5 Limitations and Constraints

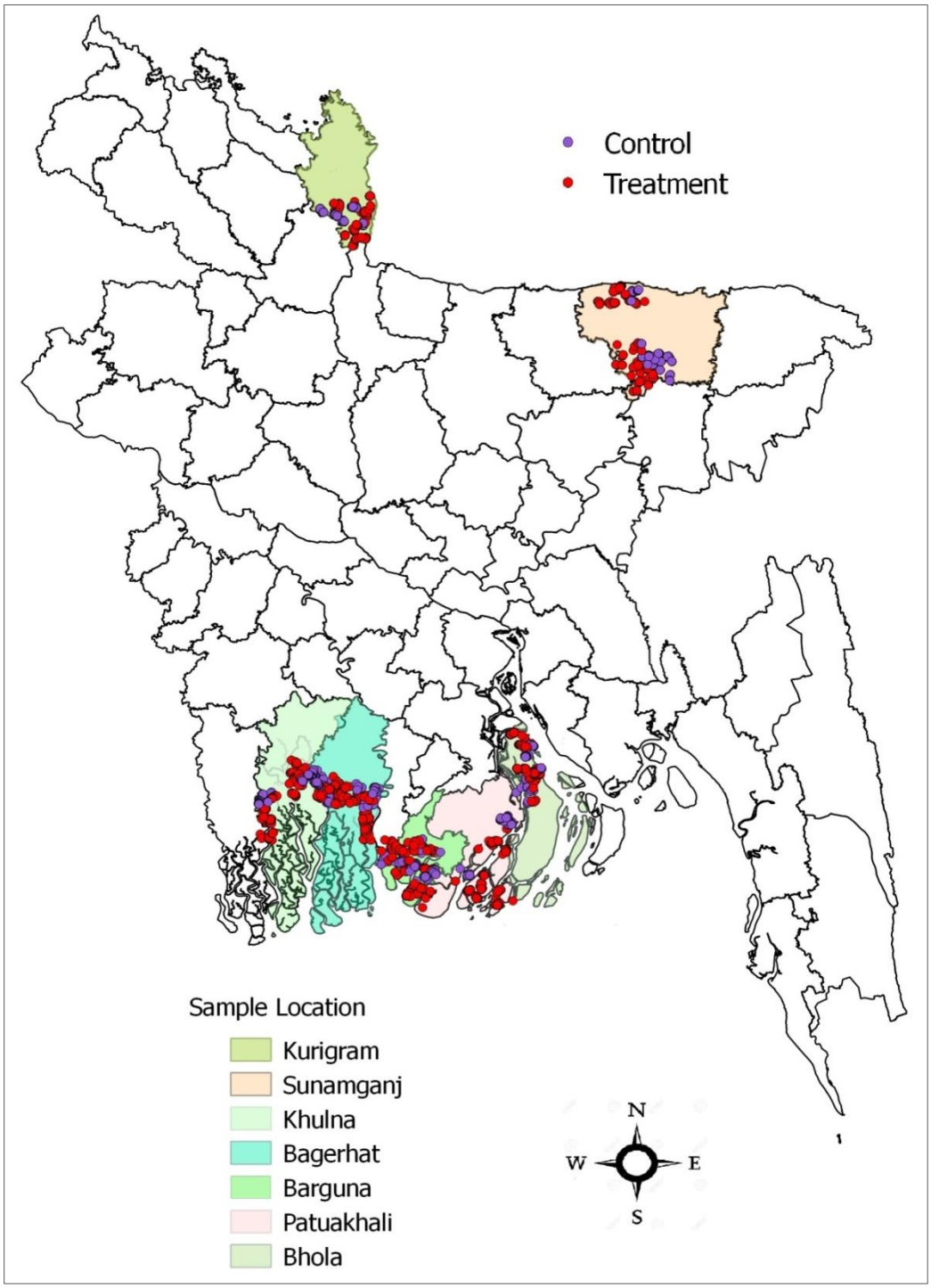
In UP level survey, data on all critical indicators supposed to collect by all relevant document review of the UPs. However, around one-fourth of cases, the representative of UP office (UP Secretary) could not show the documents and another one-fourth of cases, they could show the partial documents. In that case enumerators collected the reported data from UP Secretary. During the qualitative data collection from UNO and UZP Chairman, the field team faced difficulties to get the appointment due the busy schedule of UNO and UZP Chairman. However, they tried to overcome these limitations by applying different approaches of data collection.

We did not collect the data of UP level intensity of vulnerability during our baseline. That may cause a potential source of limitation of the baseline survey. However, during our end line survey we will incorporate the vulnerability assessment questions in UP level survey and hypothetically we can assume the level of vulnerability would be similar during the end line survey. Subsequently, we will also incorporate the treatment and control vulnerability comparison findings in result and address those results in discussion section of final evaluation report.

In household survey, only regular sources of income were collected. In the project area significant portion of households had the income from irregular sources. That was why the amount total income was underestimated and in result the poverty estimate was over estimated. However, the ordinal nature of income data among the survey respondents was unchanged. Therefore, the disaggregated analysis of project indicators based on the poverty cut-offs did not seem to be affected by the underestimation of income.

those errors in main dataset. For data cleaning purpose Stata 13 and MS Excel were used. Final cleaned data was analysed in accordance with the project objective. Various aggregated and disaggregated analysis was performed for the situational analysis of LoGIC project area. All data analysis was conducted in Stata 13 and QGIS.

Figure 1.4: Map of the LoGIC Baseline Household Survey Sample Areas



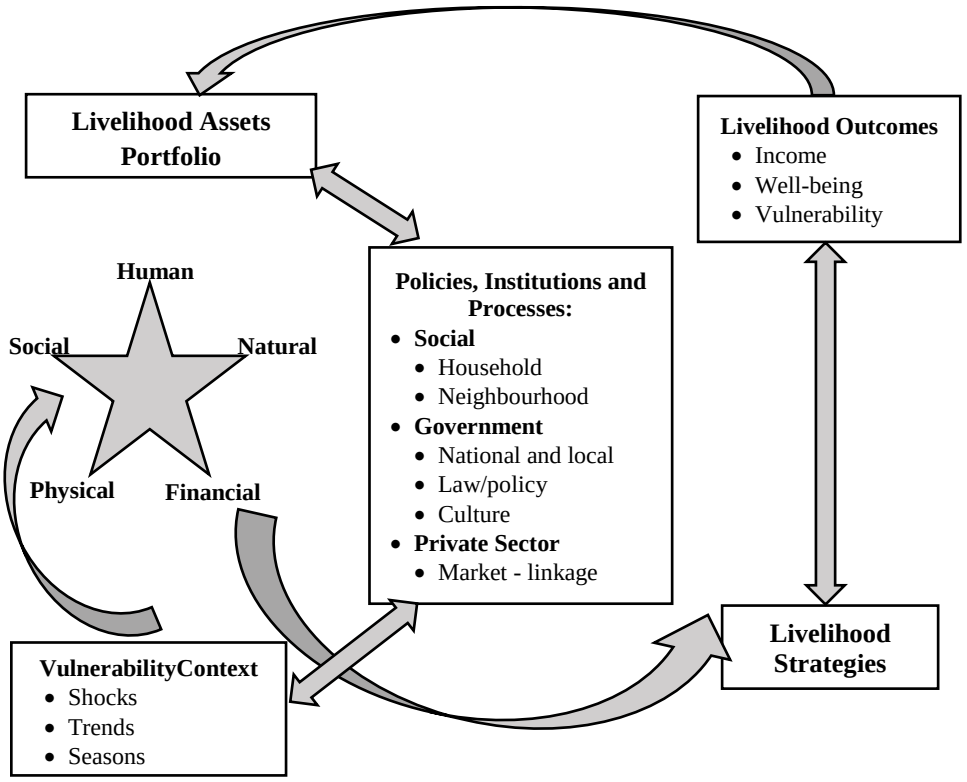
Source: Authors' construction with the GPS data collected during baseline household survey**.**

Part A:
Climate Change Vulnerability at Household Level

Chapter 2
Climate Change and Vulnerability at Household Level

Climate change leads to fragility of various tangible and intangible assets and capital in the affected areas. Climate-induced disasters and stresses in livelihoods impact more adversely on the formation of human capital due to less investment on education and health care by the affected households. Greater incidence of diseases in climate-stressed areas compared to other areas also results in fragile health condition of these areas. Financial assets of the households are also affected by climate change due to curtailed allocation in the productive sectors from which the they could otherwise earn positive returns. Conversely, integrated assessment models of climate change (e.g., Nordhaus, 2016) suggest additional damage of stock of both private and public physical and natural capitaldue to climate change, which leads to notable loss of GDP.[14] In addition, households living in climate-stressed areas are likely to deplete natural resources due to disaster-induced income erosion, pervasive poverty and lack of diversified livelihood sources. Social capital, i.e., social institutions and network as well as community-based interventions that generates greater social harmony and developmental dividends through linking with formal government and private or business organisations, can play important role in promoting CCA and supporting resilience of the affected households.

Figure2.1: Sustainable Livelihood Framework



[14]Nordhaus, W.D. 2016. Projections and uncertainties about climate change in an era of minimal climate policies. *Cowles Foundation Discussion Paper No. 2057*, Connecticut: Yale University.

Given this backdrop, the present survey adopts the sustainable livelihood framework to generate socioeconomic and institutional data related to climate change in the working area of the working area of LoGIC project vis-à-vis the socio-economically comparable control areas. The baseline data of the working areas have been compared with the control area horizontally at the beginning of the project. In the horizontal comparison we compare the between treatment and control areas. Vertical comparison will be conducted between treatment and control areas to examine the changes of socio-economic and institutional variables at the end of the project period. The results are important to observe the interim and end-period achievement of the support strategies and packages for treatment households under LoGIC project to foster climate change adaptation and resilience of the affected households.

Sustainable livelihoods theory recognizes five types of assets or capital, which are affected by climate change leading to vulnerability of the affected communities. These are (i) Natural (environmental): natural resources (land, water, wildlife, biodiversity, environmental resources);(ii)physical: Basic infrastructure (water, sanitation, energy, transport, communications), housing and the means and equipment of production;(iii)human: knowledge, health, skills, information, ability to labour;(iv)financial: financial resources available (regular remittances or pensions, savings, supplies of credit); and (v) social: social resources (relationships of trust, membership of groups, networks, access to wider institutions). Vulnerability emerges when people are exposed to harmful threat or shock with inadequate capacity to respond effectively. As livelihood strategy of the communities are linked with the stock of this assets/capital. How communities would respond to vulnerability due to climate change would depend on livelihood asset portfolio, viz. diversification of income sources and asset base. At the same time, climatic shocks can be addressed though better market linkage of products of vulnerable communities, better capacity and support from local institutions (LGIs), and innovative financial inclusion both for communities and LGIs. This chapter presents the baseline data of vulnerability context of the climate-vulnerable communities, assets/capital, livelihood options and strategies, and issues related to LGIs.

2.1 Households Vulnerabilities in Terms of Human Assets

2.1.1 *Education of the Respondents*

Low level of education can be regarded as a proxy measure of vulnerability in human capital. Higher education attainment leads to better livelihood outcomes, greater well-being and higher level of resilience. In terms of education of the respondents, about quarter of total (around 26%) were illiterate and majority of total respondents (43.8%) attended primary school. A quarter (around 25%) received secondary education, whereas only about 3% and 2% of total respondents had higher secondary and tertiary education, respectively. However, average education level at secondary, higher secondary and tertiary level in control group was better than treatment group, which indicate that the control group is in better position in educational attainment than their treatment counterpart. Overall, the level of educational attainment has been found to be low in the surveyed households, which indicates overall deficiency in their capacity to cope with climatic shocks.

Table 2.1: Highest Level of Education of Respondent (%)

Indicators (%, Mean)	Male N=(3,339)	Female N=(1,488)
No education	27.7	23.0
Primary	41.3	49.5
Secondary	24.9	23.8
Higher Secondary	3.6	2.8
Graduate or above	2.5	0.9

Note: Surveyed households = 4,827 were (treatment = 3,174 and control = 1,653)
Respondents: Males = 69.2%, Females = 30.8%
Mean age: 44.2 years (treatment = 44.1 and control = 44.3 years)
Source: Field Survey, 2018.

2.1.2 *Incidence of Diseases*

Health and physical well-being are considered to be important elements of human capital or asset.Incidence of diseases depletes human capital through reducing heath stock of the climate-affected households. Therefore, diseases prevalent in these areas increase fragility in human assets. According to the self-reported prevalence of chronic diseases, 56.5% of household were not suffering any diseases. However, 18.2% households were suffering from hypertension, 12.6% were from heart diseases 11.2% had skin diseases, 7.2% had diabetes and 7.2 had dysentery. Conversely, 72.3% of households reported that none of them were suffering any diseases in preceding three months. However, 7.8% households were suffering from hypertension, 5.5% from heart diseases, 8.5% had skin diseases, 3.3% had diabetes and 5.5% has dysentery. The results are supported by recent studies on the prevalence of diseases in coastal areas of the country. For example, Kabir *et al*. (2016) found incidence of diarrhoea and pneumonia among under-five children of the households for the preceding 12 months 31.5 and 23.8 percent, respectively which is an evidence of the incidence of climate-sensitive diseases and health events in the households in seven climate change affected districts. Paul *et al*. (2010) found in their study that after Sidr 38% suffered diarrhoeal diseases, 12% suffered from typhoid and 4% skin diseases.[15]

Table 2.2: The State of Suffering from Chronic Disease

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Currently any household member suffering from chronic diseases			
Not suffering	56.5	56.8	56.3
Hypertension	18.2	18.3	18.2
Heart disease	12.6	12.6	12.6
Diabetics	7.3	8.0	6.9
Skin disease	11.2	11.4	11.1
Dysentery	7.2	6.2	7.6
Other	2.1	2.0	2.1
Any household member suffering from chronic diseases in last 3 months			
Not suffering	72.3	74.2	71.3
Hypertension	7.8	6.5	8.5
Heart disease	5.5	4.2	6.2
Diabetics	3.3	3.1	3.5
Skin disease	8.5	9.4	8.1
Dysentery	5.5	5.1	5.6
Other	2.1	1.8	2.2

Source: Field Survey, 2018.

[15] Paul B.K. (2009). Why relatively fewer people died? The case of Bangladesh's cyclone Sidr.*Natural Hazards*, 50:289–304.

2.1.3*Access to Safe and Fresh Drinking Water*

Climate change leads to slow-onset disasters, such as increased salinity intrusion and scarcity of drinking water especially in coastal areas. Salinity, water scarcity and contamination also lead to a number of diseases in climate-affected areas (Kabir et al. 2015).[16] The support provided by LoGIC project is expected to bring positive changes in these areas. The LGIs have important role to play in increasing access to improved drinking water through Local Government Engineering Department (LGED) and mobilising the NGOs/private organisations which work in supplying desalinisation technologies. Some of the technologies include Bio Sand Filter (BSF), Pond Sand Filter (PSF), rainwater harvesting and reverse osmosis. This chapter presents survey data on major water availability and health related issues, such as source of drinking water, salinity, responsibility and time required to collect drinking water, drinking water requirement by season, water treatment practices and persistence of chronic diseases among the climate affected unions.

2.1.3.1 Source of Drinking Water

As the primary source of drinking water, 74.5% of total households drink water from tube well, 15.9% drink pond water, 4.5% drink rain water, and 3.7% of households drink water from Pond Sand Filter (PSF). Only 0.6% of households use river water and piped water and 0.1% is dependent on Bio Sand Filter (BSF). Rest of them drink from other sources. As the secondary source of drinking water, 24% of total households drink tube well water, 12% of total households drink pond water, 30% of total households drink the harvested rain water, 5% of households uses river water, 0.5% of households drink water from PSF, and 0.2% drink piped water. Rest of them drink other sources of water. The control and treatment households demonstrate nearly same proportion of the source of drinking water by primary and sources.

These figures, however, can hardly portray the dismal state of primary and/or secondary source of drinking water of some heavily climate-affected districts. The district-wise disaggregated data reveal that primary source of about 62% households in Bagerhat and 45% in Khulna are affected by salinity intrusion, while surveyed households of other districts are insignificantly affected in this aspect. Primary source of drinking water nearly all households of Sunamganj, Kurigram, Patuakhali and Bhola, and 86% households of Barguna is tube well. Conversely, it is the main source of drinking water for only14.9% households in Bagerhat and 39% households in Khulna districts. Pond is the main source of drinking water of majority households (56.5%) in Bagerhat, while 39% households in Khulna mainly depend on pond for this purpose. Rain water is secondary source of drinking water in Barguna along with these two districts. Thus, harvesting rainwater can be a good area of possible support of LoGIC project through capacity building of the LGIs in those areas.

[16]Md Iqbal Kabir, Md Bayzidur Rahman, Wayne Smith, Mirza Afreen Fatima Lusha, and Abul Hasnat Milton. 2016. Climate change and health in Bangladesh: a baseline cross-sectional survey. *Global Health Action*, 2016; 9: 10.3402/gha.v9.29609. doi: 10.3402/gha.v9.29609. The study was conducted in 224 rural villages of Bagerhat, Barguna, Cox's Bazar, Faridpur, Khulna, Satkhira, and Sirajganj districts.

Table 2.3: Sources of Drinking Water

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram N=(640)	Khulna N=(672)	Bagerhat N=(805)	Barguna N=(819)	Patuakhali N=(413)	Bhola N=(706)
Primary										
Piped to house	0.6	1.0	0.4	0.0	0.3	0.6	1.7	1.2	0.0	0.1
Tube Well	**74.5**	**74.6**	**74.4**	**99.2**	**99.7**	**39.0**	14.7	**85.7**	**98.1**	**99.9**
PSF (pond sand filter)	3.7	4.5	3.3	0.0	0.0	10.1	7.7	5.9	0.0	0.0
River/Stream	0.6	0.4	0.8	0.6	0.0	0.3	1.6	0.4	1.9	0.0
Rain water	4.3	4.2	4.3	0.0	0.0	9.5	16.9	0.6	0.0	0.0
Pond	15.9	14.7	16.5	0.1	0.0	**39.0**	**56.5**	6.1	0.0	0.0
Desalinisation Plant	0.1	0.1	0.1	0.0	0.0	0.4	0.1	0.0	0.0	0.0
Local Water Transporters	0.2	0.2	0.2	0.0	0.0	1.0	0.5	0.0	0.0	0.0
BSF (bio-sand filter)	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0
Secondary										
Piped to house	0.2	0.2	0.2	0.1	0.0	0.0	0.5	0.5	0.0	0.0
Tube Well	24.7	25.2	24.5	87.9	38.4	4.0	2.5	14.8	2.4	12.9
PSF	0.5	0.5	0.4	0.1	0.0	0.4	0.6	1.5	0.0	0.1
River/Stream	5.0	3.5	5.8	21.8	0.5	3.6	2.0	2.6	1.7	0.6
Rain water	**30.0**	**29.7**	**30.2**	9.7	0.0	**71.7**	**70.3**	**35.4**	1.2	4.5
Pond	12.0	13.0	11.5	14.0	0.6	7.3	17.6	18.8	4.8	14.4
Desalinisation Plant	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Local Water Transporters	0.2	0.1	0.1	0.0	0.0	1.2	0.4	0.0	0.0	0.0

Source: Field Survey, 2018.

Table 2.4: Salinity in Drinking Water

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram N=(640)	Khulna N=(672)	Bagerhat N=(805)	Barguna N=(819)	Patuakhali N=(413)	Bhola N=(706)
First source										
Yes	20.0	19.2	20.4	0.5	0.3	**44.8**	**62.0**	8.1	6.1	9.6
No	80.0	80.8	79.6	99.5	99.7	55.2	38.0	91.9	93.9	90.4
Second source										
Yes	42.5	42.7	44.0	0.7	0.3	8.3	14.2	2.6	1.2	3.7
No	52.7	55.1	51.5	99.3	99.7	91.7	85.8	97.4	98.8	96.3

Source: Field Survey, 2018.

Table 2.5: Treatment Practice of Drinking Water

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram N=(640)	Khulna N=(672)	Bagerhat N=(805)	Barguna N=(819)	Patuakhali N=(413)	Bhola N=(706)
Treatment of drinking water										
Yes	16.4	15.1	17.1	10.9	0.2	21.4	54.4	13.7	2.7	0.1
No	83.6	84.9	82.9	89.1	99.8	78.6	45.6	86.3	97.3	99.9
Treatment practice	N=(791)	N=(249)	N=(542)	N=(84)	N=(1)	N=(144)	N=(438)	N=(112)	N=(11)	N=(1)
Let it stand/sedimentation	24.7	24.5	24.7	100.0	0.0	40.3	6.8	11.6	90.9	0.0
Strain it through cloth	21.1	24.9	19.4	19.0	0.0	39.6	13.7	21.4	90.9	0.0
Boil	17.2	16.1	17.7	3.6	100.0	7.6	16.4	42.9	0.0	100.0
Add bleach/Chlorine	15.6	6.0	20.0	0.0	0.0	46.5	11.0	7.1	0.0	0.0
Water filter (Ceramic, sand, composite)	3.9	4.0	3.9	0.0	0.0	2.1	3.0	13.4	0.0	0.0
Solar Disinfection	0.1	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alum (Fitkiri)	47.3	59.4	41.7	0.0	0.0	26.4	69.4	28.6	0.0	0.0

Source: Field Survey, 2018.

It has been found that in most of the surveyed households only female members are responsible to collect drinking water (around 60%), while male and female members jointly take responsibility in 27% households. Males of only 13% households take responsibility in collecting water. However, almost all the households (nearly 98%) spend up to 30 minutes to collect water. Conversely, we found 75 households which spend 1-2 hours while another 75 households spend 2-3 hours to collect drinking water. We also found 10 households that spend more than 3 hours a day to collect water. The households which spend 1 hour or more per day in collecting drinking water are found to be water-vulnerable in terms of Sustainable Development Goal (SDG) 6.

Table 2.6: Issues in Collection of Drinking Water

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Who is mainly responsible for collecting drinking water			
Male only	12.7	9.7	14.3
Female only	60.2	59.0	60.7
Male and female jointly	27.1	31.2	25.0
Time spend per day for collecting drinking water			
15 minutes	58.2	55.9	59.3
16-30 minutes	39.7	42.0	38.6
1-2 hours	1.5	1.6	1.4
2-3 hours	1.5	1.4	1.5
3+ hours	0.2	0.2	0.2
Mean distance to collect drinking water (km)	0.4	0.4	0.4

Source: Field Survey, 2018.

2.1.3.2 Treatment Practice of Drinking Water

Water treatment is becoming prevalent in majority of the surveyed districts. It is because of growing concern among the households due to salinity intrusion in the main water sources and awareness about possible impact of untreated water on human health. A total of 16.4% of household had treatment facility to purify drinking water. In control group, 15% household had water treatment and for programme households, 17% of household had water treatment. However, prevalence of treatment practice is very low in Kurigram, Patuakhali and Bhola, while the highest in Bagerhat where more half of the households (54.4%) had any kind of treatment, followed by Khulna (21.4% households). These two districts are exposed to greater salinity intrusion in their primary water source.

About the treatment practice of drinking water, 24.7% of total households use sedimentation, and 21.1% of total households use strain it through cloth. However, 17.2% boil water and 15% add bleaching powder/chlorine. About 47.3% uses alum/fitkiri. These practices are more prevalent in Khulna, Bagerhat and Barguna districts.

The qualitative survey reveals that PSF and PSF practices among the households remain mostly inoperative. It is mainly because of lack of Proper Operation and Maintenance (O&M) by the communities, and inadequate incentives to keep them operational. One of the priority areas of PBCRG can therefore be to strengthen involvement of the UPs to encourage the proper O&M of PSF and BSF by the beneficiaries of CRF. It will help reduce the use of pond water in the salinity-prone areas, thereby decreasing hazards of water-borne diseases.

2.1.4 *Sanitation*

Quality of sanitation is an important indicator of standard of living of the surveyed households. About 77% of total households had pit latrine and 11.6% of total household had open pit latrine. Among the control group, pit latrine was 83% while in treatment group it was 73.9%. This data is consistent with the Multiple Indicator Cluster Survey (MICS) 2012-13[17] data, which reveals that improved sanitation facility was 76.7% at national level.

Table 2.7: Type of Toilet Facility

	Total	Control	Treatment	HIES 2016 (Rural)
Pour flush toilet with septic tank	4.7	5.0	4.6	19.3
Pit latrine	77.1	83.1	73.9	40.4
Open pit	11.6	9.6	12.6	18.7
Hanging toilet/latrine	4.6	1.1	6.4	16.5
No facility/open space	2.0	1.2	2.4	3.8

Source: Field Survey, 2018.

Open pit toilet was 9.6% among control and 12.6% in treatment group. Here 6.4% household used hanging-toilet and 2.4% households had no facility of toilet or went open place among treatment group, which is harmful from public health perspective. Over 20% households in the treatment area did not use the improved toilet facility and most of the households used the pit latrine.

2.1.5 *Incidence of Poverty*

Incidence of poverty has been calculated as per definition of the poverty line of HIES 2016.[18] The data reveals that majority of the total household (84.3%) were living under upper poverty line while about three-quarters (74.4%) of the surveyed households were living under lower poverty line. The poverty status of the surveyed households is considerably higher than that of the national level, since according to HIES 2016 the population living under upper and lower poverty lines were 24.3% and 12.9%, respectively for national level while these are 26.4% and 14.9% for rural areas, respectively. The reason of such a big difference of poverty status is mainly because the surveyed households, despite being selected randomly, were mostly very poor. They also have very limited regular income source or diversified livelihood options. Poor as well as women-headed households are more vulnerable to the climate change because of their lower income and asset base.

Table 2.8: Poverty Status of the Surveyed Households

Households Living Under	Total	Percent	HEIS 2016 (%)
Upper poverty line	4,067	84.3	24.3
Lower poverty line	3,592	74.4	12.9

Source: Field Survey, 2018.

2.1.6*Food Intake*

Health and physical well-being are considered to be important elements of human asset or capital in sustainable livelihood framework. Food intake and incidence of diseases are indicators of health vulnerability. It has been found that more than one-fifth of the households take two meals a day. It is indeed a despondent state of food intake compared to national average food intake, as a recent

[17] BBS and UNICEF (2015), *Multiple Indicator Cluster Survey 2012-2013: ProgotirPathey* (Final Report), Dhaka: BBS and UNICEF.

[18]See the lower and upper poverty lines as per HIES 2016 in Appendix. The per capita income of the households of the respective districts were calculated from the survey data. Then the proportion of the households living under the poverty lines were calculated based on the poverty lines of HIES 2016 of the corresponding areas.

study of Shamunnay (2018) on a nation-wide survey found that household food intake of all members of microfinance institutions (MFIs) and socioeconomically comparable non-members are three meals per day.[19]

Table 2.9: Number of Meals the Households Take per Day

Indicators (%, Mean)	Total N=4,827	Control N=1,653	Treatment N=3,174
Two	21.1	18.0	22.7
Three or more	79.0	82.0	77.4

Source: Field Survey, 2018.

Drinking water is one of the most important basic needs of human being for biological survival and it has several implications for public health. Therefore, ensuring the safe drinking water adopting optimal technology in the required area and season should be one of the major objectives of LoGIC project. Drinking water projects can be prioritised while disbursing the PBCRG grant.

2.2 Vulnerabilities to Income and Financial Assets

2.2.1 *Livelihoods and Income*

Generally, in rural area of Bangladesh, a husband of a household is the leading income earner and head of the household. Majority of the household heads, who were usually husbands/males (around 32%) were day-labourers in all groups. The second major occupation of household husband was agriculture, which was around 23%. On average 10% of total households depended mainly on small business. The other occupations were fishing/shrimp farming, poultry/livestock and salaried jobs. On average, the semi-skilled labour was less than 4% and the unskilled labour was more than 4%.

Table 2.10: Livelihood Sourcesof the Surveyed Households (%)

Indicators (%, Mean)	Husband			Wife		
	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
No regular sources of income	5.8	4.8	6.2	**47.9**	**43.5**	**50.3**
Agriculture	**23.1**	**22.1**	**23.7**	5.3	5.3	5.3
Day labour (Agri/non-agri)	**34.1**	**34.6**	**33.8**	**24.6**	**25.7**	**24.0**
Semi-skilled labour*	3.9	4.4	3.6	1.4	1.5	1.3
Unskilled labour**	4.4	4.2	4.5	14.0	16.0	12.9
Small business	10.3	10.8	10.0	1.1	1.3	1.0
Poultry/livestock	0.5	0.5	0.4	2.0	1.9	2.1
Fishing/shrimp farming	7.4	9.0	6.5	0.5	0.7	0.5
Driver/transport worker	3.4	2.3	4.0	0.1	0.2	0.1
Salaried job	4.0	4.3	3.9	0.8	0.9	0.8
Other	3.2	3.2	3.3	2.3	3.1	1.8

*Mill/factory/garments worker, tailor, electrician, plumber, sanitary worker, mechanic, carpenter, mason, blacksmith, potter, cobbler and barber.

**Rickshaw/van puller, trolley puller, stone worker and crab/shrimp fingerling collector.

Source: Field Survey, 2018.

The types of occupation of majority of husbands and wives of surveyed households reveal that most of them belong to low-income group, and which is linked to higher exposure to climatic shocks and vulnerability.The mean monthly household income was Tk. 9,133 in the year 2017. This income is

[19]Shamunnay (2018).*Socio-Economic Impacts of Financial Inclusion through MFIs in Bangladesh*, Report prepared for CDF, Dhaka, September.

even less than half of the national average since the national level monthly income of Bangladesh.According to BBS (2017)[20]it is Tk.15,945 and in rural areas it is Tk.13,353 on average per household. For treatment group it was Tk.8,967 while in control group it was Tk.9,453. The average monthly household income in treatment group was significantly lower than control counterparts and the country average for both national and rural levels. Therefore, one of the key aspects of LoGIC project would be to see whether the situation reverses at the end of the project, *i.e.*, treatment group ends up with statistically higher mean income compared to that of their control counterpart.

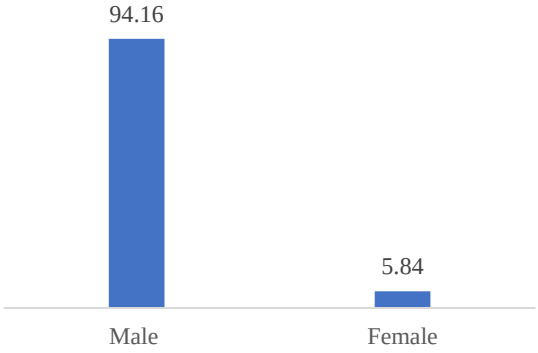
Table 2.11: Average Income of the Responding Households (Tk.)

	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Survey Households	9,133	9,453	8,967
Wife's Income	2,390	2,347	2,414
Non-Poor Households	16,857		
Households under Upper Poverty Line	6,854		
Households under Lower Poverty Line	6,253		
Women-Headed Households	4,957		
HIES 2016	15,945		

Source: Field Survey, 2018.

Husband or household head earned the large portion of family income, although half of their wives are involved in some kinds of income generating activities (IGAs). Wife of the household head who had income generating activities contributed around one-third of family income.

Figure 2.2: Head of the Household (% of respondents)



Source: Field Survey, 2018.

Women-headed households were 5.84% of the surveyed households. As educational attainment of women and average income of women-headed households are significantly lower than that of their male counterparts, these households are likely to be exposed to higher level of vulnerability to climate change.

[20]BBS. 2017. *Preliminary Report on Household Income and Expenditure Survey 2016*, Dhaka: BBS.

2.2.2 *Sources of Income*

During the survey time (December 2017-January 2018), the highest proportion of the respondents (32.2%) were day-labourers in both agricultural and non-agricultural activities. The second major primary source of income was agriculture. Here, 3.7% were semi-skilled labourers, 5.7% were unskilled labourers, 9.2% had small business, 6.7% worked in fishing/shrimp farming, and rest of them worked in other sectors. About 9.2% did not have work or have no income sources.

Table 2.12: Primary and Secondary Sources of Income During Survey Time

Indicators (%, Mean)	Primary			Secondary***		
	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
No sources of income	9.2	6.1	10.7	64.8	59.4	67.6
Agriculture	23.1	21.7	23.8	7.3	8.2	6.7
Day labour (Agri./non-agri.)	32.2	32.7	31.9	10.2	11.3	9.7
Semi-skilled labour*	3.7	4.2	3.3	1.2	1.4	1.1
Unskilled labour**	5.7	6.2	5.5	7.5	8.8	6.9
Small business	9.2	10.4	8.6	1.7	2.1	1.4
Poultry/livestock	0.5	0.4	0.6	2.2	2.4	2.1
Fishing/shrimp farming	6.7	8.2	6.0	1.8	1.6	1.9
Driver/transport worker	2.6	2.1	2.8	0.6	0.4	0.7
Salaried job	3.6	4.1	3.4	0.6	0.7	0.5
Others	3.6	3.9	3.4	2.2	3.8	1.4

*Mill/factory/garments worker, tailor, electrician, plumber, sanitary worker, mechanic, carpenter, mason, blacksmith, potter, cobbler and barber

** Rickshaw/van puller, trolley puller, stone worker and crab/shrimp fingerling collector

*** Mean secondary income is based on the respondents who had any secondary income.

Source: Field Survey, 2018.

Over the survey year (February 2017-January 2018), 40.5% respondents worked as day labourers, 25.9% respondent worked in agriculture, 13.8% of the respondents worked in poultry/livestock sector and 9.1% worked in fishery/shrimp farms. Here, 5.1% were semi-skilled labourers, 4.5% were unskilled labourers, 11.4% have small business whereas 4.6% had salaried jobs, and rest of them worked in other sectors. Thus, majority of the surveyed households (about 60%) were dependent on agricultural activities and day labour, which are susceptive to climate change.

According to the primary sources of income in the year 2017, about 37% of respondents worked as day labourers, 22.8% of respondents worked in agriculture, and 7.9% worked in fishing/shrimp farming. In the survey year, the primary income source and all income sources were nearly equal, which imply that most of them earned money from only one source in the survey year.

In 2016, about 40.1% of total respondents worked as day labourers in the same period of the previous year, while 29% of respondents worked in agriculture. Moreover, 14% of respondents worked in poultry/livestock sector and 9.2% worked in fishing/shrimp farming. This result implies that most of the surveyed households do not have secure source of income. Rather, they are heavily dependent on low-skilled and traditional agriculture-based occupations, which is highly susceptible to climatic shocks and slow onset disasters.

As primary sources of income, 35.8% of total respondents worked as day labourers over the year 2016, 25.1% of respondents worked in agricultural sector, and 7.7% of them worked in fishing/shrimp farming.

The above results reveal that almost same scenario observed in previous year (2016). Most of them earned money from only one source in the previous year as well. It implies that primary source of income has not changed over the last two years.

2.2.3 *Alternative Livelihood Options*

Lack of viable alternative livelihood options implies high degree of vulnerability among climate-stressed households. From the survey it is found that only 6.4% of total households attempted to adopt alternative livelihood options in last five years. It indicates high level of vulnerability in livelihoods to climatic shocks because the households lack capacity to absorb or cope up with manifold shocks. Among those who attempted alternative livelihood in the last 5 years, about 33% of 307 households cultivated cash crops. Here, 10.4% and 10.8% households opted for handicrafts and formed cooperatives, respectively. Only 8.2% practiced sustainable harvesting and 2% households sold surplus foods. Majority of the households were engaged in small entrepreneurship and rest of them were involved in other activities.

Table 2.13: Alternative Livelihood Options

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male N=(3,339)	Female N=(1,488)
Any attempt of alternative livelihood in last 5 years					
Yes	6.4	7.9	5.6	7.6	3.6
No	93.6	92.1	94.4	92.4	96.4
Alternative livelihood attempted in last 5 years	N=(307)	N=(130)	N=(177)	N=(253)	N=(54)
Cash crops	32.9	27.8	36.7	34.4	25.9
Handicrafts	10.4	13.1	8.5	8.7	18.5
Selling surplus food	2.0	1.5	2.3	2.0	1.9
Better access to markets	1.0	1.5	0.6	0.4	0.4
Value added goods	0.3	0.0	0.6	0.4	0.0
Creating cooperatives	10.8	19.2	4.5	10.7	11.1
Sustainable harvesting*	8.2	6.2	9.2	9.5	1.9
Small entrepreneurship	44.0	50.0	39.6	45.9	35.2
Other	13.3	12.3	14.1	13.8	11.1
Income earning from alternative livelihood attempted in past 12 months	N=(307)	N=(130)	N=(177)	N=(253)	N=(54)
Cash crops	84.9	90.0	81.5	15.8	11.1
Handicrafts	2.0	1.5	2.3	0.8	7.4
Selling surplus food	2.0	1.5	2.3	1.6	3.7
Creating cooperatives	7.5	16.2	1.1	8.3	3.7
Sustainable harvesting	2.0	2.3	1.7	2.4	0.0
Small entrepreneurship	29.2	41.5	20.2	31.9	16.7
Other	7.1	7.7	6.7	7.5	5.6

Notes: (1) * It includes extraction of honey and wax from coastal and natural forestry, collection of tree residues,nipa (mangrove) palm and harvesting from similar natural resources including natural water body.
(2) The respondents have been found to have attempted multiple alternative livelihood options at a time available at their localities.
Source: Field Survey, 2018.

According to the income earning from alternative livelihood attempted in past 12 months, 14.9% of 307 households earned from cash crops, 2% households earned from handicrafts, 7.5% households earned from creating cooperatives, 2% earned from sustainable harvesting and 2% households

earned from surplus foods. Notable proportion of women (7.4%) attempted handicrafts as alternative livelihoods in the last 12 months. Majority of the households (29.2%) earned income from small entrepreneurship. Rest of the household were involved in other activities.

A few of households tried any of the alternative livelihood option and most of them tried only cash crop and small entrepreneurship. Other alternative livelihood approaches were mostly unexplored.

2.2.4 *Reasons of Success and Failure of Alternative Livelihoods*

The main reason of success of alternative livelihood is (extent of past) 'experience' (on the specific livelihood enterprise) (64.3% households). About half of the households (51.3%) mentioned that they provide adequate time. Only 10.4% and 4.2% household said they had adequate capital and required support. Rest of them mentioned other reasons. Conversely, the main reason of failure of alternative livelihood was the lack of adequate capital as reported by 65.6% respondents. However, 21.8% and 28.6% household said they did not have experience and required support, respectively. Conversely, 37% said they did not have adequate financial capital.

Table 2.14: Reasons of Success and Failure in Alternative Livelihood Options

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Reasons of success			
Could provide adequate time	51.3	56.1	47.7
Have experience	64.3	76.1	55.6
Had adequate capital	10.4	7.7	12.4
Has required support	4.2	5.4	3.4
Reasons of failure			
Could not provide adequate time	37.0	52.3	25.8
Do not have experience	21.8	16.9	25.3
Did not have adequate capital	65.6	78.5	56.2
Does not have required support	28.6	38.5	21.4
Others	3.3	3.1	3.4

Source: Field Survey, 2018.

Most of the respondents mentioned that lack of capital, support and experience (especially among female respondents) were the main reasons of failure to increase their income through alternative livelihood approach.

2.2.5 *Financial Inclusion*

Inclusive financing is one of the important strategies to cope up with natural disasters and climate change adaptation via enhancing financial capital of vulnerable households. The present study captures some important dimensions of financial inclusion among the surveyed households, viz. state of savings and financial decision-making of the households, borrowing by source (e.g., banks, microfinance institutions or development project and informal money lenders), and repayment status. It provides useful information to take up the financial support to treatment households under LoGIC project to observe the response strategy and adaptation behaviour of climate-affected households.

About 86.2% of the surveyed households had no saving. In control group it was 85.8% and in treatment group it was 86.3%. Here, the mean monthly saving of the total household in last 12 month was Tk.5,916. In control group the amount was Tk.6,495 and in treatment group the amount was Tk.5,603. A few households saved money for future necessity or investment from. However, most of households did not save any money. So, lack of credit might be the main bottleneck in increasing income.

Male member was found to be the main financial decision maker in 55.7% households, which reflects the male dominance and in 36.4% household made their financial decision together, which reflects the gender equity. Among the survey household, gender equity in terms of financial decision is moderately prevalent.

About half of the total households did not take any loan. A total of 34% of total household took loan from NGO/development projects. About 8.5% of total household took loan from neighbour or friends, 2.1% took loan from bank and 3.5% mentioned the other sources. Out of the respondents who took loan, majority (45.9%) of the total loan applications (n=2,323) was made by the female members (may be due to microcredit), whereas 25.8% of the male member applied for any loan. About 28.2% of total loan was applied by both male and female members.

Table 2.15: State of Financial Inclusion

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Any savings of the household (%)			
Yes	13.8	14.2	13.7
No	86.2	85.8	86.3
Mean monthly savings in last 12 months (Tk.)	5,916	6,495	5,604
Financial decision maker of the household (%)			
Male household member	55.7	55.1	56.1
Female household member	7.8	6.4	8.6
Female and male together	36.4	38.5	35.4
Took loan from any source? (%)			
No	51.9	52.4	51.6
Yes	48.1	47.6	48.4
Source of loan (% of respondents who received loan)	n=(2,323)	n=(787)	n=(1,536)
Neighbors/Friends	17.7	16.8	18.0
Bank	4.4	1.9	5.8
NGO/Development project	70.7	72.7	69.4
Informal money lenders	0.0	0.2	0.0
Other	7.3	8.4	6.8
Applied for loan by (%)			
Male household member	25.8	25.3	26.1
Female household member	45.9	45.0	46.4
Male and female both	28.2	29.7	27.5
Repaid most of the loans in past (%)			
Yes	55.8	58.2	54.6
No	44.2	41.8	45.4
Interested to take new loan (%)			
Yes	23.3	21.7	24.1
No	76.7	78.3	75.9

Source: Field Survey, 2018.

More than 50% of respondents repaid most of the loan in the past. In control group, 58.2% respondents and in treatment group 54.6% respondent pay back the loan. Interest of getting new loan was 23.3%. In control group, the rate was 21.7% and in treatment group, the rate was 24.1%.

About half of them did not take any loan and those who availed themselves of a loan facility, it had been in the form of microcredit. On the other hand, almost half of the loan taker could not able to repay the loan successfully and moreover three-quarters of loan taker is not interested to take any further loan. It implies that since most of the surveyed households are poor and they do not have occupations from which they can repay the loan. Thus, widespread poverty and vulnerability persists due to lack of financial asset/capital (inclusion) among the surveyed households.

2.3 Vulnerabilities to Household's Physical Assets

2.3.1Construction Materials and Ownership of the Dwelling House

Dwelling house is a physical asset of the household. Ownership and quality of this asset indicates the state of vulnerability of the household.Construction materials of the dwelling house is an indicator of quality of housing and living standard, which is also an indicator of multidimensional poverty. The survey result reveals that 41.5% of total houses were made by CI sheet, and 26% of total household were made of mud and CI sheet (wall and floor made by mud and roof made by CI sheet). However, about 13% of total house were made of brick (wall) and CI sheet (roof) and only 2% houses were completely made of brick. The result reveals that quality of housing is also consistent with the poverty status of the households and it is well below the quality of rural average of the country as per the HIES 2016. It indicates greater vulnerability of surveyed households than other rural areas of Bangladesh.

Table 2.16: Construction Material of the Houses (%)

	Total	Control	Treatment	HIES 2016 (Rural)
Materials of house (%)				
Wood planks and bamboo	5.9	5.1	6.2	0.4*
Bamboo and mud	11.7	11.2	12.2	10.0
Mud and CI sheet	26.0	22.4	28.4	
CI sheet	41.5	43.0	41.2	55.7
Brick and CI sheet	12.9	15.2	11.9	13.6
Brick/cement	2.0	3.0	1.6	20.2
Mean number of rooms	1.9	1.8	1.9	

* Others in HIES 2016.
Source: Field Survey, 2018.

Most of the total households (91.4%) owned a house and 90.1% of total households owned the homestead land. Only 1.2% household reported that they live in rented house. The mean number of rooms of total respondents was less than 2. For treatment group it was 1.8 while in control group it was 1.9. The mean number of rooms in treatment group was significantly higher than control counterparts. However, 3.5% of total household lived in khas land/squatting.

Table 2.17: Ownership of Houses and Homestead Land (%)

	Total	Control	Treatment
Ownership of house (%)			
Owned	91.4	89.2	92.5
Rental	1.2	1.9	0.8
No rent	3.7	3.9	3.5
Father/Father in law's homestead	0.5	0.4	0.5
Khas land/squatting	3.3	4.5	2.7
Ownership of the homestead land (%)			
Owned	90.1	87.5	91.5
Rental	1.5	2.8	0.9
No rent	4.2	4.6	4.0
Father/Father in law's homestead	0.7	0.5	0.8
Khas land/squatting	3.5	4.7	2.9

* Others in HIES 2016.

Source: Field Survey, 2018.

2.3.2 *Household Asset and Utility*

Lack of precious assets important is an indicator of vulnerability to climate change because households cannot cope up with climatic shocks through selling their valuables. The survey results reveal that most of the households do not possess valuable assets. About 86.2% of treatment household and 90.7% of control household had mobile phone. Here, about 40%, 45% and 10.8% of total households had electricity, solar electricity and television, respectively. Control group households possessed more electronic assets than treatment group household. Opposite situation was observed in case of possession of own land (46%), bicycle (9.5%) and water pump (0.8%) where treatment household had more of these assets than control households. About 30.6% household had livestock, where control household had more livestock than treatment household. Here, very few households had refrigerator, motorcycle and computer/laptop.[21] We found that the only notable economic asset is livestock. Other economic assets that could be used to generate income is insignificant among the surveyed households.

Table2.18: Household Asset and Utility (%)

	Total	Control	Treatment
Utility			
Electricity connection	39.6	48.6	34.8
Physical asset			
Solar electricity	45.2	42.7	46.5
Television	10.8	14.0	9.1
Mobile phone	87.7	90.7	86.2
Refrigerator	2.3	2.7	2.2
Water pump	0.8	0.3	1.0
Computer/laptop	0.3	0.3	0.2
Bicycle	9.5	7.2	10.6
Motorcycle	2.5	2.9	2.4
Economic asset			
Boat	4.4	4.0	4.6
Livestock	30.6	32.3	29.7
Natural asset			
Own land	46.0	40.0	49.2

Source: Field Survey, 2018.

[21] We did not collect data on ornament and shops possessed by households because it was beyond the scope of the study. The data on these items can be collected in the endline survey.

2.4 Household's Vulnerability to Natural Resource

2.4.1 *Dependence on Agriculture*

The surveyed households have been found to be overwhelmingly dependent on agriculture for their livelihoods, either on copping or on unskilled agricultural labour. However, agriculture is highly vulnerable to climate change mainly because of aggressive salinity and storm surge in coastal areas, and flooding in wetland and flood-prone areas. Among 1,050 households, 92.9% cultivated paddy in last season. Among the paddy cultivators, 95.8% (n=381) households in control group and 91.2 % (n=670) households in treatment group cultivated paddy. However, 20.2% households cultivated pulse which is the second major cultivated crops, 10.4% cultivated vegetable, 5.6% cultivated potato, and rest of them cultivated other crops. Thus, within crop agriculture, overwhelming dependence on paddy cultivation indicates that the surveyed households remain highly vulnerable to climatic events.

Table 2.19: Crop Cultivation in the Last Season

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)			
Cultivation of crop in last season (%)						
Yes	21.8	23.1	21.1			
No	78.2	77.0	78.9			
Crop	Types of crop cultivated (%)			Mean cultivated area (decimal) by crop		
	Total N=(1,051)	Control N=(381)	Treatment N=(670)	Total N=(1,051)	Control N=(381)	Treatment N=(670)
Paddy	92.9	95.8	91.2	106.3	117.4	100.0
Wheat	2.5	0.8	3.4	19.7	17	20.0
Oil seeds	2.7	1.6	3.3	37.0	19.5	42.6
Pulse	20.2	23.1	18.5	60.5	54.5	64.8
Maize	2.5	1.3	3.1	33.3	42.5	30.4
Potato	5.6	5.0	6.0	24.1	21.1	25.6
Sugarcane	1.0	0.0	1.5	18.6	8	19.5
Betel leaf	0.5	0.0	0.8	26.4	0	26.4
Vegetable	10.4	10.0	10.6	13.7	11.8	14.7
Fruits	1.3	2.1	0.9	41.5	40.8	42.8
Flowers	0.4	0.3	0.5	13.9	8	16.2
Others	0.1	0.3	0.0	58.5	8.3	87.1

Source: Field Survey, 2018.

Although half of the households possessed agricultural land, only one-fifth of them cultivated crop in the last season. They mainly cultivated the paddy in their land. Climate-responsive crop diversification might be a better way for adaptive livelihoods, which is insignificant in the surveyed areas.

2.4.2 *Dependence on Natural Conservation Area*

It has been found that a very small number of surveyed households (about 2%) have natural conservation areas or restricted park land adjacent to their houses. Some of the respondents they reported that use these areas frequently (daily or few times in a week), but most of them normally use these areas few times a year. It implies that almost all the respondents do not depend on these

areas as their main livelihood option. Those who use them mentioned that they collect timber, leaves, fuel wood, crab/crab fry and honey.

Table 2.20: Access to and Utilisation of Natural Conservation Area

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)
Are there conservation areas or restricted park land near home			
Yes	1.8	0.0	2.7
No	98.2	100.0	97.3
How frequently they use the natural conservation area			
Daily	0.1	0.0	0.1
A few times a week	0.2	0.0	0.3
A few times a month	0.1	0.0	0.2
A few times a year	0.6	0.0	1.0
Never	0.7	0.0	1.1
Resources collect or harvest from the conservation area			
Timber	0.07	0.0	0.1
Leaves	0.1	0.0	0.1
Fuel Wood	0.3	0.0	0.5
Crab/Crab fry	0.2	0.0	0.3
Honey	0.0	0.0	0.03
Others	0.5	0.0	0.7
Any restriction to go to the conservation area			
Yes	1.6	0.00	2.5
No	98.4	100.0	97.5

Source: Field Survey, 2018.

2.5 Household's Vulnerability to Social Assets

2.5.1 *Training on Alternative Livelihood Programme by the UPs*

Role of local institutions is critical in increasing capacity to absorb climatic shocks through adaptation and resilience, which can be imparted via livelihood training and skill development. However, most of the surveyed households (98.3%) mentioned that the UPs did not initiate any educational or training programme about alternative IGAs in the last 12 months. Females were proportionately less benefited from the training compared to the males. However, only 5.5% of total respondents knew about support of the UPs to people living under lower poverty line but 70.8% household did not know this matter. However, 23.7% respondents said that the UPs do not have any kind of livelihoods support programme. To increase income and reduce exposure to climatic shocks, LoGIC project can initiate this kind of training and orientation programme.

Table 2.21: Status of Livelihood Training and UP Support in Livelihoods

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male respondents N=(1,653)	Female respondents N=(3,174)
Any educational/training programme about alternative income generation activities in last 12 months					
Yes	1.7	1.6	1.8	2.2	0.7
No	98.3	98.4	98.2	97.8	99.3
Any livelihood programme in 5 years by UP for people living under lower poverty line					
Yes	5.5	6.2	5.1	6.1	4.1
No	23.7	22.6	24.3	22.9	25.4
Do not know	70.8	71.2	70.6	71.0	70.5

Source: Field Survey, 2018.

2.5.2 *Migration and Displacement due to Climate Change*

Both slow onset and rapid extreme natural disasters are regarded as the effects of climate change, which influence population migration patterns but in different ways. Extreme events may lead affected populations to leave their homes at temporarily or permanently sudden, large-scale movements, but their return is often feasible in the long run. Climate change is expected to affect the movement of people in at least four ways: (i) both sudden extreme and slow-onset natural disasters result in increased displacement and migration; (ii) increased warming, climate variability and of other effects of climate change bring adverse effects for livelihoods, public health, food security and water availability; (iii) rising sea levels make coastal areas uninhabitable; and (iv) competition over scarce natural resources lead to growing tensions and conflict, which result in displacement (Walsham, 2010).[22] Shelter, livelihoods and scarcity of sweet/drinking water are some of the major challenges that induce climate-vulnerable people to migrate —people's migrating due to climate change are also termed as 'climate change displacees' or 'exiles' (Kartiki, 2011).[23] The present chapter briefly focuses on migration and displacement of the households members in the climate-affected unions covered in the present survey.

2.5.2.1 History of Migration

In the last five years, only 3% of adult household members were relocated permanently. Similarly, in control group it was only 2.6% and in the treatment group it was 3.2%. About 42.4% of 144 households had one male member relocated, 10.4% of total households had two members and 6.3% of total households had three or more members were relocated. However, in 53.5% of total household, one female member was relocated. On the other hand, 7.6% of total household had two members and 0.7% of total household had three or more than three male members relocated. Among the responded households in which migration took place, one female members of the households in Sunamganj, Khulna, Patuakhali and Bhola in all households. On the other hand, in Barguna district, two female members migrated in two-thirds (66.7%) and one female member migrated in one-third (33.3%) of the households in which migration has taken place. In addition, one female member migrated or is displaced nearly all (91.2%) households in which migration took place in Bagerhat district.

Among the climate-affected districts, migration is mainly visible only in Bagerhat from where 11.4% adult household members were permanently relocated from in the last five years. It also resembles with the data of BBS (2017), which states that11.22% of households reported any kind of migration from their household either within the country in 2016 at national level.[24] Among them, the proportion of household having one male member migrated was 65 percent, while two and three or more members migrated were 15% and 20%, respectively. On the other hand, households having one member migrated was the most common phenomenon (91.2% respondents reported) in this district.

[22] Matthew Walsham (2010). Assessing the Evidence: Environment, Climate Change and Migration in Bangladesh, Dhaka: IOM.
[23] Katha Kartiki (2011). Climate change and migration: a case study from rural Bangladesh. Gender & Development, Vol. 19, No. 1, pp. 23-38.
[24]BBS (2017). *Preliminary Report on Household Income and Expenditure Survey 2016*, Dhaka: BBS.

2.5.2.2 Reasons Behind Relocation

According toone-fourth of the total households whose household members were relocated, the reason behind relocation is the lack of livelihood options. Here, according to majority (61.1%) of total respondents, relocation occurred due to marriage. In other words, majority of the surveyed households do not want their offspring to live in the areas where they were born. Among other reasons, 4.2% of total household were relocated for education, 3.5% households relocated because of damaged to house by natural disaster like flood and cyclone, 6.3% household relocated because of crops failure, and 4.9% mentioned that they were relocated because of other reasons.

As many as 93.8% of total households were relocated because of lack of livelihood option, which is main reason behind relocation for the last migrated member. In control group the proportion was 90.7% and in treatment households it was 95.1%. However, 4.2% respondents were relocated for the damage of natural disasters, 1.4% were relocated for the crop failure, and 12.5% migrated because of environmental and climate change related factor. In control group the proportion of households migrated due to climatic factors was 16.3% and in treatment households it was 10.9%.

The district-wise data explains diversity of reasons behind migration across regions. For example, absence of any suitable livelihood option in the only reason of migration in Kurigram district. It also matches with the data of BBS (2017), which states that the incidence of poverty was the highest in Kurigram in 2016 (70.8%).[25] The livelihood option is also very limited in that district, which is likely to compel them to migrate.

From the data, only relocation of existing household members was captured. Relocation history of full family of their neighborhood was not taken into account in the survey. Most of the cases, marriage and lack of livelihood option were the main reasons of migration of existing household members. Adaptive livelihood approach is likely to minimise the climate-induced migration significantly.

[25]BBS (2017). *Preliminary Report on Household Income and Expenditure Survey 2016*, Dhaka: BBS.

Table 2.22: Migration of Household Members

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram N=(640)	Khulna N=(672)	Bagerhat N=(805)	Barguna N=(819)	Patuakhali N=(413)	Bhola N=(706)
Permanent relocation of any adult household members in last 5 years										
Yes	3.0	2.6	3.2	1.5	0.2	1.2	11.4	2.8	1.7	0.1
No	97.0	97.4	96.8	98.5	99.8	98.8	88.6	97.2	98.3	99.9
Relocation of male members	N=(144)	N=(43)	N=(101)	N=(12)	N=(1)	N=(8)	N=(92)	N=(23)	N=(7)	N=(1)
1	42.4	41.9	42.6	37.5	100.0	83.3	65.0	86.4	85.7	100.0
2	10.4	14.0	8.9	62.5	0.0	16.7	15.0	9.1	14.3	0.0
3+	6.3	4.7	6.9	0.0	0.0	0.0	20.0	4.5	0.0	0.0
Relocation of female members										
1	53.5	53.5	53.5	100.0	-	100.0	91.2	33.3	100.0	100.0
2	7.6	11.6	5.9	0.0	-	0.0	7.3	66.7	0.0	0.0
3+	0.7	2.3	0.0	0.0	-	0.0	1.5	0.0	0.0	0.0

Source: Field Survey, 2018.

Table 2.23: Reasons of Migration

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram N=(640)	Khulna N=(672)	Bagerhat N=(805)	Barguna N=(819)	Patuakhali N=(413)	Bhola N=(706)
Reasons for relocations										
No livelihood	25.0	25.6	24.8	16.7	100.0	25.0	15.2	60.9	42.9	0.0
Marriage	61.1	72.1	56.4	50.0	0.0	25.0	77.2	34.8	0.0	100.0
Education	4.2	4.7	4.0	0.0	0.0	0.0	4.3	4.3	14.3	0.0
Damage to house by cyclone or flood	3.5	2.3	4.0	8.3	0.0	37.5	0.0	0.0	14.3	0.0
Crop failure	6.3	7.0	5.9	16.7	0.0	25.0	3.3	8.7	0.0	0.0
Limited fresh drinking water	2.8	2.3	3.0	8.3	0.0	25.0	0.0	4.3	0.0	0.0
Other	4.9	0.0	6.9	0.0	0.0	12.5	4.3	0.0	28.6	0.0
Reasons for relocation for the last migrated member										
No livelihood	93.8	90.7	95.1	58.3	100.0	75.0	100.0	100.0	85.7	100.0
Damage to house by cyclone or flood	4.2	7.0	3.0	25.0	0.0	25.0	0.0	0.0	14.3	0.0
Crop failure	1.4	0.0	2.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0

Source: Field Survey, 2018.

Table 2.24: Impact of Climate Change on Migration

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(12)	Kurigram (1)	Khulna N=(8)	Bagerhat (92)	Barguna (23)	Patuakhali (7)	Bhola (1)
Climatic and climate change is an influencing factor for migration										
Yes	12.5	16.3	10.9	58.3	0.0	50.0	6.5	0.0	14.3	0.0
No	87.5	83.7	89.1	41.7	100.0	50.0	93.5	100.0	85.7	100.0
Climatic factors that lead to migration										
Storm surge (big wave)	11.1	0.0	18.2	0.0	-	50.0	0.0	-	0.0	-
Increased salinity in surface/ground water	27.8	42.9	18.2	0.0	-	25.0	66.7	-	0.0	-
Floods (extreme rain events)	11.1	0.0	18.2	28.6	-	0.0	0.0	-	0.0	-
Cyclones				0.0	-	25.0	0.0	-	100.0	-
Riverbank / Coastal erosion	11.1	0.0	18.2	0.0	-	0.0	33.3	-	0.0	-
Change in environment was no reason to leave	11.1	0.0	18.2	71.4	-	0.0	0.0	-	0.0	-
Flash flood	27.8	57.1	9.1							

Source: Field Survey, 2018.

2.5.2.3 Climatic Factors Leading to Migration

A number of reasons are mentioned as reasons of migration, which are mainly related to cyclones, storm surge, increased salinity and floods. A total of 27.8% of household migrated because of more saltwater in surface water/ground water, 11.1% households migrated because of storm surge, and 11.1% households migrated due to flood. Similarly, same proportion of household mention riverbank/coastal erosion and change in environment was the reason to leave. However, 27.8% respondents reported water logging as the main reason behind migration. District-wise data demonstrate that floods (flash and regular) were the main climatic disasters that led to migration in Sunamganj, while storm surge, salinity and cyclone were the main climatic reasons of migration in Khulna. Salinity and coastal erosion were the climatic drivers of migration in Bagerhat, while cyclone was the only reason behind migration in Patuakhali. It implies that there is sufficient variability and heterogeneity of climatic reasons to drive the affected households to migrate across the surveyed districts.

Part B:
Vulnerability and Capacity of Local Institution (UP) on Climate Change

Chapter 3
Community Awareness, Participation and Capacity of Local Institution (UP) on Climate Change

Local institutions, especially the UPs, are mandated by the law to respond to the problems of local communities on issues related to environment, disasters and related livelihood vulnerabilities. Within the existing legal framework, the UPs can promote adapt and resilience of the local communities on climate change, especially in the areas of rapid extreme and slow onset climatic events, livelihood vulnerability, water insecurity and climate-induced migration. However, how and to want extent the UPs would be involved in increasing adaptation and resilience would critically depend on both demand and supply side of their climate services. Awareness of and participation in local communities on various regular activities of the UPs, such as Ward Sabha, annual and five-year planning, annul budget, risk assessment processes, and auditing constitute the demand side of the UPs role in climate change. Conversely, the supply side include capacity of the UPs to interact with the community; making the Ward Sabha, planning and budgeting processes climate-sensitive, regularly assess risk, and maintain financial transparency and accountability to the community. A balanced interplay between demand and supply side of the climate services of the UPs would help in mainstreaming climate change into local level planning, budgeting and financing.

Participation of local people in the functions of UP is mandatory under the Local Government (Union Parishad) Act 2009. The Act clearly prescribes community participation in UP functions of development planning, budget-making and active involvement in implementation of schemes at Ward levels. Article 57 (1 and 2) of the Act makes it mandatory for the UP to place its budget in open meeting to ensure and facilitate a discussion by the people thereby providing for accountability of the elected bodies to its electorate.

This chapter presents the baseline status of on the level of people's awareness and participation in UP activities as well as the capacity of the UPs to address climate vulnerability of the local communities. It also covers peoples' awareness about the Standing Committee of the UP on disaster management, and issues of climate change raised in the Ward meetings and subsequent inclusion in the UP plans and budgets. This is to provide an overall landscape of the status of citizens' interaction with the UPs in climatic matters and climate services provided by the surveyed UPs.

3.1 Demand Side of Climate Services from the UPs: Community Awareness and Participation

3.1.1 Climatic Issues in UP Meetings, Ward Sabha and Standing Committee

The survey data reveals that overall people's participation in any kind of UP meeting is very low. Only 3.3% of respondents of the treatment UPs have ever participated in any UP meeting, while 2.3% respondents of control UPs participated in any UP activities. Out of 138 respondents who participated in any meeting of the UP, a total 71.7% respondents participated in Ward Sabha, 18.8% participated in open budget meetings of the UP, 8% participated in planning meetings, and 4.4% participated in the women development forums. However, participation of women, poor and women-headed households is less (nil in some cases) compared to their non-poor and male counterparts. Women's absence in these UP functions to raise voices in the meetings regarding their problems and issues related to the effects of climate change on their lives is likely to remain under or unrepresented in the subsequent plans and budgets.

3.1.1.1 Participation in Ward Sabha

Participation of the local citizens in UP meetings and Ward Sabhas (open meetings) is at a dismal state. According to Local Government (Union Parishad) Act 2009, planning and budget related issues have to be discussed in the open meeting of Ward Sabha where citizens have scope to participate.

Local people's participation in open meetings of the Ward Sabha is very low. Only 2% of total respondent participated in these meetings in 2016-17. From treatment group 2.2% and from control group 1.5% of respondents participated the meeting. About 18% respondents reported that they had no specific reason for participation, while 26.9% participated in the meeting to keep the pledge given to UP member/chairman. More than 50% participated in the meeting to raise the problems/priorities and 2.2% participated for other reasons.

Around 66.7% of the respondent who participated in Ward Sabha reported to have raised some issue in the meeting. Of them, 68.1 % in treatment group and 62.5% are in the control group. About the types of issues raised, 38.7% are on repairing road/bridge/culvert and 43.6% on construction of road/bridge/culvert, which are related to climate change. Issues raised by 62.4% of respondents were discussed in the meeting. Needs of 62.3% treatment and 62.5% control respondents were discussed in the meeting. The results demonstrate that participation of women, poor and women-headed households in Ward Sabhas are relatively less and even nil in some cases compared to their non-poor and male counterparts.

Table 3.1: Participation in UP Meetings (% of respondents)

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male N=(3,339)	Female N=(1,488)	Non-poor N=(760)	Poor N=(4,067)	Extreme poor N=(3,592)	Woman-headed household N=(282)
Participation in any UP meetings									
Yes	2.9	2.3	3.3	0.03	0.0	7.5	2.0	1.7	1.4
No	97.1	97.7	96.9	99.97	100.0	92.5	98.0	98.3	98.6
Participation by type of UP meetings									
Ward Sabha	2.0	1.6	2.3	96.5	98.5	5.4	1.4	1.2	1.1
Open budget meeting	0.5	0.4	0.6	0.4	0.3	1.8	0.3	0.3	0.0
Planning meeting	0.2	0.3	0.2	2.5	1.0	0.8	0.1	0.1	0.3
Women Development Forum meeting	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.0

Table 3.2: Participation in Ward Sabha (% of respondents)

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male N=(3,339)	Female N=(1,488)	Non-poor N=(760)	Poor N=(4,067)	Extreme poor N=(3,592)	Woman headed household N=(282)
Participation in Ward Sabha in 2016-17									
Yes	2.0	1.5	2.2	2.4	0.9	4.8	1.4	1.2	1.1
No	98.1	98.5	97.8	97.6	99.1	95.2	98.6	98.8	98.9
Reasons of participation									
No reason	0.2	0.3	0.2	0.5	0.0	0.5	0.3	0.2	0.0
Commitment to Member/Chairman	0.3	0.2	0.4	0.6	0.3	1.6	0.3	0.2	0.3
Raise the needs/problems/ priorities	0.7	0.5	0.8	1.2	0.5	2.6	0.7	0.6	0.7
Others	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Raised any issue in the Ward Sabha									
Yes	0.9	0.6	1.0	1.6	0.6	3.4	0.9	0.9	0.7
No	91.1	99.4	99.0	98.4	99.4	96.6	99.1	99.1	99.3
Types of issue (% of total, multiple response)									
Repair road/bridge/culvert	0.5	0.5	0.5	1.0	0.4	1.2	0.4	0.4	0.0
Make road/bridge/culvert	0.6	0.6	0.5	1.0	0.3	1.4	0.4	0.4	0.0
Get any SSNP allowance	0.2	0.4	0.2	0.1	0.4	0.7	0.2	0.2	0.0
Get better health service	0.2	0.2	0.2	0.1	0.3	0.5	0.1	0.1	0.3
Stop early marriage	0.3	0.4	0.2	0.5	0.3	0.9	0.2	0.2	0.0
Do not give dowry	0.2	0.3	0.2	0.2	0.0	0.8	0.1	0.1	0.0
Improve current facility	0.2	0.1	0.3	0.4	0.1	0.8	0.1	0.2	0.3
Repair hat-bazar/mosque/any public complex	0.1	0.1	0.1	0.1	0.0	0.4	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0
Respondent's need/issue discussed in the meeting									
Yes	0.8	0.6	0.9	1.5	0.5	3.3	0.8	0.7	0.7
No	99.2	99.4	99.1	98.5	99.5	96.7	99.2	99.3	99.3

3.1.1.2 Discussion on Climatic Issues in UP Budget and Development Planning in the Ward Sabha

Nearly 66% respondents who participated in Ward Sabhas reported that climate related issues were discussed in the meetings. In control unions, it was 58.3% and in treatment group, it was 68.1%. More than half of the respondents who participated in those meetings said that development plans of the UPs were discussed in Ward Sabha. In control group, 33.3% respondents and in treatment group 63.8% opined that plans were discussed in the Ward Sabha.

Table 3.3: Climatic Issues, Budgeting and Development Planning Discussed at Ward Sabha (% of respondents)

Indicators (%, Mean)	Total N=(62)	Control N=(15)	Treatment N=(47)
Climate related issue raised in the Ward Sabha			
Yes	65.6	58.3	68.1
No	34.4	41.7	31.9
UP development plan discussed in Ward Sabha			
Yes	55.9	33.3	63.8
No	44.1	66.7	36.2
UP budget discussed in Ward Sabha			
Yes	32.3	16.7	37.7
No	67.7	83.3	62.3

Only 32.3% respondents said that UP budget was discussed in the Ward Sabha, 17.7% in control group, and 37.7% in treatment group. Due to the low level of participation in Ward Sabha, the absence of discussion of climatic issues, UP budget and UP development planning poses some questions about the efficacy of Ward Sabhas.

3.1.1.3 Awareness About Standing Committees

Only a few respondents were aware of the standing committees of the UP, 99.4% of total respondents did not know about it. A mere 0.4% of total respondents were aware about the Standing Committee on Social Welfare and Disaster Management. Only 0.2% of total respondents had awareness about the Standing Committee on Environmental Protection and Plantation. Very low proportion of respondents by gender, poverty status and women-headed households know about the standing committees. No respondents of the surveyed women-headed households had knowledge about either of the standing committees that deal with disasters, climate change and environment. Thus, the level of awareness of general population was very low about UP's basic functions and activities mandated by the law.

Table 3.4: Awareness About the Standing Committee (% of respondents)

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male N=(3,339)	Female N=(1,488)	Non-poor N=(760)	Poor N=(4,067)	Extreme poor N=(3,592)	Women-headed household N=(282)
Standing Committee of the UP									
Yes	0.6	0.6	0.6	0.8	0.3	1.5	0.5	0.4	0.4
No	99.4	99.4	99.4	99.2	99.7	98.5	99.5	99.6	99.6
Standing Committee on Social Welfare and Disaster Management									
Yes	0.4	0.4	0.4	0.5	0.2	0.7	0.3	0.3	0.0
No	99.6	99.6	99.6	99.5	99.8	99.3	99.7	99.7	100.0
Standing Committee on Environmental Protection and Plantation									
Yes	0.2	0.1	0.2	0.3	0.0	0.5	0.1	0.1	0.0
No	99.8	99.9	99.8	99.7	100.0	99.5	99.9	99.9	100.0

3.1.2 Citizen's Awareness and Participation in UP Activities on Climate Change

This section presents the baseline findings of the UP functions of planning, budgeting and people's participation in these activities. It is important to understand if the relevant articles of Local Government (Union Parishad) Act 2009of participatory planning and budgeting particularly with reference to climate change are enforced so that relevant and need based issues are incorporated in the plans and executed with accountability and transparency. Given this context, the section includes the community awareness and participation in ADP and five-year plan, climate change related project/intervention in ADP and five-year plan, and participation and satisfaction in open budget meeting and auditing of the UPs by local citizens.

3.1.2.1 Community Participation in the ADP

Both awareness of and participation levels in the local annual planning processes have been found to be very low. Less than 3% of the surveyed households had awareness about annual plan and less than 1% households participated in the planning process. Only 2% of total household were aware about ADP but majority of the respondents (98%) did not know about the plan. Similarly, only 2.4% household in control group and a mere 1.7% in treatment group knew about the annual plan. It may be due to the fact that the requirement of Ward Sabha is only participation of 5% people of the respective wards. However, awareness and participation of poor, women and female-headed households are significantly low or even nil compared to males.

Table 3.5: Awareness of and Participation (% of respondents)

Indicators(%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Male N=(3,339)	Female N=(1,488)	Non-poor N=(760)	Poor N=(4,067)	Extreme poor N=(3,592)	Woman headed household N=(282)
Awareness about annual plan									
Yes	2.0	2.4	1.7	2.5	0.7	3.2	1.7	1.7	0.3
No	98.1	97.6	98.3	97.5	99.3	96.8	98.3	98.3	99.7
Participation in annual planning process									
Yes	0.6	0.6	0.6	0.6	0.3	0.9	0.5	0.4	0.0
No	99.4	99.4	99.4	99.4	99.7	99.1	99.5	99.6	100.0
Awareness about five-year plan									
Yes	1.0	1.2	0.9	1.3	0.3	2.2	0.8	0.8	0.0
No	99.0	98.9	99.1	98.7	99.7	97.8	99.2	99.2	100.0
Participation in five-year planning process									
Yes	0.3	0.2	0.4	0.4	0.2	1.1	0.2	0.2	0.0
No	99.7	99.8	99.6	99.4	99.8	98.9	99.8	99.8	100.0
Awareness about annual open budget									
Yes	2.0	1.6	2.1	2.4	1.0	3.3	1.7	1.6	0.0
No	98.0	98.4	97.9	97.6	99.0	96.7	98.3	98.4	100.0
Participations in respondent annual open budget									
Yes	0.8	0.8	0.8	1.1	0.2	2.0	0.6	0.5	0.0
No	99.2	99.2	99.2	98.9	99.8	98.0	99.4	99.5	100.0
Raise any point in the open budget meeting									
Yes	0.5	0.6	0.4	0.6	0.1	1.1	0.4	0.3	0.0
No	99.5	99.4	99.6	99.4	99.9	98.9	99.6	99.7	100.0
Awareness about community risk assessment meeting									
Yes	2.1	2.3	2.0	2.3	1.3	1.1	2.3	2.3	0.4
No	97.9	97.7	98.0	97.7	98.7	98.9	97.7	97.7	99.6

Source: Field Survey, 2018.

3.1.2.2 Discussion and Endorsement of Climate-Related Issues in Planning and Budgeting

About half of the total respondents who were present in the meetings reported that climate related issues were discussed in the meeting. About half of the total respondents reported that the climate change issues were accepted in the planning process meeting. In the treatment group, 73.1% respondents reported that the climate change issues were accepted in the planning process meeting which is higher than control. About half of the respondents who were present in five-year plan meetings reported that the climatic issues were discussed in the meeting (mostly in treatment unions), while about one-third of total respondents among the meeting participants informed that those were not included in the five-year plan. About two-fifths of the participant respondents said that climatic issues were endorsed during the open budget session.

Table 3.6: Climatic Issues in ADP, Five-Year Plan and Open Budget (% of respondents present in the meetings)

Indicators (%, Mean)	**Total N=(94)**	**Control N=(39)**	**Treatment N=(55)**
Climate related issues discussed in ADP meeting			
Yes	56.5	45.0	65.4
No	6.5	5.0	7.7
Donot know	37.0	50.0	26.9
Climate change issues accepted in the annual planning process meeting			
Yes	54.4	30.0	73.1
No	2.2	0.0	3.9
Donot know	43.5	70.0	23.1
Climate related issues discussed in five-year plan			
Yes	50.0	30.8	69.2
No	11.5	15.4	7.7
Donot know	38.5	53.9	23.1
Climate change issues accepted in the five-year planning process			
Yes	34.6	23.1	46.2
No	23.1	23.1	23.1
Donot know	42.3	53.9	30.8
Raised any climate related point in the open budget meeting			
Yes	24.5	37.0	19.4
No	75.5	63.0	80.6
Investment related issues discussed in open budget meeting			
Yes	39.4	48.2	35.8
No	60.6	51.9	64.2

Source: Field Survey, 2018.

3.1.2 3 Inclusion of Climate Change Related Project/Schemes in ADP and Five-Year plans

According to their knowledge, 25.5% of the respondents reported that ADP included some projects to mitigate climate related impacts. A total of 17% respondents opined that there was no such intervention in their respective unions, and 57.5% of total respondents mentioned that they did not know about this. About 14% of the total respondents reported that ADP incorporated some projects to mitigate climate related impact on the poor and hardcore poor, 17% of the total respondents said that there was no such intervention, and 69.2% mentioned that they did not know about this matter.

Table 3.7: Inclusion of Climate Change Related Project/Issues in ADP (% of respondents)

Indicators (%, Mean)	ADP			Five-year plan		
	Total N=(94)	Control N=(39)	Treatment N=(55)	Total N=(94)	Control N=(39)	Treatment N=(55)
Climate related issues affecting the UP						
Yes	25.5	30.8	21.8	8.2	5.2	10.0
No	17.0	7.7	23.6	20.4	15.8	23.3
Do not know	57.5	61.5	54.6	71.4	79.0	66.7
Climate related issues affecting the quality of life of the poor and extreme poor						
Yes	13.8	12.8	14.6	4.1	0.0	6.7
No	17.0	15.4	18.2	22.5	15.8	26.7
Do not know	69.2	71.8	67.3	73.5	84.2	66.7
Climate related issues affecting women						
Yes	10.6	15.4	7.3	6.1	5.3	6.7
No	21.3	20.5	21.8	14.3	0.0	23.3
Do not know	68.1	64.1	70.9	79.6	94.7	70.0
Climate related issues affecting drinking water						
Yes	22.3	28.2	18.2	8.2	5.3	10.0
No	17.0	7.7	23.6	20.4	10.5	26.7
Do not know	60.6	64.1	58.2	71.4	84.2	63.3
Climate related issues affecting health						
Yes	5.3	2.6	7.3	4.1	0.0	6.7
No	26.6	35.9	20.0	10.2	5.3	13.3
Do not know	68.1	61.5	72.7	85.7	94.7	80.0
Climate related issues affecting agriculture						
Yes	12.8	23.1	5.5	14.3	26.3	6.7
No	29.8	33.3	27.3	16.3	10.5	20.0
Do not know	57.5	43.6	67.3	69.4	63.2	73.3
Climate related issues affecting infrastructure						
Yes	29.8	38.5	23.6	6.1	15.8	0.0
No	12.8	5.1	18.2	16.3	10.5	20.0
Do not know	57.5	56.4	58.2	77.6	73.7	80.0
Climate related issues affecting employment						
Yes	1.1	2.6	0.0	2.0	5.3	0.0
No	33.0	38.5	29.1	14.3	5.3	20.0
Do not know	66.0	59.0	70.9	83.7	89.5	80.0

Source: Field Survey, 2018.

The important issues included in the ADP were related to improving quality of life of the poor and extreme poor, women-focused projects, and schemes related to drinking water, infrastructure and agriculture. On the other hand, the only important sector in which climate-related schemes were endorsed in the five-year plan is agriculture. Most of the respondents reported that they did not know whether the sectoral issues were addressed in the ADP or five-year plan. Thus, it is important for LoGIC project to provide training to the beneficiaries so that they can trace if the sectoral schemes raised in the meetings are incorporated subsequently.

3.1.2.4 Active Participation in Open Budget Meeting

A very small proportion of the respondents (less than 2% of total) reported that they raised different issues in the UP open budget meeting organized. The most prominent issues raised in meeting were repairing and constructing bridge/culvert/road which were due to negative impacts of climate change in their localities. The other issues were Social Safety Net Programmes (SSNP), protecting child marriage, ensuring quality health care, not giving dowry, improving existing services and

repairing the public infrastructure. Poor households were relatively less vocal, while participants from women-headed households did not raise their voices in the meeting. The participants of the meetings mostly reported that the issues raised were generally accepted. It implies that greater and active participation of the local citizens in open budget meetings would be a strong and viable means of preparing climate-sensitive UP budgets.

Table 3.8: Issues Raised and Accepted in Open Budget Meeting (% of respondents)

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Non-poor N=(760)	Poor N=(4,067)	Extreme poor N=(3,592)	Women-headed household N=(282)
Issue raised in the open budget meeting							
Repairing bridge/culvert/road	1.4	1.5	1.3	0.7	0.3	0.3	0.0
Constructing bridge/culvert/road	0.8	1.1	0.5	0.7	0.1	0.1	0.0
Receiving allowance of SSNP (*e.g.*, old age, widowed, disability	0.5	0.5	0.5	0.0	0.1	0.1	0.0
Receiving quality health care	0.4	0.5	0.3	0.3	0.1	0.1	0.0
Protecting child marriage	0.8	0.7	0.8	0.4	0.1	0.1	0.0
Not giving dowry	0.3	0.3	0.3	0.3	0.1	0.0	0.0
Increasing/improving the existing facilities	0.4	0.3	0.5	0.1	0.1	0.1	0.0
Repairing marketplace/mosque/public buildings	0.3	0.3	0.3	0.3	0.1	0.0	0.0
Raised issues were accepted							
Yes	1.5	1.3	1.6	0.9	0.3	0.3	0.0
No	98.5	98.7	98.4	99.1	99.7	99.7	100.0

Source: Field Survey, 2018.

About 40% of the respondents who participated in open budget meetings mentioned that issues on investment to offset the effects of drought, flood and erosion were discussed in the open budget meeting. From the control group 48.2% population said that they were discussed and 51.9% said that there was no discussion these subjects. In the treatment group 35.8% respondents reported that these were discussed.

It is evident that citizens' participation was low in all activities of the UP, but general people realise the necessity of increased participation in local development planning, budgeting and auditing processes. One likely reason for low participation is general people's lack of knowledge about the UP activities. It is extremely important to raise awareness among ordinary citizens about the scope of their participation in UP planning, budgeting and auditing processes in the LoGIC project.

3.1.3 Climatic Impacts, UP Schemes and Community Risk Assessment

The baseline survey also tried to understand the climate-related disasters indicated by the surveyed treatment and control unions and by districts to understand the types and variability of the disasters emanating from climate change by region. Information has been gathered about the awareness of the community about various climate-induced disasters, schemes initiated by the UPs for adaptation, and whether the surveyed UPs conducted meetings/training on assessing community level risks due to climate change.

3.1.3.1 Climate-Related Disasters

More than two-fifths of the respondents reported facing significant problems with climate in the last three years in the surveyed areas. In the control group 41.7% respondents and in the treatment group, 44% respondents reported that they faced significant problems. About three-quarters (75.7%) respondents mentioned flood as the major problem and 64.4% respondents said cyclone/wind damage was second major climate-induced disaster. Salinity (35.5%) and drought (11.4%) were third and fourth important climate related problem faced by the surveyed respondent. In the treatment household the prevalence of salinity intrusion is higher (38.6%) while prevalence of drought is higher in control households (16.6%).

There are regional variations in terms of incidence of any climatic disaster. Flood/storm surge, salinity and cyclone are the most common climate-induced disasters in coastal districts. However, salinity is not a problem at all in Sunamganj and Kurigram, while it is the most important problem in Khulna and second-most important problem in Bagerhat.

3.1.3.2 Awareness About Climate Related Schemes/Initiatives

When respondents were asked about any schemes related to climate change implemented by UP, only 14.6% respondents said that the UPs have undertaken such schemes, of which 19.5% inthe control group and 18.1% respondents from the treatment group reported that such schemes have been undertaken by the UPs. A total of 68.9% and 64.3% of total respondents mentioned repairing/increasing height of the road and constructing dams/embankments, respectively. These two construction schemes were less mentioned in treatment unions. Opening sluice gate and tree plantation were less reported climate-related schemes implemented by UP (less than 20%).

Table 3.9: Awareness of Climate Related Scheme (% of respondents)

Indicators (%, Mean)	**Total N=(4,827)**	**Control N=(1,653)**	**Treatment N=(3,174)**
Any schemes related to climate change problem implemented by UP			
Yes	14.6	19.5	12.3
No	85.4	80.6	87.7
Type of schemes			
Constructing dam/embankment	64.3	70.2	59.7
Repairing or increasing height of the road	68.9	78.4	61.4
Opening sluice gate	18.0	16.4	19.3
Detecting arsenic and affected tube well	5.9	9.0	3.5
Tree plantation	16.4	20.9	12.9
Other	2.3	0.0	4.1

Source: Field Survey, 2018.

3.1.3.3 Community Risk Assessment (CRA)

Awareness of CRA was found to be extremely low among the respondents of the baseline survey. Most of the respondents (97.9%) were not aware about CRA meetings, 97.7% respondents of control and 98% of treatment respondents were unaware of the meeting. However, 73% of 102 respondents who were aware of the CRA meeting admitted that UP organised CRA related meeting. About 24% of total respondents said that it was arranged in 2017 and 14.7% of total respondents reported that no CRA meeting took place in 2017, but took place in 2016, while 61.3% respondents mentioned that CRA meeting was arranged in 2015 or earlier. A total of 76% of all respondents said that CRA

findings were discussed in the Ward Sabha. However, only about one-third of the respondents who were aware about CRA meeting opined that the findings of CRA were discussed in Ward Sabha 69.7% in control group and 81% respondents in treatment group reported that the findings were discussed in Ward Sabha.

Table 3.10: CRA Meeting (% of respondents)

Indicators (%, Mean)	**Total N=(4,827)**	**Control N=(1,653)**	**Treatment N=(3,174)**
UP organised CRA related meeting	N=(102)	N=(38)	N=(64)
Yes	73.5	86.8	65.6
No	26.5	13.2	34.4
Timing of CRA meeting	*N=(75)*	*N=(33)*	*N=(42)*
2017	24.0	27.3	21.4
2016	14.7	24.2	7.1
2015 or before	61.3	48.5	71.4
CRA findings discussed in Ward Sabha			
Yes	76.0	69.7	81.0
No	24.0	30.3	19.1

From these findings it is evident that the overall awareness and effectiveness of existing CRA mechanism is unsatisfactory. Majority of the respondents also reported that UPs do not conduct CRA meeting every year or regularly.

Table 3.11: Household Faced Significant Problems of Climate Change in the Last Three Years (% of Respondents)

Indicators (%, Mean)	Total N=(4,827)	Control N=(1,653)	Treatment N=(3,174)	Sunamganj N=(772)	Kurigram (640)	Khulna N=(672)	Bagerhat (805)	Barguna (819)	Patuakhali (413)	Bhola (706)
Respondent's household faced significant problems with climate in the last three years										
Yes	43.2	41.7	44.0	45.0	68.4	35.1	49.3	26.1	51.1	34.1
No	56.8	58.3	56.1	55.0	31.6	64.9	50.7	73.9	48.9	65.9
Climate related problem faced in last three year										
	(N=2,085)	(N=689)	(N=1,397)	N=(347)	N=(438)	N=(236)	N=(397)	N=(214)	N=(211)	N=(241)
Flood	75.7	75.5	75.8	93.7	95.7	19.5	70.8	64.0	90.0	74.7
Drought	11.4	16.6	8.9	13.0	17.1	5.5	1.8	10.3	26.5	9.1
Salinity	35.5	29.0	38.6	0.0	0.0	94.5	66.2	28.0	37.0	46.9
Arsenic contamination	4.8	4.2	5.0	4.6	5.5	0.0	0.5	7.9	7.6	10.0
Cyclone/Wind damage	64.4	66.3	63.4	84.7	75.8	28.0	37.3	77.1	90.0	60.6
Other	0.4	0.4	0.4	0.0	0.0	2.5	0.8	0.0	0.0	0.0

Source: Field Survey, 2018.

3.2 Supply Side of Climate Service: Capacity and Role of the UPs

3.2.1 Proximity (location) of the UPs

We considered remoteness as a proxy indicator of vulnerability of the UPs. We assume that the UPs are more vulnerable if its physical distance is greater from district and upazila headquarters. Among the total unions 11.1% are in the Sadararea of the upazila. Among the treatment unions, 15.3% unions are in the Sadararea and in the control unions, only 2.8% unions are in Sadararea of upazila. The mean distance of UP office from UZP headquarters is 10.7km. A total of 36.1% unions are adjacent to the Sadar union of upazila. Here, 40.3% treatment unions and 27.8% control unions are adjacent to Sadar union. Only 8.3% unions are adjacent to the Sadar union of neighboring upazila. Therefore, majority of the unions are not adjoined to the Sadar union of neighboring upazila.

The mean distance to Deputy Commissioner's (DC) office is 43.1km. For the control unions, the mean distance was 38.5km and for the treatment union's it is 45.4km. Only 10.2% of total unions are adjacent to the paurasabha; 12.5% treatment unions and only 5.6% control unions are adjacent to paurasabha. Thus, the treatment unions are more vulnerable than their control counterparts in terms of distance from district headquarters, while treatment UPs are less vulnerable in terms of remoteness from upazila headquarters and paurasabha.

3.2.2 Climate Related Campaigns Conducted by the UPs

A total of 73.1% of UPs organised campaigns on climate issues in 2016-17; of which 77.8% unions were from control and 70.8% unions from treatment UPs. Thus, treatment unions are lagging behind regarding the awareness campaigns of the UPs.

Type of Campaigns on Climate Issues by UPs

- National Day for Disaster Reduction (93.7%)
- International Day for Disaster Reduction (78.5%)
- World Environment Day (40.5%)

Campaigns organised by

- 84.8% jointly by UP, NGOs and local voluntary organisations
- 32.9% by upazila and district council

3.2.3 CRA Conducted by the UPs

CRA is an important precondition to design and incorporate projects and schemes related to climate change adaptation at union level of the climate change affected districts. For this reason, the present survey includes the issues of CRA-related activities by the UPs, whether the major findings of the CRA reports are discussed at the open meetings at Ward level, and whether the CRA process is integrated in the annual and five-year development planning process.

Table 3.12: CRA at Union Level (% of UPs)

Indicators (%, Mean)	Total N=(108)	Control N=(36)	Treatment N=(72)
Any CRA meeting held in the Union			
Yes	56.5	52.8	58.3
No	43.5	47.2	41.7
CRA meetings organised in	n=(61)	n=(19)	n=(42)
2017	14.7	0.0	21.4
2016	8.2	5.3	9.5
2015 or before	77.0	94.7	69.1
CRA report available at UP			
Yes	73.8	63.2	78.6
No	26.2	36.8	21.4
CRA findings discussed in the Ward Sabha[*]			
Yes	83.6	84.2	83.3
No	16.4	15.8	16.7
CRA report considered in preparing 5-year development plan and ADP			
Yes	86.9	89.5	85.7
No	13.1	10.5	14.3

[*] Based on resolution of the Ward Sabha.
Source: Field Survey, 2018.

From the review of available UP documents, it was found that CRA meetings were held in 56.5% union to date. The number and proportion of CRA meetings are found to be higher in treatment union (58.3%) compared to the control union (52.8%).

In total 77% UPs organised CRA meeting in 2015 or earlier, 8.2% of total UPs had CRA meeting held in 2016, and 14.7% total UPs had the meeting in 2017. Majority of the control UPs (94.7) organised CRA meetings in 2015 or earlier. Similarly, in treatment unions 21.4% unions organised CRA meeting in 2017 and only 9.5% unions organised CRA meeting in 2016. This shows that CRA meetings by the UPs are not held regularly.

A total of 73.8% of unions had CRA report available at the UP, 63.2% in control unions and 78.6% in treatment unions had CRA reports. On average about 84% CRA finding were discussed in the Ward Sabha. In total, 86.9% UPs considered CRA report in preparing the five-year plan and the ADP. These distributions are almost similar in treatment and control unions.

3.2.4 Standing Committees

Article 45 of Local Government (Union Parishad) Act 2009 has specifies the name and subjects of Standing Committees of the UP. Two of the 13 specified standing committees are related to climate change, viz. Standing Committee on Social Welfare and Disaster Management and Standing Committee on Environmental Protection and Plantation. The objective of forming standing committees is to facilitate and accomplish activities on various important matters of the union by the Prishad. The committees are required to hold meeting at least once in every two months. Article 45(6) directs that the recommendations of the subject-specific standing committees be placed to the next meeting of the Parishad, and the Parishad will explain in writing to the respective standing committee if it cannot endorse any of the recommendations. Therefore, the basic information about the two climate-related standing committees mentioned above, by treatment and control union would be useful for subsequent effects and tracking of the impact of LoGIC project.

3.2.4.1 Standing Committee on Social Welfare and Disaster Management

The standing committee on Social Welfare and Disaster Management was formed in 96.3% of the unions. 94.4% control unions and 97.2% treatment unions have in papers this standing committee. Around 38.9% standing committees were headed by a female member,36.1% in control and 40.3% in treatment unions.

In total, 11.1% unions did not organise any standing committee meeting during July 2016-June 2017, 55.6% unions organised only 1-3 meeting during July 2016-June 2017. Similarly, 19.4% unions had 4-6 meeting and 13.9% had more than 7 meeting. About 40.7% of UPs'(38.9% control and 41.7% treatment) standing committee prepared at least 2 monitoring report during July2016-June2017. The above findings indicate that during the last few years and currently, this UP Standing Committees on climate though formed, in most cases are not being utilised to its full potential.

Table 3.13: Standing Committees and Their Functions (% of UPs)

Indicators (%, Mean)	Social Welfare & Disaster Management			Environmental Protection & Plantation		
	Total N=(108)	Control N=(36)	Treatment N=(72)	Total N=(108)	Control N=(36)	Treatment N=(72)
Formed						
Yes	96.3	94.4	97.2	92.6	91.7	93.1
No	3.7	5.6	2.8	7.4	8.3	6.9
Headed by Female Member						
Yes	38.9	36.1	40.3	37.0	38.9	33.3
No	61.1	63.9	59.7	63.0	66.8	61.1
No. of meetings during (July 2016-June 2017)						
0	11.1	13.9	9.7	12.0	13.9	11.1
1-3	55.6	52.8	56.9	57.4	55.6	58.3
4-6	19.4	22.2	18.1	16.7	16.7	16.7
7+	13.9	11.1	15.3	13.9	13.9	13.9
Standing Committee prepared at least 2 monitoring report during July 2016-June 2017						
Yes	40.7	38.9	41.7	36.1	27.8	40.3
No	61.1	58.3	59.3	63.9	72.2	59.7

Source: Field Survey, 2018.

3.2.4.2 Standing Committee on Environmental Protection & Plantation

Majority of the unions (92.6% in total) were found to have formed the Standing Committee on Environmental Protection & Plantation, of these 91.7% are in control unions and 93.1% in treatment unions. In 37% of the unions' standing committees were headed by a female member; segregated 38.9% of control and 41.7% of treatment unions. However, in total, 12% unions did not organise any standing committee meetings during July 2016-June 2017 and 57.4% unions organised only 1-3 meeting during the same period. On the other hand, 19.4% unions had 4-6 meetings and 13.9% had more than 7 meetings.

Nearly 36.1% standing committee on environment protection and plantation prepared at least 2 monitoring reports during July2016 to June2017. Conversely, 40.3% standing committee of treatment and 27.8% standing committee of control unions prepared at least two monitoring reports during July2016-June2017.

3.2.5 Ward Sabha

Ward Sabha is the forum constituted in each ward of the union with voters of the respective wards. According to Article 4 at Chapter 2 of Local Government (Union Parishad) Act 2009, forming Ward Sabha is mandatory in each ward. Article 5 of the law describes the functions of Ward Sabha., It is mandatory for the Sabha to arrange at least two open meetings of with the local citizens of the respective ward, one is as the annual ward meeting, in which the respective UP Member and Chairman are required to be present. As per the Act, the open meeting of Ward Sabha is a core activity in the annual development planning and budgeting process of the UPs. The issues raised in the meeting are taken forward at the UP level to be addressed in the ADP and budget. According to Article 5(6), the following activities will be conducted in the ward meeting: (i) review the ongoing developmental activities and other issues of the ward; and (ii) present the financial report of the preceding year and the progress of the ongoing developmental activities.

The Sabha is mandated to collect all necessary information and data of the ward to formulate and implement the ADP of the union. One of the core responsibilities of the Sabha is to determine the imperatives of the UP to cope up with natural disasters due to climate change. Even though climate change has not been explicitly mentioned in the functions and responsibilities of the Ward Sabha, it is inextricably interwoven with the developmental activities and schemes of the ward. This section discusses some important information related to open meeting arranged by Ward Sabhas in treatment and control unions, covering the regularity of the meetings and climatic issues discussed.

3.2.5.1 Ward Sabha and Climatic Issues

Considering the requirement of two Ward Sabha per year, the number of ward meetings supposed to be held in the preceding fiscal year (2016-17) was 1,944 in the total surveyed unions. In control unions, the number was 648 and in treatment unions, the number was 1,296. However, the number of total Ward Sabhas held in last fiscal year (2016-17) was 1,839 of which 598 were in control and 1,241 in treatment unions. The proportion is 92.2% in control and 95.7% in treatment unions.

Of the total Ward Sabhas (1,839) held in last fiscal year, 89.5% fulfilled the required quorum. This situation was similar in treatment and control union. In total, 86.3% Ward Sabhas were attended by 5% voters in fiscal year 2016-17. About 92% of Ward Sabhas were presided by UP members in the last fiscal year. In treatment and control unions, the proportions were 96% and 90.4%, respectively.

Table 3.14: Ward Sabha and Climatic Issues in Fiscal Year 2016-17

Indicators (mean, %)	**Total N=(1839)**	**Control N=(598)**	**Treatment N=(1241)**
% of Ward Sabha, with required quorum	89.5	88.5	90.0
% of Ward Sabha, attended by 5% voter	86.3	84.6	87.1
% of Ward Sabha, presided by UP members	92.2	96.0	90.4
President signed any of meeting resolution (%)			
Yes	47.4	48.2	47.1
No	52.6	51.8	52.9
% of Ward Sabha, where climate change issues discussed	60.3	55.6	62.6

Of the Ward Sabhas held in last fiscal year (2016-17), the presiding UP Chair/Member signed only 47% meeting resolutions, which is almost similar in treatment (47.1%) and control unions (48.2%). Climate change issues were discussed in 62.6% Ward Sabhas in treatment and 55.6% Ward Sabhas

in control unions. The documented climate change discussion rate is slightly higher in treatment unions.

3.2.6 Schemes on Disaster Management and CCA

The information on people's participation in planning and budgeting processes and functioning of the relevant standing committees presented in the previous chapters do not necessarily ensure that the schemes related to climate change are endorsed and implemented by the UP. The present chapter focuses on to what extent the schemes related to climate change are taken forward by the UPs particularly focusing on women, climate-vulnerable and marginalized populations, and to what extent the schemes are endorsed in Local Government Support Project (LGSP) and ADP as they are supposed to be prepared through the people's participation.

3.2.6.1 Scheme related to gender, climate vulnerable and marginalised population

About 7.4% of 108 unions implemented gender-sensitive scheme, with 5.6% of 36control and 6.9% of 72 treatment unions had the gender sensitive scheme implemented. However,a majority of both control and treatment unions do not have gender-sensitive schemes. The mean total budget of 8 unions was Tk. 183,857. In two control unions the budget was Tk.81,000 and in six treatment unions the budget was Tk.225,000. The climate-sensitive allocation was fully spent in both treatment and control unions. Only 11.1% UP implemented climate change adaptation scheme. From the control group, 19.4% unions and in the treatment group only 6.9% unions implemented this kind of scheme.

Nearly 22.2% of 108 unions implemented some scheme related to disaster-affected vulnerable women and children. About 19.4% of 36 control unions and 23.6% of 72 treatment unions had implemented the scheme for disaster-affected vulnerable women and children. The mean total budget of 24 unions was Tk.916,486. For 7 control unions the mean budget was Tk.1,040,600 and for 17 treatment unions the budget was Tk.865,380. The proportion of the total expenditure was 95.7%. For control unions the proportion was 97.9% and for treatment unions it was 94.6%.

About 12% of total unions implemented schemes for disaster-affected marginalised population. Here only 13.9% of total 36 control unions and 11.1% of 72 treatment unions had implemented the scheme. The mean total budget for unions was Tk.1,934,517. Only 5 control unions implemented the scheme and their budget was Tk. 3,053,931. For the 8 treatment unions, the mean budget was Tk.1,234,884. The proportion of expenditure for control group was 100% and for the treatment group the expenditure was 98%.

3.2.6.2 Climate change related scheme under LGSP and ADP

Nearly 28.7% of 108 unions implemented some climate change related scheme under LGSP, having 22.2% of 36 control and 31.9% of 72 treatment unions implementing the climate change related scheme. The mean total budget of 31 unions was Tk.916,486, of which in 8 control unions the mean budget was Tk.1,532,065 and in 23 treatment unions the budget was Tk.1,124,195. The mean total expenditure was Tk.1,175,948, Tk.1,419,143 was for two control unions and Tk.1,101,932 for six treatment unions. Total expenditure was 95.6% of the budget; for control unions it was 92.6% and for treatment unions the percentage was 98.0%.

Table 3.15: Climate Change Related Scheme Under LGSP and ADP (% of UPs)

Indicators (%, Mean)	Total N=(108)	Control N=(36)	Treatment N=(72)
UP implemented any climate change related scheme under LGSP			
Yes	28.7	22.2	31.9
No	71.3	77.8	68.1
	n=(31)	n=(8)	n=(23)
Average total allocation	1,229,452	1,532,065	1,124,195
Average total expenditure	1,175,948	1,419,143	1,101,932
Expenditure % of allocation	95.6	92.6	98.0
UP implemented any climate change related scheme under ADP			
Yes	14.8	16.7	13.9
No	85.2	83.3	86.1
	n=(16)	n=(6)	n=(10)
Average totalallocation	332,659	450,481	254,111
Average total expenditure	343,063	420,981	284,625
Expenditure % of allocation	103.1	93.4	112.0

Source: Field Survey, 2018.

Also 14.8% of total unions implemented disaster-affected marginalised population scheme, in which only 116.7% of 36 control unions and 13.9% of 72 treatment unions implemented the scheme. The mean total budget for 16 unions was Tk.332,659. Here only 6 control unions implemented climate change related schemes under ADP, and the average budget was Tk.450,481. For the 10 treatment unions, the mean budget was Tk.254,111. The mean total expenditure for 16 unions was Tk.343,063. In control union it was Tk.420,981 for five schemes to implement the schemes and Tk.284,626 to implement 10 schemes. The total expenditure was 103% of the allocation (overspending); for control group it was 93.4% and for the treatment group it was 112%. The result indicates that if the allocation for climate-sensitive projects is increased in the ADP in LoGIC project unions, then it would not remain underspent like the LGSP allocation.

The results presented above reveal that slightly over a quarter of UPs implement climate change related schemes under LGSP and about 15% UPs implement such schemes under ADP. However, this result clearly implies that though being the most climate-affected areas UP LGSP and ADP Projectsof the UPs are not adequately climate-sensitive.

3.2.7 Budget, Audit and Resource Mobilisation for Climate Change

This section presents the basic information about UP budget, resource mobilisation and auditing status in the survey area. It includes preparation of annual budget and holding open budget meeting, preservation of Local Government (Union Parishad) Act 2009 in the UP office, investments related to climate change in annual budget, local resource mobilisation, external resources through grant and transfer, and audit and disclosure of financial information to the local citizens through open ward meeting and other means. These are particularly important to understand the availability and willingness of the UPs to allocate resources for climate change adaptation, their financial strength, and the level of transparency and accountability in financial information. LoGIC project would work in these areas to improve financial functioning of the UPs in favor of climate change adaptation over time.

3.2.7.1 Annual budget and open budget meeting

Most of the UPs have conducted open budget meeting in the surveyed unions. About 94.4% of total unions conducted open budget meeting in July2016-June2017 (91.7% in control unions and 95.8% in treatment unions). Here, 99% of 102 total unions had women present in open budget meetings: 100% of 33 control unions and 98.5% of treatment unions had female present in open budget meetings.

Table 3.16: Annual Budget and Open Budget Meeting

Indicators (%, Mean)	Total N=(108)	Control N=(36)	Treatment N=(72)
Open budget meeting conducted in 2016-17			
Yes	94.4	91.7	95.8
No	5.6	8.3	4.2
Any female present in open budget meeting	n=(102)	n=(33)	n=(69)
Yes	99.0	100.0	98.5
No	1.0	0.0	1.4
Copy of the Union Parishad Act, 2009 found in the UP office			
Yes	84.3	83.3	84.7
No	15.7	16.7	15.3

Source: Field Survey, 2018.

In total, 84.3% of the total UP had a copy of Union Parishad Act 2009. A total of 83.3% control and 84.7% treatment unions' UP office had a copy of the Act.

3.2.7.2 Climate change related investments in Annual Budget

About 33.3% of total unions had climate change related investments in their annual budget. About 39% control and 30% treatment unions had separate climate change related investment. A total of 80.6% of 22 unions did not have any allocation from national level, while 81.8% of 50 control unions and 80% of 72 treatment unions also had no allocation. About 75% of total unions had poor mobilisation of local resource; 81.8% control and 72% treatment unions had the same problem. About 54% of total unions had no planning about the issue, while 59.1% of control unions and 52% treatment unions had the same problem.

Table 3.17: Climate Change Related Investments in Annual Budget

Indicators (%, Mean)	Total N=(108)	Control N=(36)	Treatment N=(72)
Climate change related investments in annual budget			
Yes	33.3	38.9	30.6
No	66.7	61.1	69.4
Reason for not having the climate change related investments in Annual Budget			
No allocation from central government	80.6	81.8	80.0
Less local resource mobilisation	75.0	81.8	72.0
No planning on this matter	54.2	59.1	52.0
Others	1.4	0.0	2.0

Source: Field Survey, 2018.

3.2.7.3 Audit and disclosure of information

Nearly all (98.1%) of the union audited previous fiscal year's budget; control unions and treatment unions were almost same. Most of the (95%) total unions reported the discloser of information on revenue/expenditure of previous financial year (July 2016-June 2017). On this count, 91.7% control unions and 97.2% treatment unions also disclosed information.

Table 3.18:Audit and Disclosure of Financial Information

Indicators (%, Mean)	**Total N=(108)**	**Control N=(36)**	**Treatment N=(72)**
Auditors audited previous fiscal year's budget			
Yes	98.1	100.0	97.2
No	1.8	0.0	2.8
UP disclosed information on revenue/expenditure of previous fiscal year (July 2016-June 2017)			
Yes	95.4	91.7	97.2
No	4.6	8.3	2.8
Information disclosed via	N=(103)	N=(33)	N=(70)
Notice board	81.5	81.8	81.4
UP meetings	61.2	63.4	60.0
Public forum	59.2	63.6	57.1
Ward Sabha	44.7	42.4	45.7

Source: Field Survey, 2018.

About 81.5% of 103 total unions mostly disclosed the information via notice boards81.8% of 33 control unions and 81.4% of 70 treatment unions disclosed information on notice boards. 61.21% of total unions disclosed information in UP meetings. About 59.2% of 103 total unions disclosed the information in public media and about 44.7% of total unions disclosed information via Ward Sabha as well. However, the rate of disclosure of audit report and financial information is considerably less even though it is mandatory for the UPs.

3.2.8 Annual and Five-Year Plans of The UPs

Nearly all (96.3%) of 108 total unions formulated the ADP for 2016-17. About 94% of 36 control and 97% of 72 treatment unions formulated the ADP for 2016-17. Only 19.4% of total unions had climate change schemes in the ADP of 2016-17. On this 8.3% control and 25% treatment unions had climate change schemes in the ADP of 2016-17.

Table 3.19:ADP and Five-Year Plans

Indicators (%, Mean)	Total N=(108)	Control N=(36)	Treatment N=(72)
ADP formulated			
Yes	96.3	94.4	97.2
No	3.7	5.6	2.8
Climate change schemes in ADP			
Yes	19.4	8.3	25.0
No	80.6	91.7	75.0
Five-Year plan formulated			
Yes	56.5	52.8	58.3
No	43.5	47.2	41.7
Climate change schemes in Five-Year Plan			
Yes	55.6	50.0	58.3
No	44.4	50.0	41.7

Note: Climate-sensitive schemes include increasing height of the roads and embankments, earthwork, reconstruction of disaster-affected infrastructure, etc.
Source: Field Survey, 2018.

Around 56.5% unions recorded formulation of the five-year plan. However,52.8% of control and 58.3% treatment unions prepared the five-year plan. About half (55.6%) of total unions had climate change related schemes in five-year plans, while 50% of control and 58.3% of treatment unions had the scheme. Thus, ADPs have been found to be relatively less sensitive to climate change, while five-year plans were found to be climate-sensitive in terms of the proportion of schemes devoted for climate change adaptation and building resilience.

Chapter 4
Conclusion and Plausible Entry Points

The results of the baseline survey provide useful information to help initiate the project intervention in the target unions. The broad areas of intervention focus indicated by the findings are vulnerability, income and poverty, sanitation, asset base, creating greater employment opportunity and diversification of livelihood options, access to safe drinking water and financial inclusion for enhancing resilience and fostering climate change adaptation of the affected population. As per the Local Government law there is scope for this to be done effectively through the inclusion of the affected people in the decision making and action arenas of the LGIs. However, in this regard, as it was found, the UPs lack the required level of effectiveness. Lack of community participation in ward level meetings public disclosure of financial information, formulation and implementation of ADP and five-year plans and other activities. There is a need for improving the level of people's knowledge and satisfaction about the performance of the UPs in terms of planning and budgeting also. Knowledge of and participation of the community in LGI functions is essential for useful adaptation to climate change effects. For this it is important to strengthen the capacity of the local governments in providing support to households in the above-mentioned functions for improving resilience and adaptation to climate change. Awareness raising of the relevant issues and ability to receive, retain, practice and institutionalize the proposed participatory local plans and actions by the community people also have to be built.

Plausible Entry Points

Prioritising Allocation of the CRF

The mean monthly income of the surveyed households is less than half of the national average. Most of the households have been found to be poor, and average monthly household income in treatment group was significantly lower than control counterparts. Therefore, to meaningfully improve their income and to promote sustainable climate change adaptation, income of the project beneficiaries has to be increased through CRF. In other words, providing grant would be a viable option to address their climate vulnerability. LoGIC project will provide grant via CRF instead of microcredit as part of promoting adaptive livelihood. The survey data supports the need for implementing the grant because most of the respondents (76% of treatment and 78% of control households) are not interested to take new loans from existing sources. Since most of the surveyed households are extremely poor, there is a need for supporting the target households of treatment unions with the grants. However, monitoring of CRF provided at household level should be a key component to ensure that the money is used for productive/investment purposes to support income and alternative livelihood options in the climate affected areas. It should also have training component to aid the effective use of grant for new businesses and/or IGAs. The provision of CRF should be prioritised for women and pattern of proposed adaptive livelihoods programme should be more women-focused to increase resilience of the climate-vulnerable women.

Availability of safe drinking water is another issue in which the project can give emphasis as salinity intrusion is a formidable challenge faced by the households. Water treatment facilities are few and mostly inoperative. Therefore, active engagement of the UPs and UZPs can enhance availability of

safe drinking water. District-wise data reveals that coastal districts of Khulna and Bagerhat need support in safe drinking water supply.

Diversification of Livelihood Options and Cropping

Diversification of livelihood options or portfolio of work is the most important imperative at community level through CRF and linkage of the UPs with the households through capacity building. More than two-thirds respondents of project area did not have secondary source of income. Therefore, diversification of IGAs through adaptive livelihood programmes should be at the centre to increase their resilience to climate change and national disasters in the LoGIC areas. Some of the surveyed households tried alternative IGAs, and most of them tried only cash crop and small entrepreneurship while other options are mostly unexplored. While some of the respondents who failed in alternative IGAs reported that they failed because of lack of experience, required support, capital and training (especially among female respondents). Almost all of the respondents reported that UPs did not initiate any educational or training programme about alternative IGAs in the last 12 months. Females were proportionately less benefited from the training compared to the males. Therefore, training should be initiated under LoGIC project linking the UPs and line departments so that the beneficiary households are encouraged to initiate their suitable and promising businesses.

Crop diversification is a major challenge in the project areas. Most of the treatment and control households are dependent on paddy, which is adversely affected by salinity in the coastal areas and flash flood/regular flood in Haor and char/river erosion districts. Diversification of livelihood options may be promoted for greater resilience and adaptation. UPs and UZPs can play a pro-active role through training and orientation to the local communities. Training particularly to women on entrepreneurship, cottage industry and handicrafts as alternative livelihoods can bring about effective change and relief to the affected households. Skills in developing lucrative floating garden and hydroponics are two potential areas of training and support. UPs can also provide the required linkages of the farmers with NGOs and local/national markets through the LoGIC project.

Citizen Participation in UP Meetings, Planning and Budgeting

If we want to do these through LGIs, we need to know the status of people's participation in LGIs.As regards existing practices of peoples' inclusion in LGI policy making and activities, most respondents gave negative response to the question on participation in UP meetings including that of Ward Sabha, a breach of an important provision of the UP Act, 2009. Again, of those that participated in Ward Shabas, one-third of treatment and two-fifths of control respondents, for example reported that issues of climate change were not discussed in the meetings. Similarly, audit reports and financial information are not adequately disclosed in the Ward Sabhas. The LoGIC initiative may include promoting practice of increased disclosure of financial information as well as status reports of implementation of decisions for transparency leading to accountability to all stakeholders.

Even though the survey areas are the highly vulnerable to climate change, most of the control and treatment UPs did not implement mentionable numbers of schemes on climate change. Nearly all UPs have no record of any women/children-climate sensitive schemes or of any that is potentially beneficial to other disaster-affected marginalised population. More than two-thirds of all LGSP and more than four-fifths of ADP schemes are not climate-sensitive. This information calls for appropriate interventions in making ADP and the budget climate-sensitive. Poor households

generally excluded, have to be taken on board in all UP activities, planning, budgeting and scheme selection. This is essential for the excluded but highly vulnerable groups to be active in planning change actions and develop ownership of the process as important stakeholders.

Assessing community risk is an important step in initiating schemes and projects on resilience and adaptation. The survey findings, however, show that about half of control and two-fifths of treatment UPs did not hold any meeting on CRA, and a notable proportion of UPs could not show the CRA reports. More than half of the standing committees on disaster management and environmental protection did not prepare the two monitoring reports in the last fiscal year as required. These issues may be addressed in the LGI capacity development plans of the Project

Role of Standing Committee

Regarding UP standing committees, another recommendation and oversight platform given in the UP by the law, almost all respondents were found to be unaware of the standing committees on environment and disaster management, relevant to the proposed project. Again, almost all respondents reported that they were not aware of the ADP schemes, while two-thirds who were aware did not participate in the process of formulation or implementation of ADP. Similarly, almost all respondents were unaware of the five-year plans, and those reported knowledge on this, did not participate in five-year planning process of their UPs. Promoting peoples' knowledge and ensuring active participation, particularly of women in UP activities, including planning processes may be taken up in the proposed Project. There is a provision in the UP Act 2009 to form additional standing committees if needed with prior approval of the Local Government Division. Since climate change is the leading problem in the surveyed areas, the UPs under LoGIC project may be encouraged to form Standing Committees on Climate Change. This will enable the UP and its planning and budgeting as well as other activities more climate-sensitive.

Participation of women in UP planning and budgeting

One important finding of the survey that cuts across relevant information collected both at the household/community and the LGI levels is that women-headed households and women in general are most excluded though they are likely to be worst affected by the climatic changes. The data indicates women to be least aware of and less representative in UP activities. particularly in those of Ward Sabha, ADP, five-year planning and budgeting. Yet women are known to bear most of the brunt of climate induced and other disasters that strikes households. It is imperative that the project provides focused attention to the realities of the women in the intervention areas and accordingly design and implement.

The brief discussion above on the findings of the survey indicates a wide scope for the proposed LoGIC project in bringing about visible change among households and LGIs in improving resilience and adaptation among the climate change affected districts. For this to happen, there is an urgent need for capacity building of the treatment UPs to excel and become models in CCA. Capacity building should be initiated in, but not limited to including CCA programmes in the development plans ADP and five-year plan. It would then be practical and realistic in terms of inclusion of the concerns of women and marginalised populations. Through strengthening of the LGI capacity to discharge its mandated functions, particularly related to impacts of climatic change effectively, the project objective of enabling community initiatives for enhancing adaptation to changing needs can be achieved.

Annex

LOGIC INDICATOR FRAMEWORK

Project Outcome

Improved and inclusive local level planning and a strengthened financing mechanism for community based climate change adaptation solutions through local governments.

Outcome Indicators/Sub-indicators	Total	Control	Treatment
1. % oftargetUPsthathaveincorporatedclimatechangeadaptationactionsintotheirdevelopmentplans.			
1.1 % of target UPs where annual development programme include schemes to build climate change resilience	14.8	16.7	13.9
1.2 % of annual development plan budget in target UPs that is directed towards building climate change resilience	33.3	38.9	30.6
2. %of target UP plans that have addressed the adaptation needs and priorities of vulnerable women and girls.			
2.1 % of target UPs have included gender responsive climate change resilience actions in the annual development plan.	6.5	5.6	6.9
2.2 % of annual development plan budgets of target UPs spent on gender responsive (disaster-affected vulnerable women and children) climate change resilience actions.	22.2	19.4	23.6
3. % of UP that have established and are implementing the Climate Resilience Financing system			
3.1 % of target UP's implementing a mechanism to finance climate change actions at the community level additionality dimension and report it separately in their budget expenditures	0	0	0
3.2 % of target UP's reporting climate change finance actions separately in their budget expenditures	0	0	0
4. % of target UPs that are allocating other resources to implementing CCA linked schemes.			
4.1 % of target UPs that align and apply social safety net schemes for climate resilience actions.	100	100	100
4.2 % of LGSP allocation in target UPs spent for on climate resilience actions.	28.7	22.2	31.9

OutputIndicators/Sub-indicators	Total	Control	Treatment
Output 1: Strengthened capacity of local governments, households and other local stakeholders to develop local plans that integrate climate change adaptation measures and disaster risk management			
1.1 % of women, poor and marginalized people participate in the formulation of climate risk integrated LDPs			
1.1.a % of target UPs that conduct Ward Shavas that address formulation of climate risk integrated LDPs	60.3	55.6	62.6
1.1.b1 % of women in target UPs participating in Ward Shavas	0.9	0.2	1.3
1.1.b2% of poor in target UPs participating in Ward Shavas	1.4	1.3	1.5
1.1.b3 % of marginalized/extreme poor people in target UPs participating in Ward Shavas	1.2	1.2	1.2
1.2 % of target UPs that integrate CCA solutions into LDPs to support the most vulnerable households.			
1.2.a % of target UPs where Ward Shavas identify climate risks for women, poor and marginalized people	47.2	44.4	48.6
1.2.b % of target UPs where LDPs address some of the climate risks for women, poor and marginalised people	29.6	25.0	31.9
Output 2: Established financing mechanism to fund local governments and communities for implementing climate change adaptation measures			
2.1 % of target vulnerable households (women, poor and marginalized people) who benefit from CCA finance			
2.1.a No. of climate resilience investments made in target UPs from PBCRG during the fiscal year	0	0	0
2.1.b% of households in target UPs benefiting from PBCRG investments during the fiscal year	0	0	0

2.1.c % of vulnerable households in target UPs benefiting from PBCRG investments during the fiscal year	0	0	0
2.1.d No. of climate resilience interventions in target UPs financed by CRG during the fiscal year			
2.1.e % of households in target UPs benefiting from CRG investments during the fiscal year	0	0	0
2.1.f % of vulnerable households in target UPs benefiting from CRG investments during the fiscal year	0	0	0
2.2 % of target UPs that secure funding to support CCA linked schemes based on their performance			
2.2.a No. of target UPs whose performance was assessed for financing by the PBCRG during the fiscal year	0	0	0
2.2.b%. of performance assessed UPs that secured financing by the PBCRG during the fiscal year	0	0	0
2.3 % of Open Budget sessions in target UPs that discussed CCA linked expenditure			
2.3.a. % of target UPs that conducted Open Budget meetings during the fiscal year	94.4	91.7	95.8
2.3.b. % of target UPs presenting climate resilience expenditure details in Open Budget meetings during fiscal year	11.1	19.4	6.9
Output 3: Experience and evidence inform and contribute to further improvements in policies and practices for UPs and national systems in relation to climate change adaptation.			
3.1 The extent to which National Adaptation Plan (NAP) and 7th Five Year Plan (7FYP) integrate financing for local adaptation			
3.1.a Specific commitment to finance local adaptation mentioned in National Adaptation Plan (NAP)	No		
3.1.b Allocations made to finance local adaptation mentioned as mentioned in National Adaptation Plan (NAP)	No		
3.1.c Specific commitment to finance local adaptation mentioned in 7thFive Year Plan (7FYP)	No		
3.1.d Allocations made to finance local adaptation mentioned as mentioned in 7thFive Year Plan (7FYP)	No		
3.2 The extent to which local climate fiscal framework is integrated into the national Climate Fiscal Framework.			
3.2.a Specific details of local climate fiscal framework mentioned in National Climate Fiscal Framework	No		
3.2.b Allocations made to finance of steps to implement local climate fiscal framework	No		

HH=Household
UP=Union Parishad

Annex 1: Disaggregated Analysis Table of Household Survey According to Geographical Vulnerability

Table A1: Poverty Lines according to HIES 2016

Division/Area	Lower Poverty (Tk./person/month)	Upper Poverty (Tk./person/month)
Khulna Rural	1,677	2,019
Khulna Urban	1,817	2,419
Rajshahi Rural	1,716	2,065
Rajshahi Urban	1,864	2,251
Sylhet Rural	1,764	1,865
Sylhet Urban	1,911	2,315
Barisal Rural	1,778	2,056
Barisal Urban	1,993	2,756

Annex 2: Qualitative findings by climatic zones

Haor

Impact of climate change: Socio-economic condition, existing measures and budget

Natural disaster due to climate change	Socio-economic impact due to natural disaster	Feeling most vulnerable on which disaster	Future environmental disaster due to rapid climate change	Existing measure for mitigating the pre and post impact of natural disaster	Allocated climate resilience Budget	Future measure for mitigating the pre and post impact of natural disaster
• flash flood, • heavy rain • cyclone • excessive lightning • thunder storm • ice rain/hail • water logging	• extinction of different species especially fish • destruction of forest • less rainfall in wet season and heavy rain and thunderstorm in the monsoon	• Flash flood • water logging • thunderstorm • sediment load (over-flow) in the river and canal	• damage eco-system • rapid thunderstorm • water logging and low land will be drawn into water	Some short-term programmes are being implemented which are not sufficient and fully effective or planned for mitigating the impact of climate change; *e.g.*, • Insufficient relief operation,	No UP get any budget from 'Climate Change Resilience Fund' They get development budget from LGSP for implementing local development activities in which some activities are	• Excavation of canal and river • reforestation or afforestation • housing reconstruction, • rehabilitation of vulnerable people

• repeated and prolonged drought • sedimentation in the river and canal • river erosion	damage crops production • contaminated the safe water sources • irrigation problem • people lose their crops, cattle, trees, and houses • reduce the scope of economic activity • migrate people • thunder storm takes lives • river erosion destroys standing crops, farmland and homestead land			• Construct and repair dam/embankment, culvert • Repairing or increasing height of the road • Tree plantation • Some UPs provide seed and fertilizer among the farmers to reduce their loss	directly or indirectly helpful for mitigating the impact of natural disaster. A little amount of budget is being allocated from Disaster Management fund for diminishing post disaster impact. 10 among 18 UPs are getting budget from NGO's for implementing education and health related project.	• construct sluice gate

General funding, decision-making, and implementation

Questions	UP Chairman	Upazila Chairman	UNO
Involve in planning and developing climate change adaptation policies	No	No	No
Influence in….			
If you received grants from central govt. that are tied to specific programs of mitigating climate change impact, are these programs effectively address or mitigate the impact of climate change? If no, why?	No. Need collaboration among implementing bodies for taking a long term effective climate change disaster mitigating plan. Every national plan has to consider local needs through local people participation.		

Which types of programs are being implemented now s days? (Short-term & long term)? Are these programs enough for climate change adaptation?	Instant relief operation but not sufficient for mitigating post disaster aggression. Perfunctorily repairing embankment/dam is important as short time measure but planned and long-term measure is more important for reducing the wastage of money and lobour. Central Govt. should to take a long term effective plan with concern of local need through people participation for climate change adaption. These local needs have to been incorporated in national policies.	Insufficient relief operation, repair dam/embankment, distribute seeds to effected farmers, mitigating post disaster assault Tree plantation and digging river as long-term programmes are being implemented now. Allocate sufficient budget and need transparency and accountability for spending budget and selecting targeted beneficiaries.	Only some programs are implementing such as relief operation, distribute seeds to effected farmers, tree plantation for mitigating post disaster assault. Palm tree plantation, a five-year plan is implementing for mitigating the impact of thunder storm which takes lives. We need to take long term pre- measure for reducing climate change impact. We have a national climate change adaptation policy
Which type of programs will be taken for?	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment
Are people awareness and participation mandatory for better and effective implementation of climate change adaptation programs?	Yes	Yes	Yes
Do you feel the climate resilience fund is needed for every climate change vulnerable locality or UP?	Yes	Yes	Yes
How to establish this fund?	Allocate fund to climate change vulnerable every UP from national budget.	Allocate fund to climate change vulnerable every UP from national budget. UP itself establish this fund from collecting local tax.	Allocate fund to climate change vulnerable every UP from national budget. UP itself establish this fund from collecting local tax.
Do you feel govt. and non-govt. actors have to play role	Some UPs are implementing education and health related programs with the budgetary	Some UPs are implementing education and health related programs with the budgetary support of two or three non-govt.	Sometimes some local NGOs individually take part of relief operation shortly after disasters. Yes, govt. and non-govt. actors

in climate change mitigation programmesjointly?	support of two or three non-govt. organizations which programs are indirectly helpful for mitigating pre or post disaster hostility. Sometimes some local NGOs individually take part of relief operation shortly. Yes, govt. and non-govt. actors have to play role in climate change mitigation programmesjointly.	organizations which programs are indirectly helpful for mitigating pre or post disaster hostility. Sometimes some local NGOs individually take part of relief operation shortly. Yes, govt. and non-govt. actors have to play role in climate change mitigation programmesjointly.	have to play role in climate change mitigation programmesjointly.
Is any forum of this collaboration?	Maximum UP chairmen answered that they did not know about this forum.	Yes	Yes
How this forum is functioning? Discuss the extent of such forum?	N/A	Monthly coordination meeting of this forum is held at UNO office.	
Recommendation for establishing and implementing an effective climate change resilience fund	• Strengthen local govt. • Collaboration between local govt. and NGOs • Making effective project to meet the need of local people	• Strengthen local govt. • Centrally allocate sufficient budget • Establish in house fund by collecting local tax • Making effective project to meet the need of local people	• Strengthen local govt. • Making effective project to meet the need of local people • Establish in house fund by collecting local tax • Ensure accountability and transparency on selecting target audience and expenditure

Coastal area

Climate change Impact: Socio-economic condition, existing measures and budget

Natural disaster due to climate change	Socio-economic impact due to natural disaster	Feeling most vulnerable on which disaster	Future environmental disaster due to rapid climate change	Existing measure for mitigating the pre and post impact of natural disaster	Allocated climate resilience Budget	Future measure for mitigating the pre and post impact of natural disaster
• salinity • heavy rain • flood • heavy rain • water stagnation • riverbank and coastal erosion • cyclone • tidal bore • storm surge • frequent cyclone • tornado • increase the sea level	• scarcity of safe drinking water • reduce crops production, • sterile land • damage fisheries • increase unemployment and poverty • migration • damage in infrastructure • reduction of cultivable land • sanitation problem • communication and transportation problem • increase in communicable disease • higher-living cost • water borne diseases during flood • sanitation problem • weather change	• salinity, • cyclone • storm surge • river and coastal erosion • destruction of road, culverts and bridge	• scarcity of safe drinking water • sterile land • increase salinity in ground and surface water • decline in surface fresh water sources in dry season • damage eco-system • sedimentation of river and canal cause overflow and flood in rainy season • increase the sea level • increase the intensity of cyclone	Some short-term programs are being implemented which are not sufficient and fully effective or planned for mitigating the impact of climate change. So, it is necessary to take long-term program with short term activities; *e.g.*, • emergency relief distribution • safe drinking water distribution • tin distribution • construct and repair dam /embankment, culvert • repairing or increasing height of the road • tree plantation • construction and repair of cyclone centre	No UP get any budget from 'Climate Change Resilience Fund' All of them get development budget from LGSP for implementing local development activities in which some activities are directly or indirectly helpful for mitigating the impact of natural disaster. Most of the UPs collect tax to cover emergency period due to climate change. A little amount of budget is being allocated from Disaster Management fund for diminishing post disaster impact. Only 9 UPs out of 75 are getting lump-sum	• reforestation • housing reconstruction • rehabilitation of vulnerable people • construct sluice gate • excavation of cannel and river • support affected fisheries • generate alternative sources of income • distribute sewing machine • cash transfer to affected livestock and poultry firm • construct water treatment and tube well • repair or distribute solar panel

					budget from NGO's for implementing education, health and ensure safe water related project.	• implement Food for Work programme • distribute drought and salinity tolerant seed • develop communication and transport system to reach the affected people • strengthen the standing committee

General funding, decision-making, and implementation

Questions	UP Chairman	Upazila Chairman	UNO
Involve in planning and developing climate change adaptation policies. If yes then in which?	No	No	Yes
If you received grants from central govt. that are tied to specific programs of mitigating climate change impact, are these programs effectively address or mitigate the impact of climate change? If no, why?	No. Need collaboration among implementing bodies for taking a long term effective climate change disaster mitigating plan. Every national plan has to consider local needs through local people participation.		
Which types of programs are being implemented now s days? (Short-term & long term)? Are these programs enough for climate change adaptation?	Instant relief operation but not sufficient for mitigating post disaster aggression. Perfunctorily repairing embankment/dam is important as short time measure but	Insufficient relief operation, repair dam/embankment, distribute seeds to effected farmers for mitigating post disaster assault Tree plantation and construct embankment/dam, distributing tube well,	Some short-term programs are implementing for mitigating post disaster assault; such as relief operation, construction temporary living places for the homeless and affected people, distribute seeds to effected farmers,

	planned and long-term measure is more important for reducing the wastage of money and lobour. Small scale project is being implemented on tree plantation, repair and construction of cyclone center, repair and construct dam, deep tube well. Central Govt. should to take a long term effective plan with concern of local need through people participation for climate change adaption. These local needs have been incorporated in national policies.	construct safe water source as a long-term programmes are being implemented now. Allocate sufficient budget and need transparency and accountability for spending budget and selecting targeted beneficiaries.	distributing dry foods and safe drinking water. Tree plantation, construct and repair embankment, dam, culvert and increase the height of road. We need to take long term preemptive measure for reducing climate change impact. We have a national climate change adaptation policy. Govt. need to take necessary action and allocating proper and sufficient budget for implementing that policy.
Which type of programmes will be taken for?	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment	Excavation of canal and river, reforestation or afforestation, housing reconstruction, rehabilitation of vulnerable people, construct sluice gate, increasing height of the road and embankment, innovation of salinity tolerant HYV.
Are people awareness and participation mandatory for better and effective implementation of climate change adaptation programs?	Yes	Yes	Yes
Do you feel the climate resilience fund is needed for every climate change vulnerable locality or UP?	Yes	Yes	Yes
How to establish this fund?	Allocate national budget to climate change vulnerable every UP.	Allocate national budget to climate change vulnerable every UP. UP itself establish this fund from collecting local tax.	Allocate fund to climate change vulnerable every UP from national budget. UP itself establish this fund from collecting local tax. NGOs have to allocate some fund and jointly work with UPs.
Do you feel govt. and non-govt. actors have to play role	Some UPs are implementing education and health related	Some UPs are implementing education and health related programs with the budgetary	Sometimes some local NGOs individually take part of relief operation shortly. Yes,

in climate change mitigation programs collaboratively?	programs with the budgetary support of two or three non-govt. organisations which programs are indirectly helpful for mitigating pre or post disaster hostility. Sometimes some local NGOs individually take part of relief operation shortly. Yes, govt. and non-govt. actors have to play role in climate change mitigation programs collaboratively.	support of two or three non-govt. organisations which programs are indirectly helpful for mitigating pre or post disaster hostility. Sometimes some local NGOs individually take part of relief operation shortly. Yes, govt. and non-govt. actors have to play role in climate change mitigation programs collaboratively.	govt. and non-govt. actors have to play role in climate change mitigation programmesjointly.
Is any forum of this collaboration?	Maximum UP chairmen answered that they did not know about this forum.	Yes	Yes
How this forum is functioning? Discuss the extent of such forum?	N/A	Monthly coordination meeting of this forum is held at UNO office.	
Recommendation for establishing and implementing an effective climate change resilience fund	• Strengthen local govt. • Collaboration between local govt. and NGOs • Making effective project to meet the need of local people	• Strengthen local govt. • Centrally allocate sufficient budget • Establish in house fund by collecting local tax • Making effective project to meet the need of local people	• Strengthen local govt. • Making effective project to meet the need of local people • Establish in house fund by collecting local tax • Ensure accountability and transparency on selecting target audience and expenditure

Char/river erosion

Climate change Impact: Socio-economic condition, existing measures and budget

Natural disaster due to climate change	Socio-economic impact due to natural disaster	Feeling most vulnerable on which disaster	Future environmental disaster due to rapid climate change	Existing measure for mitigating the pre- and post- impact of natural disaster	Allocated climate resilience Budget	Future measure for mitigating the pre- and post- impact of natural disaster
• heavy rain • flash flood • flood • river erosion • drought • weather change, • tornado/ cyclone	• scarcity of safe drinking water • reduce crops production • sterile land • Increase unemployment and poverty • migration • loss of home stead and cultivable land and property for river erosion • communication and transportation problem • increase the communicable diseases during flood • sanitation problem	• drought • frequent and flash flood • change season; increase in temperature in summer, low temperature in winter	• scarcity of safe drinking water • decline surface water source in dry season • sterile land • sedimentation of river and canal cause overflow and flood in rainy season	Some short-term programs are being implemented which are not sufficient and fully effective or planned for mitigating the impact of climate change. So it is necessary to take long-term program with short term activities; *e.g.,* • emergency relief distribution • construct and repair dam/embankment, culvert • tree plantation • construction and repair of flood centre • safe drinking water distribution • tin distribution	Among 13 UPs of Kurigram none of them get 'Climate Change Resilience Fund'. They get only development budget from LGSP for implementing local development activities in which some activities are directly or indirectly helpful for mitigating the impact of natural disaster. 3 among those 13 UPs are getting budget from NGO's for implementing education and health related project.	• housing reconstruction • rehabilitation of vulnerable people • excavation of canal and river • support affected farm • create new sources of income • distribute sewing machine • support affective isheries and poultry • distribute or repair solar panel and tube well • implement Food for Work programme • awareness program • drought and salinity tolerant seed distribution • develop communication and transport system to reach the affected people • strengthen the standing committee

Annex 3: Sample Distribution & Baseline Tools

Table A3: Distribution of sample in the baseline

District	Upazila	Project Union	Control Union	Number of treatment union	Number of control union	Total treatment sample	Total control sample	Total upazila-wise sample size for household level survey
Kurigram	Char Rajibpur	Char Rajibpur, Kodailkati, Mohanganj		3		126		126
	Roumari	Roumari, Bandabeer, Dantbhanga, Saulmari	Jadurchar	4	1	168	44	212
	Ulipur		Bozra		1		44	44
	Chilmari	Ashtamir Char, Raniganj, Thanahat	Nayarhat, Romna, Chilmarisadar	3	3	126	132	258
Sunamganj	Tahirpur	Dakshin Sreepur, Dakshin Baradal, Uttar Sreepur, Balijhuri	Badaghat	4	1	170	44	214
	Dirai	Bhati Para, Charnar Char, DeraiSarmangal, Rafinagar	Karimpur, Jogdol, Kulonj, Razanagar, Tarul	4	5	165	225	390
	Salla	Atgaon, Bahara, Habibpur, Sulla		4		168	0	168
Khulna	Koira	Dakshin Bedkashi, Koyra, Maheshwaripur, Uttar Bedkashi, Maharajpur	Bashbari, Amadi	5	2	221	92	313
	Dacop	Banisanta, Pankhali, Kamarkhola, Sutarkhali, Tildanga	Laudope, Bajua, Dacope Sadar	5	3	221	138	359
Bagerhat	Mongla	Chandpi, Sundarban, Suniltala, Mithakhali	Chila, Burirdanga	4	2	176	92	268
	Sharonkhola	Dhansagar, Khontakata, Royenda, SouthKhali	Bohorbunia	4	1	168	48	216

	Morelganj	Baraikhali, Jiudhara, Morrelganj, Nishan Baria	Hoglabunia, Bolobunia, Khaolia	4	3	183	138	321
Barguna	Pathorghata	Kakchira, Kathaltoli, Nachna Para, Raihanpur	Charduari, Kalomegha	4	2	178	93	271
	Sadar	Badarkhali, Burirchar, Dholua, Naltona	Gaurichanna, M Baliatoli	4	2	179	94	273
	Taltoli	Barabagi, Nishanbaria, Sonakata, PanchaKaralia	Koroibaria, Sarikhali	4	2	181	94	275
Patuakhali	Rangabali	Rangabali, Bara Baisdia, ChhotaBaisdia, Char Montaz	Bohorampur, Chaltebunia	4	2	179	92	271
	Dashmina	Char Borhan, Ranagopaldi	Bashbaria	2	1	94	48	142
Bhola	Sadar	Dhania, Kachia, Rajapur, DakkhinDighaldi	Char Shibpur, Modonpur	4	2	187	96	283
	Doulatkhan	Uttar Joynagar, Char Khalifa, Saidpur, DakkhinJoynagar	Vobanipur, Gongapur	4	2	188	91	279
	Borhanuddin	Bara Manika, Deula	Chacra	2	1	96	48	144
7 District	**20 Upazila**	**72 Unions**	**36 Unions**	**72 treatment Unions**	**36 Control Unions**	**3174 treatment sample**	**1653 control sample**	**4827 sample**

Table A4: Number of open ended in-depth and semi-structured interview to the local government actors

Upazila	Total selected unions (treatment and control)	Total number of broad open-ended interview*	Total sample size for union parished survey	Total semi-structured interview to UNO	Total semi-structured interview to upazila chairmen
Char Rajibpur	3	5	3	1	1
Roumari	5	7	5	1	1
Ulipur	1	1	1		
Chilmari	6	8	6	1	1
Tahirpur	5	7	5	1	1
Dirai	9	11	9	1	1
Salla	4	6	4	1	1
Koira	8	10	8	1	1
Dacop	7	9	7	1	1
Mongla	6	8	6	1	1
Sharonkhola	5	7	5	1	1
Morelganj	7	9	7	1	1
Pathorghata	6	8	6	1	1
Sadar	6	8	6	1	1
Taltoli	6	8	6	1	1
Rangabali	6	8	6	1	1
Dashmina	3	5	3	1	1
Sadar	6	8	6	1	1
Doulatkhan	6	8	6	1	1
Borhanuddin	3	5	3	1	1
20 Upazilas	**108 Unions**	**146 interviews**	**108 interviews**	**19 interviews**	**19 interviews**

* Broad open-ended interview will be conducted in treatment and control UP chairman, UNO and UZP

Table A5: LoGIC Baseline Tools and Sample

Sl.	Tools	Respondent	Sample (Treatment)	Sample (Control)	Major Indicators covered
A. Quantitative household level (beneficiaries) both in the treatment and the control areas					
1.	Demographic and Socio-Economic Information	Household head	3174	1653	Household's demographic profile, household's asset, cooking facility, condition of house and toilet facility
2.	Drinking Water	Household head	3174	1653	Primary and secondary source of drinking water, salinity intrusion in drinking water, drinking water collection, seasonality and stability of drinking water sources and treatment practice of drinking water
3.	Health	Household head	3174	1653	Frequency of food intake and status of region specific non-communicable diseases
4.	Migration / Displacement	Household head	3174	1653	Migration status of household members, reasons of migration and climate change impact on migration
5.	Income Generation/ Employment/Livelihood	Household head	3174	1653	Primary, secondary and other sources of income, seasonality and changing status of income, status of crop and fish cultivation, climate change impact on cultivation, alternative livelihood and support of UP in IGA
6.	Financial Inclusion	Household head	3174	1653	Financial decision, savings, status of loan and intention of taking loan
7.	Community-Based Natural Resource Knowledge	Household head	3174	1653	Access to the conservation area near home
8.	Status of Participation to UP Activities	Household head	3174	1653	Participation status household members in UP meetings, awareness and participation about the disaster management Standing Committee meeting, reasons and level of participation, response of UP to general people and satisfaction rating on UP meeting efficiency
9.	UP Planning, Budgeting and Auditing Activities	Household head	3174	1653	Awareness and participation of annual plan, five-year plan and open budget of UP, knowledge about climate related interventions in UP plans, engagement status in planning process and performance rating
10.	Implementation of UP Schemes	Household head	3174	1653	Knowledge, coverage and need assessment of UP schemes
11.	Feature of Community Risk Assessment Meeting (CRA)	Household head	3174	1653	Awareness and knowledge of CRA meeting
12.	Overall Assessment of the Functions of UP	Household head	3174	1653	Perception of related to UP performance, functional strength and weakness of UP and room to improvement
B. Qualitative In-depth Investigations (Intensive Interviews)					

1.	Effect of perceived climate change impacts on the development of policies/programs	UP Chairmen/ Members, UPZ chairman, UNO	110	36	Perception of impact of climate change, policies/programs, capacities of local government, short term and long term local level plan, recommendations of government response
2.	Impact of climate change on existing policies/programmes	UP Chairmen/ Members, UPZ chairman, UNO	110	36	Challenges of implementation, beneficiaries' selection, consideration of climate change, funding for climate change mitigation program
3.	General funding, decision-making, and implementation questions	UP Chairmen/ Members, UPZ chairman, UNO	110	36	Participation in central planning activities, coordination with central government and other non-government organization
C. Quantitative union level climate change/governance related data collected physically visiting every union and checking documents and concerned officials of union (Secretary, UP Chairmen/Members) from both treatment and control unions. The data respectively allow comparisons between the treatment and control areas on major indicators.					
1.	General Information	Secretary, UP Chairmen/Members	72	36	Proximity of UP office, Infrastructures and other facilities
2.	Ward Sabha	Secretary, UP Chairmen/Members	72	36	No. of ward shbha held, participation in ward shaba in all wards
3.	Feature of Community Risk Assessment Meeting (CRA)	Secretary, UP Chairmen/Members	72	36	Status of CRA meeting
4.	Standing Committees	Secretary, UP Chairmen/Members	72	36	Information of standing committee meeting and special scheme of social welfare & disaster management and environment protection & plantation; implementation and budget of climate change, gender, vulnerable and marginalised sensitive scheme.
5.	Union Parishad Budget, Audit and Resource Mobilisation	Secretary, UP Chairmen/Members	72	36	Information related annual planning budget, open budget, climate change investment, tax and revenue collection, grant, different scheme, expenditure and total budget
6.	Annual and Five-Year Plans of Union Parishad Plans	Secretary, UP Chairmen/Members	72	36	Availability of annual and five-year plan and inclusion climate change related scheme in annual paln
7.	Status of Supervision and Important & Major Services Rendered by UP	Secretary, UP Chairmen/Members	72	36	Presence of different government's line departments in UP office.

Source: Field Survey (2018)

Annex 4: Questionnaires

PART-1: BASELINE SURVEY AT HOUSEHOLD LEVEL

Instructions for Interviewers:

From each household, household head should be interview preferably women from women headed household. Interview an adult man (ages 18-65) or woman of reproductive age (between the ages of 18 and 49). If one of them is not available, then interview the other. However, the questions should be focused on the matters about the women, this need to be cross checked by the supervisor also.

ID – District (Sunamganj 1; Kurigram 2; Khulna 3; Bagerhat 4; Barguna 5; Patuakhali 6; Bhola 7)

ID – Upazila (Derai 11; Tahirpur 12; Salla 13; Chilmari 21; Char Rajibpur 22; Raumari 23; Koyra 31; Dacop 32; Mongla 41; Morelganj 42; Sharonkhola 43; Pathorghata 51; Barguna Sadar 52; Taltoli 53; Dashmina 61; Rangabali 62; Bhola Sadar 71; Daulatkhan 72; Borhanuddin 73, Ulipur 74)

ID—For Treatment Union (Char Rajibpur 01; Kodailkati 02; Mohanganj 03; Roumari 04; Bandabeer 05; Dantbhanga 06; Saulmari 07; Ashtamir Char 08; Raniganj 09; Thanahat 10; Dakshin Sreepur 11; Dakshin Baradal 12; Uttar Sreepur 13; Balijhuri 14; Atgaon 19; Bahara 20; Habibpur 21; Sulla 22; Bhati Para 15; Charnar Char 16; Derai Sarmangal 17; Rafinagar 18; Dakshin Bedkashi 23; Koyra 24; Maheshwaripur 25; Uttar Bedkashi 26; Maharajpur 27; Banisanta 28; Pankhali 29; Kamarkhola 30; Sutarkhali 31; Tildanga 32; Chandpi 33; Sundarban 34; Sunaitala 35; Mithakhali 36; Dhansagar 37; Khontakata 38;Royenda 39; Southkhali 40; Baraikhali 41; Jiudhara 42; Morrelganj 43; Nishan Baria 44; Kakchira 45; Kathaltoli 46; Nachna Para 47; Raihanpur 48; Badarkhali 49; Burirchar 50; Dholua 51; Naltona 52; Barabagi 53; Nishanbaria 54; Sonakata 55; Pancha Karalia 56; Dhania 63; Kachia 64; Rajapur 65; Dakkhin Dighaldi 66; Uttar Joynagar 67; Char Khalifa 68; Saidpur 69; Dakkhin Joynagar 70; Bara Manika 71; Deula 72; Rangabali 57; Bara Baisdia 58; Chhota Baisdia 59; Char Montaz 60; Char Borhan 61; Ranagopaldi 62)

ID—For Control Union (Jadurchar 04; Bozra 73; Nayarhat 08; Romna 09; Chilmari sadar 10; Badaghat 11; Karimpur 15; Jogdol 16; Kulonj 17; Razanagar 18; Tarul 19; Bashbari 23; Amadi 24; Dacope Sadar 25; Laudope 28; Bajua 29; Chila 33; Burirdanga 34; Bohorbunia 37; Hoglabunia 41; Bolobunia 42; Khaolia 43; Charduari 46; Kalomegha 47; Gaurichanna 49; M Baliatoli 51; Korwaribaria 54; Sarikhali 55; Char Shibpur 63; Modonpur 65; Vobanipur 68; Gongapur 70; Chacra 72; Bohorampur 57; Chaltebunia 59; Bashbaria 61;

ID—Union type (Treatment 1; Control 2)

ID—Household no.(Treatment: 01 to 42; Control: 01 to 44)

Household Level Interview Questionnaire

DATA ID				
District code	**Upazila code**	**Union code**	**Union type**	**Household no.**
☐	☐☐	☐☐	☐	☐☐

Section 1. : General Information:	
1) Date of data collection	
2) Information Collector's Name	
3) Information Collector's Code	
5) Name of the district:	
6) District code:	
7) Name of the upazila:	
8) Upazila code	
9) Type of union	1. Treatment 2. Control
10) Name of the Union Parishad:	
11) Union code	
12) Ward No	
13) Village	
14) Para	
15) Landmark	
16) Household name	
17) Household head name	
18) Respondent name	
19) Age according to NID (in completed years)	
20) Gender	1. Male 2. Female
21) Education: Number of years in school (in completed years)	
22) Marital status:	1. Married 2. Unmarried 3. Divorced 4. Widow
23) Respondent's spouse (wife/husband's)/father's name	
24) Number of living children	
25) Son?	
26) Daughter?	
27) Respondent's primary phone number:	
28) Respondent's secondary phone number:	
29) Circle one of these status as may be appropriate through data obtained previously by pre-survey	1 General population 2. Indigenous people 3. Dalit
30) Respondent's Occupation (write code)	
31) Respondent's monthly income (Taka)	
32) Spouse (Husband/wife's) Occupation	
33) Spouse (Husband/wife's) monthly income (Taka)	

34)	Monthly average family income (all household member and income from all source) (Taka)	
35)	Status of household (Well off/non poor: average monthly family income >Tk. 10,000: Taka; low income/poor: average monthly family income Tk.3500 to 9999 taka; hard core poor: average monthly family income < Tk. 3500)	1. Well off/non poor 2. Low income/poor 3. Hard core poor

Module A: Demographic and Socio-Economic Information

36)	HH demographic profile	i. How many total members in the household? ☐☐ ii. How many adult men (18 and above)? ☐☐ iii. How many adult women (18 and above)? ☐☐ iv. How many boys (below 18)? ☐☐ v. How many girls (below 18)? ☐☐ vii. How many HH members are earning/working? ☐☐	
37)	Does any member of your household own?	**YES** **NO**	
	1. Electricity	1 2	
	2. Solar Electricity	1 2	
	3. A radio	1 2	
	4. A television	1 2	
	5. A DVD/VCD player	1 2	
	6. A mobile telephone	1 2	
	7. A refrigerator	1 2	
	8. An almirah/wardrobe/show case	1 2	
	9. A water pump	1 2	
	10. An IPS/generator	1 2	
	11. A computer/laptop	1 2	
	12. A bicycle	1 2	
	13. A motorcycle or motor scooter	1 2	
	14. A car or truck	1 2	
	15. Tractor/Power tiller	1 2	
	16. Boat	1 2	
	17. Irrigation pump	1 2	
	18. Livestock (Cow/Buffalo/Goat/Birds)	1 2	
	19. Land (Homestead, Farming, Agriculture)	1 2	
	20. Pond (Gher)	1 2	
	21. Rickshaw/van	1 2	
38)	TYPE OF STRUCTURE HOUSEHOLD RESIDES. **[RECORD OBSERVATION.]**	i. House (made by brick)….....1 ii. House (brick and Corrugated sheet)..... .....2 iii. House (Corrugated sheet and mud).....3 iv. House (bamboo and mud).....4 v. Shack (wood planks, bamboo)…….….....5 vi. House (Fence and Corrugated sheet.....6 vii. Other: .....….….....7 viii. House (wall and roof by Corrugated sheet) 8	

39)	Does your household own this structure (house, flat, shack), do you rent it, or do you live here without paying?	i. Owns .....1 ii. Pays rent/ Lease….....2 iii. No rent, w. consent of owner…….....3 iv. No rent, squatting…….....4 v. Other:.....5 vi. Khas Land …….....6	
40)	Does your household own the land on which the structure (house, flat, shack) sits?	i. Owns .....1 ii. Pays rent/ lease…….....2 iii. No rent, w. consent of owner…….....3 iv. No rent, squatting…….....4 v. Other:.....5	
41)	Number of rooms in your household	☐☐	
42)	What kind of toilet facility do members of your household usually use?	1. Pour flush toilet with Septic tank 2. Pit latrine 3. Open pit. 4. Bucket toilet 5. Hanging toilet/latrine 6. No facility/open 7. Other (specify)	
43)	What type of fuel does your household mainly use for cooking?(Multiple)	1. Electricity 2. LPG 3. Natural Gas 4. Biogas 5. Kerosene. 6. Coal/Lignite. 7. Charcoal. 8. Wood 9. Straw/Shrubs/Grass 10. Agricultural Crop 11. Animal Dung. 12. No Food Cooked In HH 13. Other (Specify) 14. Seed and wood of the forest (Sundari, Keora, Garan &Bain) 15. Nipa Palm	

Module B: Drinking Water

44)	What is your household's main (primary) source of drinking water? **[SELECT ONE ANSWERS]**	1) Reticulated supply (i.e. piped to house)…….....1 2) Tube Well…….....2 3) PSF…….....3 4) River/Stream…….....4 5) Rain water…….....5 6) Pond…….....6 7) Desalinization Plant…….....7 8) Local Water Transporters…….....8 9) Other:.....9 10) BSF (bio-sand filter) …….....10 11) Alum …….....11	
45)	What are your household's other (secondary) sources of drinking water? **[MAXIMUM OF THREE ANSWERS POSSIBLE]**	0) No secondary sources.....0 1) Reticulated supply (i.e. piped to house)…….....1 2) Tube Well…….....2 3) PSF…….....3 4) River/Stream…….....4	

		5) Rain water…… ……..... 5 6) Pond…….…..... 6 7) Desalinization Plant…….…..... 7 8) Local Water Transporters…….…..... 8 9) Other:.....9 10) BSF (bio-sand filter) …….…..... 10 11) Alum …….…..... 11	
46)	Are your three main drinking water sources impacted by salinization? (use code No 2; Yes 1) **[WRITE CODE NUMBER FROM ABOVE FOR THREE MAIN WATER SOURCES]**	a) Source 1 ☐ I. Source 1 salinity impacted ☐ b) Source 2 ☐ II. Source 1 salinity impacted ☐ c) Source 3 ☐ III. Source 1 salinity impacted ☐	
47)	Who is MAINLY responsible for collecting drinking water? **[SELECT ONE ANSWERS]**	i. Male household member…….…….....1 ii. Female household member…….…..... 2 iii. Male and female both.....3	
48)	How much time does this member of the household spend per day gathering drinking water? **[SELECT ONE ANSWERS]**	1. 1-5 minutes or under…….…..... 1 ii. 16-30 minutes…….…..... 2 iii. 31 – 60 minutes…….…..... 3 iv. more than 60 minutes…….…..... 4 v. 1-2 hours…….…..... 5 vii. 2-3 hours…….…..... 6 viii. 3-4 hours or more……..…….…..... 7	
49)	How many kilometers do you travel to fetch/collect drinking water? (convert it to kilometers if meter or other unit)	_____ km	
50)	What is the main source of drinking water for your dwelling? **[SEE CODES IN QUESTION 44 & 45, WRITE ONLY IN CODE]**	i. Dry Season: _____ ii. Rainy Season: _____	
51)	How many equivalent bottles of drinking water are need in your household each day? **[SHOW 1 LITER BOTTLE]**	**DRY SEASON** ☐ **RAINY SEASON** ☐	
52)	Do you usually treat water to make it safe to drink?	No. .....2 Yes.…….…….…..... 1	➔ Q 54
53)	How do you usually treat the water to make it safer to drink? **[ONLY CHECK MORE THAN ONE RESPONSE IF SEVERAL METHODS ARE USUALLY USED TOGETHER, FOR EXAMPLE, CLOTH FILTRATION AND CHLORINE. OTHERWISE, TICK ONE]**	Let it stand and settle/sedimentation…..…….…..... 1 Strain it through cloth…….…..... 2 Boil…….…..... 3 Add bleach/Chlorine…….…..... 4 Water filter (Ceramic, sand, composite) …….…..... 5 Solar Disinfection…….…..... 6 Other.....7	
54)	Have you permanently changed the main (primary) source you gather water from in the past 10 years?	No…….…..... 2 Yes……..…….…..... 1	➔Module C
55)	What was your old main (primary) source of water? **[SEE CODES IN QUESTION 44 & 45, WRITE ONLY IN CODE]**	Source: _____	
56)	What is your new main (primary) source of water? **[SEE CODES IN QUESTION 44 & 45, WRITE CODE]**	Source: _____	

Module C: Health

57)	How many meals does your household take in a day?	i. One……..1 ii. Two……..2 iii. Three or more……..3	
58)	Does a member of your household suffer from one of the following chronic diseases? **[MULTIPLE ANSWERS POSSIBLE]**	0. No chronic diseases.....0 i. Hypertension…..……. ……..1 ii. Heart disease…….....2 iii. Diabetics…….....3 iv. Skin disease.....4 v. Dysentery .....5 vi. vii. Other:.....6	
59)	Has a member of your household suffered (for less than three months) from one of the following diseases? **[MULTIPLE ANSWERS POSSIBLE]**	0) No chronic diseases.....0 i. Hypertension…..……. ……..1 ii. Heart disease…….....2 iii. Diabetics…….....….3 iv. Skin disease.....4 v. Dysentery .....5 vi. Other:.....6	

Module D: Migration / Displacement

59.1)	Have any ofyour adult household members have permanently relocated to another village, district, or country since January 2012?	No ..... 2 Yes……..1	➔ Q 65
60)	How many of your adult household members have permanently relocated to another village, district, or country since January 2012?	i. Number of males _____ ii. Number of females _____	
61)	For the last person who left, what was his/her MAIN reason to leave the household? **[SELECT ONE ANSWER]**	i. No job / income…… ……..1 v. Damage to house by cyclone or flood.…….....5 vi. Crop failure …….....6 vii. Limited fresh water for drinking…….....7 viii. Other.....8 ix. River erosion: 9	
62)	For the last person who left, what was his/her other reasons to leave the household? **[MAIXIMUM OF THREE ANSWERS POSSIBLE]**	i. No job / income…… ……..1 ii. Marriage……..……..2 iii. Education (to study)…….....3 iv. To take care of sick relatives……..… ……..4 v. Damage to house by cyclone or flood.…….....5 vi. Crop failure …….....6 vii. Limited fresh water for drinking…….....7 viii.Other.....8 ix. River erosion.....9	
63)	Has changing environmental and climatic conditions been a factor influencing people to leave the household?	No .....2 Yes……..1	➔ Module E
64)	What environmental events have led to people leaving the household? **MAIXIMUM OF THREE ANSWERS POSSIBLE]**	i. Storm surge (big wave)…… …..…….....1 ii. More saltwater in surface/ground water…….. .....2 iii. Drought……..…….....3	

		iv. Floods (extreme rain events)……..…… …….…..4 v. Cyclones……..……..…….....5 vi. Riverbank / Coastal erosion ……..….....6 vii. Change in environment was no reason to leave.....7 viii. Other:.....8 ix. Flash flood …….. .....9 x. Water logging …….. .....10 xi. Tidal bore ……..... 11	

Module E: Income Generation/Employment/Livelihood			
65)	What is your primary source of income? **[SELECT ONE ANSWER]**	0. No source/dependent on other family…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming……...…..…….....4 5. Livestock farming…….…….....5 6. Other natural resources extraction……..…….....6 7. Day labourer (Agri or non agri)……..…..7 8. Wage paid (mill, factory work/Garments work) ….....8 9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….…….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller…….....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber……...20 21. Electrician /Plumber/Sanitary work/ Mechanic……...21 22. Carpenter/Mason……..…..22 23. Doctor(Village)……...23 24. Mid wife/Health worker……...24 25. Imam/Priest/Marriage register……25 26. Domestic worker……..26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income……...28 29. Other:.....29 30. Local tour guide .....…….....30 31. Stone worker .....…….....31 32. Collecting crab and shrimp fingerling .....…….…32 33. Dry fish processing .....…….....33 34. Renting house .....…….....34 35. Allowance/pension .....…….....35 36. Journalist .....…….....36 37. Motor bike driver .....……...37	➔67

65a) Detailed out means of livelihood and its overall contribution to household income. If the women respond that she does not have income, then also detailed out her usual daily routine. Ask her how she contributes to the family to earn money or save family expenditure.

[MONTHLY INCOME OF PRIMARY SOURCE]

_____ B-TAKA

66)	What is your secondary source of income? **[SELECT ONE ANSWER]**	0. No source/dependent on other family…….....…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming……...…...…….....4 5. Livestock farming…….…….....5 6. Other natural resources extraction……..…….....6 7. Day labourer (Agri or non agri)…….....7 8. Wage paid (mill, factory work/Garments work).....8 9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….…….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller.....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber…….....20 21. Electrician /Plumber/Sanitary work/ Mechanic.....21 22. Carpenter/Mason…….....22 23. Doctor(Village)…….....23 24. Mid wife/Health worker…….....24 25. Imam/Priest/Marriage register…….....25 26. Domestic worker…….....26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income…….....28 29. Other:.....…….....29 30. Local tour guide .....…….....30 31. Stone worker .....…….....31 32. Collecting crab and shrimp fingerling .....…… .....32 33. Dry fish processing .....…….....33 34. Renting house .....…….....34 35. Allowance/pension .....…….....35 36. Journalist .....…….....36 37. Motor bike driver .....…….....37	

66a) Detailed out means of livelihood and its overall contribution to household income. If the women respond that she does not have income, then also detailed out her usual daily routine. Ask her how she contributes to the family to earn money or save family expenditure.

[MONTHLY INCOME OF PRIMARY SOURCE]

_____ B-TAKA

67)	In the last 12 months, did you work outside of the home to earn money other than your main or secondary sources of income?	No…….....2 Yes……...…….....…1	➔ Q 69

68)	**[IF YES:]** What kind of work do you do?	i. Handicrafts .....1 ii. Harvesting .....2 iii. Selling foods .....3 iv. Shop keeper/ Street vendor…….. …….....4 v. Servant/ Household worker …….....5 vi. Salaried worker…….....6 vii. Other:.....…….....7	
69)	What were the sources of income for your household over the <u>previous year?</u> **[MULTIPLE ANSWERS ARE POSSIBLE. TICK EACH ONE INDICATED.]**	0. No source/dependent on other family…….....…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming……...…….....4 5. Livestock farming…….……...5 6. Other natural resources extraction…….…….....6 7. Day labourer (Agri or non agri)…….....7 8. Wage paid (mill, factory work/Garments work).....8 9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….…….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller.....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber……..…20 21. Electrician /Plumber/Sanitary work/ Mechanic…….....21 22. Carpenter/Mason…….....22 23. Doctor(Village)……..…23 24. Mid wife/Health worker…….....24 25. Imam/Priest/Marriage register…….....25 26. Domestic worker…….....26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income…….....28 29. Other:.....…….....29 30. Local tour guide .....…….....30 31. Stone worker .....…….....31 32. Collecting crab and shrimp fingerling .....…… .....32 33. Dry fish processing .....…….....33 34. Renting house .....…….....34 35. Allowance/pension .....…….....35 36. Journalist .....…….....36 37. Motor bike driver .....…….....37	
70)	Which of the following income sources was the <u>primary source</u> of income for your household during the <u>previous year?</u>	0. No source/dependent on other family…….....…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming……...…….....4 5. Livestock farming…….……...5 6. Other natural resources extraction…….…….....6 7. Day labourer (Agri or non agri)…….....7 8. Wage paid (mill, factory work/Garments work).....8	

		9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller.....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber……..20 21. Electrician /Plumber/Sanitary work/ Mechanic……..21 22. Carpenter/Mason……..22 23. Doctor(Village)……..23 24. Mid wife/Health worker……..24 25. Imam/Priest/Marriage register……..25 26. Domestic worker……..26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income…….....28 29. Other:.....29 30. Local tour guide .....…….....30 31. Stone worker .....…….....31 32. Collecting crab and shrimp fingerling .....…….....… 32 33. Dry fish processing .....…….....33 34. Renting house .....…….....34 35. Allowance/pension .....…….....35 36. Journalist .....…….....36 37. Motor bike driver .....…….....37	
71)	What are the sources of income for your household over <u>this year?</u> **[MULTIPLE ANSWERS ARE POSSIBLE. TICK EACH ONE INDICATED.]**	0. No source/dependent on other family…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming…….....4 5. Livestock farming…….....5 6. Other natural resources extraction…….....6 7. Day labourer (Agri or non agri)…….....7 8. Wage paid (mill, factory work/Garments work).....8 9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller.....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber……..20 21. Electrician /Plumber/Sanitary work/ Mechanic……..21 22. Carpenter/Mason……..22 23. Doctor(Village)……..23 24. Mid wife/Health worker……..…24 25. Imam/Priest/Marriage register……..25	

		26. Domestic worker……..26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income…….....28 29. Other:.....29 30. Local tour guide .....30 31. Stone worker .....31 32. Collecting crab and shrimp fingerling .....32 33. Dry fish processing .....33 34. Renting house .....34 35. Allowance/pension .....35 36. Journalist .....36 37. Motor bike driver 37	
72)	Which of the following income sources was the <u>primary source</u> of income for your household <u>this year?</u>	0. No source/dependent on other family…….....0 1. Farming/ Agriculture...…….....1 2. Marine/ Fishing…….....2 3. Shrimp farming/ Aquaculture…….....3 4. Poultry farming……..…….4 5. Livestock farming…….....5 6. Other natural resources extraction……..…….....6 7. Day labourer (Agri or non agri)…….....7 8. Wage paid (mill, factory work/Garments work).....8 9. Salaried Worker (official/clerical).....9 10. Rickshaw/Van puller.....10 11. Auto/CNG/Motorcycle driver.....11 12. Beggar…….....12 13. Private tuition…….....13 14. Transport worker…….....14 15. Tailoring…….....15 16. Hand loom …….....16 17. Handicraft/cottage industry/ Katha stitching …….....17 18. Food business/Restaurant business/ Tea Seller.....18 19. Small business (agri or non agri products).....19 20. Blacksmith/potter/Cobbler/Barber……20 21. Electrician /Plumber/Sanitary work/ Mechanic……...21 22. Carpenter/Mason…….22 23. Doctor(Village)……23 24. Mid wife/Health worker……...24 25. Imam/Priest/Marriage register……..25 26. Domestic worker……..26 27. Remittances (i.e. people sending money)..…….....27 28. Not willing to disclose source of income…….....28 29. Other:.....29 30. Local tour guide .....30 31. Stone worker .....31 32. Collecting crab and shrimp fingerling ....32 33. Dry fish processing .....33 34. Renting house .....34 35. Allowance/pension .....35 36. Journalist .....36 37. Motor bike driver 37	
73)	How many household members above the age of 16 have earned income for the household during the last 12 months?	i. One…….....1 ii. Two…….....2 iii. Three or more…….....3	

74)	Do you cultivate fish/crab in ponds/gher/waterbody/haor/river?	i. No .....2 ii. Yes…….....1	➔ 78
75)	What species of fish did you grow in fish ponds in 2017?	a) Species 1:_____ b) Species 2:_____ c) Species 3:_____ d) pecies 4:_____	
76)	How much was harvested of each species for <u>household consumption</u>? **[WRITE ONE CODE PER LINE]**	a) Species 1:_____ kg/year b) Species 2:_____ kg/year c) Species 3:_____ kg/year d) pecies 4:_____ kg/year	
77)	What species of fish did you grow in fish ponds for sell in 2017?	a) Species 1:_____kg/year b) Species 2:_____kg/year c) Species 3:_____kg/year d) Species 4:_____kg/year	
78)	Did you cultivate crop in last season?	i. No .....2 ii. Yes…….....1	➔ 83
79)	What crops did you cultivate last season?	1. Paddy.....1 2. Wheat.....2 3. Oil seeds .....3 4. Pulse.....4 5. Maize.....5 6. Potato.....6 7. Sugarcane.....7 8. Betel leaf .....8 9. Vegetable.....9 10. Fruits.....10 11. Flowers .....11 12. Others.....12	
80)	What was the area that you planted for each crop? [Repeat for each crop.] (use crop's code &.....)	1. Paddy_____decimal 2. Wheat_____ decimal 3. Oil seeds _____decimal 4. Pulse_____decimal 5. Maize_____decimal 6. Potato_____decimal 7. Sugarcane_____decimal 8. Betel leaf _____decimal 9. Vegetable_____decimal 0. Fruits_____decimal 1. Flowers _____decimal 2. Others_____decimal	
81)	How much production at per decimal for each crop? Write the information however the farmer lists his production (winter season only). (use crop's code &.....)	1. Paddy_____ kg /deci 2. Wheat_____ kg /deci 3. Oil seeds _____ kg /deci 4. Pulse_____ kg /deci 5. Maize_____ kg /deci 6. Potato_____ kg /deci 7. Sugarcane_____ kg /deci 8. Betel leaf _____ kg /deci 9. Vegetable_____ kg /deci 10. Fruits_____ kg /deci	

		11. Flowers _____ kg /deci 12. Others_____kg /deci	
82)	In comparison to recent climatic disasters, was the yield from this crop? **[SELECT ONE ANSWER]**	0. No impact of climate change.....0 i. Higher…….....1 ii. About the same…….....2 iii. Lower…….....3 iv. Don't know…….....4	
83)	What is the total area you cultivated last winter season?	Total Area _____ *Include units (decimal)*	
84)	Do you know about any program in last 5 years in this UP that helped poor people to support livelihoods program?	i. No .....2 ii. Yes…….....1 iii. Do not know …….....3	
85)	Did you attend any educational/training sessions in the last 12 months about alternative income generating activities?	i. No .....2 ii. Yes…….....1	
86)	Did you try any alternative livelihood in last 5 years?	i. No.....2 ii. Yes…….....1	➔ Module F
87)	What was the main alternative livelihood you tried in last five years?(Multiple)	i. Cash crops…….....1 ii. Handicrafts…….....2 iii. Selling surplus food…….....3 iv. Better access to markets…….....4 v. Value added goods…….....5 vi. Creating cooperatives…….....6 vii. Sustainable harvesting…….....7 viii. Natural Resource Extraction…….....8 ix. Small entrepreneurship…….....9 x. Other.....10	
88)	Did you earn income from that activity in the past 12 months? (2=No, 1=Yes) **[FOR EACH ACTIVITY THAT RESPONDENT PARTICIPATED IN.]**	i. Cash crops…….....Yes (1).....No....(2) ii. Handicrafts…….....Yes (1).....No....(2) iii. Selling surplus food…….....Yes (1).....No....(2) iv. Better access to markets…….....Yes (1).....No....(2) v. Value added goods…….....Yes (1).....No....(2) vi. Creating cooperatives…….....Yes (1).....No....(2) vii. Sustainable harvesting…….....Yes (1).....No....(2) viii. Natural Resource Extraction…… Yes (1).....No....(2) ix. Small entrepreneurship…….....Yes (1).....No....(2) x. Other …….....Yes (1).....No....(2)	
89)	Which alternative livelihoods were successful? And why? (Can be multiple response)	1. Could provide adequate time 2. Have experience 3. Had adequate capital 4. Has required support 5. Others (Please specify) ----------	
90)	Which alternative livelihoods were not successful? And why? (Can be multiple response)	1. Could not provide adequate time 2. Do not have experience 3. Did not have adequate capital 4. Does not have required support 5. Local negative effect 6. Others (Please specify) ----------	

Module F: Financial Inclusion

91)	Does your household have any savings?	No .....2 Yes…….....1	➔ 92
92)	What is your monthly average savings of last 12 month?		

93)	Who does mainly make decision in managing the finance of your household?	i. Male household member……..1 ii. Female household member……..2 iii. Female and male together ……..3	
94)	Do you have a loan from a bank or other sources? **[IF NO, CIRCLE "1" (NO LOAN)]** **[IF YES:]** From where do have the loan?	1. No loan…… ……..1 2. Bank…..…….2 3. Neighbours / Friends……..3 4. NGO / Development project…… ….4 5. Other:.....5 6. Mahajans (informal moneylenders) ……..6	➔ Module G
95)	Who applied for the loan?	i. Male household member……..1 ii. Female household member……..2	
96)	What barrier was there to get the loan?	i. No bank account…… ……..1 ii. Already too much in debt…..…….2 iii. Cannot read / write.……..3 iv. No granter.....…… ……4 v. Other:.....5 vi. No problem faced ……..6	
97)	Did you pay back most loans in the past?	i. No.....2 ii. Yes…..…….1	
98)	Are you interested in getting a new loan?	i. No .....2 ii. Yes..……..1	

Module G: Community-Based Natural Resource Knowledge

99)	Are there conservation areas or restricted park land near your home?	i. No.....2 ii. Yes 1	➔ Module H
100)	What are the names of these areas?	i. 1st area _____ ii. 2nd area _____ iii. 3rd area _____ iv. 4th area _____	
101)	How frequent you use the natural conservation area? **[SELECT ONE ANSWER]**	i. Daily ……..1 ii. A few times a week ……..2 iii. Weekly…….. ….3 iv. A few times a month ……..….4 v. Monthly…….. ..…….5 vi. A few times a year……..…….….6 vii. Never ……..…7	➔ 102
102)	What Resources do you mostly collect or harvest from the conservation area? **[MAIXIMUM OF THREE ANSWERS POSSIBLE]**	i. Timber……..….1 ii. Leaves……..…2 iii. Grass……..3 iv. Fuel Wood……..4 v. Fish/Fish Fry……..5 vi. Crab/Crab fry……..…..6 vii. Honey……..…..7 viii. Birds……..…..8 ix. Noting important……..9 x. Others……..10	

103)	Do you have restriction to go to the conservation area?	i. No.....2 ii. Yes 1	

Module H : Understanding about UP functionaries, Participatory process, Planning, Budgeting

	Section 1 : Status of Participation to UP Activities		
102a)	Are you aware or have you reviewed the Union Parishad Act of 2009?	i. No.....2 ii. Yes.....5	
104)	Have you ever participated in any of the meetings organized and conducted by UP?	i. No.....2 ii. Yes.....1	➔ Section 2
	a. If yes, what types of meeting have you participated during 2016-17? (Multiple)	i. UP Council meeting……1 ii. Ward Shava……...2 iii. Standing Committee meeting……..3 iv. Open Budget meeting……..…4 v. Planning meeting……..…5 vi. Women Development Forum meeting at Upazila……..6 vii.Other (specify) ……...7	
	b. What the most recent meeting you attended? (use code or…..)		
	c. Mention the last time meeting date) ….	……..(day).……(month)…….(year)	
	d. What were the topics of the discussion of the meeting?		
	d1. Were issues related to climate change impacts like drought, floods, etc. were discussed in the meeting?	i. No.....5 ii. Yes.....1	
	e. What did you benefit out of this participation?		
105)	Have you ever participated in a Ward Shava?	i. No.....2 ii. Yes.....1	➔105
	a. If yes, how many times in last year (2016-17)		
	b. When was the last time (most recent time) you participated there:	i. 1st quarter of the year (July September).....1 ii.2nd quarter of the year (October-December).....2 iii. 3rd quarter of the year (January-March).....3 iv. 4th quarter of the year (April-June).....4	
	c. Did any other member of your family also participate	i. No.....2 ii. Yes.....1	
	d. If yes, who? (Multiple)	i. Wife/husband.....1 ii. Son.....2 iii. Daughter.....3 iv. Father/mother.....4 v. Sister/brother.....5 vi. Other.....6	
	e. Why did you participate?	i. No reason.....1 ii. To keep the word of Member/Chairman .....2 iii. Raise the needs/problems/priorities…….….3 iv. Others…….....4	
	f. What did you benefit out of this participation? (Multiple)	i. Repair road/bridge/ culvert .....1 ii. Make road/bridge/ culvert.....2 iii. Get any allowance (i.e. old age, widow, disable).....3 iv. Get better health service from .....4 v. Stop early marriage.....5 vi. Do not give dowry .....6 vii. Improve current facility 7	

		viii. Repair hat-bazar/ masque/ any public complex.....8 ix. Others.....9	
	g. Did you speak about your needs, problems or priorities in the Ward Shava?	i. No.....2 ii. Yes.....1	
	g.1. If yes, what types of issues (needs/problems/priorities) did you raise?	i. Repair road/bridge/ culvert .....1 ii. Make road/bridge/ culvert.....2 iii. Get any allowance (i.e. old age, widow, disable).....3 iv. Get better health service from .....4 v. Stop early marriage.....5 vi. Do not give dowry .....6 vii. Improve current facility .....7 viii. Repair hat-bazar/ masque/ any public complex.....8 ix. Others.....9	
	g.2. Were your needs discussed in the meeting?	i. N.....2 ii. Yes.....1	
	g.3. Were climate related issues such as drought, flood, erosion raised?	i. No.....2 ii. Yes.....1	
	h. Was the UP development plan discussed in the Ward Shava?	i. No.....2 ii. Yes.....1	
	i. Was the UP budget discussed in the Ward Shava?	i. No.....2 ii. Yes.....1	
	j. How satisfied are you about the performance of Ward Shava of UP?	1. Very satisfied 2. Satisfied 3. Fairly satisfied 4. Not satisfied	
106)	Are you aware of any Standing Committee in your UP?	i. No.....2 ii. Yes.....1	➔Section 2
107)	Are you aware of Standing Committee Social welfare & disaster management?	i. No.....2 ii. Yes.....1	
	a. If yes, have you attended the Standing Committee meeting?	i. No.....2 ii. Yes.....1	
	b. If yes, mention the most recent participation date:		
	c. How satisfied are you about the performance of this Standing Committee?	1. Very satisfied 2. Satisfied 3. Fairly satisfied 4. Not satisfied	
108)	Are you aware of Standing Committee' initiative of Environment protection and plantation?	i. No .....2 ii. Yes.....5	
	a. If yes, have you attended the Standing Committee meeting?	i. No.....2 ii. Yes.....1	
	b. If yes, mention the most recent participation date:	Day/ Month/ Year	
	c. How satisfied are you about the performance of this Standing Committee?	1. Very satisfied 2. Satisfied 3. Fairly satisfied 4. Not satisfied	

Section 2 : UP Planning, Budgeting and Auditing Activities			
109)	Are you aware of Annual plan of UP?	i. No.....2 ii. Yes.....1	➔ 109
	a. If yes, have you ever participated in the Annual Planning process of UP?	i. No.....2 ii. Yes.....1	
	b1. Did any of your relatives/acquaintances/neighbors participate in the Annual plan development?	i. No.....2 ii. Yes.....1 iii. Don't know……...3	
	b2. (If yes in any of Q108a & Q108b then ask) Did you or your relatives/acquaintances/neighbors raise any issue/point of your community's need in the planning meeting?	i.. No.....2 ii. Yes.....1 iii. Don't know……...3	

	b3. Was the issue/point accepted in the annual planning process?	i. No.....2 ii. Yes.....1 iii. Don't know……..3	
	b4. Were climate related issues such as drought, flood, and erosion discussed?	i. No.....2 ii. Yes.....1 iii. Don't know……..3	
	b5. Were the climate change issues accepted in the Annual Planning process?	i. No.....2 ii. Yes.....1 iii. Don't know……..3	
	c. Do the Annual Plan include climate related following interventions: (ask each of the intervention)		

Interventions	Status of inclusion: (circle the code)	If yes, what are the interventions (name of the project)?	
c.1. climate related issues affecting the UP	1. Yes 2. No 3. Don't know		
c.2. climate related issues affecting the quality of life of the poor and hard core poor	1. Yes 2. No 3. Don't know		
c.3. climate related issues affecting women	1. Yes 2. No 3. Don't know		
c.4. climate related issues affecting drinking water	1. Yes 2. No 3. Don't know		
c.5. climate related issues affecting health	1. Yes 2. No 3. Don't know		
c.6. climate related issues affecting agriculture	1. Yes 2. No 3. Don't know		
c.7. climate related issues affecting infrastructure (roads, culverts, bridges, markets)?	1. Yes 2. No 3. Don't know		
c.8. climate related issues affecting employment?	1. Yes 2. No 3. Don't know		
c.9. Other (specify)			

	d. How satisfied are you about the performance of Annual planning process of UP?	1. Very satisfied 2. Satisfied .... 3. Fairly satisfied 4. Not satisfied	
110)	Are you aware of Five year plan of UP?	i. No.....2 ii. Yes.....1	➔ 110
	a) If yes, have you ever participated in the Five Year Planning process of UP?	i. No.....2 ii. Yes.....1	
	b1. Did any of your relatives/acquaintances/ neighbors participate in the Five Year Plan development?	i.. No…….2 ii. Yes……...1 iii. Don't know……..3	
	b2. (If yes, in any of Q109a & Q109b1 then ask) Did you or your relatives/acquaintances/ neighbors raise any issue of your community's need in the Five Year Planning meeting?	1 No ……..2 ii. Yes ……...1 iii. Don't know……..3	
	b3. Was the issue accepted in the Five Year Plan discussions?	11 No ……2 ii. Yes ……...1 iii. Don't know……..3	
	b4. Were climate related issues such as drought, flood, and erosion discussed?	11 No ……2 ii. Yes ……1 iii. Don't know…….....3	
	b5. Were the climate change issues accepted in the Five Year Planning process?	1. 1 No ……2 ii. Yes ……1 iii. Don't know……3	

	c. Do the Five Year Plan include climate related following interventions: (ask each of the intervention)	<table><tr><th>Interventions</th><th>Status of inclusion: (circle the code)</th><th>If yes, what are the interventions (name of the project</th><th></th></tr><tr><td>c.1. climate related issues affecting the UP</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.2. climate related issues affecting the quality of life of the poor and hard core poor</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.3. climate related issues affecting women</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.4. climate related issues affecting drinking water</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.5. climate related issues affecting health</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.6. climate related issues affecting agriculture</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.7. climate related issues affecting infrastructure (roads, culverts, bridges, markets)?</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.8. climate related issues affecting employment?</td><td>1. Yes 2. No 3. Don't know</td><td></td><td></td></tr><tr><td>c.9. Other (specify)</td><td></td><td></td><td></td></tr></table>	
	d. How satisfied are you about the performance of Five Year planning process of UP?	1. Very satisfied 2. Satisfied 3. Fairly satisfied 4. Not satisfied	
	e) Did you ever monitor implementation of the UP plans?	i. No.....2 ii. Yes.....1	
	e1. If yes, how did you monitor?	1. Visited during implementation 2. Was a member of the implementation committee 3. Knew through information sharing meeting of project costs 4. Others (please specify)	
	e2. What were your major findings regarding implementation of the UP plans?	1. Was informed about the project 2. Knew about the project beneficiaries 3. Knew about the project site 4. Others (please specify)	
111)	Are you aware of the UP Annual open budget?	i. No .....2 ii. Yes.....1	➔ 111
	a. If yes, did you ever participate in the open budget meeting?	i. No.....2 ii. Yes.....1	
	b. If yes, did you raise any point in the open budget meeting (either for giving suggestions for preparation or for scrutiny/review)?	i. No.....2 ii. Yes.....1	
	B1) If yes, what was the issues/point? ……	1. Repairing bridge/culvert/road …….. 1 2. Constructing bridge/culvert/road ……..…… 2 3. Receiving allowance of SSNP (e.g., old age, widowed, disability) ..3 4. Receiving quality health care ……4 5. Protecting child marriage …….. 5 6. Not giving dowry ……...6 7. Increasing/improving the existing facilities ……..... 7 8. Repairing marketplace/mosque/public buildings ……..8 9. Others (please speciafy) ……9	
	b2) Was it accepted?	i. No.....2 ii. Yes.....1	

	c) Did any of your relatives/acquaintances/neighbors participate in the open budget meeting?	i. No.....2 ii. Yes.....1	
	d) Were investments to address drought, flood, erosion etc. discussed?	i. No.....2 ii. Yes.....1	
	e) How satisfied are you about the performance of open budget meeting of UP?	1. Very satisfied 2. Satisfied 3. Fairly satisfied 4. Not satisfied	
112)	Has your household faced significant problems with climate in the last three years?	i. No.....2 ii. Yes.....1	
113)	yes, what type of problem did you face?	a. Flood……1 b. Drought……2 c. Salinity……..3 d. Arsenic……..4 e. Wind damage……5 f. Others: specify…….6	
114)	Were any schemes implemented in your UP that addressed these difficulties?	i. No.....2 ii. Yes.....1	
115)	If yes, please describe the scheme:	1. Constructing dam/embankment .....1 2. Repairing or increasing height of the road.....2 3. Opening sluice gate.....3 4. Detecting arsenic and affected tube well.....4 5. Tree plantation.....5 6. Others (please specify).....6	
116)			
117)	Level of participation of the people in UP planning, budgeting and auditing:		
	a. Do the participation of the people in UP planning process need to be increased?	1. Need to increase 2. Satisfied with present level 3. Need to reduce	
	b. Do the participation of the people in UP budgeting process need to be increased?	1. Need to increase 2. Satisfied with present level 3. Need to reduce	
	c. Do the participation of the people in UP auditing process need to be increased?	1. Need to increase 2. Satisfied with present level 3. Need to reduce	
	Section 3 : Implementation of UP Schemes		
118)	Are you aware of schemes implemented by the UP during 2016-17?	i. No.....2 ii. Yes.....1	➔ Section 4
119)	If yes, how many schemes do you recollect?		
120)	Please describe three schemes that you recollect?	1)_____ 2)_____ 3)_____	
121)	Did any of the schemes address issues such as drought, flood, and river erosion?	i. No.....2 ii. Yes.....1	
122)	Did any of these schemes described above benefit your family or yourself?	i. No.....2	

		ii. Yes.....1	
123)	Do you see any new types of schemes being implemented by the UP?	i. No.....2 ii. Yes.....1	
124)	If yes, what type of new schemes did you observe?		
	Section 4: Feature of Community Risk Assessment Meeting (CRA)		
125)	Are you aware of Community Risk Assessment (CRA) meeting organized in the Union?	i. No.....2 ii. Yes.....1	➔ Section 5
126)	Was there any Community Risk Assessment (CRA) meeting organized in the Union?	i. No.....2 ii. Yes.....1	➔ Section 5
127)	When the CRA meetings were organized?	i. In 2017 .....1 ii. In 2016 .....2 iii. 2015 or before.....3	
128)	If 127 no why?		
129)	Was the CRA findings discussed in the Ward Shava?	i. No.....2 ii. Yes.....1	
	Section 5 : Overall Assessment of the Functions of UP		
131)	How satisfied are you about the performance of UP on Governance, i.e. planning, budgeting, auditing and service delivery?	1. Very satisfied.....1 2. Satisfied.....2 3. Fairly satisfied.....3 4. Not satisfied.....4	
132)	How satisfied are you about the performance of UP on addressing climate change issues?	1. Very satisfied 2. Satisfied3. Fairly satisfied 4. Not satisfied	
133)	According to you, what are the good functions or the strengths of UP?	1. Preparation of Five-Year and different term development plan. 2. Rural infrastructure development, conservation, and maintenance. 3. Primary and mass education related activities. 4. Implementation of Health and Family Planning related activities. 5. Undertake Agriculture, Fisheries, Animal Husbandry, and other necessary economic development activities. 6. Undertake necessary activities for controlling epidemic and disaster management. 7. Imposition and collection of Tax and Toll fee. 8. Implementation of necessary activities for solving family disputes, and for ensuring women and children welfare. 9. Undertake necessary initiatives and assistance for sports, social and cultural development. 10. Undertake necessary development and conservation initiatives for environment. 11. Performing Government imposed responsibilities to maintain law and order situation and undertake necessary activities. 12. Registering/enlisting birth and death status. 13. Conservation and maintenance of government space, open space, and sports field. 14. Establishing electric lamps on Union Parishad Roads and Government owned lands 15. Tree plantation, conservation and preventing theft of natural resources 16. Conservation of cemetery, graveyard, cremation place, public meeting place and other government properties. 17. Preventing illegal entry into public roads and government buildings and finding out the reasons behind these disturbances 18. Preventing the destruction of public road	

		19. Ensuring the collection, removal and management of cow-dung and other wastes. 20. Controlling criminally intended and dangerous businesses 21. Removal of animal dead bodies and controlling animal slaughter 22. Controlling the construction of new and dangerous houses in the Union Parishad 23. Management and conservation of wells, tube-wells, ponds etc. 24. Prevention of polluting drinking water sources and forbidding the use of those water sources which can be potentially dangerous for public health 25. Preventing or controlling bathing of both human beings and animals, washing clothes near ponds 26. Banning of processing jute and straws near rivers or drinking water sources 27. Controlling or banning tannery works in residential areas. 28. Controlling or banning extraction of stones or other resources from residential areas by digging soil. 29. Controlling or banning brick kiln and pottery factory in residential areas. 30. To assist government or taking quick necessary steps during fire, flood, heavy hail-storm, earthquake, or other natural disasters. 31. To assists or to enlist widows, orphans, poor, and helpless people. 32. To develop or to encourage cooperatives and rural industrial development. 33. To take necessary steps for producing extra foods. 34. Monitoring and maintaining shed of domestic animals. 35. Facilitating first-aid centre. 36. Facilitating securities and other services for the residents of the UP 37. Turn on and encouraging e-governance. 38. Extending associations with other organizations who are doing similar works of UP. 39. Doing time to time government-imposed duties.	
134)	According to you, what are the negative functions or the weakness of UP?	1. Preparation of Five-Year and different term development plan. 2. Rural infrastructure development, conservation, and maintenance. 3. Primary and mass education related activities. 4. Implementation of Health and Family Planning related activities. 5. Undertake Agriculture, Fisheries, Animal Husbandry, and other necessary economic development activities. 6. Undertake necessary activities for controlling epidemic and disaster management. 7. Imposition and collection of Tax and Toll fee. 8. Implementation of necessary activities for solving family disputes, and for ensuring women and children welfare. 9. Undertake necessary initiatives and assistance for sports, social and cultural development. 10. Undertake necessary development and conservation initiatives for environment. 11. Performing Government imposed responsibilities to maintain law and order situation and undertake necessary activities. 12. Registering/enlisting birth and death status. 13. Conservation and maintenance of government space, open space, and sports field. 14. Establishing electric lamps on Union Parishad Roads and Government owned lands 15. Tree plantation, conservation and preventing theft of natural resources 16. Conservation of cemetery, graveyard, cremation place, public meeting place and other government properties. 17. Preventing illegal entry into public roads and government buildings and finding out the reasons behind these disturbances 18. Preventing the destruction of public road 19. Ensuring the collection, removal and management of cow-dung and other wastes. 20. Controlling criminally intended and dangerous businesses 21. Removal of animal dead bodies and controlling animal slaughter 22. Controlling the construction of new and dangerous houses in the Union Parishad 23. Management and conservation of wells, tube-wells, ponds etc.	

		24. Prevention of polluting drinking water sources and forbidding the use of those water sources which can be potentially dangerous for public health 25. Preventing or controlling bathing of both human beings and animals, washing clothes near ponds 26. Banning of processing jute and straws near rivers or drinking water sources 27. Controlling or banning tannery works in residential areas. 28. Controlling or banning extraction of stones or other resources from residential areas by digging soil. 29. Controlling or banning brick kiln and pottery factory in residential areas. 30. To assist government or taking quick necessary steps during fire, flood, heavy hail-storm, earthquake, or other natural disasters. 31. To assists or to enlist widows, orphans, poor, and helpless people. 32. To develop or to encourage cooperatives and rural industrial development. 33. To take necessary steps for producing extra foods. 34. Monitoring and maintaining shed of domestic animals. 35. Facilitating first-aid centre. 36. Facilitating securities and other services for the residents of the UP 37. Turn on and encouraging e-governance. 38. Extending associations with other organizations who are doing similar works of UP. 39. Doing time to time government-imposed duties.	
135)	According to you, what are the problems of UP, which create obstacles to maintain quality of services and to provide services?	1. Lacks specific planning 2. Lack of adequate manpower 3. Lack of people's participation 4. Lack of adequate budget 5. Others (please specify)	
137)	What are your suggestions regarding improving the UP's response to climate change?		

Module I: GPS IDENTIFICATION	
138. GPS COORDINATES _____ _____ 139. CONFIRMATORY GPS COORDINATES _____ _____	
140. RESULT OF INTERVIEW CODES FOR RESULTS ☐ 1 INTERVIEW COMPLETED 2 POSTPONED 3 REFUSED 4 PARTIALLY COMPLETED 5 OTHER:_____	

Part 2: Component 1

Questionnaire regarding mainstreaming climate change into Union Parishad's Planning and Financing

To be conducted both in LoGIC UPs and Control UPs

ID – District (Sunamganj 1; Kurigram 2; Khulna 3; Bagerhat 4; Barguna 5; Patuakhali 6; Bhola 7)

ID – Upazila (Derai 11; Tahirpur 12; Salla 13; Chilmari 21; Char Rajibpur 22; Raumari 23; Koyra 31; Dacop 32; Mongla 41; Morelganj 42; Sharonkhola 43; Pathorghata 51; Barguna Sadar 52; Taltoli 53; Dashmina 61; Rangabali 62; Bhola Sadar 71; Daulatkhan 72; Borhanuddin 73, Ulipur 74)

ID—For Treatment Union (Char Rajibpur 01; Kodailkati 02; Mohanganj 03; Roumari 04; Bandabeer 05; Dantbhanga 06; Saulmari 07; Ashtamir Char 08; Raniganj 09; Thanahat 10; Dakshin Sreepur 11; Dakshin Baradal 12; Uttar Sreepur 13; Balijhuri 14; Atgaon 19; Bahara 20; Habibpur 21; Sulla 22; Bhati Para 15; Charnar Char 16; Derai Sarmangal 17; Rafinagar 18; Dakshin Bedkashi 23; Koyra 24; Maheshwaripur 25; Uttar Bedkashi 26; Maharajpur 27; Banisanta 28; Pankhali 29; Kamarkhola 30; Sutarkhali 31; Tildanga 32; Chandpi 33; Sundarban 34; Sunaitala 35; Mithakhali 36; Dhansagar 37; Khontakata 38;Royenda 39; SouthKhali 40; Baraikhali 41; Jiudhara 42; Morrelganj 43; Nishan Baria 44; Kakchira 45; Kathaltoli 46; Nachna Para 47; Raihanpur 48; Badarkhali 49; Burirchar 50; Dholua 51; Naltona 52; Barabagi 53; Nishanbaria 54; Sonakata 55; Pancha Karalia 56; Dhania 63; Kachia 64; Rajapur 65; Dakkhin Dighaldi 66; Uttar Joynagar 67; Char Khalifa 68; Saidpur 69; Dakkhin Joynagar 70; Bara Manika 71; Deula 72; Rangabali 57; Bara Baisdia 58; Chhota Baisdia 59; Char Montaz 60; Char Borhan 61; Ranagopaldi 62)

ID—For Control Union (Jadurchar 04; Bozra 73; Nayarhat 08; Romna 09; Chilmari sadar 10; Badaghat 11; Karimpur 15; Jogdol 16; Kulonj 17; Razanagar 18; Tarul 19; Bashbari 23; Amadi 24; Dacope Sadar 25; Laudope 28; Bajua 29; Chila 33; Burirdanga 34; Bohorbunia 37; Hoglabunia 41; Bolobunia 42; Khaolia 43; Charduari 46; Kalomegha 47; Gaurichanna 49; M Baliatoli 51; Korwaribaria 54; Sarikhali 55; Char Shibpur 63; Modonpur 65; Vobanipur 68; Gongapur 70; Chacra 72; Bohorampur 57; Chaltebunia 59; Bashbaria 61;

ID—Union type (Treatment 1; Control 2)

DATAID			
District code	**Upazila code**	**Union code**	**Union type**
☐	☐☐	☐☐	☐

Section 1. : General Information:	
4) Name of the district:	
5) District code	
6) Name of the upazila:	
7) Upazila code	
8) Type of union	1. Treatment 2. Control
9) Name of the Union Parishad:	
10) Union code	
11) Name of the Chairman of Union Parishad:	
12) Information Provider's Name	
13) Information Provider's Designation	1. Chairman 2. Members 3. Secretary 4. Other (Specify)
14) Information Provider's Phone number:	
15) Date of data collection	
16) Information Collector's Name	
17) Information Collector's Code	
18) Area of the Union: ……	……..(in sq. km)
19) Total households of the Union:	
20) Total households: Poor[126]	
21) Total population of the Union:	
22) Male?	
23) Female?	
24) Total voters of the Union:	
25) Male?	
26) Female?	
27) Total number of village:	
28) Is this a Sadar Union of the Upazila?	1. Yes 2. No
29) What is the distance of Union Parishad office from the Upazila headquarters?	Km

[1]Those income level below Tk. 10000/- (Source: BBS Household Income and Expenditure Survey 2010)

30) Does this Union adjoin the Sadar Union of the Upazila? _____	1. Yes 2. No
31) Does this Union adjoin the Sadar Union of the neighboring Upazila?	1. Yes 2. No
32) What is the distance to the DC office?	_____ km
33) Does this Union adjoin a Paurasabha?	1. Yes 2. No
34) Is there a copy of the Union Parishad Act of 2009 in the UP office?	1. Yes 2. No
35) Total Road length in the Union:	……kilometer
36) Total Black Top Road in the Union:	……kilometer
37) Number of health facilities (Hospital, MCWC, FWC, Other clinics):	
38) Total number of Haatsthe Union: Haats[2]	
39) Total number of Bazar in the Union	
40) Number of service related groups (CBOs, NGOs & other associations/clubs):	
41) Does the UP have a major (to be defined) river running through its area?	1. Yes 2. No
42) Does the UP have a major (to be defined) haor in its area?	1. Yes 2. No
43) Does the UP have a seacoast (to be defined) in its area?	1. Yes 2. No
44) Does the UP have one or more cyclone shelters?	1. Yes 2. No
45) Did UP organise any campaign on climate issues in 2016-17?	1. Yes 2. No
46) If 43 is yes, issues of the campaign?	1. World Environment Day 2. International Day for Disaster Reduction 3. National Day for Disaster Reduction 4. Others (please specify)
47) If 43 is yes, who organised the training?	1. UP 2. NGO 3. Local voluntary organisation 4. Under the directives of UZP/District Council 5. Jointly by UP, NGO and Local voluntary organisation 6. Other (Specify)
48) Number of elected persons in place in UP	

Section 2: Ward Sabha (review the documents and records the information)

Q. No.	Ward No.	No. of Ward Sabha held during July 2016-June 2017 (a)	No. of Ward Sabha, with required quorum? (b)	No. of Ward Sabha Attended by 5% voter (c)	No. of Ward Sabha presided by UP members (d)	No. of Ward Sabha where climate change issues discussed (e)	Has the President signed in the meeting resolution? (f)	Source of information (g)
47.	1						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
48.	2						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
49.	3						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
50.	4						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
51.	5						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
52.	6						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
53.	7						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
54.	8						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
55.	9						1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed

Section 2.5: Feature of Community Risk Assessment Meeting (CRA)			
c1.	Was there any Community Risk Assessment (CRA) meeting organized in the Union?	1.No……..2 2.Yes……..……..1	If no go to Section 3
c2.	When the CRA meetings were organized ?	i. in 2017 ……..……....1 ii.in 2016 …….....2 iii. 2015 before…….....3	
c3.	Is the CRA report available at Union Parishad?	1. .No……..….2 2.Yes……..……..1	
c4.	If no why?		
c5.	Was the CRA findings discussed in the Ward Shava?	.i. No……..2 ii.Yes……..……...1	

c6.	**Was the CRA report considered in preparing 5-year development plan and Annual Development Plan?**	**i. No.....2** **ii. Yes.....1**	

Section 3: Standing Committees (reviews the documents and records the information)

56. Is the Standing Committee for Social welfare & disaster management set up as of June 2017:

1. Yes
2. No

57. Is the Standing Committee for Environment protection and plantation set up as of June 2017:

1 = yes,
2 = No

57.1 How many standing committees have been formed so far? | | |

58. Check the documents and record the name of the committees and their functioning status:

Standing Committee	Formed?	Headed by Female Member	No. of meetings during (July 2016-June 2017	Date of last meeting	SC Prepared at least 2 monitoring report during July 2016-June 2017	Source of information
	a)	b)	c)	d)	e)	f)
1. Social welfare & disaster management	1. Yes 2. No	1. Yes 2. No		--/--/----	1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed
2. Environment protection and plantation	1. Yes 2. No	1. Yes 2. No		--/--/----	1. Yes 2. No	1. All document reviewed 2. Partially reviewed 3. Not reviewed

59. Did the UP implement any special scheme for climate change adaptation in the last financial year (July 2016-June 2017):

1. Yes
2. No

60. If yes, number of schemes, scheme names and expenditure?

Name of climate change related scheme (a)	Expenditure during 2016-17 (b)
i.	
ii.	
iii.	
iv.	

60.1 Has your UP implemented any gender-sensitive scheme in FY2016-17? Yes = 1 and No = 2

60.2 If yes, then

a. No. of Scheme	**b. Total Budget**	**c. Total Spending**

60.3 Has your UP implemented any scheme for disaster-affected vulnerable women and children in FY2016-17? Yes = 1 and No = 2

60.4 If yes, then

a. No. of Scheme	**b. Total Budget**	**c. Total Spending**

60.5 Has your UP implemented any scheme for disaster-affected marginalised population in FY2016-17? Yes = 1 and No = 2

60.6 If yes, then

a. No. of Scheme	b. Total Budget	c. Total Spending

60.7 Has your UP implemented any climate change related scheme under LGSP in FY2016-17?

Yes = 1
No = 2

60.8 If yes, then

a. No. of Scheme	b. Total Budget	c. Total Spending

60.9 Has your UP implemented any climate change related scheme under Annual Development Programme (ADP) of the government in FY2016-17?
Yes = 1 and No = 2

60.10 If yes, then

a. No. of Scheme	b. Total Budget	c. Total Spending

Section 4: Union Parishad Budget, Audit and Resource Mobilisation

61. Please review and see the copies of Annual planningbudget, indicate status and give the comments:
    a. Availability of Annual Budget (2016-17):

        1. Yes
        2. No

    b. If not, specify the reasons……

        1. No specific plan
        2. Lack of adequate budget
        3. Less local resource mobilization
        4. Lack of awareness
        5. Other (specify)

    c. Climate change related investments in Annual Budget (2016-17):

        1. Yes
        2. No

    d. If not, specify the reasons……

        1. No allocation from central government
        2. Less local resource mobilization
        3. No planning on this matter
        4. Others (specify)

62. Was the annual budget approved in the UP general meeting?

        1. Yes
        2. No

63. Sources of funds details

Standing Committee	July 2016-June 2017: Taka (a)	July 2015-June 2016: Taka (b)	Source of information (c)
1. Total amount of holding tax collected for the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
2. Total amount of own source revenue (excluding holding tax) collected for the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
3. Total LGSP grant received during the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
4. Total amount of LoGIC grant during the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
5. Total amount of other climate change related grant during the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
6. Total amount of other grant for the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
7. Total amount of other transfers received during the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
8. Total budget for the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
9. Total capital investment for the financial year			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
10. Total number of schemes			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
11. Total expenditure on non-capital schemes for the financial year (like training, supply of books, advocacy, etc.)			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only
12. Total number of schemes			1. All document reviewed 2. Partially reviewed 3. Not reviewed/reported only

64. Was the open budget meeting conducted in 2016-17at the UP? 1. Yes 2. No

64a. If yes, were there any female present? 1. Yes 2. No

65) Was the budget of previous financial year (July 2015-June 201 financial year) audited by Auditors appointment by the Govt.?

1. Yes 2. No

66) If yes, was there any objection? 1. Yes 2. No

66a. Have those been addressed? 1. Yes 2. No

67) Has UP disclosed information on revenue/expenditure of previous financial year (July 2016-June 2017) to public?

1. Yes 2. No

67a. If yes, how was the information is disclosed?

1. Notice board 2. UP meetings 3.Public forum 4. Ward Sabha

Section 5: Annual and Five-Year Plans of Union Parishad Plans:

68) Please review and see the copies of the plans and put tick mark and give the comments:

	Plans	Status of availability (a)	If not, specify the reasons (b)
1.	Has Annual Development Plan been formulated for 2016-17	1. Yes 2. No	
2.	Climate change schemes in Annual Plan 2016-17	1. Yes 2. No	
3.	Availability of Five-Year plan that cover 2016-17	1. Yes 2. No	
4.	Climate change schemes in FY Plan for 2016-17	1. Yes 2. No	

Section 6: Status of Supervision and Important & Major Services Rendered by UP

69) Which of the following line Department have staff posted to the UP?

a. Agriculture 1. Yes 2. No
b. If yes, number of days of month present in UP ……

c. Health 1. Yes 2. No
d. If yes, number of days of month present in UP ……

e. Family Planning 1. Yes 2. No
f. If yes, number of days of month present in UP ……

g. Education 1. Yes 2. No
h. If yes, number of days of month present in UP ……

i. LGED 1. Yes 2. No
j. If yes, number of days of month present in UP ……

k. DPHE 1. Yes 2. No
l. If yes, number of days of month present in UP ……

m. Family Planning 1. Yes 2. No
n. If yes, number of days of month present in UP ……

o. Fishery and Livestock 1. Yes 2. No
p. If yes, number of days of month present in UP ……

q. Social welfare 1. Yes 2. No
r. If yes, number of days of month present in UP ……

s. Ansar-VDP 1. Yes 2. No
t. If yes, number of days of month present in UP ……

Part 2: Component 2

Broad Open ended question to Union Parishad, Upazila Parishad and UNO

Effect of perceived climate change impacts on the development of policies/programs

1. What do you think are the impacts of climate change in your area? What are the main environmental problems affecting your jurisdiction now? In the future?

2. Based on your perceptions of climate change impacts, do you think existing social and environmental programs of your LGI need to be re-evaluated and/or altered? If so, how and which types of programs?

3. How well do you think your local government has been able to meet the needs of those being impacted by or susceptible to environmental and climate changes?

4. What types of programs have you planned and/or implemented that address short-term natural disaster recovery or prevention? What longer-term programs have you (i) planned and (ii) implemented to address some of the natural and human induced environmental changes your locality/region is undergoing (for example rising sea levels, deforestation, increased flooding, increased salinity of land, drought)?

5. What kind of government responses do you think residents in the area/region would like to be implemented in order to help them cope/adapt to climate change?

Impact of climate change on existing policies/programmes

6. Do you face challenges (i.e. delays in implementation due to waterlogging/ embankment collapse/flooding/high tides) in delivering services in areas that are susceptible to higher exposures to climate change? What are the challenges? Which services and areas in your jurisdiction are greatly affected?

7. For the selection of beneficiaries for development programs, do you take into consideration households most affected by or vulnerable to climate change impacts? If so, what measures/criteria do you use to select those households?

8. Are you allocated funds from higher levels of government? To what extent the funds are untied? In other words, how much freedom do you have to allocate funds towards programs of your choice? If so, do you take into consideration climate change concerns when determining development activities to be developed and implemented in your jurisdiction? Can you give some examples if you do?

9. Are you able to raise local revenues for climate change mitigation programs/development programs?

10. Do you receive grants from external actors that are implemented by central government? If so, discuss the extent of such support.

11. In your jurisdiction, which sectors require the most assistance/ are most vulnerable to climate change impacts and require additional efforts over and above its existing programs/policies? Water, housing, agriculture, health, education, water supply, sanitation, infrastructure?

General funding, decision-making, and implementation questions

12. To what extent are you involved in the *planning* of the climate change adaptation policies sponsored and developed by the central government? Which? Are you involved in the *planning* of the policies sponsored and developed by the Zila Parishad/ Upazila Parishad? Which? Are you involved in the *planning* of the climate change adaptation policies sponsored and developed by the local government? Which?

13. Are you involved in the *implementation* of local, sub-national and central policies? If yes, how much can you influence how they are implemented?

14. How does your level of government coordinate policies and programs with the central, sub-national, and local government?

15. For the grants received from higher- level governments that are tied to specific programs, do any of them in your opinion effectively address problems arising from climate change in your respective area (i.e. embankment rehabilitation, reforestation or afforestation, housing reconstruction/strengthening that reaches all affected households etc.)? Which existing (sector-specific) programs, if any at all, that are sanctioned by higher levels of government do you believe are most effective in addressing climate change problems?

16. Are there other organizations (NGOs/Private sectors) assisting you in post-disaster recovery, or addressing some of the longer-term environmental rehabilitation/adaptation issues? If so, how do you coordinate with them?

Part 2: Component 3

Semi-structured Questionnaire for UP Chairman regarding mainstreaming climate change into Union Parishad'sPlanning and Financing

To be conducted both in LoGIC UPs and Control UPs

Division……..District……
Upazilla…….. Union:…….
Date of collection of Information …….
Information Collector's Name:…….
Information Provider's Name, Designation & Phone number: ……..……..

Section 1: Effects of climate change:	
(a) What are the effects of climate change in your area?	1) 2) 3) 4)
(b) By which effect (among the aforementioned effe**c**ts) you are being endangered most and why?	1) 2) 3) 4)
(c) What are the important environmental issues in your area?	1) 2) 3) 4)
(d) By which environmental issue (among the aforementioned issues) you feel most endangered and why?	1) 2) 3) 4)
(e) Is there any possibility of rising more environmental issues in the future? If there is any possibility then what is/are the type of that/those issues?	1) 2) 3) 4)

Section 2: Involvement in the policy regarding climate change:	
(a) Are you involved in the policy implementation of national/local government regarding climate change?	Yes/No
(b) If the answer is yes, in which policy and how much you are involved?	1) 2) 3)
(c) How the coordination is maintained among the central, district, upazila, policy of local government and various programmes in government level where you are involve?	

Section 3: Programme to Mitigate Natural Disaster	
(a) What short-term programmes you have implemented/are implementing to mitigate natural disaster?	1) 2) 3)
(b) What long term (for more than 1 year) programmes you have implemented/are implementing to mitigate natural disaster?	1) 2) 3)
(c)What programmes you have implemented/are implementing to solve man- made disasters/environmental issues?	1) 2) 3)
(d)Is there any organisation (NGO), except Yes/No the government, involved in post-disaster reclamation/long-term rehabilitation yourarea?	Yes/No
(e)If the answer of "d" is "yes" then who coordinate their activities and how the activities are coordinated?	1) 2) 3)
What are the criteria of electing/considering beneficiary for mitigating effect of climate change/natural disaster?	1) 2) 3)

Section 4: Financing/funding to mitigate the effect of climate change:	
(a) Did you receive any grants/funding from the central trust (ministry) to mitigate the impact of climate change?	Yes/No
(b) If the answer is "yes" then how much money you received in which year?	Year Amount of money 1) 2) 3)
(c) Do you know from which source the mentioned grants/funding came?	Yes/No
(d) If the answer is "yes", what is the name of the source and what is the amount of grants/funding?	Year Name of the source Amount of money 1) 2) 3)
(e) Did you receive any money from"climate change trust"?	Yes/No
(f) If the answer is "yes", then what is the amount of the funding you received and on which activity the	Year Amount of money The activity on which the money was spent 1) 2) 3)
(g) Did you receive any funding from Climate Change Resilience Fund?	Yes/No
(h) If the answer is "yes" then what is the amount of the funding you received and on which activity the money was spent?	Year Amount of money The activity on which the money was spent 1) 2) 3)
(i) Did you receive any funding from LGSP fund?	Yes/No
(j) If the answer is "yes" then what is the amount of the funding you received and on which activities the money was spent? (the list is enclosed)	Year Amount of money The activity on which the money was spent 1) 2) 3)

(k) Did you receive any money from the 40-day programme? (enclosed)	Yes/No
(l) Did you receive any money from Food for Work programme?	Yes/No
(m) Did you receive any funding/grants from any other source than the government (ministry)?	Yes/No
(n) If the answer is "yes" then what amount of money did you receive and on which activity the money was spent?	Year Amount of money The activity on which the money was spent 1) 2) 3)
(o) Did you receive any fund from LDRRF of CDMP in past?	Yes/No
p) Do you collect the revenue locally?	Yes/No
(q) How much revenue been collected from which source and how much revenue been spent?	Year TAX Source of expenditure 1) 2) 3)
(r) Do you collect revenue locally to mitigate the effect of climate change?	Yes/No
(s) If the answer is "yes" then what amount of money did you collect and on which activity the money was spent?	Year Amount of money The activity on which the money was spent 1) 2) 3)
(t) Is the amount of money you received from the government sufficient in compared to demand of mitigating the effect of climate change/natural disaster?	Yes/No
u) If the answer of E and G is "yes" then which activities could not be completed due to insufficient funding/financing?	Year Amount of the insufficient funding Activities which could not be completed due to insufficient amount of funding/financing 1) 2) 3)

Section 5 a): Effectiveness of the implemented activities due to climate change:	
(a) Which activity, executed with the fund/grants received from government, is being effective to address the problem? And how much effective the each activity is?	Name of the activity Effectiveness
(b) What is the reason if the activity was not effective?	
(c) Which existing sector's activity considered climate change accurately/has been effective in mitigating the effect of climate change?	Name of the activity Effectiveness

Section 5: b) : Problem in implementation:	
(a) Do you face any problem/challenge while implementing activities/programme to mitigate the effect of climate change?	Yes/No
(b) If the answer is yes then what are the problems?	1) 2) 3)

(c) Which service providing activity has the most impact of climate change in your area (water logging, dam break, floods, sea level, intrusion of saline water, not raining on time, early flood, cyclone, extreme weather, etc.)?	

Section 6 a) : The institutional capacity of Union Parishad:	
(a) Will you be able to implement the programme if necessary money is allocated to mitigate the impact of climate change?	Yes/No
(b) If the answer is "yes", then which programme will be able to be implemented? If the answer is "no", then which programme will not be able to be implemented?	Name of the programmes which are possible to implement Name of the programmes which are not possible to implement
(c) If the implementation is not possible, then why it is not possible?	Reasons 1) 2) 3)

Section 6 b) : Success of local government:	
(a) In your opinion, how much successful was the Local government in fulfilling the needs of people who are endangered by climate change or environmenta lissues?	
b) What kind of initiative/response do the local expect from the central and local government in providing support to increase tolerance for mitigating climate change/related issues?	

Section 6 c) : Information on manpower:	
(a) According to the approved setup of union parishad, how many arrangements/positions are available for manpower?	Number of officer Designation
(b) How many people are employed currently?	Number of employee Designation
(c) Is the current manpower sufficient?	Yes/No
(d) If the answer is "yes", then was the authority been requested?	Yes/No
(e) if the answer is "yes", then mentioned the date and the source	
(f) How many extra manpowers were needed?	Number of officer Designation Number of officer Designation
(g) What essential additional manpower is necessary for implementing all the activities to mitigate climate change issues?	Number of officer Designation Number of officer Designation

Section 7 a) : Opinion on use of the funding received for climate change from the central government, and on the area that has been affected, but funding/finance/budget was not allocated	
(a) You have been allocated with budget for specific programme to mitigate the impact of climate change, but your area is notvulnerable/ affected by the impact of climate change. In this case, what is your opinion on utilizing this allocation?	1) 2) 3) 4) 5) 6)
(b) Your area has been affected by the impact of climate change but you did not receive allocation. In this case, what will you do?	1) 2) 3) 4)

Section 7 b) : Your opinion/recommendations on formulating and implementing an appropriate fiscal framework to mitigate the effect of climate change:
1) 2) 3) 4)

Part 2: Component 4

Semi-structured Questionnaire for UNO regarding mainstreaming climate change into Union and Upazila Parishad's Planning and Financing

1) General Information:	
(a) Name of the upazila:	
(b) Name of the district:	
(c) Name of the Upazila Nirbahi Officer:	
(d) Duration:	

2) Effects of climate change:	
(a) What are the effects of climate change in this upazila?	1) 2) 3) 4)
(b) Which affect (among the aforementioned effects) you consider the most dangerous and why?	1) 2) 3) 4)
(c) What are the important environmental issues in this upazila?	1) 2) 3) 4)
(d) In which issue (among the aforementioned issues) you feel most endangered and why?	1) 2) 3) 4)

(e) Is there any possibility of appearing more environmental issues in future? If so, then what type of issues those are?	1) 2) 3) 4)

3) Programme to mitigate natural disaster:	
(a) What short-term/emergency programmes you have implemented/are implementing to mitigate natural disaster?	1) 2) 3) 4)
(b) What long term programmes you have implemented/ are implementing to mitigate natural disaster?	1) 2) 3) 4)
(c) What Programmes you have implemented/ are implementing to solve man- made disasters/environmental issues?	1) 2) 3) 4)
(d) Is there any organisation (NGO), except government, involved in post-disaster rescue and search/ long-term environment related rehabilitation your area?	Yes/No
(e) If the answer of "d" is yes then who coordinate their activities and how the activities are coordinated?	1) 2) 3)
(f) Are the endangered/affected people beingconsidered while electing beneficiary of mitigation of the effect climate change/natural disaster?	Yes/No
(g) If the answer is "yes" then what are the criteria of considering/ electing the beneficiaries?	1) 2) 3)

4) Financing/funding to mitigate the effect of climate change:	
(a) Did you receive any grants/funding from the central government to mitigatethe effect of climate change?	Yes/No
(b) If the answer is "yes" then from which source you received it? How much money you received in which year?	Year Name of the source Amount o f money 1) 2) 3)
(c) Is the local revenue been collected in this upazila to mitigate the effect of climate change?	Yes/No
(d) If the answer is "yes" then what amount of money was collected and on which activity the money was spent?	Year Name of the source Amount o f money 1) 2) 3) 4)
(e) Is the amount of money received from government sufficient incompared to demand to mitigate the effect tof climate change/natural disaster?	Yes/No

(f) If the answer is "no", then which activity could not be completed due to insufficient funding/financing?	Year Amount of the insufficient funding Activities which could not be completed due to insufficient amount of funding/financing 1) 2) 3) 4)

5) Problem in implementation:	
a) Do you face any problem/challenge while implementing activities/programme to mitigate the effect of climate change?	Yes/No

(b) If the answer is “yes”, then what are the problems?	1) 2) 3) 4)
(c) Which service providing activity has the most impact of climate change in your area (water logging, dam break, floods, sea level, intrusion of saline water, not raining on time, early flood, cyclone, extreme weather, etc.)?	

6) The institutional capacity of union parishad:	
(a) Will you be able to implement a programme if necessary money is allocated to mitigate the impact of climate change?	Yes/No
(b) If the answer is “yes”, then which programme will be able tobe implemented? If the answer is“no”, then which programme will not be able to be implemented?	Name of the programmes which are possible to implement Name of the programmes which are not possible to implement
(c) If the implementation is not possible, then why it will not be possible?	Reasons 1) 2) 3) 4)

7) Information on manpower:	
(a) According to the approved setup of union parishad, how many arrangements/positions are available for manpower?	Number of officer Designation Number of officer Designation
(b) How many people are employed currently?	
(c) Is the manpower sufficient?	Yes/No
(d) How many additional manpoweris required?	
(e) What type of manpower is essential for implementing all the activities to mitigate climate change issues?	

8) Sharing opinion on use of the funding received for the effect of climate change from the central government, and on the area that has been affected, but funding/finance/budget was not allocated	
(a) You have been allocated with budget for specific programme to mitigate the effect of climate change, but your area is not vulnerable/ affected by the effect of climate change. In this case, what is your opinion on utilizing this allocation?	
(b) Your area has been affected by theimpact of climate change but you did notreceive allocation. In this case, what will you do?	

9) Your opinion/recommendations to formulate and implement an appropriate fiscal framework to mitigate the effect of climate change:
1)
2)
3)
4)
5)
6)
7)
8)
9)
10)

Part 2: Component 5

Semi-structured Questionnaire for Upazila Chairman regarding mainstreaming climate change into Upazila and Union Parishad's Planning and Financing

1) General Information:	
(a) Name of the upazila:	
(b) Name of the district:	
(c) Name of the Chairman of Upazila Parishad:	
(d) Duration of work:	

2) Plan at the local level:	
(a) Does the upazila parishad have any plan?	Yes/No
(b) If the answer is yes	1 year long/ 3 years long/ 5 years long (copy of the plan is enclosed)
(c) When did the planning been started?	
(d) How do the development activities been implemented if Uazila Parishad does not have any plan?	1) 2) 3)
(e) Is there any plan regarding climate change/disaster management?	Yes/No
(f) If the answer is "yes"	1 year long/ 3 years long/ 5 years long
(g) If the answer is "yes", are you doing any work regarding climate change/disaster management	Yes/No
(h)How are you doing the work?	
(i)How do the activities regarding climatechange been implemented if there is no plan regarding climate change?	1) 2)

3) Effects/Impact of climate change:	
(a) What are the effects of climate change in your area?	1) 2) 3) 4)
(b) By which effect (among the aforementioned defects) you are being endangered most and why?	1) 2) 3) 4)
(c) What are the important environmental issues in your area?	1) 2) 3) 4)
(d) By which environmental issue (among the Aforementioned issues) you feelmost endangered most and why?	1) 2) 3) 4)
(e) Is there any possibility of rising more environmental issues in future? If there is possibility then what is/are the type of that/those issues?	1) 2) 3) 4)

4) Involvement in the policy regarding climate change:	
(a) Are you involved in the policy implementation of national/local government regarding climate change?	Yes/No

(b) If the answer is "yes", in which policy and how much you are involved?	1) 2) 3) 4)
(c) How the coordination is maintained among the centre, district, upazila, policy oflocal government and various programmes in government level where you are involve?	

5) Programme to mitigate natural disaster:	
(a) What short-term programmes you have implemented/ are implementing to mitigate natural disaster?	1) 2) 3) 4)
(b) What long term (for more than 1 year) programmes you have implemented/are implementing to mitigate natural disaster?	1) 2) 3) 4)
(c) What programmes you have implemented/are implementing to solve man-made disasters/ environmental issues?	1) 2) 3) 4)

(d) Is there any organisation (NGO), except the government, involved in post-disaster reclamation/long-term rehabilitation your area?	Yes/No
(e) If the answer of "d" is "yes", then who coordinate their activities and how the activities are coordinated?	1) 2) 3)
(f) What are the criteria of electing/considering beneficiary for mitigating effect of climate change/ natural disaster?	1) 2)

6) Financing/funding to mitigate the effect of climate change:	
(a) Did you receive any grants/funding from the central trust (ministry) to mitigate the impact of climate change?	Yes/No
(b) If the answer is "yes" then how much money you received in which year?	Year Amount of money
(c) Do you know from which source the mentioned grants/funding came?	Yes/No
(d) If the answer is "yes", what is the name of the source and what is the amount of grants/funding?	Year Name of the source Amount of money 1) 2) 3)
(e) Did you receive any money from "climate change trust"?	Yes/No

(f) If the answer is "yes", then what is the amount of the money you spent received and on which activity money was spent?	Year/ Amount of money/ The activity on which the money was spent 1) 2) 3)
(g) Did you receive any funding from Climate Change Resilience Fund?	Yes/No
(h) If the answer is "yes" then what is the amount of the funding you received and on which activity money was spent?	
(i) Did you receive any funding from LGSP fund?	Yes/No
(j) If the answer is "yes", then what is the amount of the funding you received and on which activities the money was spent? (the list enclosed)	Year/ Amount of money/ The activity on which the money was spent
(k) Did you receive any money from the 40-day programme? (enclosed)	Yes/No
(l) Did you receive any money from Food for Work Programme?	Yes/No
(m) Did you receive any funding/grants from any other source than the government (ministry)?	Yes/No

(n)If the answer is "yes" then what amount of money did you receive and on which activity the money was spent	Year/ Amount of money/ The activity on which the money was spent?
(o) Do you collect the revenue locally?	Yes/No
(p) How much revenue been collected from which source and how much revenue been spent?	Year TAX Source of expenditure 1) 2) 3)
(q) Is the amount of money you Yes/No received from the government sufficient in compared to demand of mitigating the effect of climate change/natural disaster?	Yes/No
(r) If the answer of "e" and "g" is "yes" then which activities could not be completed due to insufficient funding/financing?	Year Amount of the insufficient funding Activities which could not be completed due to insufficient amount of funding/financing

7) Effectiveness of the implemented activities due to climate change:	
(a) Which activity, executed with the fund/grants received from government, is being effective to address the problem? And how much effective the each activity is?	Name of the activity Effectiveness
(b) Which existing sector's activity considered climate change accurately/has been effective in mitigating the effect of climate change?	Name of the activity Effectiveness

8) Problem in implementation:	
(a) Do you face any problem/challenge while implementing activities/programme to mitigate the effect of climate change?	Yes/No
(b) If the answer is "yes" then what are the problems?	1) 2)
(c) Which service providing activity has the most impact of climate change in your area (water logging, dam break, floods, sea level, intrusion of saline water, not raining on time, early flood, cyclone, extreme weather, etc.)?	

9) Opinion on the institutional capacity of union parishad:	
(a) Will you be able to implement Yes/No the programme if necessary moneyis allocated to mitigate the impact of climate change?	Yes/No
(b) If the answer is "yes", then Name of the programmes which are possible to implement which programme will be able to be implemented? If the answer is"no", then which programme will not be able to be implemented?	Name of the programmes which are not possible to implement
c) If theimplementationisnotpossible, then why was not possible?	Reasons 1) 2) 3)

10) Success of local government:	
(a) In your opinion, how much successfull was the local government in accomplishing the union parishad's work of fulfilling the needs of people who are endangered by climate change or environmental issues?	
(b) What kind of initiative/response do the locals expect from the central and loca lgovernment in providing support to increase tolerance for mitigating climate change/related issues?	

11) Information on manpower:		
(a) According to the approved setup of Union Parishad, how many arrangements/positions are available for manpower?	Number of officer	Designation
(b) How many people are employed currently?		
(c) Is the current manpower sufficient?	Yes/No	
(d) How many extra manpowers are needed?	Number of officer	Designation
(e) What additional manpower isessential for implementing all the activities to mitigate climate change issues?	Number of officer	Designation

12) Opinion on use of the funding received for climate change from the central government, and on the area that has been affected, but funding/finance/budget was not allocated:	
(a) You have been allocated with budget for specific programme to mitigate the impact of climate change, but your area is not vulnerable/ affected by the impact of climate change. In this case, what is your opinion on utilizing this allocation?	1) 2) 3) 4) 5) 6)
(b) Your area has been affected by the impact of climate change but you did notreceive allocation. In this case, what will you do?	1) 2) 3) 4) 5)

13) Your opinion/recommendations on formulating and implementing an appropriate fiscal framework to mitigate the effect of climate change:
1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

Annex 5: Analysis

Part 1: Household Level

Q19. Age according to NID (in completed years)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=269	Treatment N=503	Control N=220	Treatment N=420
Mean age of respondent	44.2	44.3	44.1	46.2	45.5	45.3	45.4	44.0	44.1	43.3	43.1

Q20. Gender of respondent

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Sex of respondent											
Male	69.2	70.7	68.4	75.8	64.6	90.4	88.6	73.2	76.9	59.9	56.9
Female	30.8	29.3	31.6	24.2	35.4	9.6	11.4	26.8	23.1	40.1	43.1

q21. Education: Number of years in school (in completed years)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Education of respondent											
No education	26.3	25.4	26.7	40.5	50.7	48.6	53.6	20.5	19.5	15.2	13.9
Primary	43.8	42.3	44.6	48.3	38.8	32.3	30.0	33.3	42.1	50.1	53.5
Secondary	24.5	25.8	23.9	10.4	9.9	16.8	13.3	36.8	31.5	26.7	27.0
Higher Secondary	3.4	4.3	2.9	0.7	0.4	1.4	1.9	5.3	4.4	6.0	3.1
Graduate or above	2.0	2.2	2.0	0.0	0.2	0.9	1.2	4.1	2.5	2.0	2.5

Q22.Respondent of Marital status

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent Marital status											
Married	95.9	95.8	95.9	98.5	95.2	94.5	95.2	93.1	94.4	97.1	97.5
Unmarried	1.4	1.4	1.4	0.7	1.8	1.4	1.0	2.2	1.0	1.1	1.7
Divorced	0.7	0.9	0.5	0.4	1.0	3.2	1.7	1.2	0.3	0.1	0.2
Separated	2.1	1.9	2.2	0.4	2.0	0.9	2.1	3.5	4.2	1.7	0.8

Q24. Number of living children

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean number of children	3.0	3.0	3.0	4.1	3.7	2.8	3.1	2.5	2.6	2.9	3.0

Q25. Number of son in Household

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean number of son	1.8	1.8	1.8	2.2	2.2	1.7	1.8	1.6	1.6	1.8	1.8

Q26. Number of Daughter in Household

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean number of Daughter	1.9	1.8	1.9	2.3	2.2	1.7	1.9	1.7	1.7	1.8	1.8

Q29. Circle one of these status as may be appropriate through data obtained previously by pre-survey

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Status of previously by pre-survey											
General population	99.5	99.8	99.3	100.0	100.0	100.0	100.0	99.4	99.2	100.0	98.8
Indigenous people	0.3	0.00	0.5	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.6
General population	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6

Q30. Respondents of Occupation

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent's of Occupation											
No sources of income	15.4	13.0	16.6	0.7	6.6	0.0	0.0	11.8	7.1	23.3	33.1
Agriculture	20.6	19.7	21.0	39.8	46.3	34.5	40.2	9.2	5.3	14.6	16.7
Day labour (Agri/non agri)	32.1	32.1	32.1	43.1	34.2	46.4	39.5	40.7	50.0	16.2	15.2
Semi skilled labour*	3.4	3.8	3.2	1.1	0.2	3.2	4.0	4.9	3.9	4.3	3.5
Unskilled labour **	6.3	7.4	5.7	2.6	2.6	3.6	4.0	6.3	8.8	11.6	5.2
Small business	8.0	8.6	7.7	4.1	3.6	5.4	2.9	10.6	9..4	9.9	9.5

Poultry/livestock	0.8	0.7	0.9	3.7	0.4	0.0	1.0	0.4	0.8	1.2	1.2
Fishing/shrimp farming	5.6	6.5	5.1	0.0	0.4	2.7	1.0	7.9	6.3	9.3	7.5
Driver/transport worker	2.2	1.8	2.4	0.0	1.4	1.4	3.3	1.2	2.2	3.2	2.6
Salaried job	2.7	2.9	2.6	0.0	0.4	0.4	0.7	4.7	3.1	3.5	3.7
Other	3.0	3.5	2.7	8.2	4.0	2.2	3.3	2.2	3.1	2.9	1.8

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q31. Respondent's monthly income

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent's mean monthly income	6117.5	6178	6084.8	5973.2	4133.9	4304.9	5013.1	6075.2	5976.8	7198.4	7739.0

Q32.Respondent of Spouse (Husband/wife's) Occupation

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Spouse (Husband/wife's) Occupation											
No sources of income	38.3	35.3	39.9	8.2	13.9	18.2	34.5	42.5	42.1	46.6	50.2
Agriculture	7.9	7.6	8.0	21.2	26.4	6.4	10.0	3.0	1.4	6.1	5.1
Day labour (Agri/non agri)	26.6	28.2	25.7	51.30	44.5	21.4	6.7	36.2	38.6	14.8	14.9
Semi skilled labour*	1.8	2.1	1.7	0.7	0.2	2.3	1.2	1.6	1.4	2.9	2.6
Unskilled labour **	12.1	12.8	11.7	8.2	5.4	42.3	39.3	3.3	7.0	12.0	8.7
Small business	3.4	3.5	3.4	1.1	2.2	0.4	0.5	3.9	1.6	5.0	6.1
Poultry/livestock	1.7	1.6	1.6	0.0	0.2	7.3	6.4	1.4	1.6	0.9	0.5
Fishing/shrimp farming	2.3	3.2	1.9	0.0	0.4	0.4	0.0	2.2	1.7	6.1	3.1
Driver/transport worker	1.4	0.7	1.7	0.0	0.4	0.0	0.0	0.8	0.3	1.1	3.9
Salaried job	2.1	2.2	2.1	0.4	0.4	0.4	0.2	3.7	2.4	2.4	3.0
Other (other all options)	2.5	2.8	2.4	8.9	6.0	0.9	1.2	1.4	1.6	2.0	1.9

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q33. Respondent of Spouse (Husband/wife's) monthly income (Taka)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent's spouse mean monthly income	4651.6	5144.4	4396.3	3353.3	2085.3	1036.8	1212.8	7932.9	4966.6	6396.5	6526.7

Add Respondent income & Respondent spouse income

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Added total mean monthly family income (yearly average)	7111.9	7482.8	6918.3	6885.8	4745.9	5073.1	5804.3	7519.6	6648.7	8509.6	8348.6

Q34. Respondent of Monthly average family income (all household member and income from all source) (Taka)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean monthly family income (yearly average)	7097.1	7488.6	6892.9	6850.4	4730.9	5068.5	5635.7	7523.6	6648.7	8537.1	8347.0

Q35. Status of respondent household

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Status of respondent household											
Well off/non poor	15.5	15.7	15.3	9.3	2.2	3.18	3.6	14.2	13.3	23.6	25.9
Low income/poor	67.1	70.3	65.5	4.0	62.8	72.3	78.8	67.7	67.1	70.1	61.0
Hard core poor	17.4	14.0	19.2	16.7	35.0	24.6	17.6	18.1	19.6	6.3	13.1

Q36a. How many total members in the respondent household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean total respondent household's members	4.9	5.0	4.9	6.2	5.7	4.4	4.4	4.4	4.3	5.1	5.1

Q36b. How many adult men (18 and above)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean adult men	1.5	1.5	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.6	1.6

Q36c. How many adult Women (18 and above)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean adult women	1.5	1.5	1.5	1.6	1.5	1.3	1.2	1.5	1.5	1.6	1.6

Q36d. How many boys (below 18)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean boys	1.5	1.5	1.5	1.9	2.0	1.4	1.5	1.3	1.3	1.5	1.5

Q36e. How many girls (below 18)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean girls	1.5	1.5	1.5	2.0	2.0	1.4	1.4	1.4	1.3	1.4	1.5

Q36f. How many respondent HH members are earning/working?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Number of earning member in respondent household											
1	72.2	69.0	73.9	75.5	76.7	29.5	45.2	79.9	79.5	71.0	77.9
2	23.5	26.6	21.9	16.4	15.3	66.8	49.7	17.7	18.7	24.1	17.9
3+	2.9	3.7	2.5	7.8	5.0	2.3	3.1	1.8	0.6	3.4	2.8

Q36f. How many respondent HH members are earning/working?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean number of earning member in respondent household	1.3	1.4	1.3	1.4	1.3	1.7	1.6	1.2	1.2	1.3	1.2

Q37. Does any member of your respondent household own?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent of household asset											
Electricity	39.6	48.6	34.8	58.0	17.9	31.4	40.0	58.1	33.4	43.3	42.1
Solar electricity	45.2	42.7	46.5	36.8	39.0	39.5	21.9	38.4	56.5	49.4	49.8
Television	10.8	14.0	9.1	1.5	1.8	12.3	5.8	20.7	9.6	14.5	12.8
Mobile	87.7	90.7	86.2	87.4	66.2	90.4	90.0	92.5	91.3	90.7	88.9
Refrigerator	2.3	2.7	2.2	0.7	0.2	1.4	0.0	2.6	1.1	4.0	4.4
Water pump	0.8	0.3	1.0	0.4	0..2	0.9	4.0	0.2	0.4	0.1	0.9
Computer/laptop	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.5	0.5
Bicycle	9.5	7.2	10.6	2.2	0.8	26.8	51.7	5.5	7.6	4.0	3.3
Motorcycle	2.5	2.9	2.4	0.0	0.2	2.7	0.2	3.9	2.6	3.3	3.4
Boat	4.4	4.0	4.6	9.7	8.3	1.4	2.1	2.4	4.3	3.8	4.1
Livestock	30.6	32.3	29.7	8.2	7.0	60.4	56.7	23.4	20.7	39.6	36.5
Own land	46.0	40.0	49.2	13.0	24.1	25.0	39.3	39.0	43.3	56.2	66.8

Q38. Type of structure household resides?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Materials of respondent house											
House (made by brick)..	0.9	1.3	0.7	0.0	0.0	0.0	0.0	2.0	0.5	1.7	1.2
House (brick and Corrugated sheet	5.7	6.5	5.3	4.5	1.8	5.4	8.1	5.7	4.2	8.4	6.6
House (Corrugated sheet and mud	55.7	57.3	54.9	34.6	47.7	7.7	25.0	63.4	58.4	78.5	65.0
House (bamboo and mud	5.1	4.8	5.4	1.1	3.6	0.9	1.4	11.4	12.6	2.4	1.9
Shack (wood planks, bamboo	2.6	2.2	2.8	1.1	0.2	2.3	2.1	4.7	6.1	0.6	1.6
House (Fence and Corrugated sheet	11.5	9.6	12.6	19.0	14.3	27.3	28.3	7.9	12.9	1.1	6.5
House (wall and roof by Corrugated sheet)	18.3	18.4	18.3	39.8	32.4	56.4	35.0	4.9	5.3	7.3	17.2

Q39. Does your household own this structure (house, flat, shack), do you rent it, or do you live here without paying?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Ownership of respondent house											
Owned	91.4	89.2	92.5	87.7	88.5	88.2	93.1	91.3	92.4	88.6	94.1
Rental	1.2	1.9	0.8	0.0	0.2	0.9	1.7	1.8	0.3	3.2	1.1
No rent	3.7	3.9	3.5	9.3	10.1	8.2	2.9	2.0	3.5	1.8	1.1
Father/Father in law's homestead	0.5	0.4	0.5	0.0	0.2	0.0	0.0	1.4	1.2	0.0	0.2
Khas land/squatting	3.3	4.5	2.7	3.0	1.0	2.7	2.4	3.5	2.6	6.4	3.5

Q40. Does your household own the land on which the structure (house, flat, shack) sits

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Ownership of the respondent homestead land											
Owned	90.1	87.5	91.5	84.8	86.7	87.3	92.9	90.2	90.3	86.6	93.8
Rental	1.5	2.8	0.9	0.0	0.2	1.4	1.8	2.0	0.6	5.0	1.1
No rent	4.2	4.6	4.0	11.9	11.3	8.2	2.9	2.6	4.3	2.0	1.2
Father/Father in law's homestead	0.7	0.5	0.8	0.0	0.8	0.4	0.0	1.4	1.7	0.0	0.2
Govt's shelter	3.5	4.7	2.9	3.3	1.0	2.7	2.6	3.9	3.0	6.4	3.7

Q41.Number of rooms in respondent household

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean number of rooms in respondent house	1.9	1.8	1.9	1.7	1.4	1.8	2.1	1.6	1.5	2.1	2.3

Q42.What kind of toilet facility do members of respondent household usually use?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Type of toilet facility use respondent house											
Pour flush toilet with Septic tank	4.7	5.0	4.6	1.9	0.0	5.9	5.5	4.5	3.1	6.4	7.2
Pit latrine	77.1	83.1	73.9	86.6	54.1	73.2	66.4	78.3	73.9	88.7	84.1
Open pit.	11.6	9.6	12.6	6.0	5.4	18.6	27.4	14.4	18.5	4.3	6.2

Hanging toilet/latrine	4.6	1.1	6.4	2.2	31.2	0.4	0.0	1.6	2.6	0.5	1.7
No facility/open	2.0	1.2	2.4	3.3	9.1	1.8	0.7	1.2	1.9	0.1	0.9
Use other's toilet	0.0	0.0	0.1	0.0	0.2	0	0	0.0	0.1	0	0

Q43. What type of fuel does your household mainly use for cooking?(Multiple)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Fuel of respondent household mainly											
Electricity/Kerosene	2.6	1.8	3.0	1.2	13.3	0.4	1.0	3.1	1.4	1.1	0.9
LPG/Natural Gas/Biogas	4.1	4.4	3.9	0.4	0.8	0.4	0.5	3.1	2.5	8.2	7.3
Wood/forest seed	82.3	86.6	80.0	61.7	25.6	77.3	63.8	93.1	92.9	95.0	96.9
Straw/Shrubs/Grass/Agricultural Crop/Leaves	67.7	63.2	70.0	86.6	77.7	97.3	96.9	50.2	50.6	52.1	72.3
Coal/Lignite/Charcoal	3.9	2.4	4.6	12.3	25.4	1.4	2.6	0.2	0.4	0.5	0.3
Animal Dung	45.0	48.3	43.3	85.9	71.2	67.7	68.6	34.8	25.6	36.9	37.4

Q44. What is your household's main (primary) source of drinking water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Primary source of drinking water											
Piped to house	0.6	1.0	0.4	0.0	0.0	0.5	0.2	2.6	0.5	0.5	0.6
Tube Well	74.5	74.6	74.4	100.0	98.8	99.5	99.8	25.4	25.9	94.0	93.2
PSF	3.7	4.5	3.3	0.0	0.0	0.0	0.0	11.0	7.6	2.7	2.3
River/Stream	0.6	0.4	0.8	0.0	1.0	0.0	0.0	1.4	0.8	0.0	0.9
Rain water	4.3	4.2	4.3	0.0	0.0	0.0	0.0	13.6	13.5	0.1	0.3
Pond	15.9	14.7	16.5	0.0	0.2	0.0	0.0	44.7	50.6	2.4	2.6
Desalinization Plant	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0
Local Water Transporters	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.8	0.7	0.0	0.0
Other	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0

Q45. What are your household's other (secondary) sources of drinking water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Secondary source of drinking water											
Piped to house	0.2	0.2	0.2	0.0	0.2	0.0	0.0	0.6	0.1	0.1	0.2
Tube Well	24.7	25.2	24.5	91.8	85.9	28.6	43.6	3.9	2.8	13.3	10.5
PSF	0.5	0.5	0.4	0.0	0.2	0.0	0.0	0.6	0.5	0.9	0.5
River/Stream	5.0	3.5	5.8	14.5	25.6	0.0	0.7	2.2	3.0	1.2	1.9
Rain water	30.0	29.7	30.2	3.0	13.3	0.0	0.0	71.3	70.8	18.4	16.1
Pond	12.0	13.0	11.5	13.0	14.5	0.0	1.0	13.6	12.6	16.8	12.9
Desalinization Plant	0.0	0.5	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local Water Transporters	0.2	0.1	0.1	0.0	0.0	0.0	0.0	1.4	0.4	0.0	0.0
Other	0.0	0.1	0.0	0.4	0.0	0.0	0.0	.00	0.1	0.0	0.0

Q46. Are your three main drinking water sources impacted by salinization?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Salinity intrusion of 1st drinking water source											
Yes	20.0	19.2	20.4	0.4	0.6	0.0	0.5	52.6	55.0	7.5	8.6
No	80.0	80.8	79.6	99.6	99.4	100.0	99.5	47.4	45.0	92.5	91.4

Q46. Are your three main drinking water sources impacted by salinization?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Salinity intrusion of 2nd drinking water source											
Yes	42.5	42.7	44.0	0.0	1.0	0.0	0.5	5.0	1.5	5.0	1.5
No	52.7	55.1	51.5	100.0	99.0	100.0	99.5	95.0	98.5	95.0	98.5

Q46. Are your three main drinking water sources impacted by salinization?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Salinity intrusion of 3rd drinking water source											
Yes	1.3	1.3	1.3	0.0	1.2	0.0	0.0	3.2	1.3	0.9	1.6
No	98.7	98.7	98.8	100.0	98.8	100.00	100	96.8	98.7	99.1	98.4

Q47. Who is MAINLY responsible for collecting drinking water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Responsibility of drinking water collection											
Male household member only	12.7	9.7	14.3	3.3	9.0	0.91	4.5	17.1	18.9	9.6	16.1
Female household member	60.2	59.0	60.7	66.9	84.3	26.4	34.8	62.4	62.0	64.2	59.0
Male and female both	27.1	31.2	25.0	29.7	6.8	72.7	60.7	20.5	19.1	26.2	24.9

Q48. How much time does this member of the household spend per day gathering drinking water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Time required for drinking water collection											
15 minutes or under	58.2	55.9	59.3	42.0	81.3	46.8	45.7	54.3	40.4	65.9	69.4
16-30 minutes	30.0	32.2	28.9	40.2	17.9	51.8	49.5	24.4	31.3	28.5	24.6
31 – 60 minutes	7.9	8.2	7.7	16.7	0.8	1.4	3.4	11.8	16.6	4.1	5.1
more than 60 minutes	1.8	1.6	2.0	0.7	0.0	0.0	1.2	3.9	5.3	0.6	0.6
1-2 hours	1.5	1.6	1.4	0.4	0.0	-	-	3.7	4.2	0.9	0.3
2-3 hours	0.5	0.4	0.5	-	-	-	-	1.2	1.7	0.0	0.1
3-4 hours or more	0.2	0.2	0.2	-	-	-	-	0.6	0.5	-	-

Q49. How many kilometers do you travel to fetch/collect drinking water? (convert it to kilometers if meter or other unit)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean travel fetch / distance to collect drinking water	.4	.4	.4	.3	.4	.00	.03	.7	.8	.3	.3

Q50_1. What is the main source of drinking water for your dwelling (**dry season)**?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Main drinking water source during dry season											
Piped to house	0.6	0.7	0.5	0.0	0.2	0.0	0.5	1.4	0.3	0.6	0.9
Tube Well	67.5	70.8	65.7	98.1	87.3	100.0	98.8	17.7	17.7	90.8	82.8
PSF	2.5	3.0	2.2	1.5	0.0	0.0	0.5	5.7	3.9	2.6	2.3
River/Stream	3.4	2.1	4.1	0.0	11.1	0.0	0.0	6.9	2.8	0.0	3.6
Rain water	0.8	0.4	1.0	0.0	0.2	0.0	0.0	1.4	2.8	0.0	0.2
Pond	24.9	22.6	26.1	0.0	0.8	0.0	0.0	66.1	71.4	5.8	10.2
Desalinization Plant	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.0
Local Water Transporters	0.2	0.2	0.3	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0
BSF (bio0.0sand filter)	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.08
Alum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.08

Q50_2. What is the main source of drinking water for your dwelling (**RAINY SEASON)**?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Main drinking water source during rainy season											
Piped to house	0.3	0.3	0.3	0.4	0.0	0.0	0.0	0.6	0.1	0.1	0.6
Tube Well	52.2	56.1	50.1	99.2	64.0	100.0	100.0	6.5	5.4	62.2	62.1
PSF	0.5	1.0	0.3	0.0	0.2	0.0	0.0	2.4	0.5	0.6	0.2
River/Stream	4.6	1.9	6.1	0.4	23.1	0.0	0.0	5.7	2.3	0.1	4.2
Rain water	30.3	27.0	32.0	0.0	11.5	0.0	0.0	63.6	71.5	18.9	20.7
Pond	12.0	13.7	11.3	0.0	1.2	0.0	0.0	21.3	20.2	18.0	12.2

51a. How many equivalent bottles of drinking water are need in your household each day?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean drinking water requirement bottles in dry season (in Liter)	3.8	3.7	3.9	4.0	4.0	3.7	4.7	3.6	3.6	3.7	3.8

Q51b. How many equivalent bottles of drinking water are need in your household each day?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean drinking water requirement bottles in rainy season (in Liter)	3.9	3.7	3.9	5.2	5.2	3.3	4.8	3.7	3.7	3.3	3.3

Q52. Do you usually treat water to make it safe to drink?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Treatment of drinking water											
Yes	16.4	15.1	17.1	11.5	10.5	0.0	0.2	37.0	40.7	4.6	7.3
No	83.6	84.9	82.9	88.5	89.5	100.0	99.8	63.0	59.3	95.4	92.7

Q53. How do you usually treat the water to make it safer to drink?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Treatment practice of drinking water											
Let it stand/sedimentation	4.0	3.7	4.2	11.5	10.5	0.0	0.0	5.5	6.2	0.3	1.6
Strain it through cloth	3.5	3.7	3.3	4.1	1.0	0.0	0.0	9.1	7.3	0.8	2.3
Boil	2.8	2.4	3.0	0.37	0.4	0.00	0.2	5.3	5.8	1.8	2.9
Add bleach/Chlorine	2.6	0.9	3.4	0.0	0.0	0.0	0.0	2.8	10.4	0.1	0.5
Water filter (Ceramic, sand, composite)	0.6	0.6	0.6	0.0	0.0	0.0	0.0	1.4	0.9	0.5	0.9
Solar Disinfection	0.02	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Alum/Fitkiri	7.8	9.0	7.1	0.0	0.0	0.0	0.0	26.2	21.6	2.3	1.3

Q54. Have you permanently changed the main (primary) source you gather water from in the past 10 years?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Permanently changed primary drinking water source in past 10 years											
Yes	8.7	11.7	7.1	3.3	7.2	0.4	0.7	21.5	11.9	11.3	5.6
No	91.3	88.3	92.9	96.6	92.8	99.5	99.3	78.5	88.1	88.7	94.4

Q55. What was your old main (primary) source of water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Old primary drinking water source											
Piped to house	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Tube Well	1.0	1.3	0.9	1.9	1.2	0.4	0.7	0.8	0.3	1.7	1.3
PSF	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.6	1.1	0.1	0.1
River/Stream	0.9	0.4	1.1	1.1	5.8	0.0	0.0	0.4	0.1	0.3	0.5
Rain water	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.6	0.2	0.1	0.0
Pond	6.1	9.4	4.5	0.4	0.0	0.0	0.0	19.1	9.9	8.7	3.6
Local Water Transporters	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Alum	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.2

Q56. What is your new main (primary) source of water?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
New primary main drinking water source											
Piped to house	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.8	0.2	0.0	0.4
Tube Well	5.3	7.7	4.0	3.3	7.2	0.4	0.7	9.1	2.4	11.0	5.1
PSF	1.6	2.2	1.3	0.0	0.0	0.0	0.0	7.1	4.2	0.1	0.1
River/Stream	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rain water	1.0	0.8	1.0	0.0	0.0	0.0	0.0	2.8	3.4		0.0
Pond	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.6	0.9	0.1	0.0
Desalinization Plant	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0
Local Water Transporters	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.0
BSF (bio -sand filter)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0

Q57. How many meals does your household take in a day?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Household's meal per day											
Two	21.1	18.0	22.7	46.8	65.4	31.8	45.7	4.7	9.2	11.7	8.5
Three or more	79.0	82.0	77.4	53.2	34.6	68.2	54.3	95.3	90.8	88.3	91.5

Q58. Does a member of your household suffer from one of the following chronic diseases?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Current suffering of chronic diseases of any household member											
No suffering	56.5	56.8	56.3	52.8	46.6	63.6	54.0	52.3	61.9	52.3	61.9
Hypertension	18.2	18.3	18.2	31.2	37.4	7.7	8.6	14.17	14.4	19.7	16.6
Heart disease	12.6	12.6	12.6	11.1	13.3	2.3	3.6	12.6	13.7	16.8	14.5
Diabetics	7.3	8.0	6.9	5.6	3.2	3.2	4.3	8.9	7.5	9.9	8.7
Skin disease	11.2	11.4	11.1	19.3	8.5	22.3	29.3	5.5	9.2	9.1	7.6
Dysentery	7.2	6.2	7.6	1.1	3.6	6.4	9.3	9.8	15.7	5.5	2.6
Paralysis/ Autism	2.1	2.0	2.1	3.7	1.8	0.9	0.7	0.4	1.1	2.9	3.3
Asthma	0.7	0.7	0.6	1.9	0.4	0.4	0.0	0.6	0.2	0.5	1.2
Jaundice/ Hepatises B	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
TB	0.6	0.1	0.2	0.74	0.6	0.0	0.0	0.0	0.0	0.0	0.2

Q59. Suffering of chronic diseases of any household member in last 3 months

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Suffering of chronic diseases of any household member in last 3 months											
No suffering	72.3	74.2	71.3	63.6	55.3	64.5	59.5	77.6	73.8	79.3	79.5
Hypertension	7.8	6.5	8.5	13.0	20.9	7.7	6.4	4.9	5.7	4.7	6.5
Heart disease	5.5	4.2	6.2	4.8	10.9	2.3	1.4	5.3	7.1	3.7	5.3
Diabetics	3.3	3.1	3.5	4.5	2.2	1.8	2.9	4.1	4.1	2.1	3.7
Skin disease	8.5	9.4	8.1	21.9	9.7	20.9	25.5	3.7	5.6	4.7	3.6
Dysentery	5.5	5.1	5.6	1.1	4.6	2.3	4.3	8.1	10.6	5.5	2.7
Paralysis/ Autism	2.1	1.8	2.2	4.5	3.8	1.4	0.2	0.6	0.3	1.8	3.6

Asthma	0.4	0.4	0.4	0.7	0.4	0.5	0.2	0.2	0.1	0.5	0.8
Jaundice/ Hepatises B	0.04	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
TB	0.1	0.1	0.1	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Q59.1. Have any ofyour adult household members have permanently relocated to another village, district, or country since January 2012

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Permanent relocation of any adult household members in last 5 years											
Yes	3.0	2.6	3.2	1.9	1.4	0.00	0.2	5.9	7.2	1.2	1.8
No	97.0	97.4	96.8	98.1	98.6	100.00	99.8	94.1	92.8	98.8	98.2

Q60_1. Relocation of male members

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Relocation of male members											
1	1.3	1.1	1.3	0.4	0.4	0.0	0.2	1.8	2.3	1.2	1.4
2	0.3	0.4	0.3	1.1	0.4	0.0	0.0	0.6	0.4	0.0	0.2
3+	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.1

Q60_2. Relocation of female members

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Relocation of female members											
1	1.6	1.4	1.7	0.7	1.0	0.0	0.0	3.9	4.6	0.1	0.3
2	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.2
3+	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

Q61. For the last person who left, what was his/her MAIN reason to leave the household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Reasons for relocation for the last migrated member											
No livelihood	2.8	2.4	3.0	0.7	1.0	0.0	0.2	5.7	7.0	1.2	1.7
Damage to house by cyclone or flood	0.1	0.2	0.1	1.1	0.0	0.0	0.0	0.0	0.2	0.0	0.1
Crop failure	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Q62. For the last person who left, what were his/her other reasons to leave the household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Reasons for relocations											
No livelihood	0.7	0.7	0.8	0.7	0.0	0.0	0.2	1.2	1.0	0.5	1.1
Marriage	1.8	1.9	1.8	0.7	0.8	0.0	0.0	4.9	4.9	0.6	0.4
Education	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3
Damage to house by cyclone or flood	0.1	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.3	0.0	0.1
Crop failure	0.2	0.2	0.2	0.0	0.4	0.0	0.0	0.2	0.4	0.3	0.0
Limited fresh drinking water	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.2	0.1	0.0
River erosion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.2

Q63. Has changing environmental and climatic conditions been a factor influencing people to leave the household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Environmental and climate change is a influential factor for migration											
Yes	0.4	0.4	0.3	1.5	0.6	0.0	0.0	0.6	0.7	0.0	0.1
No	99.6	99.6	99.7	98.5	99.4	100.0	100.0	99.4	99.3	100.00	99.9

Q64. What environmental events have led to people leaving the household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Environmental factors that cause the migration											
Storm surge (big wave)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0

More saltwater in surface/ground water	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.0
Drought	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Floods (extreme rain events)	0.0	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Riverbank / Coastal erosion	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Change in environment was no reason to leave	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Flash flood	0.1	0.2	0.0	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0

Q65. Primary source of respondent income

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Primary source of income now											
No sources of income	9.2	6.1	10.7	0.0	1.2	0.0	0.0	6.5	2.0	10.4	24.6
Agriculture	23.1	21.7	23.8	43.1	58.6	34.1	42.1	11.2	5.9	16.8	17.6
Day labour (Agri/non agri)	32.2	32.7	31.9	43.1	29.2	46.4	38.3	37.8	50.0	20.0	17.1
Semi skilled labour*	3.7	4.2	3.3	1.5	0.8	3.6	4.5	4.3	3.8	5.5	3.6
Unskilled labour **	5.7	6.2	5.5	0.4	1.2	4.1	3.3	4.7	8.0	10.4	5.8
Small business	9.2	10.4	8.6	4.1	2.6	5.9	2.6	13.2	10.8	12.3	11.3
Poultry/livestock	0.5	0.4	0.6	0.0	0.2	0.0	1.2	0.4	0.6	0.8	0.5
Fishing/shrimp farming	6.7	8.2	6.0	0.0	1.6	2.3	1.0	9.4	7.6	12.5	8.1
Driver/transport worker	2.6	2.1	2.8	0.0	1.0	0.9	3.3	1.2	2.4	3.3	3.7
Salaried job	3.6	4.1	3.4	0.0	0.2	0.4	0.7	7.3	4.4	4.6	4.7
Other (other all options)	3.6	3.9	3.4	7.8	3.4	2.3	2.9	3.1	4.3	3.5	2.9

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q65a. Respondent income from primary source

Indicators (%, Mean	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean income from primary source	6301.9	6457.4	6216.6	4902.8	3557.9	4257.4	4961.8	6636.1	6330.9	7804.9	7982.3

Q66. Secondary source of income now

Indicators (%, Mean	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
Secondary source of income now											
No sources of income	64.8	59.4	67.6	6.7	27.2	28.2	60.0	78.1	75.6	76.8	79.8
Agriculture	7.3	8.2	6.7	25.6	21.1	11.4	13.6	1.2	0.6	5.5	3.5
Day labour (Agri/non agri)	10.2	11.3	9.7	35.3	30.8	20.0	4.5	4.5	6.7	3.7	5.4
Semi skilled labour*	1.2	1.4	1.1	1.1	0.8	2.3	0.5	2.2	1.5	0.6	1.1
Unskilled labour **	7.5	8.8	6.9	9.7	6.8	23.2	12.4	4.7	8.4	6.7	4.1
Small business	1.7	2.1	1.4	1.9	2.9	2.7	0.7	2.4	0.7	1.8	1.6
Poultry/livestock	2.2	2.4	2.1	0.4	0.4	10.0	7.1	1.4	2.2	1.5	1.0
Fishing/shrimp farming	1.8	1.6	1.9	2.6	4.2	0.4	0.0	2.2	2.0	1.1	1.5
Driver/transport worker	0.6	0.4	0.7	0.0	0.6	0.0	0.4	0.8	0.5	0.5	0.9
Salaried job	0.6	0.7	0.5	0.4	0.0	0.0	0.2	1.2	1.0	0.8	0.5
Other (other all options)	2.2	3.8	1.4	16.4	5.4	1.8	0.5	1.4	0.7	1.1	0.7

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q66a.Respondent income from secondary source

Indicators (%, Mean Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area	South west coastal area			South central coastal area	
Mean income from secondary source	2737.7	2540.4	2861.4	2334.9	1777.5	1283.4	1889.3	3149.5	2690.1	3584.3	4906.7

Total income from primary and secondary sources

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean total income from primary and secondary sources	7057.6	7313.6	6919.9	6504.8	4519.0	5056.6	5668.1	7317.7	6913.5	8483.6	8560.9

Q69. What were the sources of income for your household over the previous year?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Income sources over the previous year											
No sources of income	1.8	1.4	2.0	1.9	3.4	0.4	1.2	0.0	0.5	2.6	2.8
Agriculture	29.0	28.3	29.4	45.7	62.2	40.0	52.1	15.3	9.3	27.1	24.3

Day labour (Agri/non agri)	40.1	40.5	39.8	56.5	39.6	45.0	42.1	46.1	54.3	28.1	28.2
Semi skilled labour*	5.2	6.2	4.7	3.0	1.6	5.0	4.3	6.1	5.0	7.9	5.8
Unskilled labour **	4.5	4.5	4.5	0.7	0.0	2.3	1.2	6.3	8.9	5.5	4.1
Small business	11.2	12.2	10.6	5.2	3.4	5.0	1.9	15.5	11.5	14.9	15.7
Poultry/livestock	14.0	16.7	12.6	9.3	5.8	26.4	32.4	8.9	8.7	22.7	11.7
Fishing/shrimp farming	9.2	10.1	8.8	2.2	6.6	1.8	0.9	11.0	9.8	15.4	11.4
Driver/transport worker	3.9	2.9	4.5	3.0	2.0	0.9	3.3	2.2	3.7	4.1	6.4
Salaried job	4.5	5.4	4.1	0.4	0.4	0.4	1.2	8.1	5.3	7.0	5.5
Other (other all options)	5.1	5.2	5.0	5.5	5.0	2.3	2.4	4.3	5.9	6.5	5.3

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber
** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q70. Which of the following income sources was the primary source of income for your household during the previous year?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Primary sources of income over the previous year											
No sources of income	1.3	1.2	1.4	1.1	0.8	0.4	1.2	0.2	0.6	2.1	2.2
Agriculture	25.1	24.3	25.5	45.0	55.7	38.2	45.7	13.2	7.4	19.7	20.7
Day labour (Agri/non agri)	35.8	35.6	35.9	42.0	32.2	42.7	37.6	42.7	50.0	25.0	26.0
Semi skilled labour*	4.0	4.6	3.7	1.1	0.6	5.0	3.1	4.7	3.4	5.8	5.2
Unskilled labour **	3.9	3.7	4.0	0.4	0.2	2.3	1.4	4.9	7.3	4.6	3.7
Small business	10.0	10.5	9.7	3.3	2.4	5.0	1.4	13.2	10.7	13.3	14.5
Poultry/livestock	1.4	1.2	1.5	1.1	0.8	0.4	2.9	0.8	1.1	1.8	1.5
Fishing/shrimp farming	7.7	8.7	7.3	0.4	3.2	2.7	0.5	8.5	7.8	14.2	10.6
Driver/transport worker	3.0	1.8	3.7	0.0	1.0	0.9	3.3	1.8	2.5	2.9	5.7
Salaried job	4.0	4.6	3.8	0.4	0.0	0.4	1.2	7.1	5.1	5.8	5.1
Other (other all options)	3.9	3.9	3.8	5.2	3.2	1.8	1.7	3.0	3.9	4.9	4.7

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber
** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q71. What are the sources of income for your household over this year?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Sources of income over this year											
No sources of income	1.4	1.4	1.4	2.6	2.2	0.0	1.2	0.4	0.5	2.1	1.9
Agriculture	25.9	25.7	26.0	39.0	53.5	35.4	43.8	12.8	7.5	26.8	23.3
Day labour (Agri/non agri)	40.5	41.3	40.1	60.2	42.1	49.1	41.4	44.5	53.5	28.5	28.7
Semi skilled labour*	5.1	5.8	4.7	2.6	1.6	4.5	4.3	6.7	4.6	6.7	6.1
Unskilled labour **	4.5	4.4	4.5	1.5	0.0	3.2	1.2	5.5	9.1	5.2	3.9
Small business	11.4	12.5	10.8	4.8	4.0	5.4	3.1	15.9	11.5	15.2	15.5
Poultry/livestock	13.8	16.3	12.4	7.8	6.8	25.9	31.0	7.7	8.1	23.3	11.9
Fishing/shrimp farming	9.1	10.1	8.6	1.5	4.8	2.3	1.0	11.6	9.9	15.1	11.7
Driver/transport worker	4.0	2.9	4.6	1.9	1.8	0.9	3.6	2.8	3.2	4.1	7.0
Salaried job	4.6	5.3	4.3	1.1	0.2	0.4	1.2	8.1	5.4	6.5	6.1
Other (other all options)	5.4	5.9	5.1	6.3	4.4	4.1	2.9	4.9	5.8	7.0	5.6

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q72. Which of the following income sources was the primary source of income for your household this year?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Primary source of income over this year											
No sources of income	0.8	0.6	0.9	1.5	0.8	0.0	0.5	0.0	0.5	0.9	1.4
Agriculture	22.8	21.7	23.4	33.8	48.7	34.1	41.7	11.6	6.3	20.3	20.4
Day labour (Agri/non agri)	37.3	37.5	37.2	50.2	38.2	46.4	38.8	42.5	50.7	25.3	26.1
Semi skilled labour*	4.0	4.5	3.8	1.49	0.8	3.6	4.0	4.2	3.6	5.6	5.0
Unskilled labour**	3.4	3.7	4.0	0.7	0	3.2	1.4	4.5	7.3	4.4	3.8
Small business	10.4	10.8	10.2	3.7	3.4	5.0	2.9	13.6	10.8	13.6	14.9
Poultry/livestock	1.2	1.4	1.0	1.1	0.6	0.0	2.1	0.8	1.2	1.4	1.5
Fishing/shrimp farming	7.9	9.3	7.2	1.5	3.0	3.2	1.0	9.4	7.7	14.3	10.4
Driver/transport worker	3.2	2.0	3.9	0	1.4	0.9	3.6	1.8	2.6	3.2	6.0
Salaried job	4.1	4.7	3.9	0.4	0.2	0.4	0.7	7.3	4.7	5.8	5.7
Other (other all options)	4.3	4.5	4.2	5.6	3.0	3.2	3.3	3.5	4.4	5.2	4.8

*Wage paid (mill, factory work/garments work), tailoring, electrician /plumber/sanitary work/ mechanic, carpenter/mason and blacksmith/potter/cobbler/barber

** Rickshaw/van puller/trolley puller, stone worker; collecting crab and shrimp fingerling

Q73. How many household members above the age of 16 have earned income for the household during the last 12 months?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent House hold of earning above age 16 in last 12 month											
One	70.8	67.5	72.6	75.5	78.9	30.0	38.8	78.9	79.1	68.0	76.2
Two	23.8	25.9	22.7	14.5	14.9	64.1	52.9	18.9	19.3	23.3	18.4
Three or more	5.4	6.5	4.8	10.0	6.2	5.9	8.3	2.2	1.6	8.7	5.4

Q74. Do you cultivate fish/crab in ponds/gher/waterbody/haor/river?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Cultivation of fish											
Yes	6.2	6.5	6.1	0.4	0.2	0.4	0.0	10.0	14.6	8.2	4.0
No	93.8	93.5	93.9	99.6	99.8	99.5	100.0	90.0	85.3	91.8	96.0

Q76. How much was harvested of each species for household consumption

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean amount of fish cultivation for consumption in 2017 (kg)	135.3	193.3	101.8	215	100	33	0.0	121.5	260.9	152.4	152.4

Q77. What species of fish did you grow in fish ponds for sell in 2017?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean amount of fish cultivation for sell in 2017 (kg)	392.1	312.8	427.6	20.0	23.0	0.0	0.0	259.7	462.2	457.1	303.3

Q77.1. Did you cultivate crop in last season?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Cultivation of crop in last season											
Yes	21.8	23.1	21.1	23.0	20.3	37.7	35.9	11.6	11.7	27.0	23.7
No	78.2	77.0	78.9	76.9	79.7	62.3	64.1	88.4	88.3	73.0	76.3

Q78. What crops did you cultivate last season?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Cops cultivated in last season											
Paddy	20.2	22.1	19.2	22.7	20.1	36.8	28.6	10.4	9.9	25.9	22.9
Wheat	0.5	0.18	0.7	0.0	0.2	0.9	4.5	0.0	0.0	0.1	0.2
Oil seeds	0.6	0.4	0.7	0.0	0.0	0.9	4.5	0.0	0.0	0.0	0.0
Pulse	4.0	5.3	3.9	0.0	0.0	1.4	3.6	0.0	0.0	0.0	0.0
Maize	0.5	0.3	0.7	0.0	0.0	2.3	5.0	0.0	0.0	0.0	0.0
Potato	1.2	1.1	1.3	0.4	0.6	0.9	2.1	0.6	1.6	2.0	1.0
Sugarcane	0.2	0.0	0.3	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.2
Betel leaf	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Vegetable	2.3	2.3	2.2	0.7	0.6	0.9	1.4	1.4	3.8	4.1	1.9
Fruits	0.3	0.5	0.2	0.4	0.0	0.0	0.2	0.6	0.0	0.6	0.4
Flowers	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Jute	0.02	0.1	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Nut	0.1	0.2	0.03	3.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Onion	0.02	0.0	0.03	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0

Q79. What was the area that you planted for each crop? [Repeat for each crop?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean cultivated area in last season (decimal)											
Paddy	106.3	117.4	99.8	147.8	87.6	24.8	31.3	202.5	131.2	124.0	121.3
Wheat	19.7	17	20.0	0.0	53.3	21.5	15.8	0.0	4.5	8	22.2
Oil seeds	37.0	19.5	42.6	0.0	0.0	40	48.3	0.0	1 .0	12.7	24.2
Pulse	60.5	54.5	64.8	0.0	0.0	4	18.1	0.0	0.0	56.2	71.1
Maize	33.3	42.5	30.4	0.0	0.0	24.8	31.3	0.0	0.0	72	8
Potato	24.1	21.1	25.6	72.5	190.7	13.5	17	29.2	13.8	13.6	12.6
Sugarcane	18.6	8	19.5	0.0	0.0	25	0.0	0.0	0.0	8	13
Betel leaf	26.4	-	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.4
Vegetable	13.7	11.8	14.7	75	43.3	12.7	14.8	6.1	8.8	8.8	19.4
Fruits	41.5	40.8	42.8	60	15	0.0	0.0	66.3	8	21.6	63.7
Flowers	13.9	8	16.2	0.0	0.0	0.0	8	0.0	8	8	21.7
Jut	58.5	8.3	87.1	10	20	7.7	9.7	0.0	0.0	0.0	187
Nut	25.7	27.7	20.0	0.0	0.0	27.7	20.0	0.0	0.0	0.0	0.0
Onion	12	0.0	12	0.0	0.0	0.0	12	0.0	0.0	0.0	0.0

Q80. How much production at per decimal for each crop? Write the information however the farmer lists his production (winter season only)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean production per decimal in last season (kg)											
Paddy	13.2	13.2	13.1	14.8	12.8	13.3	14.2	13.6	13.2	12.3	12.8
Wheat	13.3	11	13.7	0.0	12.7	13.5	14.5	0.0	15	9.7	11
Oil seeds	5.5	4.1	5.9	0.0	0.0	4.0	6.2	0.0	3.0	4.1	4.5
Pulse	6.0	5.9	6.0	0.0	0.0	2.7	7.6	0.0	0.0	6.0	5.
Maize	9.5	9	9.8	8	0.0	10.4	9.8	0.0	0.0	7.8	9
Potato	9.1	9.0	9.1	7	9.3	10	9.2	7.7	8.8	9.5	9.2
Sugarcane	5.6	7	5.3	0.0	0.0	0.0	5.4	0.0	8	7	4.8
Betel leaf	16.2	5	17.6	0.0	0.0	0.0	0.0	0.0	8	5	19
Vegetable	11.3	11.7	11.0	10.7	9	12	17.7	12.2	12.3	11.7	7.3
Fruits	18.7	29.7	9.1	30	6	0.0	8	47.6	8	11.7	11.7

Flowers	3.5	1	4.3	0.0	0.0	0.0	8	0.0	0.0	1	2.5
Jut	24.1	4.5	40.8	5	0.0	4	10	0.0	8	5	82.7

Q81. In comparison to recent climatic disasters, was the yield from this crop?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived impact of recent climatic disaster in crop production											
No impact of climate change	78.2	76.9	78.9	76.9	79.7	62.3	64.0	88.4	88.3	73.0	76.3
Higher than previous	1.5	1.9	1.3	0.4	0.0	0.0	0.0	1.8	1.5	3.2	2.1
Same to previous	3.4	3.0	3.6	0.0	0.0	3.2	7.1	1.6	2.5	5.3	4.7
Lower than previous	15.1	16.4	14.5	22.3	17.7	22.7	22.4	8.3	6.7	18.1	16.5
Don't know	1.7	1.7	1.7	0.4	2.6	11.8	6.4	0.00	0.9	0.3	0.5

Q82. What is the total area you cultivated last winter season?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean total cultivated land last winter season	85.6	90.1	83.1	139.7	60.2	44.6	40.3	92	104.5	93.5	104.1

Q83. Do you know about any program in last 5 years in this UP that helped poor people to support livelihoods program?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Knowledge about any livelihood program in 5 year by UP to help hardcore poor people											
Yes	5.5	6.2	5.1	12.6	9.1	12.3	7.1	5.7	3.8	1.8	3.8
No	23.7	22.6	24.3	16.7	22.5	27.3	28.1	13.4	23.9	30.6	24.0
Don't know	70.8	71.2	70.6	70.6	68.4	60.4	64.8	80.9	72.2	67.5	72.2

Q84. Did you attend any educational/training sessions in the last 12 months about alternative income generating activities?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any educational/training program about alternative income generation activities in last 12 months											
Yes	1.7	1.6	1.8	5.2	1.6	0.9	3.6	0.4	1.3	1.4	1.6
No	98.3	98.4	98.2	94.8	98.4	99.1	96.4	99.6	98.7	98.6	98.4

Q85. Did you try any alternative livelihood in last 5 years?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any attempt of alternative livelihood in last 5 years											
Yes	6.4	7.9	5.6	21.2	6.7	20.9	18.6	2.0	2.1	2.6	3.5
No	93.6	92.1	94.4	78.8	93.2	79.1	81.4	98.0	97.9	97.4	96.5

Q86. What was the main alternative livelihood you tried in last five years?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Alternative livelihood attempted in last 5 years											
Cash crops	2.1	2.2	2.0	4.5	3.9	7.3	9.3	0.8	0.3	0.6	0.3
Handicrafts	0.7	1.0	0.5	0.0	0.8	5.9	1.7	0.0	0.1	0.6	0.2
Selling surplus food	0.1	0.1	0.1	0.0	0.2	0.9	0.5	0.0	0.0	0.0	0.1
Better access to markets	0.1	0.1	0.0		0.0	0.0	0.0	0.4	0.0	0.0	0.0
Value added goods	0.02	0.0	0.03	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Creating cooperatives	0.7	1.5	0.2	8.2	0.2	0.4	0.7	0.2	0.2	0.1	0.2
Sustainable harvesting	0.5	0.5	0.4	1.9	0.8	0.4	1.7	0.0	0.1	0.3	0.2
Natural Resource Extraction	1.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Small entrepreneurship	2.8	3.9	2.2	14.5	1.6	8.2	8.6	0.4	0.8	0.9	1.4
Day labour	0.8	1.0	0.8	4.1	0.6	0.4	0.2	0.2	0.5	0.5	1.2
Fishery/Poultry/Livestock	0.1	0.1	0.2	0.0	0.0	0.0	0.5	0.0	0.1	0.2	0.2
Salaried worker	0.04	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1

Q87. Did you earn income from that activity in the past 12 months?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Income earning from alternative livelihood attempted in past 12 months											
Cash crops	1.0	0.8	1.0	1.9	2.0	2.3	5.0	0.4	0.0	0.1	0.2
Handicrafts	0.1	0.1	0.1	0.4	0.2	0.00	0.5	0.0	0.0	0.1	0.1
Selling surplus food	0.1	0.1	0.1	0.00	0.2	0.9	0.2	0.0	0.0	0.0	0.2
Creating cooperatives	0.5	1.3	0.1	7.8	0.0	0.0	0.2	0.0	0.1	0.0	0.0
Sustainable harvesting	0.1	0.1	0.1	0.7	0.0	0.00	0.2	0.0	0.0	0.0	0.1
Natural Resource Extraction	0.04	0.1	0.03	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Small entrepreneurship	1.9	3.3	1.1	14.1	1.0	5.4	6.2	0.4	0.2	0.3	0.2
Day labour	0.5	0.6	0.4	3.3	0.6	0.4	0.0	0.0	0.6	0.0	0.2
Fishery/Poultry/Livestock	0.02	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Salaried worker	0.04	0.0	0.1	0.0	0.0	0.00	0.2	0.0	0.0	0.0	0.0

Q88. Which alternative livelihoods were successful? And why?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Reasons of success of alternative livelihood											
Could provide adequate time	3.3	4.4	2.7	20.1	6.0	5.0	5.5	0.0	0.6	1.2	2.0
Have experience	4.1	6.0	3.1	17.8	3.8	15.0	13.3	1.8	0.8	1.4	1.2
Had adequate capital	0.7	0.6	0.7	2.6	0.6	0.9	1.7	0.0	0.1	0.1	0.9
Has required support	0.3	0.4	0.2	1.5	0.0	0.0	0.0	0.2	0.1	0.3	0.4
Others	0.6	0.4	0.7	0.4	0.4	1.4	0.2	0.2	0.6	0.3	0.9

Q89. Which alternative livelihoods were not successful? And why?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Reasons of failure of alternative livelihood											
Could not provide adequate time	2.4	4.1	1.5	18.6	3.8	1.4	2.4	1.0	0.3	1.5	1.1
Do not have experience	1.4	1.3	1.4	4.5	3.8	0.9	2.6	0.0	0.1	1.2	1.1
Did not have adequate capital	4.2	6.2	3.2	17.5	2.2	19.1	14.3	1.4	1.6	0.9	1.0
Does not have required support	1.8	3.0	1.2	17.5	1.4	0.4	2.1	0.2	0.5	0.1	1.3
Local negative effect	0.2	0.2	0.2	0.7	0.6	0.0	0.0	0.0	0.1	0.3	0.2
Natural Disaster (Aila, salinity)	0.2	0.1	0.2	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.3

Q90. Does your household have any savings?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any savings of the household											
Yes	13.8	14.2	13.7	6.7	1.8	33.6	41.7	5.9	7.0	17.1	14.2
No	86.2	85.8	86.3	93.3	98.2	66.4	58.3	94.1	93.0	82.9	85.8

Q91. What is your monthly average savings of last 12 month?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean monthly savings in last 12 months	5916.5	6495.2	5603.7	12550	7422.2	3057.2	2998.8	10540.6	6047.6	6710.2	7865.2

Q92. Who does mainly make decision in managing the finance of your household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Financial decision maker of household											
Male household member	55.7	55.1	56.1	53.9	63.8	12.3	23.3	67.9	53.8	59.9	65.5
Female household member	7.8	6.4	8.6	11.1	16.9	8.2	12.6	6.3	7.2	4.0	5.0
Female and male together	36.4	38.5	35.4	34.9	19.3	79.5	64.0	25.8	39.0	36.1	29.5

Q93. Do you have a loan from a bank or other sources?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Took loan from bank or other sources											
No loan	51.9	52.4	51.6	36.8	47.5	59.5	53.1	62.4	57.1	48.6	48.6
Neighbors/Friends	8.5	8.0	8.7	5.2	5.2	2.3	1.7	3.0	4.0	14.9	15.9
Bank	2.1	0.9	2.8	1.5	4.0	1.4	5.2	1.4	3.5	0.1	0.9
NGO/Development project	34.0	34.7	33.6	40.9	28.8	33.6	37.9	29.9	33.6	36.1	34.1
Informal money lenders	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Other	3.5	4.0	3.3	15.6	14.5	3.2	2.1	3.2	1.8	0.2	0.5

Q94. Who applied for the loan in respondent household?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Loan applied by											
Male household member	12..4	12.0	12.6	15.9	14.7	2.7	4.0	13.4	11.8	12.5	15.3
Female household member	22.1	21.4	22.5	18.9	29.4	21.8	29.5	17.9	19.0	25.0	20.0
Male and female both	13.6	14.2	13.3	28.2	8.3	15.9	13.3	6.3	12.2	13.9	16.1

Q95. What barrier was there to get the loan?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Barriers of getting loan											
No bank account	0.5	0.6	0.5	1.1	1.4	1.4	1.2	0.2	0.2	0.5	0.2
Already too much in debt	1.5	1.4	1.5	4.5	3.4	1.4	1.7	0.6	0.4	0.9	1.6
Cannot read/write	1.3	1.3	1.3	3.3	0.8	1.8	5.7	0.6	0.0	0.8	1.0
No granter	4.4	3.4	5.0	6.0	17.7	14.6	12.4	1.2	0.4	0.3	1.0
Takes time	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
No problem faced	40.3	40.9	40.0	48.3	29.2	21.4	26.0	35.0	41.6	48.9	47.6

Q96.Did you pay back most loans in the past?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Pay back most the loans in past											
Yes	55.8	58.2	54.6	30.9	14.5	31.8	31.7	27.6	27.0	27.6	27.0
No	44.2	41.8	45.4	69.1	85.5	68.2	68.3	72.4	73.0	72.4	73.0

Q97. Are you interested in getting a new loan?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Interest of getting new loan											
Yes	26.8	27.7	26.4	23.0	28.6	29.1	35.0	18.7	23.1	20.9	19.5
No	73.2	72.3	73.6	77.0	71.4	70.9	65.0	81.3	76.9	79.1	80.5

Q98. Are there conservation areas or restricted park land near your home?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent Home near the Conservation area											
Yes	1.8	0.0	2.7	0.0	1.2	0.0	2.1	0.0	7.22	0.0	0.2
No	98.2	100.0	97.3	100.0	98.8	100.0	97.9	100.0	92.8	100.0	99.8

Q100. How frequent you use the natural conservation area?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent frequently used the Natural Conservation area											
Daily	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
A few times a week	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Weekly	0.0	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
A few times a month	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Monthly	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
A few times a year	0.6	0.0	1.0	0.0	0.2	0.0	1.2	0.0	2.5	0.0	0.0
Never	0.7	0.0	1.1	0.0	1.0	0.0	1.0	0.0	2.5	0.0	0.2

Q101. What Resources do you mostly collect or harvest from the conservation area?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent mostly collect or harvest from Conservation area											
Timber	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0
Leaves	0.1	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.1	0.0	0.0
Grass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Wood	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
Fish/Fish Fry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crab/Crab fry	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Honey	0.0	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Birds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Noting important	0.4	0.0	0.6	0.0	0.2	0.0	0.0	0.0	1.7	0.0	0.0
Others	0.1	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0

Q102. Do you have restriction to go to the conservation area?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent restriction to go to the conservation area											
Yes	1.6	0.00	2.5	0.0	1.2	0.0	1.9	0.0	6.4	0.0	0.2
No	98.4	100.0	97.5	100.0	98.8	100.0	98.1	100.0	93.6	100.0	99.8

Q102a. Are you aware or have you reviewed the Union Parishad Act of 2009?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about UP Act 2009											
Yes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
No	100.0	100.0	100.0	100.0	100	100.0	100.0	100.00	99.9	100.0	100.0

Q103. Have you ever participated in any of the meetings organized and conducted by UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of any UP meetings											
Yes	2.9	2.3	3.3	2.6	1.0	3.6	7.6	3.1	3.7	1.1	2.1
No	97.1	97.7	96.9	97.4	99.0	96.4	92.4	96.9	96.3	98.9	97.9

Q103a. If yes, what types of meeting have you participated during 2016-17?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation in UP meetings											
UP Council meeting	0.4	0.4	0.4	0.0	0.0	0.0	0.2	1.2	0.6	0.0	0.4
Ward Shava	2.0	1.6	2.3	2.2	1.0	3.2	6.7	1.4	2.9	0.9	0.9
Standing Committee meeting	0.2	0.1	0.2	0.4	0.0	0.0	0.0	0.2	0.4	0.0	0.3
Open Budget meeting	0.5	0.4	0.6	0.7	0.0	0.0	0.0	0.6	0.9	0.3	0.8
Planning meeting	0.2	0.3	0.2	0.0	0.0	0.0	0.5	0.6	0.0	0.3	0.3
Women Development Forum meeting	0.1	0.1	0.1	0.0	0.0	0.4	0.2	0.2	0.0	0.0	0.2
General meeting	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.6	0.1	0.1	0.2

Q103b. What the most recent meeting you attended?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Name of last attended meeting											
UP Council meeting	0.5	0.4	0.5	0.0	0.0	0.0	0.2	1.0	0.4	0.3	0.9
Ward Shava	1.9	1.4	2.2	2.2	1.0	3.2	6.7	1.4	2.7	0.6	0.8
Standing Committee meeting	1.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Open Budget meeting	0.3	0.2	0.3	0.7	0.0	0.0	0.0	0.2	0.5	0.1	0.3
Planning meeting	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.4	0.0	0.0	0.2
Women Development Forum meeting	0.1	0.1	0.1	0.0	0.0	0.4	0.2	0.0	0.0	0.00	0.2
General meeting	0,2	0.3	0.1	0.0	0.0	0.0	0.0	0.6	0.0	0.3	0.3

Q103d1. Were issues related to climate change impacts like drought, floods, etc. were discussed in the meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate change issues (drought, floods, etc.) were discussed in last meeting											
Yes	1.7	1.6	1.7	2.6	1.0	3.2	5.0	2.0	2.0	0.5	0.6
No	98.3	98.4	98.3	97.4	99.0	96.8	95.0	98.0	98.0	99.5	99.4

Q104. Have you ever participated in a Ward Shava?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation in Ward Shava in 20160.017											
Yes	1.9	1.5	2.2	2.2	1.0	2.7	5.9	1.6	3.0	0.6	0.8
No	98.1	98.5	97.8	97.8	99.0	97.3	94.1	98.4	97.0	99.4	99.2

Q104a If yes, how many times in last year (20160.017

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Number of participation	N=(93)	N=(24)	N=(69)								
1	1.2	1.1	1.3	2.2	0.6	2.7	4.8	0.8	1.4	0.5	0.3
2	0.7	0.3	0.9	0.0	0.4	0.0	1.2	0.8	1.5	0.1	0.5
3+	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q104b. When was the last time (most recent time) you participated there?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent was the last time (most recent time) you participated there											
1st quarter of the year (July-September	0.4	0.3	0.5	0.4	0.2	0.0	0.7	0.6	0.6	0.2	0.5
2nd quarter of the year (October-December	0.8	0.2	1.1	0.0	0.6	1.4	4.1	0.0	1.0	0.2	0.3
3rd quarter of the year (January-March	0.3	0.2	0.3	1.1	0.2	0.0	0.5	0.2	0.5	0.0	0.0
4th quarter of the year (April-June	0.5	0.7	0.4	0.7	0.0	1.4	0.7	0.8	0.8	0.3	0.0

104c. Did any other member of your family also participate?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
participate of other member in respondent family											
Yes	0.2	0.1	0.3	0.4	0.4	0.0	0.0	0.2	0.4	0.0	0.2
No	99.8	99.9	99.7	99.6	99.6	100.0	100.0	99.8	99.6	100.0	99.8

Q104d. If yes, who?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Relation of respondent participation											
Wife/husband	0.1	0.00	0.2	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.3
Son	0.1	0.0	0.1	0.0	0.4	0.0	0.0	0.00	0.10	0.00	0.1
Father/mother	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

Q104e. Why did you participate?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Reasons of participation											
No reason	0.3	0.4	0.3	1.1	0.0	0.9	1.9	0.2	0.2	0.1	0.0
To keep the word of Member/Chairman	0.5	0.3	0.6	0.0	0.2	0.4	0.2	0.4	1.3	0.3	0.4
Raise the needs/ problems/priorities	1.0	0.7	1.2	1.1	0.8	1.4	3.6	1.0	1.4	0.1	0.3
Committee member	0.4	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1

Q104f. What did you benefit out of this participation?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Benefits from the ward shava's participation											
Repair road/bridge / culvert	0.8	0.7	0.9	2.2	0.6	0.4	1.2	0.4	1.6	0.3	0.4
Make road/bridge / culvert	0.8	0.8	0.8	2.2	0.2	0.9	2.9	1.0	0.9	0.0	0.2

Get any allowance (i.e. old age, widow, disable allowance)	0.2	0.2	0.2	0.4	0.2	0.4	0.0	0.0	0.5	0.1	0.2
Get better health service	0.2	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.4	0.1	0.2
Stop early marriage	0.4	0.5	0.4	1.1	0.0	0.9	0.7	0.4	0.8	0.1	0.1
Do not give dowry	0.1	0.1	0.2	0.4	0.0	0.0	0.5	0.0	0.4	0.0	0.0
Improve current facility	0.3	0.3	0.3	0.4	0.0	0.4	1.0	0.6	0.5	0.0	0.2
Repair hat0.0bazar / masque/ any public complex	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Tree plantation	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.2
Drug prevention	0.02	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.15	0.0
Safe water	0.2	0.00	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Q104g. Raised any issue in the Ward Shava

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Raised any issue in the Ward Shava											
Yes	1.3	0.9	1.5	2.2	0.8	1.4	3.8	0.8	2.0	0.3	0.6
No	98.7	99.1	98.5	97.8	99.2	98.6	96.2	99.2	98.0	99.7	99.4

104g1. If yes, what types of issues (needs/problems/priorities) did you raise?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Types of issue											
Repair road/bridge/ culvert	0.5	0.5	0.5	2.2	0.4	0.0	0.2	0.2	1.0	0.1	0.2
Make road/bridge/ culvert	0.6	0.6	0.5	2.2	0.2	0.4	2.4	0.6	0.2	0.0	0.3
Get any allowance (i.e. old age, widow, disable allowance)	0.2	0.4	0.2	1.1	0.0	0.9	0.2	0.0	0.3	0.1	0.2
Get better health service	0.2	0.2	0.2	0.7	0.2	0.0	0.2	0.4	0.1	0.0	0.2
Stop early marriage	0.3	0.4	0.2	1.5	0.0	0.0	0.0	0.4	0.5	0.1	0.2

Do not give dowry	0.2	0.3	0.2	1.1	0.0	0.0	0.2	0.2	0.4	0.1	0.2
Improve current facility	0.2	0.1	0.3	0.4	0.2	0.0	0.7	0.2	0.4	0.0	0.2
Repair hatbazar/ masque/ any public complex	0.1	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Others	0.02	0.00	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Q104 g.2. Were your needs discussed in the meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent's need discussed in the meeting											
Yes	1.2	0.9	1.3	2.2	0.8	0.4	3.3	1.2	1.7	0.3	0.6
No	98.8	99.1	98.7	97.8	99.2	99.6	96.7	98.8	98.3	99.7	99.4

Q104g.3. Were climate related issues such as drought, flood, and erosion rose?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issue raised in the meeting											
Yes	1.3	0.8	1.5	1.5	1.0	1.4	4.3	1.0	1.6	0.3	0.6
No	98.7	99.2	98.5	98.5	99.0	98.6	95.7	99.0	98.4	99.7	99.4

104h. Was the UPdevelopment plan discussed in the Ward Shava?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
UP development plan discussed in Ward Shava											
Yes	1.1	0.5	1.4	2.2	1.0	0.4	2.6	0.2	1.9	0.0	0.8
No	98.9	99.5	98.6	97.8	99.0	99.5	97.4	99.8	98.1	100.0	99.2

Q104i. Was the UP budget discussed in the Ward Shava?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
UP budget discussed in Ward Shava											
Yes	0.6	0.2	0.8	1.5	0.6	0.0	0.7	0.0	1.3	0.0	0.5
No	99.4	99.8	99.2	98.5	99.4	100.0	99.3	100.0	98.7	100.0	99.5

Q104j. How satisfied are you about the performance of Ward Shava of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance of Ward Shava											
Very satisfied	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1
Satisfied	0.5	0.4	0.6	0.0	0.0	0.4	0.5	1.0	1.2	0.0	0.3
Fairly satisfied	1.2	0.8	1.1	2.2	1.0	2.3	5.2	0.4	1.1	0.1	0.4
Not satisfied	0.2	0.2	0.1	0.0	0.0	0.0	0.2	0.2	0.3	0.5	0.0

Q105. Are you aware of any Standing Committee in your UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about the Standing Committee of UP											
Yes	0.6	0.6	0.6	2.6	0.4	0.00	0.5	0.6	0.8	0.0	0.6
No	99.4	99.4	99.4	97.4	99.6	100.0	99.5	99.4	99.2	100.0	99.4

06. Are you aware of Standing Committee Social welfare & disaster management?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about the Standing Committee of Social welfare and disaster management											
Yes	0.4	0.4	0.4	1.9	0.4	0.00	0.2	0.4	0.4	0.0	0.3
No	99.6	99.6	99.6	98.1	99.6	100.0	99.8	99.6	99.6	100.0	99.7

Q106a. If yes, have you attended the Standing Committee meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of respondent about the Standing Committee of Social welfare and disaster management											
Yes	0.3	0.2	0.3	0.74	0.4	0.0	0.0	0.2	0.3	0.0	0.3
No	99.7	99.8	99.7	99.26	99.6	0.0	0.0	99.8	99.7	100.0	99.7

Q106c. How satisfied are you about the performance of this Standing Committee?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of Respondent about the Standing Committee of Social welfare and disaster management											
Very satisfied	0.0	0.1	0.0	0.7	0.4	0.0	0.0	0.2	0.0	0.0	0.1
Satisfied	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.2
Fairly satisfied	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Q107. Are you aware of Standing Committee' initiative of Environment protection and plantation?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about the Standing Committee of environment protection and plantation											
Yes	0.2	0.1	0.2	0.7	0.4	0.0	0.2	0.0	0.1	0.0	0.2
No	99.8	99.9	99.8	99.3	99.6	100.0	99.8	100.0	99.9	100.00	99.8

Q107a. If yes, have you attended the Standing Committee meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of Respondent in the Standing Committee											
Yes	0.2	0.1	0.2	0.74	0.4	0.0	0.0	0.0	0.1	0.0	0.2
No	99.8	99.9	99.8	99.26	99.6	0.0	0.0	100.0	99.9	100.0	99.8

Q107c. How satisfied are you about the performance of this Standing Committee?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance of this Standing Committee											
Very satisfied	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Satisfied	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Fairly satisfied	0.1	0.1	0.1	0.74	0.4	0.0	0.0	0.0	0.0	0.0	0.1

Q108. Are you aware of Annual plan of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about Annual plan											
Yes	2.0	2.4	1.7	6.7	1.0	4.1	2.9	2.0	1.9	0.3	1.6
No	98.1	97.6	98.3	93.3	99.0	95.9	97.1	98.0	98.1	99.7	98.4

Q108a. If yes, have you ever participated in the Annual Planning process of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation in annual planning process											
Yes	0.5	0.5	0.5	2.2	0.4	0.0	0.5	0.4	0.5	0.1	0.6
No	99.5	99.5	99.5	97.8	99.6	100.00	99.5	99.6	99.5	99.9	99.4

108b1. Did any of your relatives/acquaintances/neighbors participate in the Annual plan development?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of relatives/neighbors in annual planning process											
Yes	0.7	1.0	0.6	5.2	0.4	0.0	0.0	0.4	0.8	0.0	0.6
No	0.2	0.3	0.2	0.0	0.2	1.4	0.2	0.4	0.1	0.0	0.2
Don’t know	1.0	1.1	1.0	1.5	0.4	2.7	2.6	1.2	0.9	0.3	0.8

Q108b2. (If yes in any of Q108a & Q108b then ask) Did you or your relatives/acquaintances/neighbors raise any issue/point of your community's need in the planning meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent raised Any issue in annual planning process											
Yes	0.4	0.3	0.4	0.8	0.4	0.0	0.0	0.4	0.4	0.2	0.5
No	99.1	98.8	99.3	94.4	99.6	100.0	99.5	99.4	99.2	99.8	99.1
Don't know	0.5	0.8	0.3	4.8	0.0	0.0	0.5	0.2	0.4	0.00	0.3

Q108b3. Was the issue/point accepted in the annual planning process?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Accepted issue in annual planning process											
Yes	0.3	0.4	0.3	1.5	0.4	0.0	0.0	0.4	0.4	0.0	0.3
No	99.2	98.8	99.4	94.0	99.6	100.0	99.8	99.4	99.2	99.8	99.3
Don't know	0.5	0.8	0.32	4.5	0.0	0.0	0.2	0.2	0.4	0.2	0.4

Q108b4. Were climate related issues such as drought, flood, and erosion discussed?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues such as drought, flood, and erosion discussed in meeting											
Yes	0.5	0.5	0.5	2.6	0.4	0.0	0.3	0.2	0.7	0.1	0.6
No	99.1	98.9	99.3	94.1	99.6	100.0	99.5	99.6	99.0	99.9	99.2
Don't know	0.4	0.6	0.2	3.3	0.0	0.00	0.2	0.2	0.3	0.0	0.2

Q108b5. Were the climate change issues accepted in the Annual Planning process?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate change issues accepted in the annual planning process meeting											
Yes	0.5	0.4	0.6	1.9	0.4	0.0	0.5	0.2	0.8	0.1	0.5
No	99.1	98.8	99.2	94.0	99.6	100.0	99.5	99.4	99.0	99.8	99.1
Don't know	0.4	0.8	0.2	4..1	0.00	0.0	0.0	0.4	0.2	0.1	0.3

q108c_c1_1. Climate related issues affecting the UP

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting the UP											
Yes	0.5	0.7	0.4	1.1	0.4	3.6	0.5	0.2	0.4	0.00	0.3
No	93.4	97.8	98.6	93.3	99.4	96.4	97.4	98.4	98.6	99.7	98.9
Don't know	1.1	1.5	1.0	5.6	0.2	0.0	2.1	1.4	1.0	0.3	0.8

Q108c_c2_1. Climate related issues affecting the quality of life of the poor and hard core poor

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting the quality of life of the poor and hard core poor											
Yes	0.3	0.3	0.2	0.4	0.4	1.8	0.7	0.0	0.2	0.0	0.1
No	98.4	98.0	98.6	93.7	99.4	96.8	97.6	98.6	98.2	99.7	98.8
Don't know	1.3	1.7	1.2	5.9	0.2	1.4	1.7	1.4	1.6	0.3	1.1

Q108c_c3_1. Climate related issues affecting women

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting women											
Yes	0.2	0.4	0.1	0.0	0.2	2.7	0.2	0.0	0.1	0.0	0.1
No	98.5	98.1	98.6	93.7	99.6	97.3	97.6	98.8	98.3	99.7	98.9
Don't know	1.3	1.5	1.2	6.3	0.2	0.0	2.1	1.18	1.6	0.30	1.0

Q108c_c4_1. Climate related issues affecting drinking water

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting drinking water											
Yes	0.4	0.7	0.3	0.7	0.2	3.6	0.3	0.2	0.7	0.0	0.1
No	98.4	97.8	98.7	93.3	99.6	95.9	97.6	98.4	98.3	99.8	99.0
Don't know	1.2	1.5	1.0	6.0	0.2	0.5	2.1	1.4	1.0	0.2	0.9

Q108c_c5_1. Climate related issues affecting health

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting health											
Yes	0.1	0.1	0.1	0.4	0.2	0.0	0.0	0.0	0.1	0.0	0.2
No	98.6	98.5	98.6	93.7	99.6	100.0	97.9	98.62	98.2	99.8	98.7
Don't know	1.3	1.4	1.3	5.9	0.2	0.0	2.1	1.4	1.7	0.2	1.1

Q108c_c6_1. Climate related issues affecting agriculture

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting agriculture											
Yes	0.3	0.6	0.1	3.3	0.2	0.0	0.0	0.0	0.2	0.0	0.0
No	98.6	98.4	98.7	93.7	99.6	99.5	97.9	98.6	98.4	99.8	99.0
Don't know	1.1	1.0	1.2	3.0	0.2	0.5	2.1	1.4	1.4	0.2	1.0

Q108c_c7_1. Climate related issues affecting infrastructure (roads, culverts, bridges, markets)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting infrastructure											
Yes	0.6	0.9	0.4	1.1	0.2	4.1	1.2	0.6	0.5	0.0	0.2
No	98.3	97.8	98.6	93.3	99.6	95.9	97.4	98.4	98.3	99.7	98.8
Don't know	1.1	1.3	1.0	5.6	0.2	0.0	1.4	1.0	1.2	0.3	1.0

Q108c_c8_1. Climate related issues affecting employment?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting employment											
Yes	0.0	0.1	0.0	0.0	0.0	0.45	0.0	0.0	0.0	0.0	0.0
No	98.7	98.5	98.8	94.0	99.8	99.55	98.1	98.8	98.4	99.8	98.8
Don't know	1.3	1.4	1.2	6.0	0.2	0.00	1.9	1.2	1.6	0.2	1.2

Q108d. How satisfied are you about the performance of Annual planning process of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance of annual planning process											
Very satisfied	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1
Satisfied	0.3	0.4	0.3	0.7	0.0	0.0	0.2	0.6	0.7	0.1	0.2
Fairly satisfied	1.2	1.6	1.1	5.9	0.8	1.4	1.9	1.2	0.9	0.2	1.0
Not satisfied	0.3	0.4	0.2	0.0	0.2	2.7	0.7	0.0	0.1	0.0	0.2

Q109. Are you aware of Five year plan of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about Five year plan											
Yes	1.0	1.2	2.0	4.1	0.4	0.0	0.5	1.2	0.8	0.3	1.4
No	99.0	99.9	99.1	95.9	99.6	100.0	99.5	98.8	99.2	99.7	98.6

Q109a. If yes, have you ever participated in the Five Year Planning process of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation in Five year planning process											
Yes	0.3	0.2	0.3	1.1	0.2	0.0	0.2	0.2	0.3	0.0	0.5
No	99.7	99.8	99.7	98.9	99.8	100.0	99.8	99.8	99.7	100.0	99.5

Q109b1. Did any of your relatives/acquaintances/ neighbors participate in the Five Year Plan development?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of relatives/neighbors in five year planning process											
Yes	0.4	0.6	0.2	3.4	0.2	0.0	0.0	0.2	0.3	0.00	0.3
No	99.6	99.4	99.8	96.6	99.8	100.00	100.0	99.8	99.7	100.00	99.7
Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q109b2. (If yes, in any of Q109a & Q109b1 then ask) did you or your relatives/acquaintances/ neighbors raise any issue of your community's need in the Five Year Planning meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Raised any issue of your community's need in the Five Year Planning meeting											
Yes	0.2	0.1	0.2	0.4	0.2	0.0	0.0	0.0	0.1	0.0	0.4
No	99.5	99.2	99.6	95.9	99.8	100.0	100.0	99.6	99.5	100.0	99.5
Don't know	0.3	0.7	0.2	3.7	0.0	0.0	0.0	0.4	0.4	0.0	0.1

Q109b3. Was the issue accepted in the Five Year Plan discussions?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Accepted any issue in the Five Year Plan discussions?											
Yes	0.1	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.3
No	99.5	9.3	99.7	96.6	99.8	100.0	100.0	99.6	99.5	100.0	99.6
Don't know	0.3	0.8	0.1	3.4	0.0	0.0	0.0	0.4	0.3	0.00	0.1

Q109b4. . Were climate related issues such as drought, flood, and erosion discussed?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues such as drought, flood, and erosion discussed in five year plan											
Yes	0.3	0.2	0.3	1.5	0.2	0.0	0.0	0.0	0.2	0.0	0.5
No	99.5	99.3	99.6	96.3	99.8	100.0	100.0	99.8	99.5	100.0	99.5
Don't know	0.2	0.4	0.1	2.23	0.0	0.0	0.0	0.2	0.3	0.0	0.0

Q109b5. Were the climate change issues accepted in the Five Year Planning process?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate change issues accepted in the five year planning process											
Yes	0.2	0.2	0.2	1.1	0.2	0.0	0.2	0.0	0.1	0.0	0.2
No	99.6	99.4	99.6	96.7	99.8	100.0	99.8	99.8	99.6	100.0	99.7
Don't know	0.2	0.4	0.1	2.2	0.0	0.0	0.0	0.2	0.3	0.00	0.1

Q109. c.1.Climate related issues affecting the UP

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting the UP											
Yes	0.1	0.1	0.1	0.4	0.2	0.0	0.2	0.0	0.0	0.0	0.1
No	99.2	99.0	99.3	96.6	99.6	100.0	99.8	99.0	99.5	99.7	98.8
Don't know	0.7	0.9	0.6	3.0	0.2	0.0	0.0	1.0	0.5	0.3	1.1

Q109. c.2. Climate related issues affecting the quality of life of the poor and hard core poor

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting the quality of life of the poor and hard core poor											
Yes	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
No	99.2	99.0	99.3	96.5	99.8	100.0	99.8	99.0	99.4	99.7	98.9
Don't know	0.7	1.0	0.6	3.5	0.2	0.0	0.2	1.0	0.4	0.3	1.1

Q109 c.3. Climate related issues affecting women

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting women											
Yes	0.1	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0
No	99.1	98.5	99.3	95.9	98.8	100.0	99.8	98.8	99.4	99.7	98.8
Don't know	0.8	1.1	0.7	3.7	0.2	0.0	0.2	1.2	0.4	0.3	1.2

Q109. c.4. Climate related issues affecting drinking water

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting drinking water											
Yes	0.1	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.1
No	99.2	99.0	99.3	95.9	99.8	100.0	99.8	99.2	99.4	99.7	98.9
Don't know	0.7	0.9	0.6	3.7	0.2	0.0	0.2	0.8	0.4	0.3	1.0

Q109. c.5. Climate related issues affecting health

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting health											
Yes	0.0	0.00	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
No	99.1	98.9	99.2	95.9	99.8	100.0	99.8	99.0	99.2	99.7	98.8
Don't know	0.9	1.1	0.8	4.1	0.2	0.0	0.2	1.0	0.6	0.3	1.2

Q109 .c.6. Climate related issues affecting agriculture

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting agriculture											
Yes	0.1	0.3	0.1	1.9	0.0	0.0	0.2	0.0	0.1	0.0	0.0
No	99.2	99.0	99.2	95.9	99.8	100.0	99.5	99.2	99.3	99.7	98.9
Don't know	0.7	0.7	0.7	2.2	0.2	0.0	0.2	0.8	0.6	0.3	1.1

Q109 c.7. Climate related issues affecting infrastructure (roads, culverts, bridges, markets)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting infrastructure											
Yes	0.1	0.2	0.0	0.7	0.0	0.0	0.0	0.2	0.0	0.0	0.0
No	99.1	99.0	99.2	96.3	99.8	100.0	99.5	99.0	99.3	99.7	98.9
Don't know	0.8	0.8	0.8	3.0	0.2	0.0	0.5	0.8	0.7	0.3	1.1

Q109 c..8. Climate related issues affecting employment?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related issues affecting employment											
Yes	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No	99.2	98.9	99.2	95.9	99.8	100.0	99.8	99.0	99.3	99.7	98.8
Don't know	0.8	1.0	0.8	3.7	0.2	0.0	0.2	1.0	0.7	0.3	1.2

Q109d. How satisfied are you about the performance of Five Year planning process of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance of five year planning process											
Very satisfied	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Satisfied	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.8	0.5	0.2	0.1
Fairly satisfied	0.7	0.9	0.6	4.1	0.2	0.0	0.2	0.4	0.1	0.2	1.3
Not satisfied	0.1	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.1	0.0	0.0

Q109e. Did you ever monitor implementation of the UP plans?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Monitor implementation of the UP plans											
Yes	0.2	0.1	0.2	0.4	0.2	0.0	0.0	0.0	0.2	0.00	0.3
No	99.8	99.9	99.8	99.6	99.8	100.0	100.0	100.0	99.8	100.0	99.7

Q109 e1. If yes, how did you monitor?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Monitoring process of Implementation											
Visited during implementation	0.1	0.1	0.2	0.4	0.2	0.0	0.0	0.0	0.2	0.0	0.2
Was a member of the implementation committee	0.02	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Q109e2. What were your major findings regarding implementation of the UP plans?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Major findings regarding implementation of the UP plans											
Was informed about the project	0.04	0.00	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Knew about the project beneficiaries	0.1	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Knew about the project site	0.04	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q110. Are you aware of the UP Annual open budget?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about Annual open budget											
Yes	2.0	1.6	2.1	4.5	1.0	0.0	1.7	1.8	2.3	0.9	2.6
No	98.1	98.4	97.9	95.5	99.0	100.0	98.3	98.2	97.7	99.1	97.4

Q110a. If yes, did you ever participate in the open budget meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participations in respondent annual open budget											
Yes	0.8	0.8	0.8	1.5	0.4	0.0	0.5	1.0	1.7	0.6	0.5
No	99.2	99.2	99.2	98.5	99.6	100.0	99.5	99.0	98.3	99.4	99.5

Q110b. If yes, did you raise any point in the open budget meeting (either for giving suggestions for preparation or for scrutiny/review)?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Raise any point in the open budget meeting											
Yes	0.5	0.6	0.4	1.1	0.4	0.0	0.0	0.8	0.9	0.5	0.2
No	99.5	99.4	99.6	98.9	99.6	100.0	100.0	99.2	99.1	99.5	99.8

Q110b1. If yes, what was the issues/point?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Open budget related issue raised in the meeting											
Repairing bridge/culvert/road	0.3	0.5	0.3	1.1	0.4	0.0	0.0	0.6	0.5	0.5	0.1
Constructing bridge/culvert/road	0.2	0.4	0.1	1.1	0.0	0.0	0.0	0.4	0.2	0.3	0.1
Receiving allowance of SSNP (e.g., old age, widowed, disability	0.1	0.2	0.1	0.0	0.4	0.0	0.0	0.2	0.1	0.3	0.0
Receiving quality health care	0.1	0.2	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.3	0.1
Protecting child marriage	0.2	0.2	0.2	0.0	0.1	0.0	0.0	0.2	0.3	0.5	0.1
Not giving dowry	0.1	0.1	0.1			0.0	0.0	0.0	0.2	0.3	0.0
Increasing/improving the existing facilities	0.1	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.3	0.1	0.0
Repairing marketplace/mosque/ public buildings	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1
Drug prevention	0.0	0.1	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0

Q110b2. Was it accepted?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Raised issues accepted											
Yes	0.4	0.5	0.3	1.1	0.2	0.0	0.0	0.8	0.7	0.2	0.2
No	99.6	99.5	99.7	98.9	99.8	100.0	100.0	99.2	99.3	99.8	99.8

Q110c. Did any of your relatives/acquaintances/neighbors participate in the open budget meeting?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation respondent relatives in open budget meeting											
Yes	0.5	1.0	0.3	3.7	0.2	0.0	0.0	0.59	0.83	0.5	0.0
No	99.5	99.0	99.7	96.3	99.8	100.0	100.0	99.41	99.17	99.5	100.0

Q110d. Were investments to address drought, flood, erosion etc. discussed?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Investment related to drought, flood, and erosion discussed in open budget meeting											
Yes	0.8	0.8	0.8	3.3	0.6	0.0	0.7	0.6	1.1	0.2	0.6
No	99.2	99.2	99.2	96.7	99.4	100.0	99.3	99.4	98.9	99.8	99.4

Q110e. How satisfied are you about the performance of open budget meeting of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance of open budget meeting											
Very satisfied	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.00	0.1
Satisfied	0.3	0.2	0.3	0.4	0.0	0.0	0.2	0.2	1.0	0.2	0.1
Fairly satisfied	1.2	1.3	1.2	4.1	0.4	0.0	1.4	1.0	0.7	0.8	1.9
Not satisfied	0.1	0.4	0.3	0.0	0.6	0.0	0.0	0.4	0.4	0.0	0.6

Q111. Has your household faced significant problems with climate in the last three years?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Respondent's household faced significant problems with climate in the last three years											
Yes	43.2	41.7	43.9	53.2	40.6	72.3	66.4	38.8	45.0	29.0	37.1
No	56.8	58.3	56.0	46.8	59.4	27.7	33.6	61.2	55.0	71.0	62.9

Q112. Yes, what type of problem did you face?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Climate related problem faced in last three year											
Flood	32.7	31.5	33.3	52.4	36.6	69.6	63.3	21.5	22.5	17.8	30.4
Drought	4.9	6.9	3.9	14.9	0.6	22.3	6.2	0.8	1.7	3.2	6.2
Salinity	15.3	12.1	17.0	0.7	0.0	0.0	0.0	24.6	37.2	11.1	13.9
Arsenic	2.0	1.8	2.2	1.9	2.1	3.1	4.0	0.2	0.1	2.4	3.2
Wind damage	27.8	27.6	27.8	49.4	32.0	58.2	48.6	12.4	15.6	20.3	28.7
River Erosion	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0

Water logging	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.1
Tidal bore	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Heavy rainfall	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Insect attack	0.02	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0

Q113. Were any schemes implemented in your UP that addressed these difficulties?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any schemes related to climate change problem implemented by UP											
Yes	6.3	8.1	5.4	19.7	9.3	25.0	17.4	2.8	2.5	1.8	2.1
No	93.7	91.9	94.6	80.3	90.7	75.0	82.6	97.2	97.5	98.2	97.9

Q114. Yes, please describe the scheme:

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Type of schemes											
Constructing dam/embankment	4.1	5.7	3.2	19.7	8.3	10.0	9.0	1.4	1.0	1.8	0.9
Repairing or increasing height of the road	4.3	6.3	3.3	14.5	2.6	20.9	13.3	2.0	1.9	1.5	1.4
Opening sluice gate	1.1	1.3	1.0	2.6	1.2	3.2	4.3	0.4	0.2	0.9	0.5
Detecting arsenic and affected tube well	0.4	0.7	0.2	0.0	0.0	4.1	1.4	0.6	0.0	0.0	0.0
Tree plantation	1.0	1.7	0.7	4.5	0.2	0.0	0.0	1.2	0.8	1.5	1.0
Other	2.3	0.0	0.2	0.00	1.0	0.0	0.0	0.0	0.0	0.0	0.2

Q116a. Does the participation of the people in UP planning process need to be increased?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of people in UP planning process											
Need to increase	98.0	96.8	98.6	92.2	99.4	98.2	96.2	95.7	98.7	99.1	99.0
Satisfied with present level	1.8	3.0	1.2	7.1	0.0	1.8	3.3	4.3	1.2	0.8	0.9
Need to reduce	0.2	0.2	0.3	0.7	0.6	0.0	0.5	0.0	0.1	0.1	0.1

Q114b. Do the participation of the people in UP budgeting process need to be increased?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of people in UP budgeting process											
Need to increase	98.0	96.8	98.6	92.6	99.8	98.6	96.7	95.3	98.6	99.2	98.7
Satisfied with present level	1.9	3.1	1.3	7.4	0.0	1.4	3.1	4.5	1.4	0.8	1.1
Need to reduce	0.1	0.1	0.1	0.0	0.2	0.0	0.2	0.2	0.0	0.0	0.2

Q116c. Do the participation of the people in UP auditing process need to be increased?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Participation of people in UP auditing process											
Need to increase	97.9	96.8	98.5	92.19	100.0	98.6	96.0	95.3	98.7	99.2	98.8
Satisfied with present level	2.0	3.2	7.43	7.81	0.0	1.4	3.8	4.7	1.3	0.8	1.2
Need to reduce	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1

Q117. Are you aware of schemes implemented by the UP during 2016-17?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about schemes implemented UP during 20160.017											
Yes	0.1	0.0	0.2	0.00	0.2	0.0	0.0	0.00	0.3	0.00	0.1
No	99.9	100.0	99.8	100.0	99.8	100.0	100.0	100.0	99.7	100.0	99.9

Q118. If yes, how many schemes do you recollect?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Mean schemes recollect	2	0.0	2	0.0	1	0.0	0.0	0.0	2.3	0.0	2

Q119. Please describe three schemes that you recollect

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Describe three schemes recollect											
Repair/Construct Embankment	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0
Repair/ Construct Road	0.02	0.0	0.03	0.0	0.0	0.0	0.0	0.0		0.0	0.1
Make culvert	0.04	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Use rain water to irrigation	0.02	0.0	0.03	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

Q120. Did any of the schemes address issues such as drought, flood, and river erosion?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any schemes address climate change related issues											
Yes	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.1
No	99.9	100.0	99.9	100.0	99.8	100.0	100.0	100.0	99.8	100.0	99.9

121. Did any of these schemes described above benefit your family or yourself?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Benefited from any of scheme											
Yes	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.00	0.3	0.0	0.0
No	99.9	100.0	99.9	100.0	99.8	100.0	100.0	100.0	99.7	100.0	100.0

Q122. Do you see any new types of schemes being implemented by the UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Any new types of schemes being Implemented by the UP											
Yes	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
No	100.0	100.0	99.9	100.0	99.8	100.0	100.0	100.0	99.9	100.0	100.

Q124. Are you aware of Community Risk Assessment (CRA) meeting organized in the Union?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Awareness about community risk assessment meeting											
Yes	2.1	2.3	2.0	7.4	0.8	0.4	0.9	0.4	2.2	2.3	2.7
No	97.9	97.7	99.0	92.6	99.2	99.6	99.1	99.6	97.8	97.7	97.3

Q125. Was there any Community Risk Assessment (CRA) meeting organized in the Union?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
UP organized community risk assessment related meeting											
Yes	1.5	2.0	1.3	6.3	0.4	0.0	0.2	0.2	1.4	2.3	1.9
No	98.5	98.0	98.7	93.7	99.6	100.0	99.8	99.8	98.6	97.7	98.1

Q126. When the CRA meetings were organize?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Timing of community risk assessment meeting											
2017	0.4	0.5	0.3	3.3	0.4	0.0	0.2	0.0	0.3	0.0	0.2
2016	0.2	0.5	0.1	3.0	0.0	0.0	0.0	0.0	0.1	0.00	0.2
2015 or before	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.2	1.0	2.3	1.6

Q129. Was the CRA findings discussed in the Ward Shava?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
CRA Findings discussed in ward Shava											
Yes	1.2	1.4	1.1	5.6	0.4	0.0	0.2	0.0	1.3	1.2	1.4
No	98.8	98.6	98.9	94.4	99.6	100.0	99.8	100.0	98.7	98.8	98.6

131. How satisfied are you about the performance of UP on Governance, i.e. planning, budgeting, auditing and service delivery?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance UP on Governance planning, budgeting, auditing											
Very satisfied	1.0	0.7	1.1	1.1	0.0	0.9	1.9	1.0	1.2	0.3	1.2
Satisfied	11.3	12.0	10.8	8.5	0.0	15.0	9.8	23.0	21.3	3.0	7.6
Fairly satisfied	63.5	63.7	63.5	82.2	74.5	63.2	73.3	51.2	53.3	66.0	63.5
Not satisfied	24.2	23.5	24.6	8.18	25.5	20.9	15.0	24.8	24.2	29.7	27.7

Q132. How satisfied are you about the performance of UP on addressing climate change issues?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Perceived satisfaction about the performance addressing climate changed											
Very satisfied	0.9	0.4	1.1	0.4	0.0	0.9	2.1	0.6	1.5	0.0	0.9
Satisfied	10.1	9.5	10.3	7.4	0.2	9.6	10.0	18.7	18.9	3.2	8.0
Fairly satisfied	63.6	64.1	63.4	82.2	70.6	69.5	71.9	54.9	55.5	62.0	63.6
Not satisfied	25.5	26.0	25.2	10.0	29.2	20.0	15.9	25.8	24.1	34.8	27.5

Q133. According to you, what are the good functions or the strengths of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
According to Respondents good functions or the strengths of UP											
Preparation of Five0.0Year and different term development plan.	17.8	12.3	20.7	17.8	40.0	17.7	21.4	8.7	7.1	11.0	23.1
Rural infrastructure development, conservation, and maintenance.	33.5	35.0	32.8	36.8	37.8	37.3	32.9	39.0	44.3	30.3	22.1
Primary and mass education related activities.	33.4	36.4	31.9	33.1	27.8	23.6	16.2	46.5	38.5	34.3	33.6
Implementation of Health and Family Planning related activities.	32.4	35.7	30.7	27.9	26.0	39.5	30.2	40.2	31.0	34.1	32.5
Undertake Agriculture, Fisheries, Animal Husbandry, and	21.2	22.9	20.3	34.9	29.0	9.1	15.7	22.4	19.8	22.9	18.6

other necessary economic development activities.											
Undertake necessary activities for controlling epidemic and disaster management.	20.6	23.2	19.3	26.0	15.5	37.3	25.9	14.2	13.7	24.4	22.8
Imposition and collection of Tax and Toll fee.	29.3	29.6	29.1	59.5	19.9	22.3	26.4	24.4	22.3	23.9	38.6
Implementation of necessary activities for solving family disputes, and for ensuring women and children welfare.	23.9	26.1	22.7	22.3	4.17	19.5	24.8	25.6	26.7	30.3	26.1
Undertake necessary initiatives and assistance for sports, social and cultural development.	7.3	7.6	7.2	19.0	2.2	3.2	10.9	6.9	9.3	4.9	6.3
Undertake necessary development and conservation initiatives for environment.	10.5	11.9	9.8	14.9	2.6	14.5	22.1	12.6	12.1	9.3	6.8
Performing Government imposed responsibilities to maintain law and order situation and undertake necessary activities.	14.8	15.1	14.6	14.9	3.0	15.4	14.0	9.6	9.2	19.4	23.4
Registering/enlisting birth and death status.	51.8	58.0	48.6	48.7	26.8	49.5	37.1	49.6	41.5	71.0	66.3
Conservation and maintenance of government space, open space, and sports field.	3.8	4.9	3.3	11.1	0.6	4.1	6.4	4.3	4.1	3.0	2.6
Establishing electric lamps on Union Parishad Roads and Government owned lands	4.3	5.8	3.5	8.9	0.8	4.1	5.5	6.3	4.6	4.7	3.1
Tree plantation, conservation and preventing theft of natural resources	8.6	10.3	7.7	14.1	0.8	10.4	8.3	13.0	13.4	6.5	5.8

Conservation of cemetery, graveyard, cremation place, public meeting place and other government properties.	3.0	3.8	2.5	10.4	1.4	2.7	2.9	3.5	3.9	1.7	1.8
Preventing illegal entry into public roads and government buildings and finding out the reasons behind these disturbances	3.4	2.5	3.8	7.1	1.2	1.4	5.0	1.4	2.9	1.2.0	5.2
Preventing the destruction of public road	4.6	3.6	5.2	5.6	0.8	5.0	5.9	3.3	4.4	2.6	7.2
Ensuring the collection, removal and management of cow0.0dung and other wastes.	1.2	1.2	1.3	5.6	1.6	0.4	1.9	0.4	1.6	0.3	0.6
Controlling criminally intended and dangerous businesses	4.4	4.1	4.6	3.7	1.12	11.8	8.1	2.0	2.7	3.2	6.2
Removal of animal dead bodies and controlling animal slaughter	0.9	1.0	0.9	4.5	0.0	0.0	2.2	0.4	0.9	0.3	0.70
Controlling the construction of new and dangerous houses in the Union Parishad	0.7	0.9	0.6	2.6	0.8	0.9	0.48	0.4	0.9	0.6	0.3
Management and conservation of wells, tube0.0wells, ponds etc.	1.2	1.3	1.1	3.0	0.6	0.00	1.2	2.2	2.4	0.5	0.4
Prevention of polluting drinking water sources and forbidding the use of those water sources which can be potentially dangerous for public health	1.7	1.6	1.7	3.3	1.2	0.4	1.9	1.4	2.4	1.5	1.3
Preventing or controlling bathing of both human beings and animals, washing clothes near ponds	1.3	1.5	1.2	2.6	1.0	0.0	1.7	1.6	1.7	1.5	0.7
Banning of processing jute and straws near rivers or drinking water sources	0.6	0.3	0.8	0.4	0.2	0.9	1.4	0.2	1.0	0.1	0.5

Controlling or banning tannery works in residential areas.	0.2	0.2	0.2	0.7	0.0	0.4	0.7	0.2	0.2	0.0	0.1
Controlling or banning extraction of stones or other resources from residential areas by digging soil.	0.4	0.2	0.6	0.4	0.2	0.0	0.9	04	0.7	0.0	0.5
Controlling or banning brick kiln and pottery factory in residential areas.	0.5	0.5	0.4	1.9	0.2	0.00	1.2	0.6	0.3	0.1	0.3
To assist government or taking quick necessary steps during fire, flood, heavy hail0.0storm, earthquake, or other natural disasters.	1.8	2.2	1.5	2.6	1.4	9.1	5.9	1.2	1.0	0.6	0.5
To assists or to enlist widows, orphans, poor, and helpless people.	17.6	18.2	17.3	24.2	8.7	37.7	23.6	10.4	12.7	15.2	22.1
To develop or to encourage cooperatives and rural industrial development.	0.8	1.1	0.7	2.2	0.4	0.4	1.2	1.2	0.8	0.8	0.5
To take necessary steps for producing extra foods.	0.8	0.7	0.8	1.5	1.2	1.8	1.9	0.2	0.6	0.5	0.4
Monitoring and maintaining shed of domestic animals.	4.4	2.5	5.4	1.5	1.2	8.2	6.4	0.6	1.7	2.6	9.4
Facilitating first0.0aid centre.	3.1	2.8	3.3	1.9	0.8	2.7	2.9	1.4	3.7	4.3	4.1
Facilitating securities and other services for the residents of the UP	1.0	0.9	1.0	1.1	0.6	1.4	4.1	0.4	0.7	1.1	0.4
Turn on and encouraging e0.0governance.	2.2	0.5	3.0	0.0	6.6	0.4	1.7	1.0	4.1	0.5	1.2
Extending associations with other organizations who are doing similar works of UP.	1.6	1.6	1.5	1.5	0.4	1.4	3.3	0.6	2.0	2.6	1.0
Doing time to time government0.0imposed duties	2.9	2.0	3.4	0.4	6.0	0.4	5.5	2.2	5.1	3.1	0.4

Q134. According to you, what are the negative functions or the weakness of UP?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
According to Respondents , Negative functions or the Weakness of UP											
Preparation of Five0.0Year and different term development plan.	24.8	30.3	21.9	58.4	15.9	31.4	41.4	26.4	25.3	21.5	15.2
Rural infrastructure development, conservation, and maintenance.	32.5	36.8	30.3	52.4	40.0	34.5	22.4	38.6	31.6	29.7	28.1
Primary and mass education related activities.	21.9	23.8	20.9	48.0	32.6	20.0	25.9	8.9	9.5	26.8	23.3
Implementation of Health and Family Planning related activities.	29.4	33.4	27.3	45.0	45.5	25.9	12.1	23.4	22.9	38.9	28.4
Undertake Agriculture, Fisheries, Animal Husbandry, and other necessary economic development activities.	26.9	24.7	28.0	43.1	61.4	28.2	27.9	12.2	17.1	25.6	23.1
Undertake necessary activities for controlling epidemic and disaster management.	27.7	31.5	25.7	39.9	48.3	26.8	17.4	19.3	14.6	39.0	27.9
Imposition and collection of Tax and Toll fee.	14.2	16.5	13.0	31.6	22.7	12.3	17.2	7.3	6.8	18.7	12.6
Implementation of necessary activities for solving family disputes, and for ensuring women and children welfare.	16.2	17.2	15.7	27.5	33.6	23.6	12.4	10.2	8.6	16.3	15.2
Undertake necessary initiatives and assistance for sports, social and cultural development.	10.7	12.5	9.7	23.4	19.5	23.6	14.8	6.7	7.1	8.8	6.1

Undertake necessary development and conservation initiatives for environment.	10.6	11.1	10.3	20.4	16.3	12.7	9.3	4.9	7.2	11.6	10.5
Performing Government imposed responsibilities to maintain law and order situation and undertake necessary activities.	13.2	13.5	13.0	25.3	23.7	20.4	12.6	6.7	7.2	11.6	13.3
Registering/enlisting birth and death status.	5.3	6.1	4.9	20.4	9.5	5.0	7.4	2.4	2.6	3.3	3.9
Conservation and maintenance of government space, open space, and sports field.	8.9	10.2	8.3	17.1	13.7	9.1	8.8	6.5	5.4	10.5	8.1
Establishing electric lamps on Union Parishad Roads and Government owned lands	11.2	12.3	10.6	17.8	8.3	13.6	11.2	8.1	4.0	13.0	16.3
Tree plantation, conservation and preventing theft of natural resources	11.7	14.0	10.5	19.0	9.9	13.2	11.4	8.3	5.7	16.8	14.1
Conservation of cemetery, graveyard, cremation place, public meeting place and other government properties.	9.4	10.8	8.7	16.7	9.7	10.4	9.3	7.3	3.8	11.1	11.7
Preventing illegal entry into public roads and government buildings and finding out the reasons behind these disturbances	6.1	7.0	5.7	16.7	7.4	8.6	8.3	4.3	4.4	4.4	5.1
Preventing the destruction of public road	5.8	6.9	5.3	14.9	4.4	5.9	6.9	7.1	5.5	3.8	4.9
Ensuring the collection, removal and management of cow0.0dung and other wastes.	5.7	5.4	5.8	11.5	5.0	5.0	6.8	5.9	5.6	2.7	5.9

Controlling criminally intended and dangerous businesses	4.3	3.4	4.7	7.4	6.4	0.9	4.8	3.5	2.9	2.4	5.5
Removal of animal dead bodies and controlling animal slaughter	5.6	7.0	5.0	12.6	2.2	6.4	5.9	3.9	2.7	7.2	7.4
Controlling the construction of new and dangerous houses in the Union Parishad	5.7	6.4	5.4	18.2	5.8	8.2	6.8	6.3	6.3	0.9	4.2
Management and conservation of wells, tube0.0wells, ponds etc.	8.8	8.5	9.0	10.0	2.0	5.9	5.7	17.9	20.0	1.4	4.4
Prevention of polluting drinking water sources and forbidding the use of those water sources which can be potentially dangerous for public health	9.7	9.0	10.1	9.7	2.2	5.4	7.1	19.1	22.9	2.0	4.4
Preventing or controlling bathing of both human beings and animals, washing clothes near ponds	11.4	9.0	12.7	8.2	1.0	7.3	8.8	17.3	22.0	3.3	11.6
Banning of processing jute and straws near rivers or drinking water sources	6.8	6.2	7.2	7.1	1.0	5.4	4.7	12.4	16.7	1.4	3.1
Controlling or banning tannery works in residential areas.	2.1	2.4	2.0	5.2	0.2	5.0	4.3	1.8	2.0	0.9	2.0
Controlling or banning extraction of stones or other resources from residential areas by digging soil.	2.0	1.9	2.1	4.8	0.0	0.9	4.0	1.4	2.4	1.4	2.1
Controlling or banning brick kiln and pottery factory in residential areas.	3.9	2.6	4.5	4.1	0.8	3.6	3.3	0.6	1.3	3.2	8.8

To assist government or taking quick necessary steps during fire, flood, heavy hail0.0storm, earthquake, or other natural disasters.	5.4	5.4	5.4	6.3	4.6	4.5	7.6	2.4	4.4	7.6	5.8
To assists or to enlist widows, orphans, poor, and helpless people.	12.1	13.3	11.5	5.9	5.0	14.5	10.9	9.8	10.1	18.6	15.3
To develop or to encourage cooperatives and rural industrial development.	4.4	5.7	3.8	5.9	0.2	0.9	4.3	6.9	4.7	6.2	4.2
To take necessary steps for producing extra foods.	4.7	4.8	4.6	3.7	0.6	1.8	4.0	5.7	4.9	5.6	6.2
Monitoring and maintaining shed of domestic animals.	5.9	6.5	5.6	5.6	1.0	1.8	4.0	5.3	4.6	9.4	8.5
Facilitating first0.0aid centre.	5.9	6.5	5.6	3.0	2.0	1.4	4.5	11.8	7.1	5.5	6.2
Facilitating securities and other services for the residents of the UP	5.6	6.1	5.4	4.8	0.8	3.6	4.8	6.5	6.4	7.0	6.7
Turn on and encouraging e0.0governance.	4.8	3.7	5.3	3.0	2.0	5.9	13.6	3.3	3.8	3.5	5.1
Extending associations with other organizations who are doing similar works of UP.	7.4	7.7	7.2	4.8	1.6	1.4	6.2	10.6	11.6	8.8	6.4
Doing time to time government0.0imposed duties	6.6	6.8	6.5	2.6	1.8	1.8	5.0	9.4	11.6	8.2	5.1

Q135. According to you, what are the problems of UP, which create obstacles to maintain quality of services and to provide services?

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
Obstacles for maintaining quality of services related problems of Up											
Lacks specific planning	76.3	80.2	74.3	92.9	74.7	79.5	73.3	72.2	65.3	81.4	81.3
Lack of adequate manpower	33.9	35.8	32.9	47.6	37.4	18.2	11.2	25.6	18.1	44.8	49.5
Lack of people's participation	62.7	64.7	61.7	66.2	61.2	31.8	30.2	72.2	60.9	69.4	72.8
Lack of adequate budget	39.1	39.1	39.1	52.0	44.9	34.6	42.4	31.9	32.3	40.8	40.9
Lake of accountability and transparency / Nepotism	1.0	1.0	1.0	3.0	3.0	0.0	0.5	0.6	0.7	0.9	0.7

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=269	Treatment N=503	Control N=220	Treatment N=420	Control N=508	Treatment N=969	Control N=656	Treatment N=1282
No comment	28.6	31.9	26.8	0.7	13.7	5.0	9.3	49.2	34.9	40.4	31.6
Respondent suggestions regarding improving the UP's response to climate change											
Make Culvert	1.1	0.9	1.2	1.1	0.6	1.4	0.2	5.0	1.2	0.6	1.8
Make Cyclone shelter	7.6	10.0	6.4	0.0	0.2	20.0	4.8	4.1	5.9	15.2	9.9
Repair and Construct road	11.1	12.0	10.6	4.5	9.1	20.9	4.5	4.5	6.8	17.8	16.1
Conduct awareness program/workshop about weather forecast	24.3	18.7	27.6	31.6	11.1	8.9	40.9	26.1	37.8	14.1	19.3
Weather related relevant committee and UP itself have to be active	3.7	3.3	3.7	0.7	3.2	1.4	2.1	2.0	2.9	5.9	5.2
Repair / construct embankment	16.0	15.2	16.3	44.6	28.2	6.4	7.1	14.2	12.4	7.0	17.7
Early preparation for any kind of disaster	3.9	5.2	3.2	26.4	11.9	1.8	3.3	1.4	2.2	0.6	0.6
Increase Budget	0.8	0.5	0.9	0.7	1.6	0.0	0.5	1.0	1.6	0.3	0.2
Relief distribution	0.1	0.2	0.1			1.4	0.5	0.0	0.1	0.0	0.0

Tree plantation	3.3	1.9	4.1	0.4	1.6	2.3	11.4	0.8	1.0	3.2	5.0
River/cannel excavation	9.3	9.4	9.3	2.6	0.4	55.4	56.2	1.8	2.8	2.6	2.3
Construct Sluice gate	3.4	2.9	3.6	13.7	19.1	0.0	0.2	0.8	1.0	1.1	0.7
Pond excavation	1.4	0.9	1.7	0.0	0.0	0.4	0.0	2.0	2.9	0.5	2.1
Tube well installation	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.8	1.4	0.3	0.1
Salinity tolerant seed distribution/ Mitigate salinity	1.1	1.2	1.0	0.0	0.2	0.0	0.0	2.6	2.1	1.1	0.9
Create Job opportunity	1.0	1.0	1.0	0.4	0.0	0.0	0.0	2.2	1.3	0.7	1.5
Mitigate water logging	1.3	0.2	1.9	0.7	11.1	0.0	0.0	0.2	0.1	0.1	0.2
Distribute rain water harvesting tank	0.5	1.0	0.2	1.9	0.4	0.0	0.0	0.2	0.3	1.5	0.2
Boat arrangement in rainy season	0.8	1.0	0.7	0.0	0.0	0.0	0.0	2.4	2.1	0.6	0.2
others	0.2	0.3	0.1	1.1	0.0	0.0	0.0	0.2	0.0	0.1	0.2

Part 2: UP Level (Component 1)

Q16. Area of the Union

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean area of union (sq. km)	31.6	27.2	33.5	31.5	44.3	20	34.9	27.4	30.9	29.2	30.4

Q17. Total households of the Union

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of total household	6221	6196.8	6233.2	5539.6	5361.6	10726.6	7340.2	5617.7	6255.4	5315.6	6193.9

Q18. Total households: Poor

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of total poor household	3630.1	3807.5	3545.1	3281.3	3240.9	7616	5321.8	3475.5	3825.7	2389.8	2693.9

Q19. Total population of the Union:

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean population	30815.4	23358.5	34544.0	29759.5	30536.6	24858.4	58301.7	22694	29751	20601.6	31542.4

Q20. Male

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean male population	14559.4	11975.3	15815.6	14956.2	15295	12095	17048.8	11845.7	15469.7	10663	15869.9

Q21. Female

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean female population	14188.6	11618.7	15437.8	14803.3	15080.1	12896.8	17742.9	10866.2	14285.6	10294.1	15673.1

Q22. Total number of village

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of voters	15560.2	14141.5	16279.5	17389.3	17406.1	15558.6	16079.2	13809	16613.5	12504.8	15580.7

Q25. Total number of village

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of villages	17.9	16.6	18.5	29.3	28.5	19.4	30.5	15.5	14.63	11	13.0

26. Is this a Sadar Union of the Upazila?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Sadar union of Upazila											
Yes	11.1	2.8	15.3	0.0	16.7	20.0	20.0	0.0	18.2	0.0	10.7
No	88.9	97.2	84.7	100.0	83.3	80.0	80.0	100.0	81.8	100.0	89.3

Q27. What is the distance of Union Parishad office from the Upazila headquarters?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean distance of UP office from UPZ headquarter (km)	10.7	10.7	10.8	11.2	9.6	7.2	8.9	11.3	11	11.2	11.8

Q28. Does this Union adjoin the Sadar Union of the Upazila

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Adjoin sadar union of UPZ											
Yes	36.1	27.8	40.3	50.00	66.7	60.0	60.0	9.1	40.9	21.3	21.4
No	63.9	72.2	59.7	50.00	33.3	40.0	40.0	90.9	59.1	78.6	78.6

Q29. Does this Union adjoin the Sadar Union of the neighboring Upazila?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Adjoin sadar union of neighboring UPZ											
Yes	8.3	8.3	8.3	16.7	16.7	0.0	10.0	9.1	4.5	7.1	7.1
No	91.7	91.7	91.7	83.3	83.3	100.0	90.0	90.9	95.5	92.9	92.9

Q30. What is the distance to the DC office?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean distance to DC office (km)	43.1	38.5	45.4	41.3	53.9	34.6	41.7	51.4	61.1	28.4	30.6

Q31. Does this Union adjoin a Paurasabha?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Adjoin the Paurasabha											
Yes	10.2	5.6	12.5	16.7	8.3	0.0	0.0	0.0	27.3	7.1	7.1
No	89.8	94.4	87.5	83.3	91.7	100.0	100.0	100.0	72.7	92.9	92.9

Q32. Is there a copy of the Union Parishad Act of 2009 in the UP office?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Copy of the Union Parishad Act, 2009 found in the UP office											
Yes	84.3	83.3	84.7	100.0	100.0	100.0	100.0	90.9	86.4	64.3	71.4
No	15.7	16.7	15.3	0.0	0.0	0.0	0.0	9.1	13.6	35.7	28.6

Q33. Total Road length in the Union

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total road length	87.7	74.7	94.5	22	22.4	26.8	46.9	88.18	117.4	103.7	128.1

Q34. Total Black Top Road in the Union:

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total black top road length	16.0	16.7	15.7	6.0	5.6	10.0	10.8	14.8	22	25.2	17.3

Q35. Number of health facilities (Hospital, MCWC, FWC, Other clinics):

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of health facility	4.0	3.2	4.4	2.5	3.6	3	5.5	3.1	5	3.6	3.8

Q36. Total number of Haats the Union: Haats[2]

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of Haats	2.9	2.8	3.0	2.7	2.0	1.0	1.1	3.4	4.1	3	3.1

Q37. Total number of Bazar in the Union

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of total Bazar	3.4	2.3	3.7	3.3	3.4	3	4.5	2.7	3.6	2.7	3.6

Q38. Number of service-related groups (CBOs, NGOs & other associations/clubs):

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of service related groups (CBOs, NGOs & other associations/clubs)	7.6	7.1	7.9	5.3	4.8	7.2	13.1	9.6	9.9	5.4	5.4

Q39. Does the UP have a major (to be defined) river running through its area?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Major river running through UP's area											
Yes	82.4	86.1	80.6	100.0	83.3	100.0	100.0	81.8	68.2	78.6	82.1
No	17.6	13.9	19.4	0.0	16.7	0.0	0.0	18.2	31.8	21.4	17.9

Q40. Does the UP have a major (to be defined) haor in its area

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Major haor in the UP's area											
Yes	15.7	13.9	16.7	83.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0
No	84.3	86.1	83.3	16.7	0.0	100.0	100.0	100.0	100.0	100.0	100.0

Q41. Does the UP have a seacoast (to be defined) in its area?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP have a seacoast in its area											
Yes	14.8	11.1	16.7	0.0	0.0	0.0	0.0	9.1	13.6	21.4	32.1
No	85.2	88.9	83.3	100.00	100.0	100.0	100.0	90.9	86.4	78.6	67.9

Q42. Does the UP have one or more cyclone shelters?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP have one or more cyclone shelters											
Yes	93.5	91.7	94.4	66.7	91.7	80.0	70.0	100.00	100.0	100.00	100.0
No	6.5	8.3	5.6	33.3	8.3	20.0	30.0	0.0	0.0	0.0	0.0

Q43. Did UP organize any campaign on climate issues in 2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP organize any campaign on climate issues in 2016-17											
Yes	73.1	77.8	70.8	50.0	33.3	100.00	100.0	100.0	90.9	64.3	60.7
No	26.8	22.2	29.2	50.0	66.7	0.0	0.0	0.00	9.1	35.7	39.3

Q44. If 43 is yes, issues of the campaign?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Issues of the campaign											
World Environment Day	29.6	36.1	26.4	50.0	33.3	100.0	50.0	45.4	40.9	0.0	3.6
International Day for Disaster Reduction	57.4	55.6	58.3	16.7	33.3	100.0	100.0	81.8	72.7	35.7	42.9
National Day for Disaster Reduction	68.5	72.2	66.7	33.3	33.3	100.0	80.0	100.0	86.4	57.1	60.7
Others	9.3	5.6	11.1	0.0	0.0	0.0	0.0	18.2	31.8	0.0	3.6

Q45. If 43 is yes, who organised the training?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Organizer of those training											
UP	17.7	14.3	19.6	33.3	0.00	0.0	50.0	18.2	5.0	11.1	23.5
NGO	25.3	28.6	23.5	100.0	75.0	0.0	0.0	27.3	10.0	22.2	41.2
Local voluntary organisation	2.5	0.0	3.9	0.00	50.0	0.0	0.0	0.0	0.0	0.0	0.0
Under the directives of UZP/District Council	32.9	28.6	35.3	100.0	75.0	20.0	70.0	0.0	0.0	0.0	0.0
Jointly by UP, NGO and Local voluntary organisation	84.8	78.6	88.2	33.3	75.0	100.0	70.0	72.7	90.0	88.9	100.0
Others	1.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0

Q46 Number of elected persons in place in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean number of elected persons	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.9	13.0	13.0	12.9

From q47-q55

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number of wards shava supposed to hold in last fiscal year (2016-17) (N)	1944	648	1296	108	216	90	180	198	396	252	504

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number of ward shava held in last fiscal year (2016-17) (n, N)	1839	598	1241	108	236	90	180	206	378	194	447

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of ward shava held in last fiscal year (2016-17) (%)	94.6	92.2	95.7	100.0	91.5	100.0	100.0	96.1	95.4	77.0	88.7

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number and proportion of ward shava, with required quorum in last fiscal year (2016-17) n (%)	1646 (89.5)	529 (88.5)	1117 (90.0)	108 (100.0)	215 (91.1)	83 (92.2)	133 (73.9)	206 (100.0)	378 (100.0)	132 (68.0)	391 (87.5)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number and proportion of ward shava, attended by 5% voter in last fiscal year (2016-17) n (%)	1587 (86.3)	506 (84.6)	1081 (87.1)	108 (100.0)	208 (88.1)	54 (60.0)	110 (61.1)	206 (100.0)	378 (100.0)	138 (71.1)	385 (86.1)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number and proportion of ward shava, where climate change issues discussed in last fiscal year (2016-17) n (%)	1110 (60.3)	333 (55.6)	777 (62.6)	107 (99.1)	203 (86.0)	85 (94.4)	123 (68.3)	206 (100.0)	378 (100.0)	176 (90.7)	418 (93.5)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Number and proportion of ward shava, where climate change issues discussed in last fiscal year (2016-17) n (%)	1110 (60.3)	333 (55.6)	777 (62.6)	17 (15.7)	144 (61.0)	27 (30.0)	73 (40.5)	152 (73.9)	263 (69.6)	137 (70.6)	297 (66,4)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
President signed any of meeting resolution											
Yes	872(47.4)	288(48.2)	584(47.1)	54 (50.0)	107 (45.3)	45 (50.0)	83 (46.1)	99 (48.0)	198 (52.4)	90 (46.4)	196 (43.8)
No	967(52.6)	310(51.8)	657(52.9)	54 (50.0)	129 (44.7)	45 (50.0)	97 (43.9)	107 (52.0)	180 (47.6)	104 (53.6)	251 (56.2)

Qc1. Was there any Community Risk Assessment (CRA) meeting organized in the Union?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Any CRA meeting held in the Union											
Yes	56.5	52.8	58.3	0.00	33.3	100.0	80.0	54.5	63.6	57.1	57.1
No	43.5	47.2	41.7	100.0	66.7	0.00	20.0	45.5	36.4	42.9	42.9

Qc2. When the CRA meetings were organized?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
When CRA meetings organized in											
2017	8.3	0.0	12.5	0.0	33.3	0.0	0.0	0.0	4.5	0.0	14.3
2016	4.6	2.8	5.6	0.0	0.0	20.0	40.0	0.0	0.0	0.0	0.0
2015 or before	43.5	50.0	40.3	0.0	0.0	80.0	40.0	54.5	59.1	57.1	42.9

Qc3. Is the CRA report available at Union Parishad?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
CRA report available at UP											
Yes	41.7	33.3	45.8	0.0	33.3	80.0	60.0	27.3	54.6	35.7	39.3
No	58.3	66.7	54.2	100.0	66.7	20.0	40.0	72.7	45.4	64.3	60.7

Qc5. Was the CRA findings discussed in the Ward Shava?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
CRA findings discussed in the Ward Shava											
Yes	47.2	44.4	48.6	0.0	33.3	60.0	50.0	54.6	50.0	50.0	53.6
No	52.8	55.6	51.4	100.0	66.7	40.0	50.0	45.4	50.0	50.0	46.4

Qc6. Was the CRA report considered in preparing 5-year development plan and Annual Development Plan?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
CRA report considered in preparing 5-year development plan and Annual Development Plan											
Yes	49.1	47.2	50.0	0.0	33.3	80.0	30.0	45.5	63.6	57.1	53.6
No	50.9	52.8	50.0	100.0	66.7	20.0	70.0	54.5	36.4	42.9	46.4

Q56. Is the Standing Committee for Social welfare & disaster management set up as of June 2017?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Standing Committee for Social welfare & disaster management set up as of June 2017											
Yes	98.1	97.2	98.6	100.0	100.0	100.0	100.0	100.0	100.0	92.9	96.4
No	1.9	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	7.1	3.6

Q57. Is the Standing Committee for Environment protection and plantation set up as of June 2017

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Respondent Standing Committee for Environment protection and plantation set up as of June 2017											
Yes	90.7	91.7	90.3	83.3	50.0	100.0	100.0	100.0	100.0	85.7	96.4
No	9.3	8.3	9.7	16.7	50.0	0.0	0.0	0.0	0.0	14.3	3.6

Q57.1. How many standing committees have been formed so far?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean of standing committees formed so far	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0

Q58_1_a. Social welfare & disaster management

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Formed											
Yes	96.3	94.4	97.2	100.0	100.0	100.0	100.0	100.0	100.0	85.7	92.9
No	3.7	5.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	14.3	7.1

Q58_1_b. Social welfare & disaster management

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Headed by Female Member											
Yes	38.9	36.1	40.3	100.0	91.7	60.0	60.0	18.7	18.2	14.3	28.6
No	61.1	63.9	59.7	0.0	8.3	40.0	40.0	81.8	81.8	85.7	71.4

Q58_1_c.. Social welfare & disaster management

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
No. of meetings during (July 2016-June 2017											
0	11.1	13.9	9.7	0.0	0.0	0.0	0.0	0.0	0.0	35.7	25.0
1-3	55.6	52.8	56.9	16.7	0.0	80.0	100.0	54.6	59.1	57.1	64.3
4-6	19.4	22.2	18.1	16.7	33.3	20.0	0.0	45.4	36.4	7.1	3.6
7+	13.9	11.1	15.3	66.7	66.7	0.0	0.0	0.0	4.5	0.0	7.1

Q58_1_e. Social welfare & disaster management

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Standing Committee Prepared at least 2 monitoring report during July 2016-June 2017											
Yes	40.7	38.9	41.7	100.00	100.0	100.00	100.0	0.0	4.5	21.4	25.0
No	61.1	58.3	59.3	0.0	0.0	0.0	0.0	100.0	95.5	78.6	75.0

Q58_2_a. Environment protection and plantation

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Formed											
Yes	92.6	91.7	93.1	100.00	100.0	100.00	100.0	90.9	100.0	85.7	82.1
No	7.4	8.3	6.9	0.0	0.0	0.0	0.0	9.1	0.0	14.3	17.9

Q58_2_b. Environment protection and plantation

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Headed by Female Member											
Yes	37.0	38.9	33.3	100.0	91.7	20.0	70.0	27.3	18.2	14.3	21.4
No	63.0	66.8	61.1	0.0	8.3	80.0	30.0	72.7	81.8	85.7	78.6

Q58_2_c. Environment protection and plantation

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
No. of meetings during (July 2016-June 2017											
0	12.0	13.9	11.1	0.0	0.0	0.0	0.0	0.0	4.5	35.7	25.0
1-3	57.4	55.6	58.3	0.0	0.0	100.0	100.0	54.5	59.1	64.3	67.9
4-6	16.7	16.7	16.7	16.7	25.0	0.0	0.0	45.5	31.8	0.00	7.1
7+	13.9	13.9	13.9	83.3	75.0	0.0	0.0	0.0	4.6	0.00	0.00

Q58_2_e. Environment protection and plantation

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Standing Committee Prepared at least 2 monitoring report during July 2016-June 2017											
Yes	36.1	27.8	40.3	83.3	100.0	100.0	90.0	0.0	0.0	0.0	28.6
No	63.9	72.2	59.7	16.7	0.0	0.0	10.0	100.0	100.0	100.0	71.4

Q59. Did the UP implement any special scheme for climate change adaptation in the last financial year (July 2016-June 2017):

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any climate change adaptation scheme											
Yes	11.1	19.4	6.9	16.7	0.0	0.0	0.0	9.1	9.9	35.7	10.7
No	88.9	80.6	93.1	83.3	100.0	100.0	100.0	90.9	90.9	64.3	89.3

Q60.1 Has your UP implemented any gender-sensitive scheme in FY2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any gender sensitive scheme											
Yes	6.5	5.6	6.9	16.7	33.3	0.0	0.0	9.1	4.5	0.0	0.0
No	93.5	94.4	93.1	83.3	66.7	100.00	100.0	90.9	95.5	100.0	100.0

Q60,2. If yes, then

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget	183857.1	81000	225000	150000	271250	0.0	0.0	12000	40000	0.0	0.0
Mean total expenditure	183857	81000	225000	150000	271250	0.0	0.0	12000	40000	0.0	0.0
Proportion of expenditure (%)	6.5	5.6	6.9	16.7	33.3	0.0	0.0	9.09	4.5	0.0	0.0

Q60.3. Has your UP implemented any scheme for disaster-affected vulnerable women and children in FY2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any scheme related to disaster-affected vulnerable women and children											
Yes	22.2	19.4	23.6	83.3	58.3	0.0	40.0	18.2	27.3	0.0	0.0
No	77.8	80.6	76.4	16.7	41.7	100.0	60.0	81.8	72.7	100.0	100.0

Q60.4 If yes, then

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget	916485.9	1040600	865380	1390840	1663664	0.0	471702.5	165000	196500	0.0	0.0
Mean total expenditure	877108.7	1018315	818965.1	1370840	1563664	0.0	466439	137000	185166.7	0.0	0.0
Proportion of expenditure (%)	95.7	97.9	94.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Q60.5. Has your UP implemented any scheme for disaster-affected marginalised population in FY2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any scheme related to disaster-affected marginalised population											
Yes	12.0	13.9	11.1	83.3	25.0	0.0	40.0	0.0	0.0	0.00	3.6
No	88.0	86.1	88.9	16.7	75.0	100.0	60.0	100.00	100.0	100.00	96.4

Q60.6. If yes, then

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget	1934517	3053931	1234884	3053931	2406167	0.0	465142.5	0.0	0.0	0.0	800000
Mean total expenditure	1949807	3053931	1259730	3053931	2472833	0.0	464835	0.0	0.0	0.0	800000
Proportion of expenditure (%)	99.2	100.0	98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

60.7. Has your UP implemented any climate change related scheme under LGSP in FY2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any climate change related scheme under LGSP											
Yes	28.7	22.2	31.9	16.7	33.3	0.00	20.0	45.5	40.9	14.3	28.6
No	71.3	77.8	68.1	83.3	66.7	100.0	80.0	54.5	59.1	85.7	71.4

Q60.8. If yes, then

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget	1229452	1532065	1124195	2800000	816338	0.0	719086.5	851304.6	1492441	2600000	965125
Mean total expenditure	1175948	1419143	1101932	2800000	781838	0.0	699665	483500	1455194	2600000	965125
Proportion of expenditure (%)	95.6	92.6	98.0	100.0	95.8	0.0	97.3	83.2	97.5	100.0	100.0

Q60.9. Has your UP implemented any climate change related scheme under Annual Development Programme (ADP) of the government in FY2016-17?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP implemented any climate change related scheme under ADP											
Yes	14.8	16.7	13.9	16.7	8.3	0.0	0.0	45.5	40.9	0.0	0.0
No	85.2	83.3	86.1	83.3	91.7	100.0	100.0	54.5	59.1	100.0	100.0

Q60.10. If yes, then

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget	332659	450481	254111	1600000	100000	0.0	0.0	220577	273375	0.0	0.0
Mean total expenditure	343063	420981	284625	1600000	100000	0.0	0.0	185177	311000	0.0	0.0
Proportion of expenditure (%)	97.0	93.4	89.0	100.0	100.0	0.0	0.0	83.9	87.9	0.0	0.0

Q61, a. Availability of Annual Budget (2016-17)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Availability of Annual Budget (2016-17)											
Yes	25.0	25.0	25.0	0.00	16.7	0.0	20.0	45.5	50.0	28.6	10.7
No	75.0	75.0	75.0	100.00	83.3	100.0	80.0	54.5	50.0	71.4	89.3

Q61.b. If not, specify the reasons

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Reasons for not having the annual budget											
No specific plan	10.2	13.9	8.3	33.3	8.3	0.0	10.0	27.3	4.5	0.00	10.7
Lack of adequate budget	71.3	72.2	70.8	100.0	83.3	100.0	80.0	45.5	40.9	71.4	85.7
Less local resource mobilization	67.6	69.4	66.7	83.3	83.3	100.0	70.0	45.5	45.4	71.4	75.0
Lack of awareness	12.0	5.6	15.3	33.3	58.3	0.0	30.0	0.0	4.5	0.0	0.0
Other	0.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6

Q61.c. Climate change related investments in Annual Budget (2016-17)

Indicators (%, Mean)	Total N=4827	Control N=1653	Treatment N=3174	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Climate change related investments in Annual Budget											
Yes	33.3	38.9	30.6	0.0	0.0	0.0	10.0	63.6	45.5	50.0	39.3
No	66.7	61.1	69.4	100.0	100.0	100.0	90.0	36.4	54.5	50.0	60.7

Q61.d. If not, specify the reasons

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Reason for not having the climate change related investments in Annual Budget											
No allocation from central government	53.7	50.00	55.6	100.00	100.0	100.0	90.0	36.4	36.4	21.4	39.3
Less local resource mobilization	50.0	50.0	50.0	100.00	83.3	100.0	90.0	27.3	36.4	28.6	32.1
No planning on this matter	36.1	36.1	36.1	83.3	83.3	20.0	10.0	27.3	22.7	28.6	35.7
Others	0.9	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6

Q62. Was the annual budget approved in the UP general meeting?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Annual budget approved in the UP general meeting											
Yes	98.1	97.2	98.6	100.0	100.0	100.0	100.0	100.0	100.0	92.9	96.4
No	1.8	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	7.1	3.6

Q63_1. Total amount of holding tax collected for the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union collected the holding tax and the mean amount (%, Mean)											
July 2016-June 2017	95.4 (211935.6)	94.4 (160514.6)	95.8 (237273.4)	100.00 (167453.2)	100.0 (300032.8)	100.0 (71048)	100.0 (45304.1)	100.0 (179042.2)	100.0 (287683.2)	85.7 (177339.4)	92.9 (232104.1)
July 2015-June 2016	93.5 (161287.1)	94.4 (114398.3)	93.1 (185081.4)	100.0 (102805.8)	100.0 (224677.2)	100.0 (55594)	90.0 (32256)	100.0 (140048.7)	100.0 (223842.1)	85.7 (121183.3)	85.7 (187062.4)

Q63_2. Total amount of own source revenue (excluding holding tax) collected for the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union collected the own source revenue and the mean amount (%, Mean)											
July 2016-June 2017	89.8 (271967.5)	86.1 (198513.3)	91.7 (306468.7)	83.3 (70824.6)	83.3 157012.1)	100.0 (128806)	80.0 (45930.9)	81.8 (371340)	100.0 (502028.9)	85.7 (151141.7)	92.9 (278643.5)
July 2015-June 2016	88.9 (202735)	86.1 (163807.6)	90.3 (221300.3)	83.3 (31599.2)	83.3 (168314.8)	100.0 (83360)	80.0 (35725.6)	81.8 (335781.9)	100.0 (326855.5)	85.7 (123433.7)	89.3 (208989.8)

Q63_3. Total LGSP grant received during the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union received the LGSP grant and the mean amount (%, Mean)											
July 2016-June 2017	87.0 (186127)	83.3 (163733)	88.9 (1966243)	83.3 (1830466)	100.0 (2057173)	100.0 (1975640)	100.0 (1953119)	100.0 (1410436)	95.4 (2278383)	64.3 (1619397)	75.0 (1608393)
July 2015-June 2016	84.3 (172437)	83.3 (155128)	84.7 (1809507)	83.3 (1626788)	100.0 (2146268)	100.0 (1737622)	100.0 (1726302)	100.0 (1333544)	95.4 (2016539)	64.3 (1671945)	64.3 (1389688)

Q63.4 Total amount of LoGIC grant during the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of of LoGIC grant during the financial year mean amount (%, Mean)											
July 2016-June 2017	12.0 (1755425)	13.9 (1830466)	11.1 (1708524)	83.3 (1830466)	58.3 (1912099)	0.0	0.0	0.0	0.0 (958228)	0.0	3.6 (283500)
July 2015-June 2016	13.0 (1462197)	13.9 (1626788)	12.5 (1370757)	83.3 (1626788)	58.3 (1585012)	0.0	0.0	0.0	4.6 (958228)	0.0	3.6 (283500)

Q63.5. Total amount of other climate change related grant during the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union received other climate change related grant and the mean amount (%, Mean)											
July 2016-June 2017	13.9 (831481)	13.9 (585244)	13.9 (954600)	0.00	16.7 (1075000)	0.0	0.0	45.5 (585244)	22.7 (1193202)	0.0	10.7 (476666.7)
July 2015-June 2016	13.0 (1117629)	13.9 (685021)	12.5 (1357967)	0.00	16.7 (1032500)	0.0	0.0	45.5 (685021.4)	22.7 (1939340)	0.0	7.1 (230000)

Q63.6. Total amount of other grant for the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union received the other grant and the mean amount (%, Mean)											
July 2016-June 2017	78.7 (6710837)	72.2 (5747204)	81.9 (7135488)	100.0 (6348761)	83.3 (6919289)	20.0 (150650)	70.0 (1995014)	72.7 (6235343)	77.3 (14508354)	78.6 5572850)	89.3 (3647751)
July 2015-June 2016	77.8 (6641171)	72.2 (5048053)	80.6 (7355328)	100.0 (4989226)	83.3 (6607547)	20.0 (75860)	70.0 (1730999)	72.7 (6024900)	77.3 (10334978)	78.6 (4821723)	85.7 (7196747)

Q63.7. Total amount of other transfers received during the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union received the other transfers and the mean amount (%, Mean)											
July 2016-June 2017	80.6 (13390884)	77.8 (1945778)	81.9 (1051167)	83.3 (5058009)	91.7 (1007045)	80.0 (1810189)	90.0 (2765899)	63.6 (18244646)	59.1 (19678347)	85.7 (1308035)	92.9 (8796246)
July 2015-June 2016	80.6 (10910118)	77.9 (1091011)	81.9 (105849)	83.3 (8401105)	91.7 (9152355)	80.0 (1658111)	90.0 (2310065)	63.6 (16489886)	63.6 (18120065)	85.7 (1335640)	89.3 (10275951)

Q63.8. Total budget for the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean total budget for the financial year (%, Mean)											
July 2016-June 2017	93.5 (15994468)	94.4 (15260645)	93.1 (16366856)	100.0 (15720534)	100.0 (12889619)	100.0 (6930101)	90.0 (8316133)	100.0 (19347532)	100.0 (25713046)	85.7 (14755447)	85.7 (12557156)
July 2015-June 2016	92.6 (14770639)	91.7 (14095715)	93.1 (15103065)	100.0 (13064373)	100.0 (12942279)	100.0 (6234498)	90.0 (7268025)	100.0 (18437197)	100.0 (22299920)	78.6 (13890063)	85.7 (12524480)

Q63.9. Total capital investment for the financial year

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union having the capital investment and the mean amount (%, Mean)											
July 2016-June 2017	71.3 (14774526)	69.4 (16890409)	72.2 (1375727)	83.3 (16658436)	33.3 (12737517)	0.0	40.0 (3752252)	90.9 (1859908)	95.5 (1791739)	71.4 (15297715)	82.1 (11876258)
July 2015-June 2016	72.2 (15640116)	69.4 (15787585)	73.6 (1557055)	83.3 (15520439)	41.7 (10187863)	0.0	40.0 (2897944)	90.9 (1815789)	95.5 (2378851)	71.4 (13550850)	82.1 (11441286)

Q63.10. Total number of schemes

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union having total schemes and the mean amount (%, Mean)											
July 2016-June 2017	90.7(37)	91.7(34)	90.3(38)	100.0(18)	100.0(30)	100.0(10)	100.0(16)	0.0(58)	4.5(67)	78.6(31)	78.6(23)
July 2015-June 2016	89.8(35)	91.7(32)	88.9(36)	100.0(14)	100.0(27)	100.0(8)	100.0(13)	100.0(58)	100.0(61)	78.6(28)	71.4(27)

Q63.11. Total expenditure on non-capital schemes for the financial year (like training, supply of books,advocacy, etc.)

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union having expenditure on non-capital schemes and the mean amount (%, Mean)											
July 2016-June 2017	29.6 (164820)	25.0 (244336)	31.9 (133706)	100.0 (347554)	100.0 (141059)	20.0 (58200)	70.0 (112102)	18.2 (27750)	13.6 (165938)	0.0	3.6 (100000)
July 2015-June 2016	32.4 (119916)	22.2 (265015)	37.5 (76924)	100.0 (335870)	100.0 (77982)	20.0 (32600)	70.0 (78634)	0.0	13.6 (92133)	7.1 (72295)	17.9 (62865)

Q63.12. Total number of schemes

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Proportion of union having total number of schemes and the mean amount (%, Mean)											
July 2016-June 2017	70.4(20)	72.2(18)	69.4(21)	100.0(17)	100.0(30)	100.0(10)	100.0(13)	54.5(1)	45.5(11)	64.3(35)	64.3(24)
July 2015-June 2016	59.3(21)	61.1(18)	58.3(23)	100.0(15)	100.0(28)	100.0(8)	100.0(11)	18.2(1)	18.2(23)	64.3(29)	57.1(27)

Q64. Was the open budget meeting conducted in 2016-17at the UP?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Open budget meeting conducted in 2016-17											
Yes	94.4	91.7	95.8	100.0	100.0	100.00	100.0	100.00	100.0	78.6	89.3
No	5.6	8.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0	21.4	10.7

Q64a. If yes, were there any female present?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Any female present in open budget meeting											
Yes	93.5	91.7	94.4	100.0	91.7	100.0	100.0	100.0	100.0	78.6	89.3
No	6.5	8.3	5.6	0.0	8.3	0.0	0.0	0.0	0.0	21.4	10.7

Q65. Was the budget of previous financial year (July 2015-June 201 financial year) audited by Auditors appointment by the Govt.?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Auditors audited previous financial year's budget											
Yes	98.1	100.0	97.2	100.00	100.0	100.0	100.0	100.0	95.4	100.0	96.4
No	1.8	0.0	2.8	0.0	0.0	0.0	0.0	0.0	4.6	0.00	3.6

Q67. Has UP disclosed information on revenue/expenditure of previous financial year (July 2016-June 2017) to public? If yes, was there any objection

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
UP disclosed information on revenue/expenditure of previous financial year (July 2016-June 2017)											
Yes	95.4	91.7	97.2	100.0	100.0	100.0	100.0	100.0	100.0	78.6	92.9
No	4.6	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	21.4	7.1

Q67a. If yes, how was the information is disclosed?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Information disclosed by											
Notice board	77.8	75.0	79.2	100.0	91.7	80.0	90.0	72.7	63.6	64.3	82.1
UP meetings	58.3	58.3	58.3	100.0	91.7	80.0	100.0	45.4	36.4	42.9	46.4
Public forum	56.5	58.33	55.6	100.0	91.7	80.0	100.0	81.8	63.6	14.3	17.9
Ward Sabha	42.6	38.9	44.4	50.00	83.3	0.0	0.0	18.2	9.1	64.3	71.4

Q68.1. Has Annual Development Plan been formulated for 2016-17

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Annual Development Plan been formulated for 2016-17											
Yes	96.3	94.4	97.2	100.0	100.0	100.0	100.0	100.0	100.0	85.7	92.9
No	3.7	5.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	14.3	7.1

Q68.2. Climate change schemes in Annual Plan 2016-17

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Climate change schemes in Annual Plan 2016-17											
Yes	19.4	8.3	25.0	0.0	0.0	0.0	0.0	18.2	45.5	7.14	28.6
No	80.6	91.7	75.0	100.00	100.0	100.00	100.0	81.8	54.5	92.9	71.4

Q68.3. Availability of Five-Year plan that cover 2016-17

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Five-Year plan been formulated											
Yes	56.5	52.8	58.3	100.00	100.0	80.0	30.0	63.6	68.18	14.3	42.9
No	43.5	47.2	41.7	0.0	0.0	20.0	70.0	36.4	31.8	85.7	57.1

Q68.4. Climate change schemes in FY Plan for 2016-17

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Climate change schemes in Five-Year Plan											
Yes	55.6	50.0	58.3	0.0	25.0	20.0	30.0	63.6	68.2	71.4	75.0
No	44.4	50.0	41.7	100.0	75.0	80.0	70.0	36.4	31.8	28.6	25.0

Q69.a. Which of the following line Department have staff posted to the UP?

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Agriculture											
Yes	90.7	91.7	90.3	100.00	100.0	100.00	100.0	100.00	100.0	78.6	75.0
No	9.3	8.3	9.7	0.0	0.0	0.0	0.0	0.0	0.0	21.4	25.0

Q69.b. If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	7.5	7.9	7.3	2.3	2.8	17	12.5	7.3	7.8	7.1	7.1

Q69.c. Health

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Health											
Yes	67.6	69.4	66.7	100.00	100.0	100.00	100.0	72.7	72.7	78.6	71.4
No	32.4	30.6	33.3	0.0	0.0	0.0	0.0	27.3	27.3	21.4	28.6

Q69.d; If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	4.3	5.0	4.0	3.5	2.8	0.0	0.0	3.7	5.4	7	4.1

Q69.e. Family Planning

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Family Planning											
Yes	78.7	75.0	80.6	100.00	100.0	0.0	60.0	90.9	95.5	78.6	67.9
No	21.3	25.0	19.4	0.0	0.0	100.0	40.0	9.1	4.5	21.4	32.1

Q69.f. If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	8.1	8.4	8.0	3.5	3.5	0.0	8.3	6.2	7.0	13.9	11.4

Q69.g. Education

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Education											
Yes	40.7	33.3	44.4	50.0	100.0	0.0	0.0	0.0	9.1	64.3	64.3
No	59.3	66.7	55.6	50.0	0.0	100.00	100.0	100.0	90.9	35.7	35.7

Q69.h. If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	3.1	3.0	3.1	1.5	2.2	0.0	0.0	0.0	5.5	3.4	3.3

Q69.i. LGED

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
LGED											
Yes	50.9	44.4	54.2	66.7	83.3	0.0	0.0	27.3	54.5	64.3	60.7
No	49.1	55.6	45.8	33.3	16.7	100.0	100.0	72.7	45.5	35.7	39.3

Q69.j. If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	1.9	1.6	2.0	2	1.6	0.0	0.0	0.0	4,7	1.4	1.5

Q69.j, DPHE

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
DPHE											
Yes	44.4	36.1	48.6	16.7	66.7	0.0	10.0	36.4	36.4	57.1	64.3
No	55.6	63.9	51.4	83.3	33.3	100.0	90.0	63.6	63.6	42.9	35.7

Q69.k, If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Meandays/month present in UP	4.2	4.7	4.1	2	2.3	0.0	12	2.3	2.7	5.9	4.8

Q69.n. Fishery and Livestock

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Fishery and Livestock											
Yes	64.8	55.6	69.4	83.3	91.7	20.0	60.0	45.5	68.2	64.3	64.3
No	35.2	44.4	30.6	16.7	8.3	80.0	40.0	54.6	31.8	35.7	35.7

Q69,o, If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	3.5	3.2	3.6	2.5	2.0	15.0	11.0	2.0	3.1	2.6	2.4

Q69.p. Social welfare

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Social welfare											
Yes	60.2	44.4	68.1	33.3	91.7	0.0	0.0	54.55	86.4	57.1	67.9
No	39.8	55.6	31.9	66.7	8.3	100.0	100.0	45.45	13.6	42.9	32.1

Q69,q, If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	3.5	3.3	3.5	2.0	2.6	0.0	0.0	3.2	4.0	3.5	3.7

Q69,s. Ansar-VDP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Ansar-VDP											
Yes	38.0	33.3	40.3	66.67	83.3	0.0	0.0	0.0	4.5	57.1	64.3
No	62.0	66.7	59.7	33.33	16.67	100.00	100.0	100.0	95.5	42.9	35.7

Q69.t. If yes, number of days of month present in UP

Indicators (%, Mean)	Total N=108	Control N=36	Treatment N=72	Flash Flooded Haor area		Flooded Char area		South west coastal area		South central coastal area	
				Control N=6	Treatment N=12	Control N=5	Treatment N=10	Control N=11	Treatment N=22	Control N=14	Treatment N=28
Mean days/month present in UP	3.3	3.4	3.3	2.3	3.0	0.0	0.0	0.0	10.0	3.7	3.2