

**Consultancy Services for Non-Governmental Organization (NGO) Services to Implement,
a) Social Mobilization with Social Action Plan (incl. setting up WMOs); (b) Social
Afforestation and c) Integrated Pest Management (IPM) Plan for Polder 32 and Polder 33
in Khulna District DRAFT**

INCEPTION REPORT

June 2019

JV of Resources Integration Centre (RIC) and Swabalambi Samaj Unnayan Sangsta (SSUS)

Contents

Chapter 1: Introduction	4
1.1 Background.....	6
1.2 Objective of the Assignments.....	7
1.3: Signing of the Contract and Effectiveness	7
1.4: Purpose of the Inception Report	7
1.5: Structure of Inception Report	8
Chapter 2: Mobilization and Start-up Activities.....	9
2.1 Setting up Office and Logistics	9
2.3 Mobilization of polder team and start-up orientation:.....	10
2.2 Kick of Meeting with Project Officials	10
2.3 Review of Scope of Work	11
2.4 Consultation with Stakeholder.....	11
2.5 Field Visits.....	12
2.6 Ongoing Activities:	12
Chapter 3: Understanding of the Project	16
3.1: Introduction	16
3.2: Objective of the Consultancy Services.....	16
3.3 : Project Management Challenges	17
Chapter 4: Detailed Scope of Work for Consultancy Services	18
4.1 Description of Services	18
4.1.1 Social Mobilization and Formation of WMO	18
4.1.2 Implementation of Social Afforestation.....	19
4.1.3 Implementation of Integrated Pest Management (IPM) and Integrated Crops Management (ICM)	20
4.1.4 Alternative Livelihood Development and Inclusion of Gender	20
4.2 Three stages project cycle management:	21
4.2.1 Planning and Design Phase	21
4.2.2 Implementation Phase	21
4.2.3 Participatory Long-term Social Monitoring :.....	21
4.3 Expected Outputs:	22
4.4 The Diagram of Implementation	23
4.5 The project theory of change of the project.....	Error! Bookmark not defined.
4.6: Review Guidelines/Policy/ Document Services	25
4.7 Analysis of Guideline Review	25
4.8 Review of Existing Model of WMO Practices in BWDB's Project.....	26
4.9 Analysis of Existing Model of WMO practices in BWDB's Project	27
4.10 Remarks.....	31
4.11 Draft Approach of forming WMO in different tiers in polder 39/2C	31
Chapter 5: Approach and Methodology	33
5.1. General Approach.....	33
5.2 Implementation of afforestation program.....	39
5.3 Implementation of IPM	40
5.4 Reporting on Social Mobilization.....	41
5.5 Reporting on Social Forestry	42
5.6 Reporting on IPM.....	43

Chapter 6: Project Organization and Execution	45
6.1: Work Plan	45
6.1.2 Initial Planning, Scheme Assessment and Survey	45
6.1.3 Social Mobilization and Formation of WMO.....	46
6.1.4 Knowledge and Development	47
6.1.5 Legislation Process	48
6.1.6 Activities in Planning and Technical Design:	48
6.1.7 Activities in Implementation Stage	48
6.1.8 Operation and Maintenance (O&M) of scheme	48
6.1.9 Social Afforestation.....	49
6.1.10 IPM Plan Implementation.....	49

Acronyms and Abbreviations

BBS	Bangladesh Bureau of Statistics
BFD	Bangladesh Forest Department
BDT	Bangladeshi Taka (Currency)
BWDB	Bangladesh Water Development Board
CEIP	Coastal Embankment Improvement Project
CO	Community Organizer
CST	Construction Supervision Team
CDSP	Char Development and Settlement Project
DAE	Department of Agricultural Extension
DOE	Department of Environment
DOF	Department of Fisheries
DOL	Department of Livestock
ETL	Economic Threshold Level
FGD	Focus Group Discussions
FFS	Farmer Field Schools
GoB	Government of Bangladesh
Ha	Hectares
IEC	Important Environmental Component
IPM	Integrated Pest Management
ICM	Integrated Crop Management
IWRM	Integrated Water Resources Management
KM	Kilometre
LCS	Landless Contracting Societies
MDG	Millennium Development Goals
MoU	Memorandum of Understanding
MOWR	Ministry of Water Resources
NGO	Non Governmental Organizations
O&M	Operation and Management
PSM	participatory scheme cycle management
PMU	Project Management Unit
PRA	Participatory Rural Appraisal
RIC	Resource Integration Centre
PAP	Project Affected Persons
TL	Team Leader
TOR	Terms of References
ToT	Training of Trainers
SIMT	System Improvement and Management Transfer
SSUS	Shabolombi Samaj Unnayan Songstha
WMO	Water Management Organization
WMG	Water Management Group
WMA	Water Management Organization
WMF	Water Management Federation
WMU	Water Management Unit
WMC	Water Management Committee

WMIP
the *Samaj*

Water Management Improvement Project
small community organisation

Chapter 1: Introduction

1.1 Background

Coastal Embankment Improvement Project-I (CEIP-I) has been taken to protect the coastal area from high tides and frequent storm surges by increasing the resilience of the entire coastal population to tidal flooding as well as natural disasters. It will be done by upgrading the whole embankment system. A practical planning is required for the existing network of nearly 5,700 km long embankments in 139 polders. Hence, a multi-phased approach of embankment improvement and rehabilitation will be adopted over a period of fifteen to twenty years. The proposed Coastal Embankment Improvement Project-I (CEIP-I) is the first phase of this long term program.

Bangladesh's coastal zone is characterized by a delicately balanced natural morphology of an evolving flat delta subject to very high tides and frequent cyclones coming in from the Bay of Bengal. The coastal zone, in its natural state, used to be subject to inundation by high tides, salinity intrusion, cyclonic storms and associated tidal surges. In the 1960s, polderization began in the coastal zone of the country to convert this area into permanent agricultural lands. The polders in this area are enclosed on all sides by dykes or embankments, separating the land from the main river system and offering protection against tidal floods, salinity intrusion and sedimentation. The polders were designed to keep the land safe from the daily tide to allow for agriculture activities. These polders are equipped with in- and outlet sluice gates to control the water inside the embanked area.

Originally, the polders were not designed to protect the areas against storm surges. Recent cyclones and storm surges, however, have significantly damaged the embankments in many locations leading to breaches and problem of flooding. This, in turn, has resulted in reduced agricultural productivity, and widespread environmental degradation, and served to undermine efforts at poverty reduction in the coastal areas. In addition, a poor track record of maintenance has contributed to increased internal drainage congestion and heavy external siltation, which has led to salinity intrusion and reduced agricultural productivity. Finally, the weakened embankment systems will be less resilient to future cyclones and storm surges, leaving millions of coastal residents at risk.

The above reasons led the Government to re-focus its strategy on the coastal area from one that only protects against high tides to one that would provide protection against frequent storm surges as well. The long term objective of the Government is to increase the resilience of the entire coastal population to tidal flooding as well as natural disasters by upgrading the whole embankment system. With an existing network of nearly 5,700 km long embankments in 139 polders, the magnitude of such a project is daunting and requires prudent planning. Hence a multi-phased approach of embankment improvement and rehabilitation will be adopted over a period of fifteen to twenty years. The proposed Coastal Embankment Improvement Project-I (CEIP-I) is the first phase of this long term program, and will upgrade and improve a total of seventeen polders over a six year period.

Bangladesh Water Development Board (BWDB) had completed feasibility level studies for improvement of performance of the polders in the entire coastal belt in 2013. A total of 17 polders were selected for urgent implementation, in Phase-1 with funding from the World Bank. Construction of the 17 polders will be taken up in 3 packages. Contract for construction of 4 polders under

package-1 has been signed and field level works are currently under implementation. Contract for 6 polders will be implemented under package - 2, that has been signed and work in field will be taken up very soon. Contract for rest 7 polders under package 3 will be processed at an early date. BWDB will implement (1) Social Mobilization with Social Action plan (including setting up WMOs); (2) Social afforestation and (3) Implementation of Integrated Pest Management (IPM) Plan in 5 contract packages for 10 Polders of works package 1 and 2.

1.2 Objective of the Assignments

The **main objective** of the Consultancy service (NGO Services)" is to support Bangladesh Water Development Board (BWDB) through managing and overseeing tasks of social mobilization, participatory scheme cycle management (PSM), participatory afforestation and integrated pest management practices in relation to the successful implementation of CEIP-1.

Specific Objectives:

- a. Social mobilization including setting up WMOs for introduction of IWRM practices through preparation and implementation of Social Action plan through engagement of local communities and community groups for PSM and participatory O&M of schemes;
- b. Implementation of afforestation program especially in the fore-shore areas with ecologically appropriate species by adopting social afforestation approach;
- c. Implementation of Integrated Pest Management (IPM)/Integrated Crops Management (ICM) practices.

1.3 Signing of the Contract and Effectiveness

A contract was signed on February 2019 between CEIP-1 authority and JV of RIC & SSUS for the provision of the consultancy services for managing and overseeing tasks for social mobilization, participatory scheme cycle management (PSM) and participatory afforestation in relation to the successful implementation of the CEIP-1. The contract became effective on 16th March 2019 according to the agreement.



Picture: Contract signing Between JV of of RIC-SSUS and Project Director CEIP-1

1.4 Purpose of the Inception Report

This report meets the requirement in the Contract for Consultant Services to submit an Inception Report in the second month of time schedule. This report have included ‘a detailed methodology and approach of the assignment, break up of activities, a time frame, and a list of outputs of activities conducted so far and have highlighted some issues for consideration. In summary, the analysis and proposals in this report are intended, following further discussion with CEIP-1 authority, to result in an agreed set of activities, outputs and work schedule for the remainder of our formulation and preparation work, all aimed at achieving the timely start-up of a well-designed and justified project that meets the CEIP-1 expectations.

1.5 Structure of Inception Report

The chapter- 1 of this report are decorated with the background of the project, objective of the assignment, signing the contract and the purpose of inception report. The chapter 2 are decorated with the output of scheduled activities including mobilization and start-up activities e.g. setting up office, kick of meeting with project officials, review of scope of work, consultation with stakeholder, field visits and ongoing activities of the assignment. The Chapter 3 comprised by understanding of the project e.g. Introduction, Objective of the consultancy services and project management challenges. The chapter 4 decorated with the detailed scope of work for consultancy services and the chapter 5 arranged with general approach of scheduled activities. The chapter 6 decorated with Project Organization and Execution.

Chapter 2: Mobilization and Start-up Activities

2.1 Setting up Office and Logistics

The JV of RIC&SSUS has assigned a fully-furnished office with adequate size (2400 sft) in the first floor of a two storied building at Bhanadaria Upazila Sadar. The location of the office is at the south side of Sub-Register Office in Purba Bhandaria. The surrounding environment of office is work-friendly and out of noise and public gathering. All the office equipment defined in our contract showed in the table-1 has been rented and installed. Office transport has been organized with renting 04 motorbikes for community organizers and need based transport service for key staffs.



Snapshot of Project Office at Vandaria Pirojpur

Table-1: The equipment and Furniture rented for office

#	Particulars	Quantity
Equipment:		
1	Desktop Computer (Intel core I3-7100 with 18.5 LED DELL monitor)	02
2	Laser Printer (HP LASERJET PRO M-402DN)	01
3	UPS (KSSTAR PRO 1250VA)	02
4	Laptop (DELL INSPIRON N3576 FOG GREY CORE- I5 8250U)	01
5	Colour Inkjet Printer (HP DESK GT 5810)	01
6	Scanner (EPSON PERFECTION V19)	01
Furniture :		
1	Secretariat Table (Big)	01
2	Secretariat Table (medium)	01
3	Computer Table	02
4	Chair (Armed, Normal Chair & Revolving)	23
5	Steel Almirah	01
6	File Cabinet	04
7	Wooden self	04
8	conference Table (12' x 8')	01
9	Ceiling Fan	06

2.3 Mobilization of polder team and start-up orientation:

The mobilization of our key and non-key and support staff is summarised in Table 2. A preliminary orientation program has conducted in the field office at Bhandaria on 19 March, 2019. The participants of the meeting (see appendix-1 for attendance of participants) introduced themselves at the starting of the meeting. TL has given speech on the project overview and activities of the first month to the audience.



Figure 1: Preliminary Orientation, Bhandaria.

Table-2: Key and Non-key Staffs of the Polder Team

Name	Position	Joining Date	Contact
Key Staff :			
Md. Nesaruddin	Social Mobilization Expert/Team Leader	16.03.2019	88 01713459496 Nesaruddin1992@gmail.com
Mohammad Abdur Rouf,	Participation Specialist /Institutional Specialist	16.03.2019	01790155873 Aroufbd3@gmail.com
Md. Rafiqul Islam,	Social Forestry Specialist	16.03.2019	0155247173 rafiqulmd@gmail.com
Dr. Santosh Kumar Sarker	Integrated Pest Management Specialist	16.03.2019	01714222157 Santoshsarker10@gmail.com
Manik Chandra Roy	Agronomist	16.03.2019	01720204099 manik@ric-bd.org
Non-key Staff :			
Md. Ramjan Ali,	Community Organizer	16.03.2019	01779835563 Romzanali172@gmail.com
Lutfunnahar	Community Organizer	16.03.2019	01720389705
SK. Nurul Islam	Community Organizer	16.03.2019	01794592425 sunyric171@gmail.com
Aritra Biswas	Community Organizer	16.03.2019	01868001272
Md. Imran Sikder	Community Organizer	16.03.2019	01711146791 Imran.shikder52247@gmail.com
Md. Shafiar Rahman	Community Organizer	16.03.2019	01936801125
Md. Babul Miah	Community Organizer	16.03.2019	01738336243
Md. Bakul Shah	Community Organizer	16.03.2019	01713728188
Sankar Howlader	Office Manager-cum account	16.03.2019	01779665408 howladersankar@gmail.com

2.2 Kick of Meeting with Project Officials

There was no official or formal meeting held with PMU CEIP-1. But several times we meet with the officials of CEIP-1 and discussed on different issues for PMU guideline and their instruction. We met with Executive Engineer, Pirojpur, BWDB and discuss about the activities of assigned team of JV. He welcomes to work in the field and assured to provide necessary cooperation to the polder team. We also met with Engr. Md. Sadequl Islam, Construction Supervision Engineer, DOCS & PMS Consultant and CEIP-1 and discussed on the progress of construction activities of the polder. We feel

the necessity to meet and get assistance from the Project Officials and according to that we requested to authority concerned to visit by the focal point of Social Mobilization Component of PMU, CEIP-1.

2.3 Review of Scope of Work

We reviewed the Scope of Work of the assignment and we have started to accomplish the activities according to scope of work. The following are the scope of work:

- (a) Social mobilization including setting up Water Management Organizations (WMOs) for introduction of Integrated Water Resources Management (IWRM) practices through preparation and implementation of Social Action plan through engagement of local communities and community groups for Participatory Scheme cycle Management (PSM) and participatory Operation & Maintenance (O&M) of schemes;
- (b) Implementation of afforestation program specially in the fore-shore areas with ecologically appropriate species by adopting social afforestation approach; and protect the embankment/dyke of the polder on the river side from wave erosion. Social forestry benefit sharing by following the rules and regulation of the government uplift the socioeconomic condition of selected social forestry beneficiaries.
- (c) Implementation of the Integrated Pest Management (IPM) practices.

According to our experience, the duration of the assignment is very limited according to scope of work. It is notable that this polder is likely new than other polder under CEIP-1. The project interventions of the project (software and hardware) are comparatively new to the people of polder area. However, it is our big challenges to accomplish the scope of work within timeframe of the assignment. We found our observation and community consultation that the hardware activities yet not been started where project is supposed to complete by June 2020. We assume that if hardware activities started today, it needs more than five years to complete the activities. So, it is complex that if we complete our work within 18 months. After that what would be happened if the social mobilization activities stopped after eighteen months.

2.4 Consultation with Stakeholder

The polder team has been consulted with the officials of Agriculture Extension Office of Bhandaria and Mathbaria Upazila. The officials expressed for cooperating polder team in future. The polder team also meet with chairman of Telikhali union. He strongly argued that it is essential to inform them through letter of authority of the project, otherwise they cannot support us officially.



The field team has been continuing the consultation (formal and informal) with different stakeholders. According to work plan of the first month, the polder team is fully engaged to define water management unit. The field team has been consulting with contact with local government representatives and polder people during defining WMUs. The team has been conducting the participatory mapping sessions for defining WMUs and consult on different issues of the works.

2.5 Field Visits

The team leader, deputy team leader and community organizers have visited team frequently for the performing scheduled activities in the work plan. The IPM expert, forestry expert and agronomist has made a visit in the field and discuss with polder people on different issues of agriculture and forestry.

2.6 Ongoing Activities:

The major work has been continuing by the polder team is defining Water Management Unit. The monthly work plan has attached in [annex-1](#) for knowing the detail of ongoing activities. The polder team has been defined WMUs unit based on drainage sluice-gate. The flashing sluice-gate would be included on the basis of link with drainage sluice-gate. According to that ground a total 13 WMUs are defined in the polder. The polder team has been followed PRA to define WMUs. The team moved to the each branch canals of drainage sluice-gate canal and flashing sluice-gate canals using transect walk techniques of PRA. They have drawn a primary map of each WMU showing controlled area of each WMU including canals, habitat and crop field with help of project map, Google earth website and consultation with members and secretary of union parishad. After that the polder team has been conducting Participatory mapping for defining WMU. In this session, placed the primary map and the participants has provided their opinion on the map. The polder team understood the gaps of their primary map. Further the polder team visited area which indicated by the participants of Mapping session and finally, the polder team has been drawing a final WMU map with the legends and information of population and administrative unit. The maps of WMU are in [annex-2](#). In this process, we found initial information on households and administrative unit which is important for the next activities. The following table shows the primary data of 13 WMUs.

Another major work is to prepare questionnaire for household census survey. TL has been work to develop it as per guideline of PMU specialist and submitted it to PMU. Finally, PMU provided a final questionnaire (attached in [annex-3](#)) for conducting household survey. The polder team has been working the preparatory works for household census survey.





Transac walk to defined WMU



Participatory Mapping of WMU



Consultation for defining WMU

Table-3: Distribution of union, villages, no. of household of WMUs.

Union	Mouza	#	Village	WMU													Total
				1	2	3	4	5	6	7	8	9	10	11	12	13	
Dhaoa	Dhaoa	1	Dhaoa	2059	70											95	2224
	Purba Pasharibunia	2	Rajapasha	403	1050									80	215		1748
	Rajapasha	3	Purba Pasharibunia	312									1303				1615
	Total	3		2774	1120								1303	80	215	95	5587
Ikri	Bothla	1	Bothla										955				955
	Paschim Pasuribunia	2	Paschim Pasuribunia										435				435
	Ikri	3	Ikri				0				270						840
	Atarkhali	4	Atarkhali			700							290				700
	Betagi Shingakhali	5	Betagi Shingakhali			700	630										1330
	Total	5				1400	630					270	1680				4260
Nadmula	Dakshin Shialkhathi	1	Dakshin Shialkhathi													997	997
	Chinguria Bhitabaria	2	Chinguria Bhitabaria													629	629
	Nad m ula	3	Nad m ula											470	1333	150	1953
	Char Khali	4	Char Khali											755			755
	Hetalia	5	Hetalia											613			613
	Chauaria/hetalia	6	Chauaria										200				200
	Total	6											200	1838	1333	1776	5147
Telikhali	Telikhali	1	Telikhali							180	1131						1311
	Junia	2	Junia							550							550
	Golbunia	3	Golbunia						890	0							890
	Junia Harinpala	4	Junia Haripala							1542							1542

	Total	4						890	2272	1131						4293	
Dhanishafa	Tetulbaria	1	Tetulbaria				750	310								1060	
	Burirchhar	2	Burirchhar					620								620	
	Total	2					750	930								1680	
Mirukhali	*Bara Saula	1	*Bara Saula				170	300								470	
	Chhota Saula	2	Chhota Saula				200	500								200	
	Total	2					370	800								670	
Chenchri Rampur	"Banai	1	"Banai		300											300	
	HH of WMUs	23		2774	1420	1400	1000	1550	1820	2272	1401	1680	1503	1918	1548	1871	21937

Chapter 3: Understanding of the Project

3.1 Introduction

The natural silt sedimentation process of the coastal zone of Bangladesh has been stopped since 1960, by polderization through embankment and in and outlet sluice gates, mainly to convert this area into permanent agricultural lands, but not to protect against storm surges. Recent cyclonic storms and associated tidal surges, damage of polder embankment, inundation of agriculture land by high tides, salinity intrusion, and poor track record of maintenance of polder embankment and sluice-gates has resulted in reduced agricultural productivity, and widespread environmental degradation, and served to undermine efforts at poverty reduction in the coastal area, as well as MDG and Delta Plan 2100 of the government of Bangladesh. Eventually, the weakened embankment systems will be less resilient in future cyclones & storm surges, leaving millions of coastal residents at risk.

The causes and consequences of present situation are mainly damage of embankment, water logging, salinity allow to declining the soil fertility and agricultural production, socio-economic degradation, inadequate O&M of embankment and structures, absence of community participation, community ownership and institutional process for sustaining the operational activities of the embankment and lack of collective initiative to promote the principles of IWRM, social forestation, IPM etc. The above reason, the Government has taken a program, with the long term objective is to increase the resilience of the entire coastal population from tidal flooding as well as natural disasters by upgrading whole embankment system. Hence, a multi-phased approach of embankment improvement and rehabilitation will be adopted over a period of fifteen to twenty years. The proposed Coastal Embankment Improvement Project-1 (CEIP-1) is the first phase of this long term program.

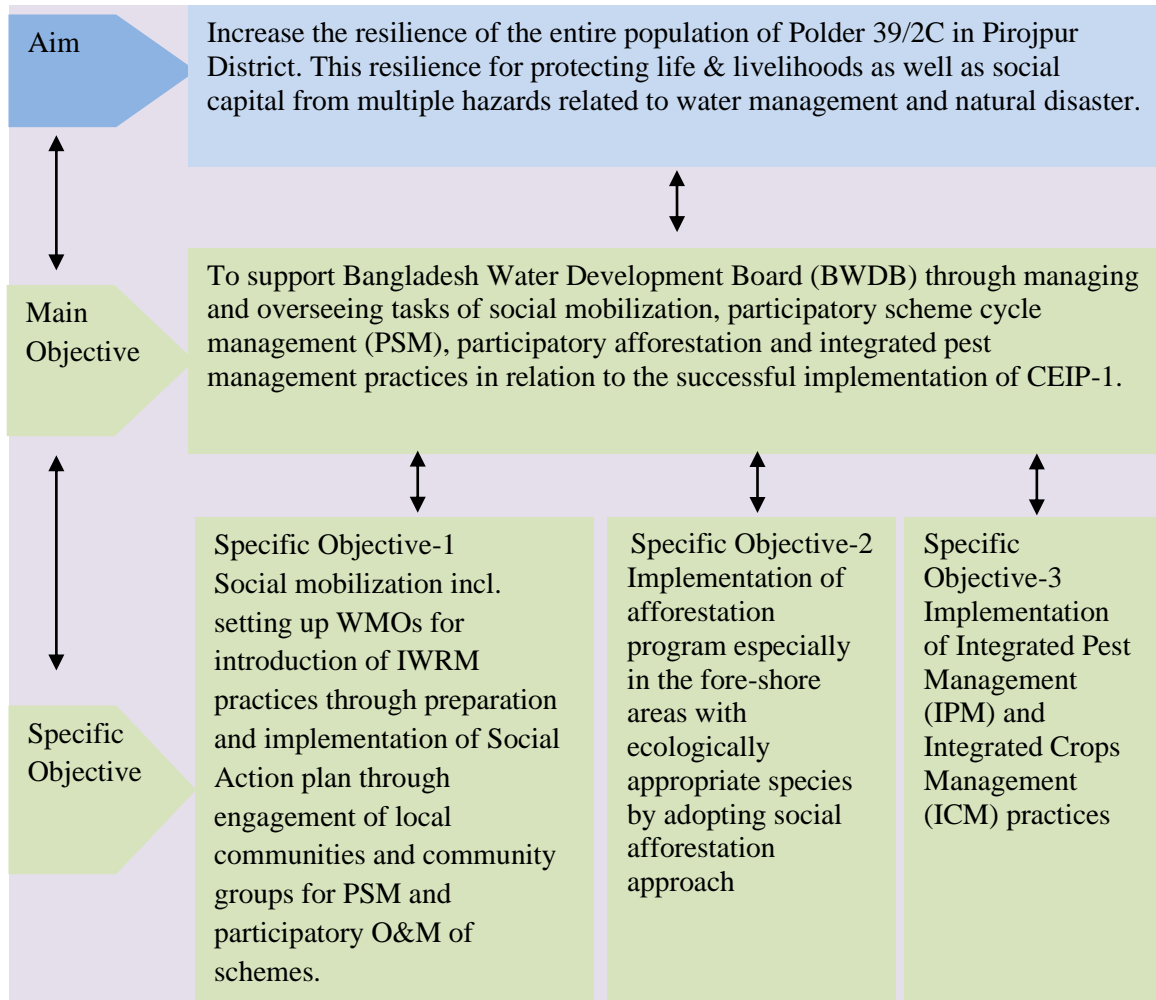
According to the ToR of Contract Package No CEIP-1/A2 & B1/S1-C, the JV OF Resources Integration Centre (RIC) and Sablolombi Somaj Unnayan Shongstha (SSUS), has scope to accomplish three operational aspects: (1) Social Mobilization with Social Action plan (incl.setting up WMOs); (2) Social Afforestation and (3) Implementation of Integrated Pest Management (IPM) plan in the polder 39/2C Pirojpur District.

3.2 Objective of the Consultancy Services

The objective of the Consultancy Service' is to support the Bangladesh Water Development Board (BWDB) under CEIP-1. Engagement of local communities on the project is considered integral to the successful implementation of the project's components, and, thus, a reputable Non-Governmental Organization is sought to oversee and manage this work on behalf of the Bangladesh Water Development Board. The objectives of the consulting services are to manage and oversee tasks for social mobilization, participatory scheme cycle management (PSM) and participatory afforestation in relation to the successful implementation of the CEIP-1. Specifically, consulting services will be sought for (a) Social Mobilization including setting up WMOs for introduction of IWRM practices through preparation and implementation of Social Action Plan through engagement of local communities and community groups for PSM and Participatory O&M of scheme, (b) Implementation of afforestation program specially in the fore-shore areas with ecologically appropriate species by

adopting social afforestation approach, and (c) Implementation of the IPM practices. The following *Figure-1* shows the summary of our understanding on the objectives as outlined in the ToR:

Figure-1: Aim and Objectives of the Assignment



3.3 Project Management Challenges

Slowly implementation of hardware (construction) activities in polder 39/2C is the main challenges for the project management. There are only 2 (two) sluice-gate under construction and did not start of the embankment yet. The land acquisition is the big challenges to implement hardware activities, which is ultimate challenges for us. Political influence and indirect abuse of power Union Parishad could be created problems to polling of WMGs and WMA and Social Forestry Participant Group (SFPG). The people of the polder area are much aware about the benefit of polderization. The project is acceptable to the majority of the people of the polder. So that it would be possible to overcome the upcoming challenges of the project.

Chapter 4: Detailed Scope of Work for Consultancy Services

4.1 Description of Services

Considering the ToR of CEIP- 1 (contract package no CEIP-1/A2 & B1/S1-C), RIC-SSUS.JV will implement the project in a polder (P39/2C, Bhandaria and Mathbaria Upazila of Pirojpur District) in the South Coastal Region of Bangladesh. The following are the brief description of proposed polder:

- Polder Name: P39/2C;
- Upzilla and District: Mathbaria and Bhandaria Upazilla under Pirojpur District;
- Gross Area: 10748 ha;
- Population: 84853;
- Construction Start Date: June, 2017 (Contract #2);
- Major Intervention: Embankment=60.03 Km, Drainage Channel=26.9154 Km, Drainage Sluice=13 Nos Flushing Sluice= 22 Nos.

RIC-SSUS.JV has scope to accomplish three operational aspects such as (1) Social Mobilization, Establishment of Institutions/WMOs and IWRM (2) Implementation of Social Afforestation (3) Implementation of IPM/ICM and in addition, Alternative Livelihood Development for achieving the project objectives and outputs. In addition, the polder team will also be worked for alternative livelihood development and the inclusion of gender as the cross-cutting issue.

4.1.1 Social Mobilization and Formation of WMO

Social mobilization needs a series of building-block dialogic processes such as each step leads to the next step and carefully evaluates the results of the earlier steps to take the course corrections for the next steps. From the beginning, the project will organize the communities for functioning the WMGs/WMAs considering the catchments area's drainage channel, drainage sluice and flushing sluice gates. Forming WMAs at polder level applying the democratic process (election by members of WMGs) with an aim to creating an effective cooperative to formulate the community's priorities and the positions. Forming the WMGs with maintain the conditions of (a) confirming 75% of the HHs (adult person) representation in each WMGs from the catchment area as per Bangladesh PWMR-2014 (b) developing capacity of the cooperatives considering the learning (training & toolkit) from the IPSWAM and Blue gold project (c) ensuring at least 30% women participation in the committees (general and executive committee) of the WMGs/WMAs. Each stage will also follow some main activities and sub-activities to implement the social mobilization as follows.

Scheme Assessment	Social mobilization	Planning & Design.	Implementation	O&M of scheme
<p>1. Design/carry out PRA</p> <ul style="list-style-type: none"> • Information campaign • Review scheme maps • Household census survey • Identify beneficiaries & stakeholders • Identify key problems • Consensus to establish of WMOs • Identify govt./ BWDB land • Prepare report 	<p>a. Identify village/ catchment area with enrolment at-least 75% of HHs</p> <p>b. Carry out census</p> <p>c. Establish/reorganize WMOs</p> <p>d. Carry out training needs, develop curriculum and conduct training</p> <p>e. Register WMOs</p> <p>f. Develop financial management capacity of WMOs</p>	<p>a. Assist the engineering & economic team</p> <p>b. Assist PMU, BWDB</p> <p>c. Develop MoU</p> <p>d. Develop mechanism/tools for O&M fund collection</p>	<p>a. Formation of CST</p> <p>b. Impart training</p> <p>c. Develop participatory monitoring plan</p> <p>d. Develop a procedure for CST</p> <p>e. Facilitate CST</p> <p>f. Document the process with engaging WMOs</p>	<p>a. Introduce WMOs</p> <p>b. Discuss minor O&M activities</p> <p>c. Develop O&M Plan, develop draft agreement</p> <p>d. Explain in-depth all the articles</p> <p>e. Arrange signing, facilitate WMOs</p> <p>h. Document the process</p>

Moreover, the project will adopt the **Integrated Water Resource Management (IWRM)** method for improving the situation of the water distribution and drainage systems by operating and maintaining of the embankments, water intakes and the outlets through collective or group approach. The project will assist to fine-tune and rehabilitate the infrastructural works for an effective operational partnership between government agencies (e.g. BWDB, DAE, and others) and community groups (WMG/WMA). Furthermore, the project will consider the principle of participatory water resource management for planning, designing and implementing the schemes including civil works, social afforestation and IPM. The WMOs will be involved in quality checking of the project cycle management, implementation of schemes where LCS's (Landless Contracting Societies) and caretaker groups of social afforestation will be part of WMOs to ensure the participation of women and vulnerable community.

4.1.2 Implementation of Social Afforestation

The community will take the main driving force to implement social afforestation program. Plantation, nursing and rising of trees under the Project will be done by Bangladesh Forest Department (BFD). A MOU already signed by Bangladesh Water Development Board (BWDB) and Bangladesh Forest Department (BFD) on 12th August, 2018 for Implementing Social Forestry Plantation activity in the Phase-1-CEIP-1 of BWDB. In consideration of MOU a bi-lateral Agreement & Contract was signed on 4th February, 2019 by Executive Engineer, Pirojpur POR Division, BWDB, Pirojpur And Divisional Forest Officer, Social Forest Division, Forest Department, Bagerhat for execution of the afforestation program.

The NGO will carry out the activities of to lead the stakeholder consultation process for transparent and participatory dialogue and engagement between stakeholder groups to facilitate a better

understanding, stronger community ownership, improved technical delivery and sound benefit sharing for implementation of the social forestry activities within the afforestation component with focus on fore-shore areas, Identification land ownership for selection of Social Forestry Beneficiaries (under Social Forestry Rules 2004 “ last amended 2011”), awareness raising Campaign, capacity building training, support communities on Alternate livelihood activities and monitoring and reporting. The NGO will apply the knowledge, experiences and technical know-how for mobilizing the community, WMOs and caretaker groups for effective afforestation considering the aim of graduation of the groups with the confirmation of registration under cooperative society act.

4.1.3 Implementation of IPM and ICM

The project will adopt the bottom-up approach for mainstreaming the IMP and ICM practices by creating an environment through social mobilization, awareness campaign and capacity building of the targeted households. The project will also apply farmers’ driven ecology-based pest control mechanism and plan to reduce synthetic chemical pesticides through promoting Bangladesh Agriculture Extension Policy and engaging the DAE in implementing and monitoring of IPM activities. The project team will also facilitate the targeted community including WMOs to develop a constructive IPM including components of (i) awareness /dissemination of information, (ii) technical capacity building, (iii) establishment of farmers school within the community or merge the farmers school within WMGs, (iv) implement Integrated Plan and Soil Nutrient Management techniques (including organic fertilizers, composting and worm culture) and (v) determine pesticide residue on crops.

Farmer Field Schools (FFS) to be selected from WMG. One IPM school will be established in each WMG area. IPM and IPSNM technological training will be provided to ToT participants and farmers. Implementation of clean cultivation methods, pest and disease resistance variety and non-chemical methods (piercing, pheromone traps, light traps etc.). Pests and defenders population will be measured by monitoring and surveillance techniques (visual, water pan and swept net methods). Motivate farmers not to be used pesticide as preventive measures which will be reduce the pesticide used. Pesticide will be applied on consideration of pests and defenders population and Economic Threshold Level (ETL). Use of Pesticide reduction will be determined by using sampling methods of IPM treated and normal farmers treated crop fields. Improving soil health nutritional status by using organic farming methods (Composting and worm culture) and use of balanced chemical fertilizers.

At present majority Aus and Aman crops field were submerged by water, so very little probability to exist of pesticide residue on crops. Results of pesticide analysis may not be fulfilling the test objective. Pesticide residue analysis facilities were available at BARI. Sample collection and analysis per sample needs cost about Tk.6000/-. The present project budget will not be possible to pesticide residue analysis.

4.1.4 Alternative Livelihood Development and Inclusion of Gender

The project will select most vulnerable HHs through PRA approach including engagement of the multi-stakeholders for alternative livelihood plan and development. The project will also ensure beneficiaries’ contribution for creating ownership and implementing climate adaptive livelihood schemes. Environment and ecology-based livelihood options will be given priority such as vertical and horizontal agriculture, integrated farming, floating vegetables, dyke cropping/vegetables, pen fish culture, cage culture, collective innovative agriculture-based business etc.

4.2 Three stages project cycle management:

The project will follow the three stages project cycle management to implement all proposed activities including social mobilization and establishment of WMOs, implementation of social afforestation and implementation of IPM and ICM under the assignment of the CEIP-1. The stages are included (1) Planning & Design, (2) Implementation and (3) Long-term participatory social monitoring.

4.2.1 Planning and Design Phase

After successful agreement and deployment of the project staff, the project will collect all necessary policies, guidelines and materials for reviewing and effective planning and implementation process. Necessary planning, beneficiary assessment and context analysis will be conducted within 4 months of the project. All planning will be planned by the community, of the community and for the community through the bottom-up approach where the specialists (on social mobilization/institutional development, social forestry, IPM and agronomy) and community organizers will play the catalyst role or facilitate the role. The activities are included in planning and designing phase such as participatory scheme Assessment / PRA / census / survey, social action plan / community engagement plan, strengthening / graduation / mobilization of WMOs plan, training / orientation /workshop/meetings plans, O&M of infrastructures and water resources plan, social forestation plan/ IPM plan, social monitoring/auditing plan and gender action/mainstreaming plan.

4.2.2 Implementation Phase

Successful completion of necessary participatory planning and approval of the CEIP-1, the project will execute the plans as per the timeline. The project will effectively apply the coordination, cooperation and community engagement approach during the implementation of the activities. The subsequent implementations include realization/adaptation of relevant policies/ guidelines/rules of IWRM/WMOs/Social forestation/IMP, capacity building of WMOs/stakeholders, facilitation of social mobilization, facilitation of O & M of schemes, facilitation/Implementation of social forestation, facilitation/Implementation of IPM, supporting alternative livelihoods to the beneficiaries and assisting the expert team for engineering/economic/ afforestation/IPM/ PMU/BWDB.

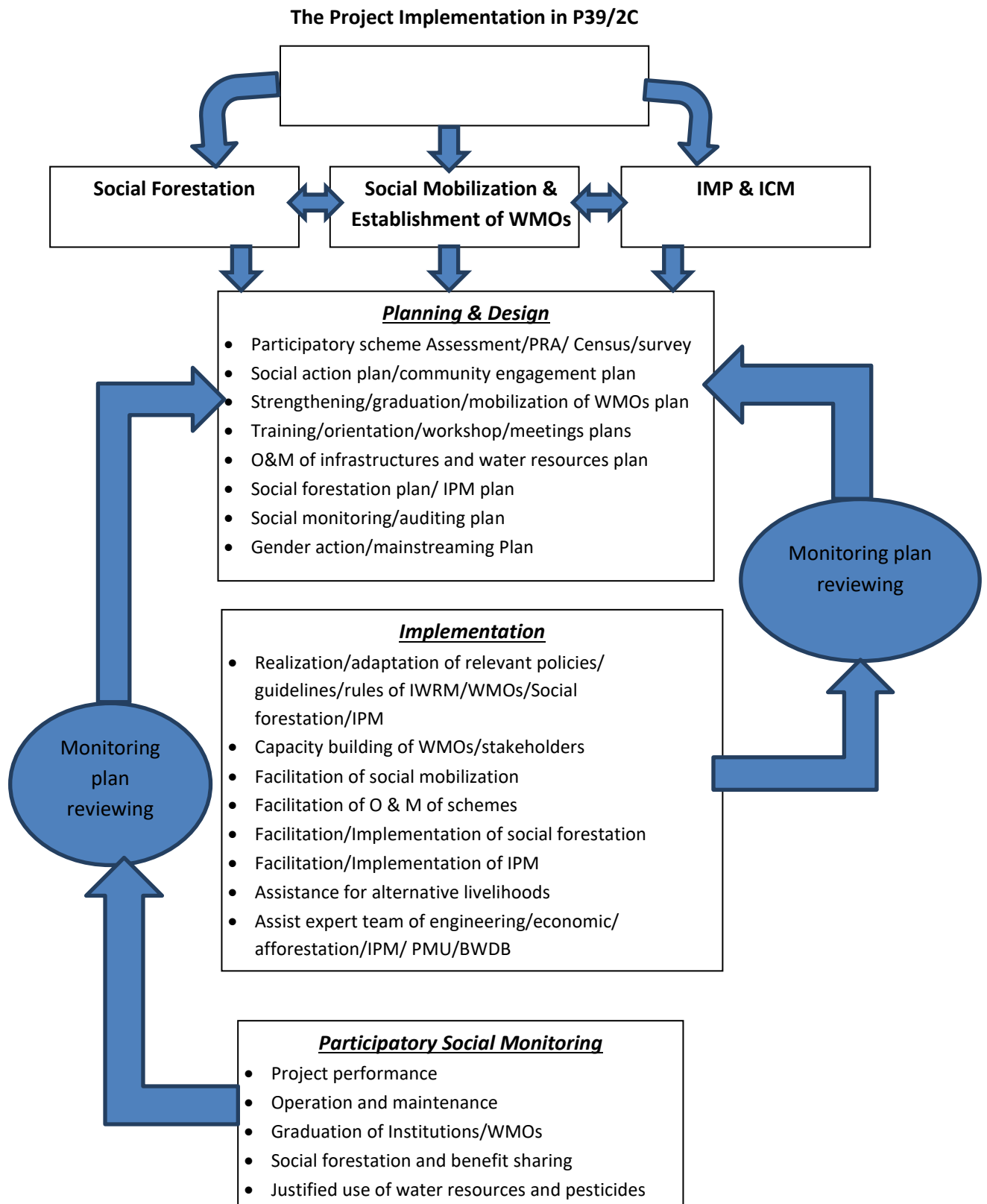
4.2.3 Participatory Long-term Social Monitoring

The project will involve the multi-stakeholders and beneficiaries for the participatory social monitoring and ensuring institutional, social, economic and environmental sustainability with transparent and accountable manner. The project will apply real-time monitoring and evaluation mechanism to assess the efficiency and effectiveness of the activities of alternative livelihood, IPM and social forestation. Moreover, the project will develop a congenial environment for compliance management and reporting. The participatory monitoring will include in project performance, operation and maintenance, the graduation of Institutions/WMOs, social forestation and benefit sharing and justified use of water resources and pesticides.

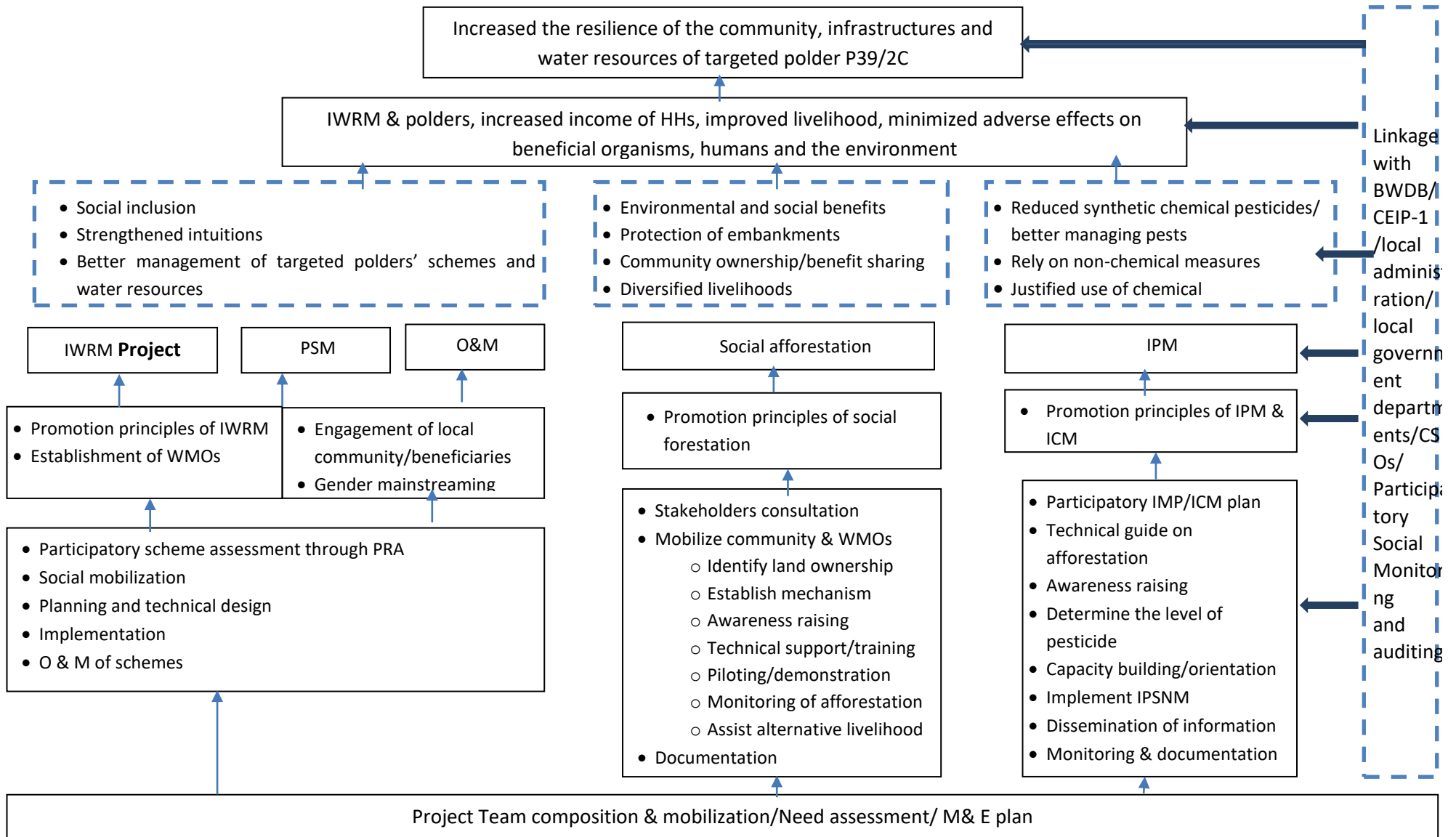
4.3 Expected Outputs:

The expected outputs include one Inception Workshop at district level, two household census surveys, regular Motivation campaign, group formation modalities and stakeholders list, formation of catchment based about 26 WMGs, need-based Participatory Scheme Assessment, review the policies/guidelines and relevant materials for development of modalities on capacity building, awareness, development/revised of training modules and capacity building training, picture drama shows, regular bi-monthly courtyard meeting /coaching / discussion, regular meeting coaching /meeting/ learning by doing/troubleshooting with WMGs and WMA, yearly days observation for mass awareness and campaign, regular need-based operation and discussion of schemes, selection of the beneficiaries for IGAs/Livelihood/social afforestation, advocacy and meetings with stakeholders including forest department, field demonstration and trails on IPM/ICM, registration of about 50% of WMOs, participatory regular social monitoring and reports (monthly, quarterly, annual and event reports). Final workshop will be held presenting overall outputs of the assignment at District Level.

4.4 The Diagram of Implementation



4.5 The project theory of change of the project



4.6 Review Guidelines/Policy/Document Related to Services

The followings documents have been reviewing by the key team members.

1. Participatory Water Management Act, published by the Ministry of Water Resources on February 2014.
2. Main Report-volume-1 of Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Programme (CEIP), JV of CONSULTING ENGINEERING SERVICES (INDIA) PVT. LTD., INDIA, DEVCONSULTANTS LIMITED, BANGLADESH, KRANTI ASSOCIATES LTD.,BANGALDESH AND DESIGN PLANNING & MANAGEMENT CONSULTANTS LTD, BANLADESH, June 2013.
3. Social & Environmental Reports- volume VIII, of Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Programme (CEIP), JV of CONSULTING ENGINEERING SERVICES (INDIA) PVT. LTD., INDIA, DEVCONSULTANTS LIMITED, BANGLADESH, KRANTI ASSOCIATES LTD.,BANGALDESH AND DESIGN PLANNING & MANAGEMENT CONSULTANTS LTD, BANLADESH, June 2013.
4. Guidelines for Participatory Water Management, Ministry of Water Resources, Government of Bangladesh.
5. Final Report on Environmental Impact Assessment (EIA) CEIP-1, Sub-Project: Polder 39/2C, January 2013.
6. PROJECT APPRAISAL DOCUMENT FOR COASTAL EMBANKMENT IMPROVEMENT PROJECT PHASE-1, MAY 2013.
7. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK, Executive Summary, COASTAL EMMBANKENT IMPROVEMTN PROJECT PHASE-1, Bangladesh Water Development Board, April, 2013.
8. Tree Planting Manual-2003 BWDB.
9. Bangladesh Social Forestry Rules 2004 'Updated up to 2011.
10. Contract & Agreement with BWDB & BFD on 4th February, 2019.

4.7 Analysis of Guideline Review

The participatory of water management Act, 2014 is an excellent guideline to form WMO. In the chapter 2 of the Act explained the different participatory management according to the size of water body and handover or involved in the management and ownership of the project. In the chapter 3 of Act presented about the formation and various stages of water management organization according to the project shape. According to the size of the area of the project we found that the polder area is about 10,748 hectare¹ and in that way, the polder 39/2C is a larger project, so it is needed to create positive institutional environment to handover the responsibility to Joint

¹ Main Report-volume-1 of Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Programme (CEIP), JV of CONSULTING ENGINEERING SERVICES (INDIA) PVT. LTD., INDIA, DEVCONSULTANTS LIMITED, BANGLADESH, KRANTI ASSOCIATES LTD.,BANGALDESH AND DESIGN PLANNING & MANAGEMENT CONSULTANTS LTD, BANLADESH, June 2013.

Management Committee (JMC). The sub-section of 5 of article 5 in the chapter 3 mentioned that there are scope to fix on how many WMO will be formed on the basis of size, area, geographical setting, number of beneficiaries and the role of interest-related groups'. The sub-section of article 5 also described that WMO has scope to form one or more than one sub-committee for proper management of the organization and activities (which will be developed in their Participatory Action Plan). The article 6 of the Chapter 3 decorated with the process of formation of WMO. In the sub-article 5 of article 6 described about the general meeting and public announcement where should be mentioned.

- a. Brief description of the goal and objective of the project;
- b. The objective of organization of general meeting;
- c. The goal and objective of formation of WMO;
- d. The data, time and place of general meeting and
- e. Relevant other matters.

The article 7 of Chapter 3 mentioned the responsibility and activities of WMO including motivation, general membership, innovation of the process on the activities of the groups, budget formulation, prepare necessary documents, management and maintenance planning, use of project resources with assistance of beneficiaries group and arrange the expenditures of management and maintenance, preservation of accounts & record, work together with project implementation organ, NGO, community level self-help group and local authority, take responsibility of water management partial and full gradually, conflict mitigation on water management project, elected water management committee, search the scope of economic activities and including LCS. The article 8 of the Chapter 3 describe about the committees of WMO. The article 9 mentioned the criteria of getting membership in the WMO. Moreover, all the process of activating WMO has been written in the Act. The polder team will be following the necessary articles of this Act.

The team leader of the assignment has been reviewing the main report (Vol.1) of Technical Feasibility Studies and Detailed design for Coastal Embankment Improvement Project to get overall ideas on the goal, objectives and interventions of the project. This report helps us to get important data of the polder 39/2C. He has been reviewed the Social & Environmental Reports- volume VIII, of Technical Feasibility Studies and Detailed Design for Coastal Embankment Improvement Programme (CEIP) to get the secondary information and data on the socio-economic situation and probable socio-economic impact of the polder area. The team leader has been reviewing Environmental and Social Management Framework, Executive Summary, of CEIP-1 and other above mentioned reports.

4.8 Review of Existing Model of WMO Practices in BWDB's Project

1. Social Mobilization and Institutional Development Approach and Strategy, Mehmood UI Hassn, Nargiza Nizamedinkhodjaeva, Tashkent. September 2002.
2. BLUE GOLD Program for Integrated Sustainable Economic Development by improving the Water and Productive Sectors in selected Polders, Government of Bangladesh and Government of the Netherlands, August 2012.
3. Blue Gold Program, Technical Report 09, Water Management Organizations- Comparative Analysis, Embassy of the Kingdom of the Netherlands, Dhaka, Bangladesh, Bangladesh Water Development Board and Department of Agricultural Extension (DAE), April 2014.

4. Environment and Social Management Framework (ESMF) of Climate Smart Agricultural Water Management Project (CSAWMP), Bangladesh Water Development Board, Vol. II, December 2017.
5. Bangladesh Water Management Improvement Project, Document of The World Bank, Report no: IcR00003136, February 2017.
6. Bangladesh Water Management Improvement Project (WMIP), Implementation Completion and Results Report Mission, October 2016.

4.9 Analysis of Existing Model of WMO practices in BWDB's Project

The team leader has been reviewing the BLUE GOLD Program for Integrated Sustainable Economic Development by improving the Water and Productive Sectors in selected Polders. He has been tried to get knowledge on Program Principles, Overall Program Objective and Strategies including community mobilization and institutional development, integrated water resources management, livelihood improvement and cross-cutting issues, Implementation approach, and expected benefits etc.

The report described the community mobilization and institutional strengthening. The community participation which was undertaken to ensure that the community would be at the driver's seat for the development of its area has significantly increased the sustainability of the past projects and will be a key element of the program. The community participation has proven its value for water sector as WMG/WMA participates actively in the design and planning of water resources infrastructure and even in its implementation by labour contracts and monitoring. Moreover, WMGs will take over part of the operation and maintenance for the water related infrastructure. Water is an important input for the productive sectors and should be used effectively; other inputs and information are required for the expected increase in production per hectare which is needed to increase the household income drastically. The WMG will play a key role in this process of improving the farming operations.

The team leader has been reviewing Blue Gold Program Technical Report 09, Water Management Organizations- Comparative Analysis. This report explored the WMO formation in different project of BWDB. The importance consideration of forming WMO area

- The unit of organization for the WMG is a village.
- At polder level a WMA is formed, in case of large polders more than one WMA could be formed.
- A Water Management Committee (WMC) is formed for the purpose of O&M at catchment or hydrological unit level.

The formation of WMGs in the CDSP project follows the GPWM and the IPSWARM guidelines and is very much in line with the methodology used in Blue Gold. The difference is that since there are no real villages the *Samaj* (small community organisation) is used as unit of planning for WMGs. A WMA is formed for the whole Char. There is however a major difference in the membership of the WMGs in CDSP, whereby the members are acting as representatives for the whole planning unit. Originally two components were distinguished in the Water Management Improvement Project (WMIP).

- (1) The System Improvement and Management Transfer (SIMT) component: This component would support the rehabilitation and improvement (R&I) of existing 81 medium (average

area 2,500 ha) and 21 large (average area 8,400 ha) FCD and FCDI schemes of BWDB, covering approximately 378,900 ha;

- (2) The O&M Performance Improvement (OMPI) component: This component would support measures to improve O&M performance of some 98 medium and large BWDB schemes, covering approximately 410,200 ha, which are “technically functional” and do not require major rehabilitation of the water management infrastructure.

These two components were at a later stage of project implementation merged, and rehabilitation would be carried out through a systematic approach called Participatory Scheme Cycle Management (PSM). Since the IPSWAM programme was termed the pathfinder project for WMIP, the planning approach used in WMIP is to a great extent similar to the participatory planning system developed in the IPSWAM project. This means that WMIP uses the same units of planning for the WMGs (the village) and WMAs (the scheme or polder) as in Blue Gold. Sometimes large polders are split to form two WMAs. In line with the IPSWAM procedure Block Committees are formed in a catchment or hydrological units to carry out O&M activities and to operate the structures.

The main difference with IPSWAM was that the formation of WMOs and the social organisation process were outsourced to NGOs. However it turned out that the capacity of the NGO and experience in social organisation for water resources management was very limited, leading to unclear and not transparent WMO formation processes and thus very weak organisations. Out of the 10 NGOs that were engaged in social organisation activities in the project there are now only 4 remaining. The WMIP project currently targets 67 schemes out of which about 30 have been completed. So far 801 WMGs have been formed (of which 51 have been registered as cooperative societies under DoC). Since the IPSWAM programme was set-up as the pathfinder to develop a participatory planning approach for the WMIP project the project uses the same methodology. This also means that the units of planning used in WMIP are the same as those used in Blue Gold. The following table shows that the Participatory Scheme Cycle Management (PSM) in WMIP project:

Table – 4: The Participatory Scheme Cycle Management (PSM)

Step no.	Scheme Cycle	Tasks	Key Issues/Action
	Pre-identification	Screening of schemes by hydrological unit/sub-unit	<ul style="list-style-type: none"> a) Scheme selection on analysis of scheme performance b) Assess environmental/economic impact c) Impact on drainage congestion d) Impact on navigation & fisheries habitat e) Effect of flooding in surrounding area
1	Identification	<ul style="list-style-type: none"> a) Identify zones and prepare list of possible schemes b) Prepare inventories of stakeholder’s interest c) Pre select scheme 	<ul style="list-style-type: none"> a) Awareness campaign b) Inventory and pre-selection of schemes and stakeholders interest c) Inventory of schemes using selection criteria d) Preparation of environmental training manual and training plan e) Consultation with LGIs & line Dept. on short listed scheme f) Approval of short list by WMIP-PCU
2	Assessment	Collection of information	<ul style="list-style-type: none"> a) Environmental data collection as

		on social environment technical and economic factors using PRA. by TABWDB team jointly	<ul style="list-style-type: none"> per IUCN guideline. b) Secondary source use for develop data layer. c) Primary data collection though PRA. d) Assess rehabilitation requirement and public consultation. e) Preparation of mitigation plan. f) Preliminary assessment of land acquisition. g) Approval of baseline data by WMIP-PCU.
3	Screening	Screening of scheme on the basis of social Environmental Technical and Economic criteria II. Prepare prioritized short list of Schemes III. Finalize land acquisition proposal (LAPs)	<ul style="list-style-type: none"> a) Finalize the maps prepared by under cycle-1 b) Selection Criteria for SIMT and OMP. c) Apply Screening criteria linked in the EMF d) Minimize acquisition private lands
4	Mobilization	Establish /reorganize WMOs II. Strengthen WMOs III. Train BWDB field Staff such as XOs and sociologists in RAP preparation.	<ul style="list-style-type: none"> a) Share Maps with WMOs b) Assessment of Training need and c) Apprise WMOs about relevant of surrounding projects and d) Starting formation / reorganization of WMOs. e) LAPs to be approved
5	Planning	<ol style="list-style-type: none"> 1. Formulate scheme improvement plan in consultation with WMOs. 2. Analyze feasibility of the plan. III. Prepare outline of management plan. IV. Sign agreement between BWDB, WMO and LGI. V. Prepare RAP for phased civil works. 	<ul style="list-style-type: none"> a) assess impact of intervention proposed jointly with WMOs b) Assess cumulative impacts. c) Prepare plan for mitigation, enhancement, and compensation, d) Contingency and monitoring f) Document and RAP inputs to be drawn from impacts data collected through PAP census and market price surveys. g) Phased RAPs are to be reviewed and approved by IDA
6	Design	Prepare detailed design for rehabilitation and improvement.	<ul style="list-style-type: none"> a) Incorporate plan, as out linked at scheme cycle-5 into designed of the scheme b) Prepare cost estimated and incorporate it in project implementation cost.
7	Implementation	<ul style="list-style-type: none"> a) Prepare estimate and tender documents with provision for mitigation, improvement and enhancement. b) Tendering and award of contract. c) Construction and supervision of work. 	Monitoring implementation of environmental assessment out link plan in pre-consultation stage and monitoring progress in land acquisition, implementation of the measure including compensation payment.

		d) RAP implementation.	
8	Management Plan	Finalize Environmental Management plan for O&M stage and agree on transition period.	Integrate plan for mitigation enchainment, compensation, contingency and monitoring into the post construction management plan with required Financial provision
9	Operation and Maintenance	To conduct a trial operation to observe efficiently of environmental mitigation aspects as planned.	Implementation O&M plan in full pursuance of environmental management plan as finalized
10	Evaluation and Management Transfer	<ul style="list-style-type: none"> a) Joint evaluation of scheme operation. b) Training of WMO/LGI. c) Handing over of responsibilities for O&M. d) Evaluation of social development aspect and resettlement plan. 	<ul style="list-style-type: none"> a) WMO/LGI BWDB tasks respective responsibilities as per agreement. b) Each party regularly and jointly pursues environmental mitigation plans.

It can be concluded that the methodology followed by all projects is in line with the GPWM and IPSWARM Guidelines. Although there is no uniformity in the description of the formation process the underlying principles and methodology used are very much the same. There is a perceived difference though in the units of planning between the projects and especially between the South West project and the other three projects, where the first project emphasises that the hydrological unit is used as the basis for planning unit and the other projects use the village as planning unit. Basically the South West project uses a hydrological unit as the basis for the WMA delineation. That is not surprising as the boundaries for a hydrological unit in the inland area are less obvious than in the coastal area where a polder or char (mostly surrounded by embankments) forms the WMA. In the South West project this hydrological unit (WMA) is further split up in smaller units (WMGs) through the clustering of villages.

In the Blue Gold Program it is recognised that a catchment area or hydrological unit is important for the water resources management. Therefore a block committee or Water Management Committee is established at this level. It has been suggested to have the catchment or hydrological unit as the basis for WMG formation, but this is not advisable in the case of Blue Gold and in the context of coastal polders for the following reasons:

- 1) The catchment area or hydrological unit consists of a number of villages (3-5 on average) and it will be very difficult to create social unity among this large number of villages. Furthermore, it will be difficult to ensure proper representation of the interests of each village in the WMG in a situation where large villages will dominate the smaller ones. By using the village as unit of planning as described in Chapter 2.4, it is ensured that every village has similar representation in the WMC as well as in the WMA formed at polder level.
- 2) It will also be more difficult to form saving groups and to collect funds as people from various villages with a mixed social background, which are unknown to each other in general, have less trust in each other.
- 3) Finally, the use of a village as the unit of planning allows the WMG to become the centre of other collective development activities and thus a true village development organisation. That is the reason why it is important that all other sub-committees or groups such as FFS groups are linked up and have their origin at the WMG. In that way people realise that their WMG is not only

important for the water management in their area but serves its purpose also in the interest of general village development.

It could be considered to establish a WMA at catchment/sub-system level in place of the WMC, which is currently not an official tier in the planning structure and form a WMF at polder level (instead of the WMA as it is currently named). See the example on page 6, Figure 2. This solution could also be useful in view of the recently published new rules for WMO registration and organisation that were published in the Bangladesh Gazette on 11 February 2014. These new rules are called the 'Participatory Water Management Rules 2014' and are applicable to projects of the Water Development Board (BWDB). The new rules distinguish three tiers for polders/schemes equal to or larger than 5000 ha, namely WMG (Group), WMA (Association) and WMF (Federation). Most of the polders in the Blue Gold Program fall within this category. Following the new BWDB registration rules the rationale for WMO formation in Blue Gold could be summarized as follows:

- (a) Village Level
- (b) Hydrological Unit Level
- (c) Polder Level

4.10 Remarks

WMG WMA WMF is good rationale. It covers all levels and all purposes. WMGs are strong, cohesive and have trust for savings, microcredit, IGA and business development. WMAs have equal representation from all WMGs (villages or parts) and are responsible for water management in the hydrological unit. In fact, the WMA will take the place of the envisaged Water Management Committees and have a much stronger legal base. WMF will oversee the WMGs, WMAs and coordinate with BWDB. The WMF will sign the O&M agreement with BWDB.

For polders having areas ranging from 1000 ha to 5000 ha, the formation of an WMF is optional but the new registration rules do not prohibit the formation of three tiers. So, the same rationale can be used, with the WMG at village level. For formation of WMAs, the area draining to a big sluice plus any adjacent outlets, or several adjacent small sluices and outlets could be considered as the hydrological unit. The final choice of the (size of the) WMAs will be based on field investigations and discussions with the beneficiaries.

4.11 Draft Approach of forming WMO in different tiers in polder 39/2C

According to above review, the polder team initially design to form WMO on the basis of following 3 important principles.

- The unit of organization for the WMG is a village.
- At polder level a WMA is formed, in case of large polders more than one WMA could be formed.
- A Water Management Committee (WMC) is formed for the purpose of O&M at catchment or hydrological unit level.

According to WMU and the list of villages we found 26 villages and design to prepare 26 WMGs in the polder area. At least 3 WMAs is needed to form in the polder area, however it will be finalized according to suggestion of PMU. For the decision of forming WMF is needed PMU suggestion.

Table-5: The village list of polder 39/2C

Union	Mouza	#	Village	Total
Dhaoa	Dhaoa	1	Dhaoa	2224
	Purba Pasharibunia	2	Rajapasha	1748
	Rajapasha	3	Purba Pasharibunia	1615
	Total	3		5587
Ikri	Bothla	1	Bothla	955
	Paschim Pasuribunia	2	Paschim Pasuribunia	435
	Ikri	3	Ikri	840
	Atarkhali	4	Atarkhali	700
	Betagi Shingakhali	5	Betagi Shingakhali	1330
	Total	5		4260
Nadmula	Dakshin Shialkhathi	1	Dakshin Shialkhathi	997
	Chinguria Bhitabaria	2	Chinguria Bhitabaria	629
	Nad m ula	3	Nad m ula	1953
	Char Khali	4	Char Khali	755
	Hetalia	5	Hetalia	613
	Chauaria/hetalia	6	Chauaria	200
	Total	6		5147
Telikhali	Telikhali	1	Telikhali	1311
	Junia	2	Junia	550
	Golbunia	3	Golbunia	890
	Junia Harinpala	4	Junia Haripala	1542
	Total	4		4293
Dhanishafa	Tetulbaria	1	Tetulbaria	1060
	Burirchhar	2	Burirchhar	620
	Total	2		1680
Mirukhali	*Bara Saula	1	*Bara Saula	470
	Chhota Saula	2	Chhota Saula	200
	Total	2		670
Chenchri Rampur	"Banai	1	"Banai	300
Union Total				
	HH of WMUs	23		21937

Chapter 5: Approach and Methodology

5.1 General Approach

The Specific Activities during start-up of the assignment and Stages of Project Cycle, detail methods in respect of accomplishing Task-1 and Expected Output show in the following table-3. Reconnaissance Visit, Document Review, Inception Workshop, and preparation of guidelines for starting the project tasks are the prime activities by the JV during start-up of the assignment. The relevant documents and reference review will be continued throughout the project period. In general, the methods for communication and participation will be mass beneficiary meeting, focused group meeting, stakeholder consultation and personal contact.

Table-3; Specific Activities in different Stages of PSM and Methods/processes for accomplishing the activities and Degree of Expected Output.

Stage	Specific Activities of JV:	Methods/Process	Degree of Expected Output
Start up of the assignment	<ul style="list-style-type: none"> • Recruit, mobilize and preliminary orientation of polder team; • Set up field office and decorate; • Visit polder area and introduced with BWDB, Pirojpur; • To organize workshop for sharing the project activities with key stakeholders e.g. BWDB, DoF and DAE Pirojpur in the inception stage; • Prepare initial guidelines of PSM. 	<ul style="list-style-type: none"> • All staffs will be recruited following the recruitment process of RFP/ToR. • Review documents e.g. guideline for GPWM-2001, guideline for IPSWAM, Framework for PSM from WMIP etc. by the Key team member. • A preliminary orientation event will be organized at JV office. • Reconnaissance visit by the key staffs. 	<ul style="list-style-type: none"> • All team members got knowledge on the duties and responsibilities. • Inception workshop at Pirojpur held. • Implementation manual for participatory scheme cycle management prepared.
Stage-1: Participatory Scheme Assessment	<p>a. Carry out PRA, included the followings:</p> <ul style="list-style-type: none"> • Conduct information campaign well ahead of WMO formation; • Provide authentic information like project objectives, involvement of beneficiaries in PSM, benefits of the community peoples from the project, the responsibility of WMOs during implementation of the project and after completion of the project; • Review scheme maps to identify beneficiary villages & 	<p>a. The appropriate PRA tools & techniques e.g. building rapport, transect walk, participatory mapping, Venn diagram etc. will be designed and exercised in association with BWDB field offices. The basic conversation method will be followed in mass communication meeting and focus group discussion.</p> <ul style="list-style-type: none"> ▪ Courtyard meeting will be conducted at each hydraulic boundary. ▪ Awareness Programs e.g. folk-song, drama-theatre, 	<ul style="list-style-type: none"> • Information campaign through courtyard meeting held in each hydraulic boundary. ▪ A number of courtyard session; tea-stall meetings conducted for building awareness on IWRM, afforestation and IPM throughout the project cycle. • IEC Material e.g. leaflet, poster, project brief, sticker

	<p>hydraulic boundaries;</p> <ul style="list-style-type: none"> • Conduct household census survey; • Identification of beneficiaries and stakeholders; • Identify key problems of water management and need for rehabilitation & improvement works; • Assess demand and willingness to establish WMOs, participate in the project cycle, and their interest to take over O&M responsibilities; • Collect quantitative information on social, environmental, technical and economic aspects; • Identify BWDB and government land; suggest suitable use of this land for different professionals of WMOs; • To encourage women in consultation exercise and sought the information from them; <p>b. Prepare the report which will be the benchmark for the planning and monitoring for the development of the scheme.</p>	<p>courtyard session; tea-stall meeting will be conducted for building awareness on IWRM, afforestation and IPM.</p> <ul style="list-style-type: none"> ▪ Through reviewing documents IEC materials (leaflet, poster, project brief, sticker will be prepared and disseminate through mass meeting, PRA and personal contact. ▪ Review scheme Maps. ▪ Mass communication meeting method will be followed for information campaign. ▪ Participatory mapping technique will be exercised to identify beneficiary villages and hydraulic boundaries. ▪ The team will review community series of Population Census 2011 of BBS. ▪ The team will design methodology including specific format to conduct household census survey. The team will be taken approval of format from PMU before administering format in the field. A training session will be organized for enumerators & community organizers. The filled data will be computerized & analyze. ▪ The team will conduct FGD, Venn diagram and stakeholder analysis for identification of beneficiaries and other stakeholders. ▪ Dialogue with key stakeholders, FGD, participatory mapping, still photography tools and techniques will be used to identify key problems, rehabilitation and improvement works. ▪ FGD/dialogue will be conducted for assessing demand and willingness to 	<p>prepared and deliver to the stakeholders/beneficiaries. They got authentic information like project objectives, involvement of beneficiaries in PSM, benefits of the community peoples from the project, with an overview of the project including involvement & benefit community people and responsibility of WMO.</p> <ul style="list-style-type: none"> • Community people informed & understood about the project, their involvement in PSM, benefit of project. • Community people informed & understood about WMO and they motivated to form WMO. • The beneficiary villages and hydraulic boundaries identified. • Household Census Survey Report prepared. • The stakeholders/beneficiaries identified and the list prepared. • Key problems of water management and the needs
--	--	---	--

		<p>establish WMOs.</p> <ul style="list-style-type: none"> ▪ They will ensure the participation of women in all consultation sessions. ▪ Conduct Inception Workshop and power-point presentation. <p>b. The team will review the guidelines of IPSWAM and similar project for preparing the benchmark report.</p>	<p>identified.</p> <ul style="list-style-type: none"> • The interest of community to join in PSM process including WMOs and O&M assessed • A benchmark report prepared.
<p>Stage-2: Social Mobilization</p>	<ul style="list-style-type: none"> • Identity beneficiary villages of water management schemes & boundaries of WMU in a polder. Enrol at least 75% of households as a member of WMGs. Prepare household list for each WMU. • Carry out beneficiary census and identify existing and/or potential members of WMO including WMG for each WMU under a polder and WMA for each polder. • Establish WMOs and draft a set of scheme-specific by-laws which inter alia spell out the constitution of WMOs. • Encourage women to join in WMO and ensure that women will constitute a minimum 30% of the members in ECs in WMGs and WMAs. • Carry out participatory training needs assessment and prepare a program for capacity building of BWDB and WMO. • Carry out capacity building program including training in coordination with BWDB's Staff Development Unit and exchange visit. • Register WMOs with BWDB concerned offices as per PWMR, 2014 with all documents relating to membership, formation of executive committees, half-yearly and annual physical 	<ul style="list-style-type: none"> • Participatory mapping will be conducted for identifying the beneficiary villages, and boundaries of WMU. • Courtyard meeting will be conducted for awareness, motivation and opinion poll on forming WMOs. • The team will conduct consultation meeting in each WMU and form WMG. Further, they will conduct another consultation meeting to form WMA comprising the members of WMG. • The team will review the polder specific by-laws/sample constitutions of WMG/WMA of Blue Gold Program and WMIP. They will share the draft by laws with local BWDB and PMU. • SWOT analysis will be the major techniques to carry out participatory training needs assessment. • The team will develop a program for capacity building including training for BWDB field officials and WMOs. A participatory training methodology will be followed for training. • The Community Organizer will organize and facilitate regular meeting of WMGs & WMA. and provide assistance for institutional capacity building. 	<ul style="list-style-type: none"> • Beneficiary census carried out and existing and/or potential members of WMO identified. • Thirteen WMGs, and one WMA established with at least 30% women members and a set of scheme-specific by-laws drafted. • Training needs assessed • Training curriculum prepared. • Two batches of orientation training for polder team conducted. • 12 batches of joint orientation FFS, SFG, other local bodies e.g. UP, & core team member of WMGs conducted • 4 exchange visits organized. • 540 (appr.) persons of WMG ECs received training on a) organization & water management, b) Accounts keeping & Audit system, c) Gender & Leadership development.

	<p>and financial reports, and establish communication and correspondence mechanism.</p> <ul style="list-style-type: none"> • Conduct introductory level training curriculum for WMGs/WMA on "Participatory Water Management", "Income Generating Activities (IGA)" and "Record Keeping and Accounting" are using participatory training methodologies. Insure participation of women in the training programs. • Create financial management capacity through bank account for the newly formed WMGs. 	<ul style="list-style-type: none"> • The team will prepared the documents necessary for the registration of WMOs reviewing related documents of Blue-Gold and Cooperative Society (amendment) Act 2012. Prior to registration of WMO, the team will share the documents and process of registration with PMU and BWDB. The team will communicate and correspondence with key stakeholders and client by personal contact and electronic medium e.g. phone, e-mail etc. • The team will schedule the training program in association with local BWDB. The team will review related documents developing training curriculum and use it in the training program. • The community organizers will be arranged all procedures to open Bank account for the newly formed WMGs. 	<ul style="list-style-type: none"> • 500 (appr.) persons of WMO, WMA, WMG, WMF, CST received training on resource mobilization, PM&E, O&M and participatory water management. • 200 (appr.) persons of WMOs received training on Infrastructure O&M hands on. • 2 batches training conducted for BWDB staff and COs. • 8 batches training on participatory monitoring to WMG ECs conducted. • 8 batches training for WMA/CST on infrastructure monitoring and supervision. • 8 batches training to collective action leaders and key informants conducted.
<p>Stage-3: Planning and Technical design</p>	<ul style="list-style-type: none"> • Assist engineering and economic team in sharing polder improvement plan with WMO's/community organizations. • Assist PMU, BWDB to finalize Polder Development Plan (PDP) with participation from the beneficiary communities of polder. • Develop MOU on the implementation of PDP and discuss with WMOs on the implications of signing the PDP. • Arrange signing of PDP for implementation in full 	<ul style="list-style-type: none"> • The team will provide necessary assistance and ensure the participation of WMGs in workshop/FGD sessions for sharing PDP. • The team will review sample MOU of Blue Gold and other BWDB projects. • The discussion with WMG will be conducted on the implication of signing PDP. • The team will organize a signing ceremony of PDP with the participation of BWDB and authority concerned of WMGs. • Assist and motivate WMGs to 	<ul style="list-style-type: none"> • Polder improvement plan shared with WMOs/community organizations for arriving at an agreed plan. • Assisted PMU, BWDB in finalization PDP ensuring the participation of each of the constituent WMGs of respective polder attended in discussions.

	<p>understanding of WMOs with the assurance that sufficient resources have been allocated for implementation with quality and timeliness.</p> <ul style="list-style-type: none"> • WMOs will also agree to take over their responsibility in O&M during operation. • Develop mechanism for O&M fund collection from benefitted farmers. • To ensure the participation of women members of WMGs/WMA in discussion on project planning and works specification. 	<p>agree on taking over their responsibility of O&M.</p> <ul style="list-style-type: none"> • The field staff will discuss in WMG meeting on the issue of O&M fund collection from the benefitted farmers and develop mechanism for it. 	<ul style="list-style-type: none"> • MOU on the implementation of PDP developed and discussed with WMO and signing of PDP arranged. • Motivated WMOs for agreeing on taking over their responsibility in O&M during operation. • The Mechanism of O&M fund collection developed.
Stage-4: Implementation	<ul style="list-style-type: none"> • Formation of CST from the members of WMGs/WMA and disseminate project design and works specifications. • Impart training to the CST. • Develop participatory monitoring plan for WMAs with assistance from the engineering consultants and BWDB field office. • Develop a procedure for CST to coordinate social issues with contractor, consultant and BWDB field officials during construction. • Facilitate the CST for supervision and assist them in communicating observations to the BWDB field office and the consultants. • Document the process for monitoring of civil works to assist the CST and gradually train them up to do all proceedings by their own. • Involve WMOs in the implementation process especially earth work through formation of LCS. • Include women in LCS and ensure participation of women in monitoring. 	<ul style="list-style-type: none"> • The CST will be formed through meeting with WMGs and WMA. A dissemination workshop will be organized with assistance of the engineering consultants and BWDB field and division offices. • A training will be organized for CST on project design and works specifications. • A participatory monitoring plan will be developed with assistance from engineering consultants and BWDB field office. • A procedure will be developed for CST to coordinate the social issues with contractor & BWDB field officials during construction. • The field team will facilitate and assist CST to perform their work. • The monitoring tools/format will be developed to assist the CST and train them up to do all proceedings by their own. • Labour Contracting Society (LCS) will be formed through meeting with WMO. 	<ul style="list-style-type: none"> • At least 3 construction Supervision Team (CST) formed. • Project design and works specifications disseminate to CST. • 8 batches training of CST/Monitoring Committee conducted. • Participatory Monitoring Plan developed. • A procedure for CST developed • Facilitated CST • Assisted CST to document the process for monitoring of civil works. • A number of LCS formed •
Stage-	<ul style="list-style-type: none"> • Introduce WMO and WMA 	<ul style="list-style-type: none"> • The team will organize visit 	<ul style="list-style-type: none"> • WMGs and WMA

<p>5: Operation and Maintenance (O&M) of Scheme</p>	<p>with water control structures, irrigation & drainage channels and the embankment and disseminate O&M of those components.</p> <ul style="list-style-type: none"> • Discuss and sort out minor O&M activities that are plausible for the WMOs. • Develop O&M Plan for WMAs with reference to major activities as responsibility of BWDB offices. • Design and develop draft agreements for signing between WMAs & BWDB in respective schemes for routine O&M. • Explain in-depth all the articles of the agreements to WMOs so that they understand their specific roles in O&M. • Arrange signing of the agreement between WMOs & BWDB Executive Engineer of respective division office on PDP. • Facilitate WMOs in O&M of the polder and assist them in communicating observations for major repair and maintenance to BWDB offices. • Document the process for O&M of the polder to assist WMOs & gradually train them up to do all activities designated for them. • To ensure that women members will actively participate in O&M of polders during operation. 	<p>program introducing different structures and disseminate M&O details in their regular meeting.</p> <ul style="list-style-type: none"> • The CO will discuss and sort out minor O&M activities in regular meeting of WMGs and WMA. • The team will assist to develop plan of O&M. • The team will design and develop draft agreements for signing between WMAs and BWDB for routine O&M. • The field staff will explain the articles of agreement in regular meeting of WMGs/WMA. • A signing ceremony event of agreement by WMOs & BWDB on the PDP will be arranged. • The field team will facilitate WMOs in operation and routine maintenance of the scheme and assist them in communicating with BWDB offices. • A format will be developed to document the process O&M to assist WMOs and train them in regular meeting of WMGs and WMO. • Motivate WMOs on long-term O&M responsibilities in regular WMOs meeting and personal contact. 	<p>known about water control structures, irrigation and drainage channels and the embankment of polder.</p> <ul style="list-style-type: none"> • Operation and maintenance details disseminated to WMOs • Minor O&M activities sorted out. • O&M plan developed. • Thirteen draft agreement for O&M through active participation of WMOs developed. • WMOs understood their specific roles in the O&M of the scheme. • Signing of the agreement on O&M arranged. • Facilitated 13 WMGs in the operation and routine maintenance of the scheme.
---	--	---	---

5.2 Implementation of Afforestation Program

The Specific Activities for implementation of afforestation program, methods and Expected output in respect of accomplishing Task-2 (shows in the following *Table- 4*).

Table-4: Specific Activities for implementation of afforestation program, methods and Expected output

Stage	Specific Activities:	Methods/Process	The degree of Expected Output
Stage-1: Participatory Scheme Assessment	<ul style="list-style-type: none"> The stakeholders' consultations between forestry specialists, local government officers, community leaders, potential beneficiaries, and wider community members. Identify land ownership, current and proposed land-use, rights and tenure. 	<ul style="list-style-type: none"> Participatory dialogue, In-depth interview with concerned stakeholders Focus Group Discussion 	<ul style="list-style-type: none"> A better understanding, stronger community ownership, improved technical delivery and sound benefit sharing for implementation of afforestation. Stakeholder consultations provided inputs to site/species matching and a revised version of afforestation implementation plan.
Stage-2: Social Mobilization	<ul style="list-style-type: none"> Undertake awareness raising 	<ul style="list-style-type: none"> Community meeting, information campaign 	<ul style="list-style-type: none"> Beneficiaries understood the critical need for planting trees to protect the embankments directly and support their lives, villages and livelihoods.
Stage-3: Planning and Technical design	<ul style="list-style-type: none"> In a participatory and inclusive process identify and select social forestry beneficiaries and establish mechanisms for benefit sharing; Resolve any land-use, benefit sharing and any other social issues that conflict with proposed afforestation and social forestry plans for areas both inside as well as outside the embankments/dykes; 	<ul style="list-style-type: none"> Beneficiaries meeting and Focus Group Discussion and participatory mapping 	<ul style="list-style-type: none"> The beneficiaries included i) Labourer on a daily wage basis; ii) Labourer & Direct Beneficiary as the recipient of direct benefit of final harvest and obliged to provide labour as required under an agreement and work norms; iii) Labour and recipient of Alternate Income Generation (AIG) as their participation benefit when there is no harvesting(e.g. mangrove plantings).
Stage-4 Implementation	<ul style="list-style-type: none"> Undertake capacity building through training, piloting and demonstration and provide technical support to local workers for successful 	<ul style="list-style-type: none"> The team will schedule the training program in association with local BWDB. The team will develop training curriculum and all manuals 	<ul style="list-style-type: none"> 300 person received training on capacity building of afforestation and alternative livelihood activities. Technical delivery

	<p>social forestry.</p> <ul style="list-style-type: none"> • Assist communities to identify and undertake alternative livelihoods activities. • Monitor technical delivery of social forestry standards and sharing of financial benefits. 	<p>and use in the training program.</p>	<p>monitored.</p>
--	--	---	-------------------

5.3 Implementation of IPM

The Specific Activities for Implementation of IPM, Methods and Expected Output in respect of accomplishing Task-3 shows in the following *Table- 5*.

Table- 5: The Specific Activities for Implementation of IPM, Methods and Expected Output

Stage	Specific Activities:	Methods/Process	The degree of Expected Output
Stage-1: Participatory Scheme Assessment	<ul style="list-style-type: none"> • Stakeholder Consultation 	<ul style="list-style-type: none"> • Participatory dialogue, In-depth interview with concerned stakeholders • Beneficiaries meeting and Focus Group Discussion 	<ul style="list-style-type: none"> • A better understanding, stronger community ownership, improved technical delivery and sound benefit sharing for implementation of IPM.
Stage-2: Social Mobilization	<ul style="list-style-type: none"> • To raise awareness of all stakeholders about the IPM approach to crop management, and to train extension agents and farmers. • Awareness/dissemination of Information 	<ul style="list-style-type: none"> • Mass communication meeting • Project Leaflet/Poster/campaign paper/ • Presentation slide will be prepared with an overview of the project including involvement, benefit and responsibility of WMO, disseminated through mass communication, FGD, & personal contact. 	<ul style="list-style-type: none"> • Beneficiaries understood the critical need for planting trees to protect the embankments directly. and support their lives, villages and livelihoods (agriculture and fisheries) directly and indirectly
Stage-3: Planning and Technical design	<ul style="list-style-type: none"> • To guide the afforestation activities and future agriculture development in the polders area based on the best practice available for IPM. 	<ul style="list-style-type: none"> • Beneficiaries meeting and Focus Group Discussion and participatory mapping 	<ul style="list-style-type: none"> • They have been practicing IPM.
Stage-4 Implementation	<ul style="list-style-type: none"> • To involve the local communities, especially crop farmers, fishermen, forestry users in IPM plan 	<ul style="list-style-type: none"> • The team will schedule the training program in association with local BWDB. The team will 	<ul style="list-style-type: none"> • 300 person received training on IPM and alternative livelihood activities.

	& implementation <ul style="list-style-type: none"> • Training of Trainers (ToT), Training of Facilitators (ToF) and establishing of Farmers Organization • IPSNM techniques • Determining pesticide residue on crops. • Monitoring and Evaluation: The NGO will set-up of an M&E system to measure the effectiveness and the outcome of residue measurement; 	develop training curriculum and all manuals and use in the training program. <ul style="list-style-type: none"> • The team will conduct training programs • The linkage Development Workshop will be held. • Demonstration/field trail, testing about IPM 	<ul style="list-style-type: none"> • 8 batches training on value chain, producer group/cooperative, market linkage, supply, and demand system conducted. • 6 Linkage developments meeting with DoF, Local administration, Cooperative, DAE and UPs conducted. • 42 events of demonstration of IPM at field conducted. • Technical delivery monitored
--	--	---	--

5.4 Reporting on Social Mobilization

The team of assignment will identify and mobilize beneficiaries in Water Management Organizations and involve them in each stage of project cycle from identification through assessment, design, implementation and operation and maintenance. These activities should be reported. The team will provide appropriate training to the WMOs in order to ensure sustainable water management with effective participation of the beneficiaries. The team will assess periodic progress of activities and the achievement in effecting participation of beneficiaries in project cycle and operation and maintenance of polders. The team will provide monthly report on the progress in social mobilization, including any issue that might be hindering progress, separately for each civil works contract. The report will contain the following together with the progress reporting:

#	Topic	Detail
1.	INTRODUCTION	Purpose, objective, scope & background of Progress Report
2.	PROGRESS AND ACHIEVEMENTS	Summary progress of targeted activities during the reporting period and the cumulative achievements; A spreadsheet will be used to determine the progress that can be attached to the report as an Annex; A Bar Chart with Target and achievement should be included in the report.
3.	INPUTS	Physical and financial input during the reporting period and cumulative progress against the allocated quantities and financial budget. Comments if any at the end.
4.	STATUS OF MOBILIZATION	Summary of achievement in social mobilization including consultation, census of beneficiaries, mobilization of beneficiaries into WMOs, training, and advance of WMOs in terms of their activities as per objectives of participation. Summary of achievement in social mobilization, membership enrolment, savings and share capital accumulation, meetings, and communication, participation in supervision, monitoring and quality control of civil works.

5.	PROBLEMS	Description of problems and difficulties encountered during the reporting period and link them to policy and administrative decisions with remarks Actions taken to resolve problems identified in the earlier report(s), their current status and any outstanding problems and recommendations for resolving those problems.
6.	ACTIVITIES COMPLETED	Description of activities carried out during the reporting period with tables and charts for quantities (achievement and targets) followed by cumulative achievement for each activity. The description have to be made separately for each polder under implementation (if more than one polder under implementation).
7.	WORK SCHEDULE	Target for next reporting period and remaining tasks with timelines for their completion. Comments on targets and work schedule, if any.
8.	MISCELLANEOUS	Miscellaneous activities at the request of BWDB and missions attended during the reporting period with particular reference to GPWM, IPSWAM and WMIP guidelines and manuals. Status of special targets set by pervious missions during reporting period. Comments on miscellaneous activities.

5.5 Reporting on Social Forestry

The team of assignment will identify and mobilize beneficiaries to participate in the Social Forestry program. They will provide appropriate training to the beneficiaries in order to ensure sustainable afforestation activities with effective participation of the beneficiaries. The NGO requires assessing periodic progress of their activities and the achievement in effecting participation of beneficiaries in afforestation. The team will provide monthly report on the progress in social forestry, including any issue that might be hindering progress. The report will contain the following together with the progress reporting:

S.L #	Major Issue	Details
1.	INTRODUCTION	Purpose, objective, scope and background of the Progress Report
2.	PROGRESS AND ACHIEVEMENTS	Summary progress of targeted activities during the reporting period and the cumulative achievements A spreadsheet will be used to determine the progress that can be attached to the report as an Annex. A Bar Chart with Target and achievement should be included in their report
3.	INPUTS	Physical & financial input during reporting period and cumulative progress against the allocated quantities and financial budget. Comments if any at the end.
4.	STATUS OF SOCIAL FORESTRY ACTIVITIES	Summary of achievement in social afforestation including consultation, mobilization of beneficiaries for social forestry, training, and any other activities
5.	PROBLEMS	Description of problems and difficulties encountered during the reporting period and link them to policy and administrative decisions with remarks

S.L #	Major Issue	Details
		Actions taken to resolve problems identified in the earlier report(s), their current status and any outstanding problems and recommendations for resolving those problems.
6.	ACTIVITIES COMPLETED	Description of activities carried out during the reporting period with tables and charts for quantities (achievement and targets) followed by cumulative achievement for each activity The description have to be made separately for each polder under implementation (if more than one polder under implementation).
7.	WORK SCHEDULE	Target for next reporting period and remaining tasks with timelines for their completion Comments on targets and work schedule, if any
8.	MISCELLANEOUS	Miscellaneous activities at the request of BWDB and missions attended during the reporting period with particular reference to GPWM, IPSWAM and WMIP guidelines and manuals. Status of special targets set by pervious missions during the reporting period. Comments on miscellaneous activities

5.6 Reporting on IPM

The polder tea will provide monthly report on the progress in implementing Integrated Pest Management Plan, including any issue that might be hindering progress. The report will contain the following together with the progress reporting.

S.L #	Major Issue	Details
1.	INTRODUCTION	Purpose, objective, scope and background of the Progress Report
2.	PROGRESS AND ACHIEVEMENTS	Summary progress of targeted activities during the reporting period and the cumulative achievements A Bar Chart with Target and achievement should be included in their report
3.	INPUTS	Physical & financial input during reporting period and cumulative progress against the allocated quantities and financial budget. Comments if any at the end.
4.	STATUS OF INTEGRATED PEST MANAGEMENT	Summary of achievement in integrated pest management (IPM) including awareness activities, training, implementing IPSNM techniques. The section should also include the following: applied quantities of pesticides, before and after the Project, increase if any of cropped land after the Project, increase in yield outputs of crops practiced, determining levels of pesticide residues in crops, soil and water at regular time intervals, effectiveness of bottom-up participation by the targeted groups, which types of pesticides belong to which type of crops.
5.	PROBLEMS	Description of problems and difficulties encountered during the reporting period and link them to policy and administrative decisions with remarks Actions taken to resolve problems identified in the earlier report(s), their current status and any outstanding problems and

S.L #	Major Issue	Details
		recommendations for resolving those problems.
6.	WORK SCHEDULE	Target for next reporting period and remaining tasks with timelines for their completion Comments on targets and work schedule, if any
7.	MISCELLANEOUS	Miscellaneous activities at the request of BWDB and missions attended during the reporting period with particular reference to IPM and IPSNM guidelines and manuals. Status of special targets set by pervious missions during the reporting period Comments on miscellaneous activities

Chapter 6: Project Organization and Execution

6.1: Work Plan

Activities to be undertaken to achieve the tasks and objectives of service in response to scope of the works of the proposed service follows:

6.1.2 Initial Planning, Scheme Assessment and Survey

1. Team Mobilization and Orientation

RIC-SSUS.JV will recruit all key professional and field staff as per recruitment process according to ToR. This activity will be completed in the first week of the first months of implementation schedule. The total 5 key professionals, 8 field staffs and other support staffs will be recruited within allocated time. An orientation will be organized by the NGO at the HQ of RIC in Dhaka. In service training of the field staff will be continued activity throughout the project period to ensure quality work at field level.

2. Set up office and purchase equipment

A site office will be established at Bhandaria. The office will be adequately staffed, and equipped with implementation tools, viz. office furniture, computers and peripherals, storage cabinets, digital/video cameras, etc. to accomplish the tasks as per time schedule.

3. Analysis of Secondary Documents including Polder Map and Infrastructures list

After signing contract, the team will collect Polder Map and Infrastructure list from the client within the first week of the first month of implementation schedule. Besides, collection and analysis of secondary document will be continued up to end of the project.

4. Define water Management Unit

For defining water management unit, the consultant will review and analysis polder map and infrastructure list. Then the team will meet and dialogue with BWDB local offices and visit the polder area. The team will conduct participatory transact walk at 13 drainage sluices. The team will also conduct community consultation meeting and participatory mapping with different stakes identifying beneficiaries' villages and hydraulic boundaries/WMUs. These activities will be conducted in the 1st months of the implementation schedule.

5. Identify Key Problems and Improvement Options of Scheme

The polder team will conduct community consultation meeting and participatory mapping with community people and other stakes identifying key problems and improvement options of scheme. The total 13 sessions will be conducted.

6. Conduct Household Census Survey

The team of assignment will conduct a household census survey within the villages belong to each WMUs for preparing beneficiaries and stakeholders list, and collecting socio-economic data. 100% household will be surveyed. Initially, we designed to deploy enumerator for data collection with the supervision of field staff. If the number of household is much more, then the enumerators will be deployed according to the number of household and implementation schedule. A methodology and survey format/questionnaire will be prepared by the key team member and take approval from the client/BWDB. The data entry of filled questionnaire and analysis are the major tasks under conducting household census survey mentioned in the implementation schedule. The NGO initially, designed to complete data entry by out sourcing and key team member will analysis data.

7. Inception Workshop at District Level:

An inception workshop will be conducted by the NGO at District level with the participation of different stakeholders. The schedule of meeting will be finalized with the assistance of BWDB, local office.

6.1.3 Social Mobilization and Formation of WMO

8. Conduct Awareness and Motivation Campaign and Opinion Poll

Before starting the activities, the key team member will prepare and print IECs (leaflet, poster, and pamphlet etc.) materials. The team will conduct regular motivational campaign. The awareness and motivation programs initially designed folk song, court yard session, tea-stall meeting, leaflet/poster/communication materials, video clips etc. The NGO will design, plan and implement an information campaign in each UMU with the association of BWDB local office. The stakeholders and beneficiaries will be informed about the authentic information like project objective, involvement of beneficiaries in the project cycle and ultimate benefits of the community peoples and the responsibility of the WMOs during implementation of the project and after completion of the project. These activities will accomplish at 13 drainage structures in regular basis according to implementation schedule.

9. Prepare Group Formation Modalities:

In the process of group formation modality, the polder team will conduct beneficiary census for preparing beneficiary list of each WMUs and consent opinion to enrol as a member of WMGs. The field team will also prepare a household list enrolling at least 75% (expected) of household as a member of WMGs. The team will organize a number of consultation meetings in the process of group formation.

10. Prepare Stakeholder List:

The team will conduct consultation meeting and exercise Venn diagram for preparing stakeholders list. The total 13 sessions initially designed to accomplish for the activity.

11. Define WMG's tasks & disseminate group formation activity

The team will conduct Consultation Meeting for defining WMG's tasks & disseminate group formation activity. We initially designed to conduct 26 meetings with the association of BWDB local office.

12. Formation of WMGs

The polder team will conduct a series of consultation meeting in line with formation of WMGs. At the final stage, the team will conduct a daylong event forming WMG with the participation of beneficiaries and BWDB. This work will be started from 3th months and continued up to 6th month. We initially design to conduct 26 sessions.

13. Formation of WMA

After completion of all WMGs of the polder, a daylong event will be held to form WMA at polder level applying the democratic process. We initially planned to form at least 3 WMA in the polder. The procedures and WMA modality will be informed to the Community at before in different consultation sessions. After formation of WMG and WMA, a general meeting (at WMG level-26) will be held forming of WMG level Ad-hoc committee.

6.1.4 Knowledge and Development

14. Carry out participatory training needs and prepare a program for capacity building

The team will conduct a discussion session to know their knowledge, attitude and practices related to capacity building of WMGs, leadership capacity in accomplishing their activities. We initially designed to conduct 26 sessions to complete the activity.

15. Prepare Curriculum of training:

The key team members will review the documents related to the project, for preparing training curriculum and other training materials e.g manuals, guidelines and rules on organizational management, supervision and quality control of civil works construction, income generation activities, and cooperatives management. The training manual will be developed for different categories of trainees including polder operation team, BWDB staffs, WMG, WMA, FFS, SFG, other local bodies e.g. UP.

16. Conduct training

The training courses will be designed in for different courses and batches based on trainees and issues. The trainee of different courses are polder operation team, BWDB staff, other stakeholders- UP, FFS, SFG and WMG/WMA/EC. A number of training sessions will be conducted according to the needs for performing activities of WMOs.

17. Facilitate Regular Meeting of WMGs and WMA:

The field team will be assisted to organize regular (monthly) meeting of WMGs and WMA for strengthening organizational development capacity of WMGs/WMA. The target of the meeting is to 'WMGs got capacity to conduct their monthly meeting themselves'.

18. Exchange Visit of WMGs and WMA:

The NGO will organize exchange visit for WMGs and WMA, where these types of WMOs are functional.

6.1.5 Legislation Process

19. Create financial arrangement of WMGs.

The polder team will assist to open bank accounts for WMGs and WMA.

20. Registration of WMOs

The NGO will assist to WMOs in the process of registration with concerned office of BWDB following PWMR 2014.

6.1.6 Activities in Planning and Technical Design:

21. Polder Improvement Plan

The polder team will assist in conducting discussion meeting for sharing the Polder Development Plan with the WMOs/community organizations. The polder team will assist the engineering and economic team, PMU, BWDB for finalizing PDP. The polder team will develop MOU on implementation of PDP and discuss with the WMOs on the implications of signing PDP. The Polder team will arrange the signing procedure of MOU, where WMOs are agreed to take their responsibility in O&M during operation. The polder team will develop mechanism, on how WMOs can raise O&M operation fund for long time, which is needed for sustainable management.

6.1.7 Activities in Implementation Stage

22. Formation of CS Team, Participatory Monitoring Plan for WMA and Procedure for CST

The polder team will organize consultation meeting with the assistance of engineering consultants and BWDB field office to disseminate project design and works specification of WMA and formation of Construction Supervision Team (CST).

23. Strengthen Construction Supervision Team

The polder team will conduct Training for CST with the assistance from engineering consultants and BWDB field office. The team will facilitate CST to communicate with BWDB and consultants and document the process for monitoring of civil works and gradually train them up to all proceedings by their own.

6.1.8 Operation and Maintenance (O&M) of scheme

24. Develop and arrange signing of MoU

The polder team will conduct meeting with WMO to sort out minor O&M activities and develop O&M plan for the WMA. The team will develop draft agreements for signing between WMA and BWDB.

25. WMO involvement in Operation and Maintenance of Scheme

The team will explain in-depth all the articles of the agreement to the WMOs and arrange signing ceremony by WMOs and BWDB. The polder team will facilitate WMOs to operation and maintenance, communicate with BWDB, Document process of O&M and strengthen WMOs as they are agreed to take over the operation and routine minor maintenance of the polder.

6.1.9 Social Afforestation

26. Stakeholder Consultation

The polder team will lead the stakeholder consultation process for transparent and participatory dialogue and engagement between stakeholder groups to facilitate a better understanding, stronger community ownership, and improved technical delivery and sound benefit sharing for implementation of the social forestry activities with the afforestation component with focus on fore-shore areas. The stakeholder consultation will be conducted with forestry specialist, local government offices, community leader, potential beneficiaries and wider community members. The polder team will support to the village by village selection process for beneficiaries to participate in social forestry activities. The outputs of stakeholder consultations will provide inputs to site/species matching and a revised version of the afforestation implementation plan.

27. Awareness Campaign

The NGO will undertake awareness campaign through different techniques i.g. folk song, court yard session, tea-stall meeting, leaflet/poster/communication materials, video clips etc.

28. Selection of Beneficiaries

The polder team will conduct consultation meeting for selection of forestry beneficiaries and develop mechanism for benefit sharing.

29. Capacity Building of beneficiaries

The NGO will undertake capacity building through training, piloting a demonstration and provide technical support to local workers in the necessary skill sets for successful social forestry. The polder team will also assist communities to identify and undertake alternative livelihoods activities.

30. Monitor technical delivery on afforestation

The polder team will monitor technical delivery of social forestry standards and sharing of financial benefit.

6.1.10 IPM Plan Implementation

31. Awareness/Dissemination of Information

The NGO will conduct stakeholder consultation meeting to disseminate the information on IPM. The team will also conduct awareness raising programs e.g. folk song, court yard session, tea-stall meeting, leaflet/poster/communication materials, video clips etc.

32. Establish Farmers Field School (FFS)/organization

The NGO will assist to establish of Farmers Organization in line with New Agriculture Extension Policy of 1996 & 2012/ Farmer Field Schools (FFS);

33. Impart Training

The NGO will conduct Training of Trainers (ToT), Training of Facilitators (ToF).

34. Practice IPSNM

The NGO will provide technical assistance to practice IPSNM

35. Set-up M&E system

The NGO will set-up of an M&E system to measure the effectiveness of the training, the degree of dissemination of new practices and the outcome of residue measurement;

6.1.11 Report Development

36. Inception Report

RIC-SSUS.JV will prepare and submit an Inception Report within one month after commencing the service. The report will outline the NGO's initial findings and confirm the methodology and detailed work program proposed for adoption in the light of the initial findings, while also identifying constraints and proposed solutions, together with any action required by the Project Director, CEIP-1 to facilitate the successful implementation of the tasks.

37. Monthly Progress Reports

RIC-SSUS.JV will prepare and submit the Monthly Progress Report as per format provided by BWDB. The monthly progress report will include important information of the month and an update of project cost estimate, expenditure, variation and reasons for the same. The MPR will include relevant details of activities performed and plan of activities to be performed during the next month. Monthly Progress Report (MPR) will be submitted within first week of the reporting month.

38. Quarterly Progress Reports

RIC-SSUS.JV will prepare and submit the Quarterly Progress Report which will be similar to the monthly report but will be more detailed and informative. The quarterly progress report will also include important information of the quarter and *an* update of project cost estimate, expenditure, variation and reasons for the same. The QPR will also include relevant details of activities performed and plan of activities to be performed during the next quarter. Quarterly Progress Report (QPR) progress report will be submitted within first week of the reporting month.

39. Final Report/ Completion Report

RIC-SSUS.JV will prepare and submit the Completion Report upon completion of the NGO service. It will be a comprehensive report on the service provided by NGO throughout the contract. RIC will develop a format for completion report and submit to Project Director for approval. All relevant and important issues of the consultancy service will be included in the report including experience gained and lessons learnt. Necessary courses of action to be taken in similar projects in future will be included in the report. The Completion Report will be finalized based on comments from Counterparts official and all stakeholders and beneficiaries of the services.

6.2 Work Schedule and Planning for Deliverable

RIC-SSUS.JV will implement the assignment within a period of 18 Months. The chart below illustrates implementation schedule by activities and time periods:

Chart-1: Work Schedule

Activities	# activities	Months																	
		2019									2020								
		M/A	A/M	M/J	J/J	J/A	A/S	S/O	O/N	N/D	D/J	J/F	F/M	M/A	A/M	M/J	J/J	J/A	A/S
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D-1. Initial Planning, Survey and scheme assessment																			
1. Team Mobilization and Orientation	1																		
2. Set up office and purchase equipment	1																		
3. Collection and analysis of documents, data, report, Map and infrastructure list	1																		
4. Define Water Management Units	13																		
5. Identify key problems and improvement options of scheme	13																		
6. Conduct household census survey	1																		
7. Conduct Inception Workshop at District Level	1																		
D-2. Social Mobilization & Formation of WMO																			
8. Conduct awareness & motivation campaign and opinion poll	26																		
9. Prepare Group Formation Modalities	26																		
10. Prepare Stakeholder list	13																		
11. Define WMG's tasks & disseminate group formation activity	26																		
12. Formation of WMGs	26																		
13. Formation of WMAs	3																		

Activities	# activities	Months																	
		2019									2020								
		M/A	A/M	M/J	J/J	J/A	A/S	S/O	O/N	N/D	D/J	J/F	F/M	M/A	A/M	M/J	J/J	J/A	A/S
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D-3. Knowledge Development																			
14. Carry out participatory training needs	26																		
15. Prepare curriculum of training	1																		
16. Conduct training to the field staff, BWDB, EC, WMGs/WMA	4																		
17. Facilitate Regular Meeting of WMGs/WMA	Monthly																		
18. Exchange Visit of WMGs and WMA	4																		
D-4. Legislation Process																			
19. Create financial arrangement of WMGs	26																		
20. Registration of WMOs as per PWMR, 2014	29																		
D-5. Planning and Technical Design																			
21. Polder Improvement Plan and signing PDP	1																		
D-6 Activities in Implementation Stage																			
22. Formation of CS Team, Participatory Monitoring Plan for WMA and Procedure for CST.	1																		
23. Strengthen Construction Supervision Team	1																		
D-7. Operation and Maintenance (O&M) of Scheme																			
24. Develop MoU and arrange signing of O&M plan	1																		
25. WMO involvement in Operation and Maintenance of Scheme	1																		

Activities	# activities	Months																	
		2019									2020								
		M/A	A/M	M/J	J/J	J/A	A/S	S/O	O/N	N/D	D/J	J/F	F/M	M/A	A/M	M/J	J/J	J/A	A/S
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D- 8. Social Afforestation																			
26. Stakeholder Consultation	Need-based																		
27. Awareness Campaign	Need-based																		
28. Selection of Beneficiary	1																		
29. Capacity Building of Beneficiaries	Need-based																		
30. Monitor technical delivery on afforestation	1																		
D-9. IPM Plan Implementation																			
31. Awareness/Information Dissemination	Need-based																		
32. Establish Farmers Organization	1																		
33. Impart Training (ToT and ToF)	1																		
34. Practice IPSNM techniques	1																		
35. Monitoring of IPM plan implementation	1																		
D-10. Reporting																			
36. Submit Inception Report	1																		
37. Submit Monthly Progress Report	Monthly																		
38. Submit Quarterly Progress Report	6																		
39. Submit Final Report	1																		

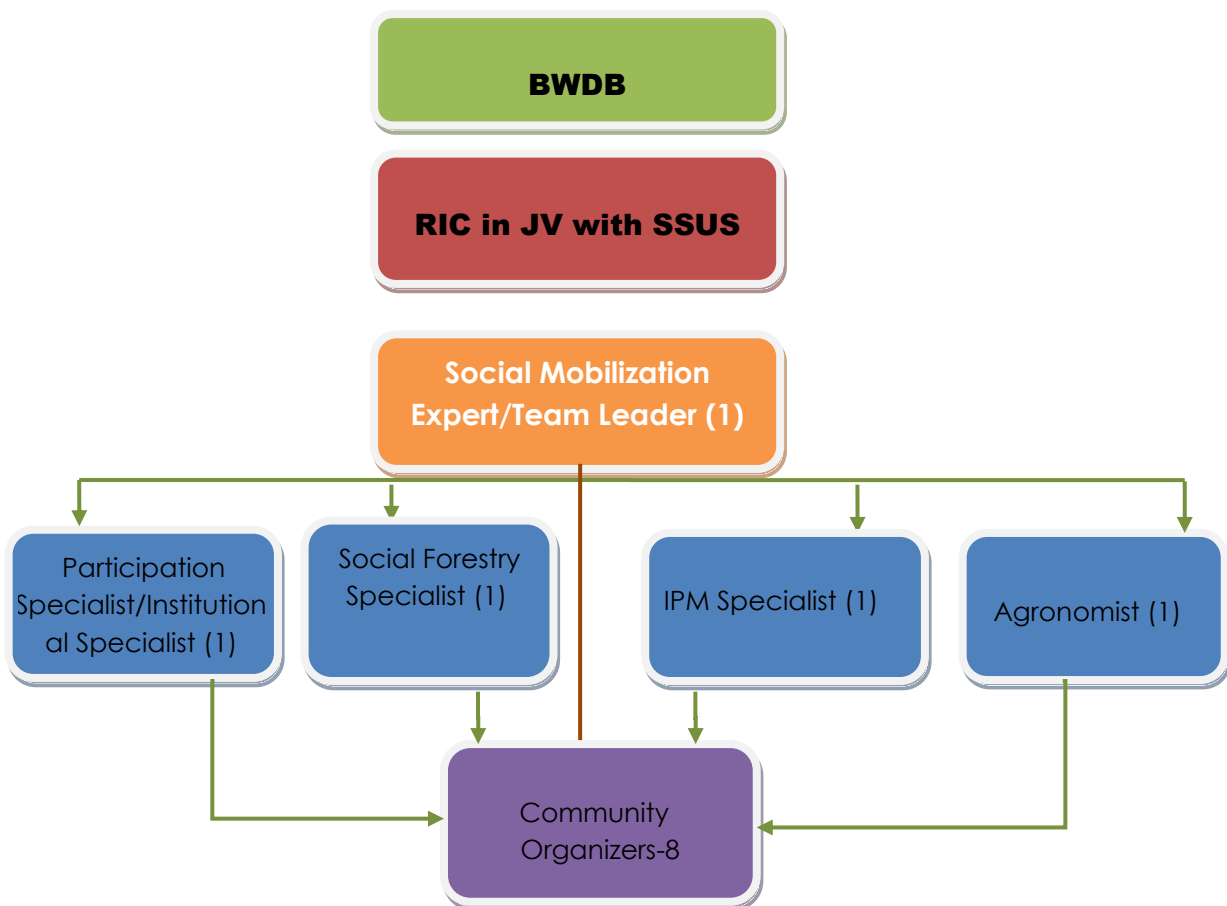
Activities	# activities	Months																	
		2019									2020								
		M/A	A/M	M/J	J/J	J/A	A/S	S/O	O/N	N/D	D/J	J/F	F/M	M/A	A/M	M/J	J/J	J/A	A/S
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
D- 11. Deliverable related to Main Activities																			
38. Implementation Manual for PSM	1			■															
39. Information, education and Communication Materials	Need-based			■															
40. Report of Stakeholder analysis and list	1				■														
41. Household census survey questionnaire	1		■																
42. Documents on Water Management Unit	13		■																
43. Benchmark Report	1					■													
44. Formation of WMGs	26							■											
45. Formation of WMA	3							■											
46. Sample by-laws for WMGs/WMO	26									■									
47. Training Curriculum	1							■											
48. Manual for Organization Management and O&M of Scheme	1								■										
49. Manual for WMO Management by BWDB	1								■										
50. Manual for IWRM practice	1									■									
51. Open Bank Account of WMGs	29									■									
52. Registration of WMOs Completed	29										■								
53. MOU documents for PDP	1											■							
54. Monitoring and Evaluation Framework	1															■			

6.3 Staffing Schedule

A total of 188 man- months for professional and other staffs (44 man- months for 5 professional staff and 188 man- months for 8 community organizers) will be used for successful completion of the tasks within the timeline. RIC is a reputed NGO and has a good number of efficient employees who are working in different projects in different areas of Bangladesh and central office as well. As per ToR, RIC will engage a team consists of 05 (five) professional, who will be eligible and capable of performing the tasks within timeline (18 months). RIC is also capable of providing the team within organization and the CV's are enclosed with the proposal in particular forms. In addition to professional staff and Community Organizers RIC will engage an office manager (Admin and Finance Officer) one office assistant, peon, night guard and cleaner for head office.

6.3.1 Staffing Organogram

The entire professional and support staffs will be under the supervision of the Team Leader. The staffing organogram is given below:



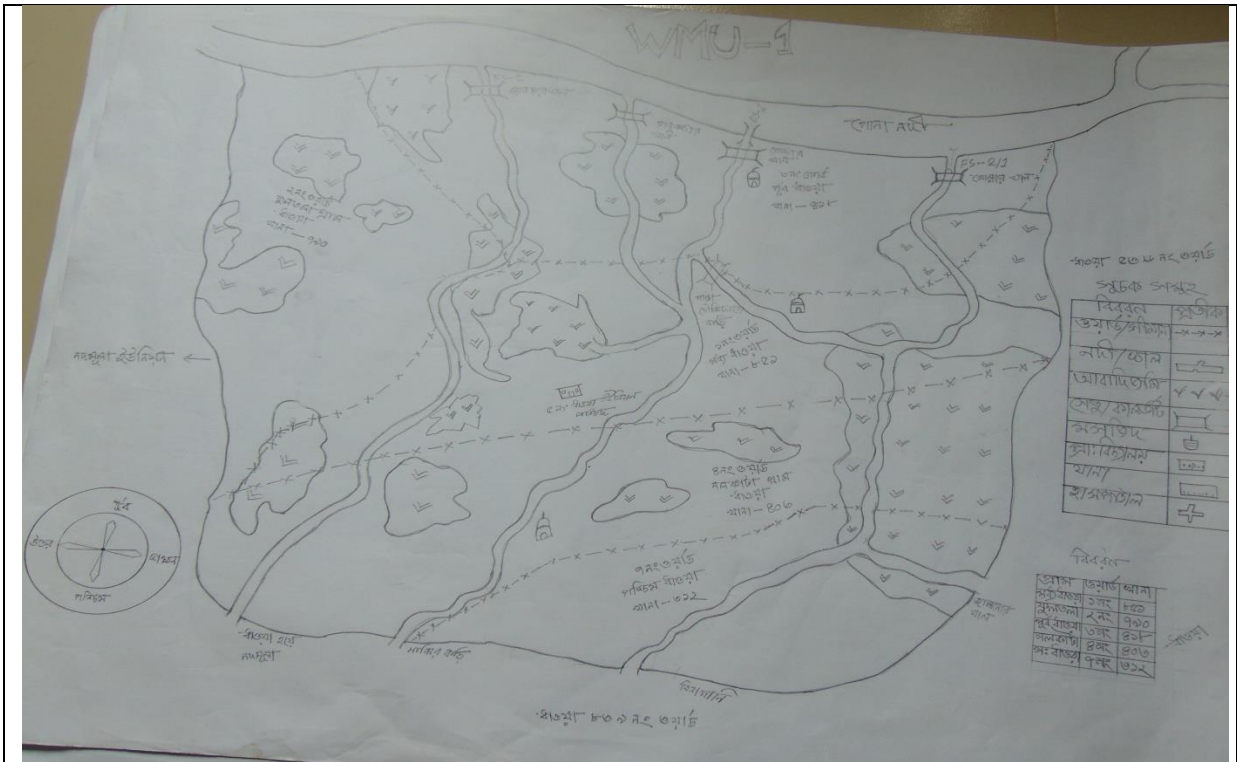
Annex-1: Monthly Work Schedule and Planning for Deliverables

JV of RIC & SSUS has scope to complete the assignment within eighteen Months starting from March 2019 to June 2020. The activities thus identified in sequential order in consistence with the methodology and tasks have been shown as Work Schedule. This work schedule may be changed depending on the field requirements and suggestions of the client (in the inception phase of the assignment). The following chart illustrates the work schedule for the first month decorated by activities, responsible and time periods

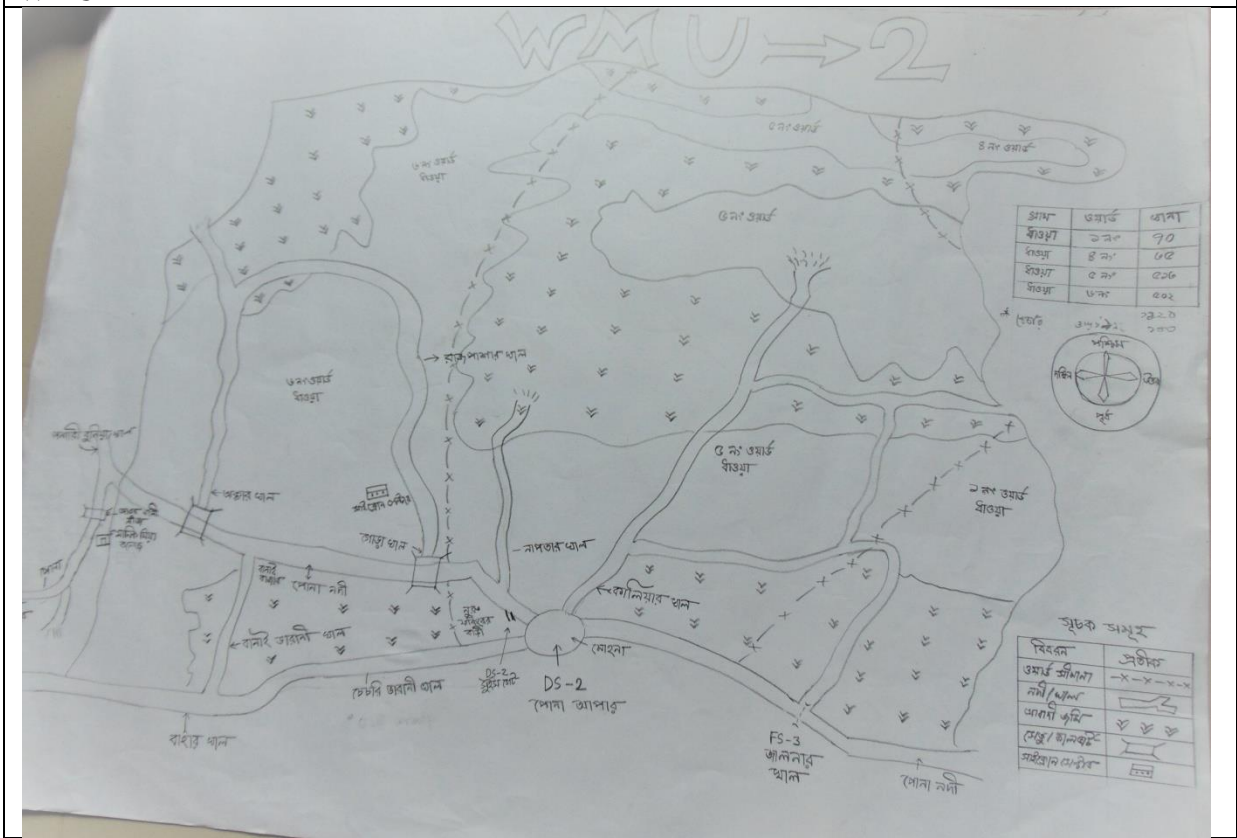
Activities	Time line (tentative)		Months: March/April 2019																												Responsible Person			
	Start	Finish	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S		M	T	W
			8	9	0	1	2	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4		5	6	7
D1. Project Start-up Stage																																		
1. Recruitment and mobilization of Team	18/03/19	18/03/19																																RIC
2. Set up office	18/03/19	24/03/19																																RIC
3. Collection and analysis of documents	20/03/19	30/03/19																																TL
4. Reconnaissance Visit	18/03/19	21/03/19																																All Key & non-key staffs
5. Orientation of Field Staffs		20/03/19																																All Key & non-key staffs
D2. Initial Planning and Survey /Scheme Assessment																																		
4. Define WMU	18/03/19	10/04/19																																TL, DTL & Field Staff
D11. Reporting																																		
37. Preparation of Monthly Progress Report	14/04/19	17/04/19																																TL & Key Staffs
Preparation activities for accomplishing activities in the 2nd month																																		
!) Preparation of manual	31/03/19	Cont.																																TL & Key Staffs

8. Conduct awareness and motivation campaign and opinion poll	18.05.19	Continued																						TL, DTL, & Field Staff
9. Prepare Group Formation Modalities	18.05.19	Continued																						TL, DTL, & Field Staff
10. Prepare Stakeholder lists	19.05.19	16.06.19																						TL, DTL, IPM, SFS & Field Staff
11. Define WMG's tasks & Disseminate group formation activity	18.05.19	Continued																						TL, DTL, IPM, FE, Agro & Field Staff
12. Formation of WMG (preparatory work)	9.06.19	Continued																						TL, DTL, IPM, SFS & Field Staff
D-3 Knowledge Development																								
15. Prepare Training Curriculum	18.05.19	Continued																						TL, DTL, IPM, SFS & Agro
D-8 Social Afforestation																								
26. Stakeholder Consultation	18.05.19	Continued																						SFS & Field Staff
27. Awareness Campaign	#####	Continued																						SFS & Field Staff

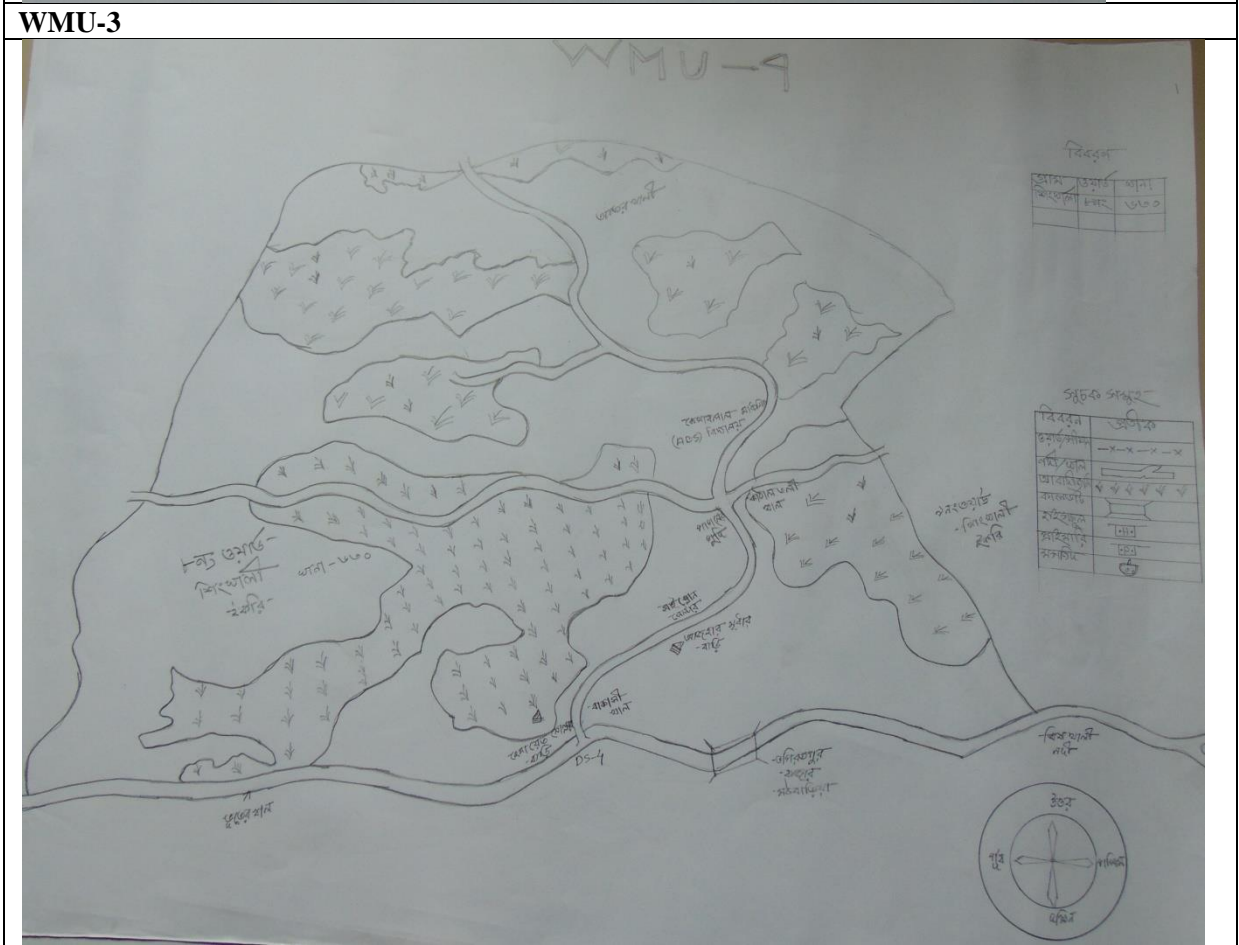
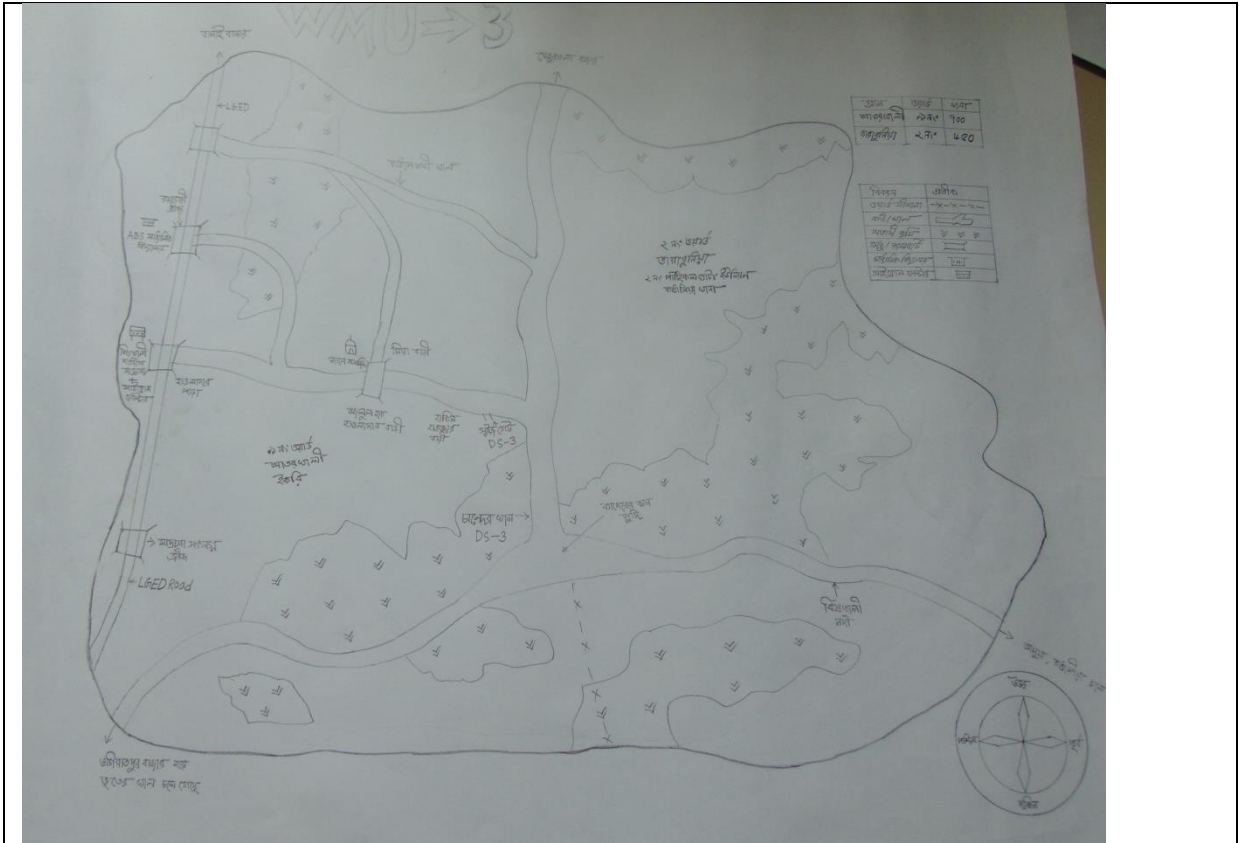
Annex-2: Sketch of Water Management Unit

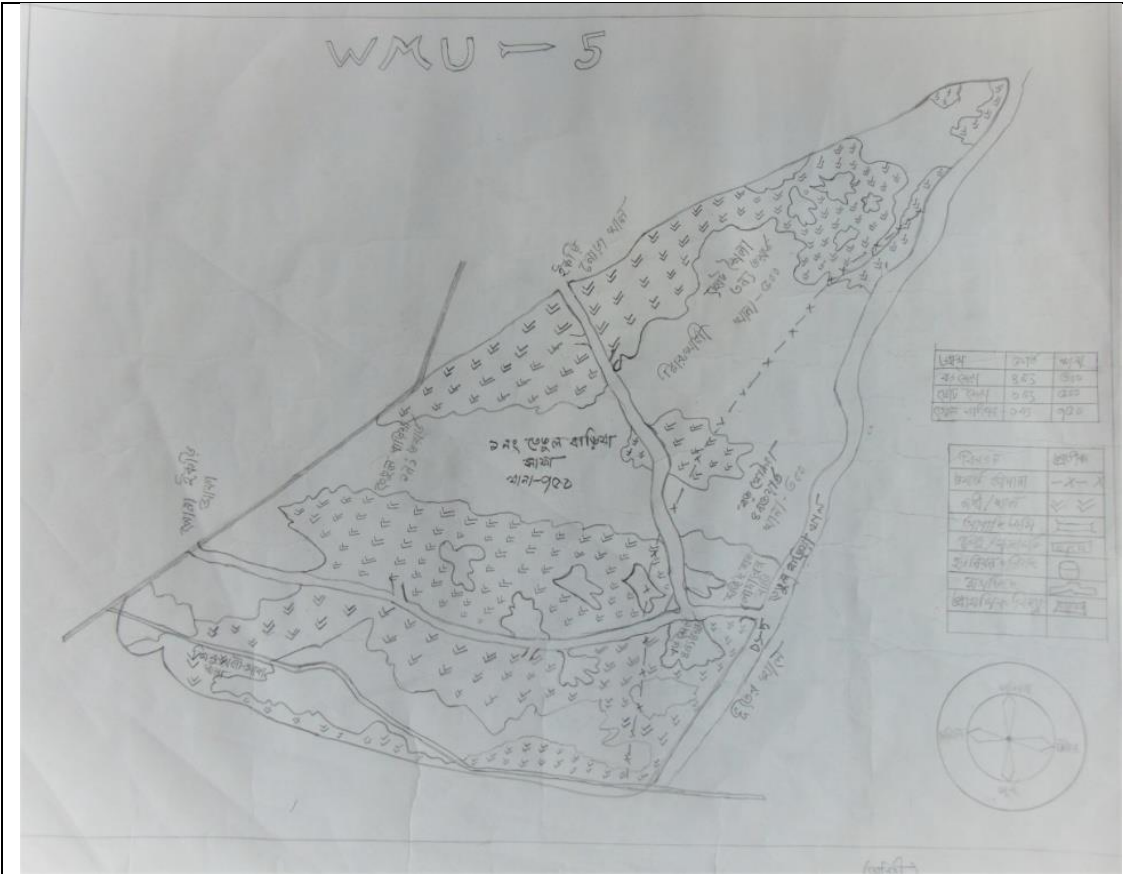


WMU-1

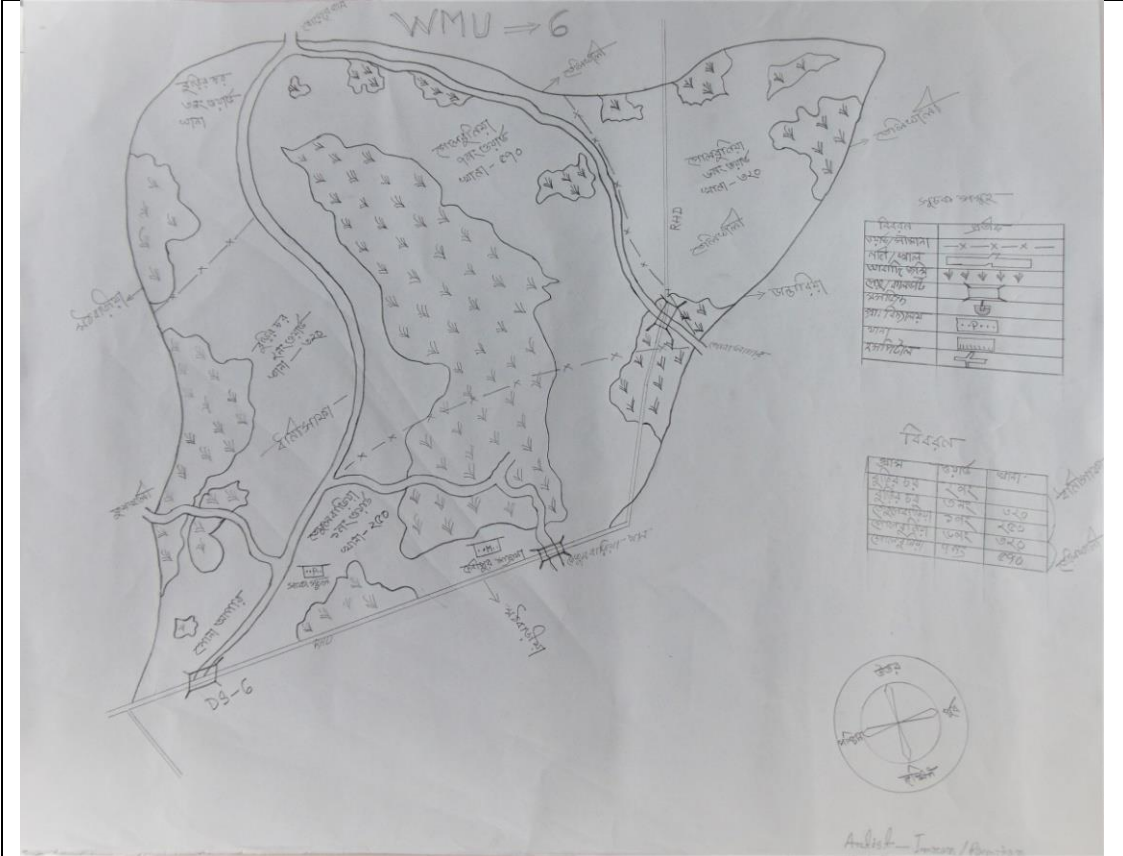


WMU-2

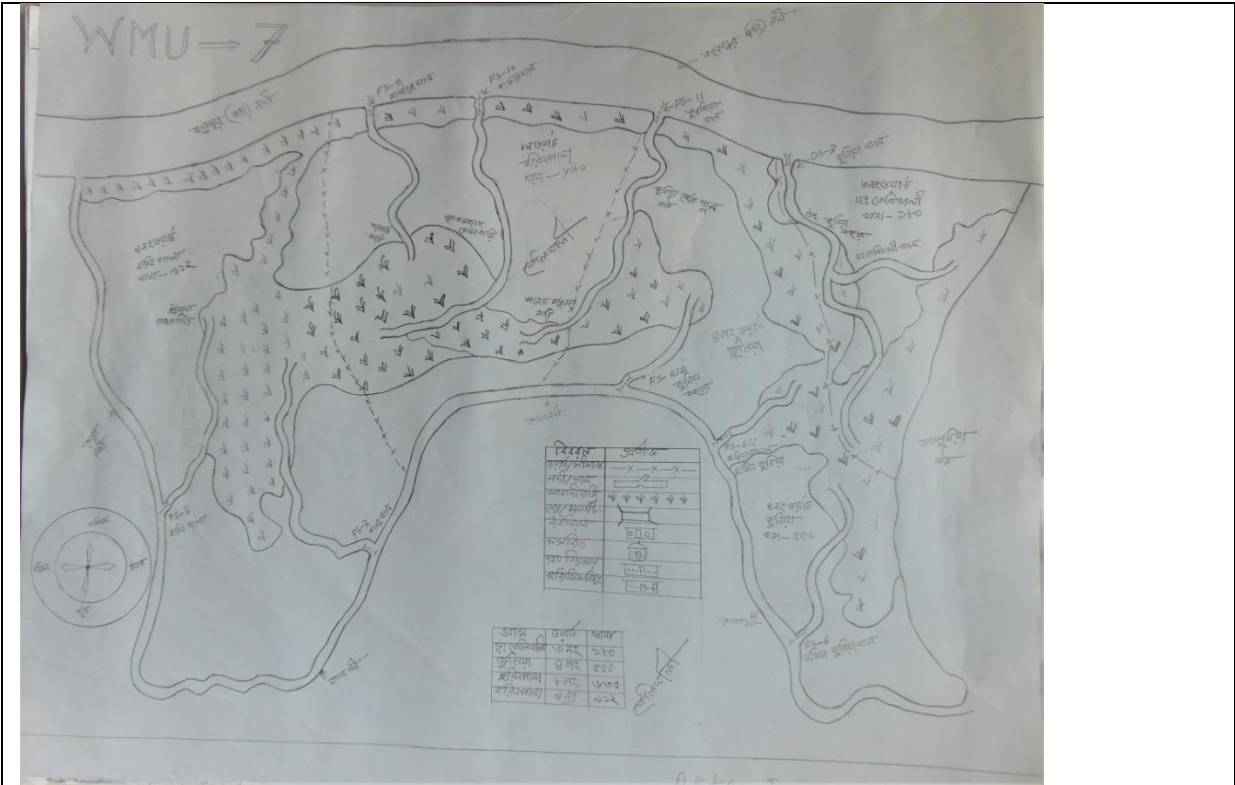




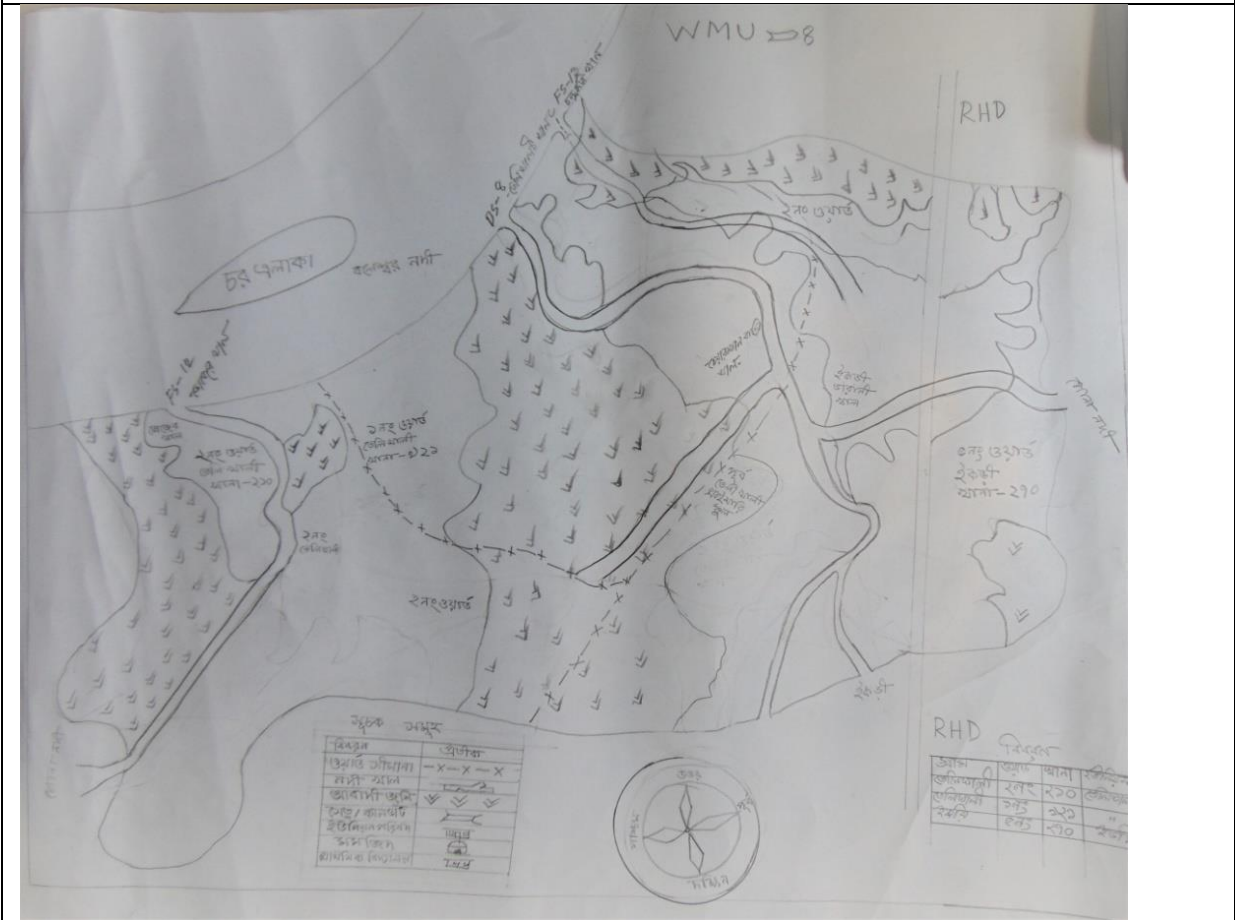
WMU-5



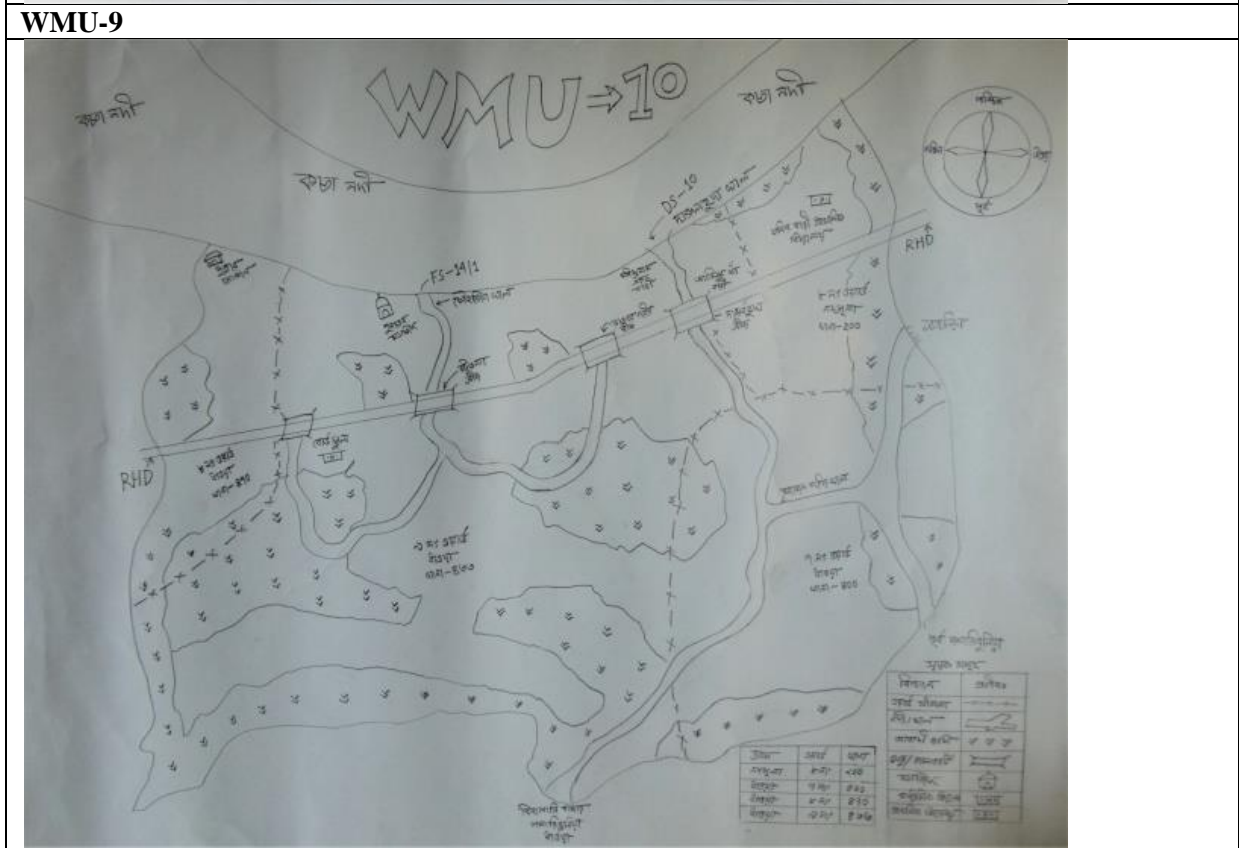
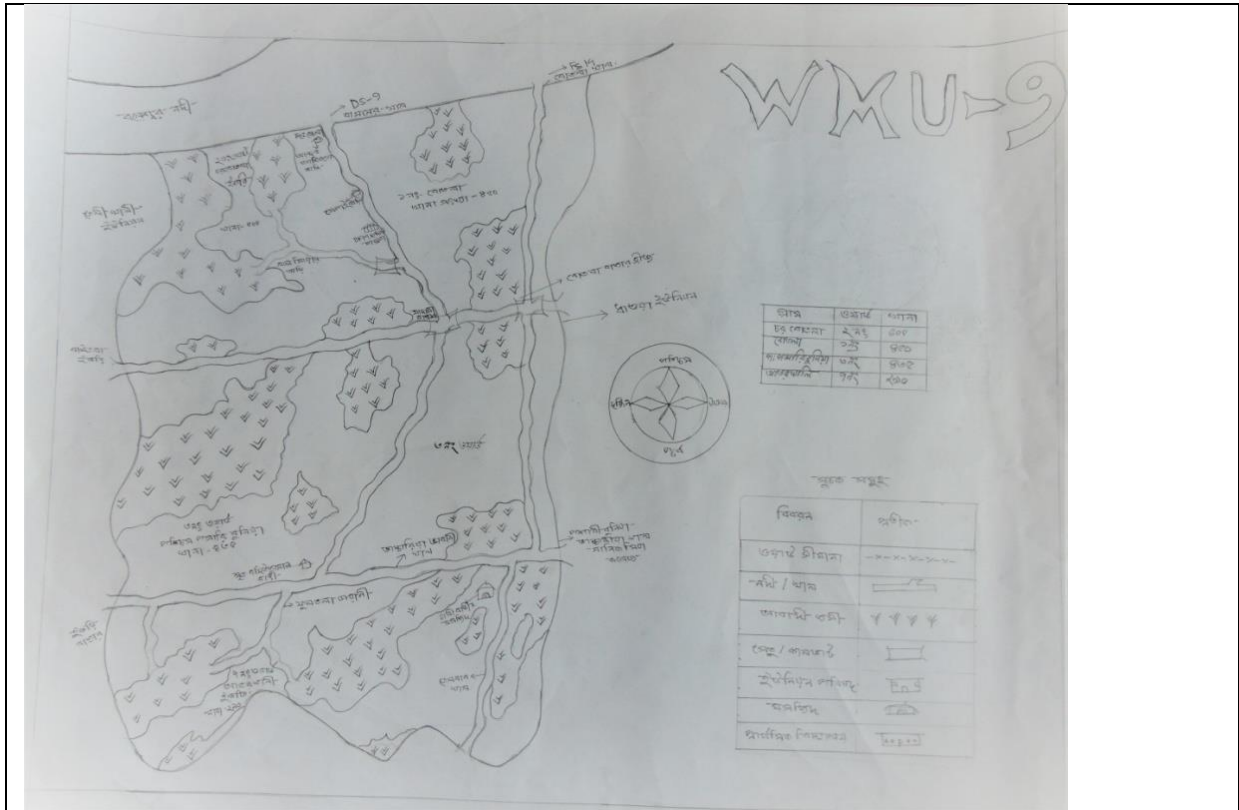
WMU-6



WMU-7



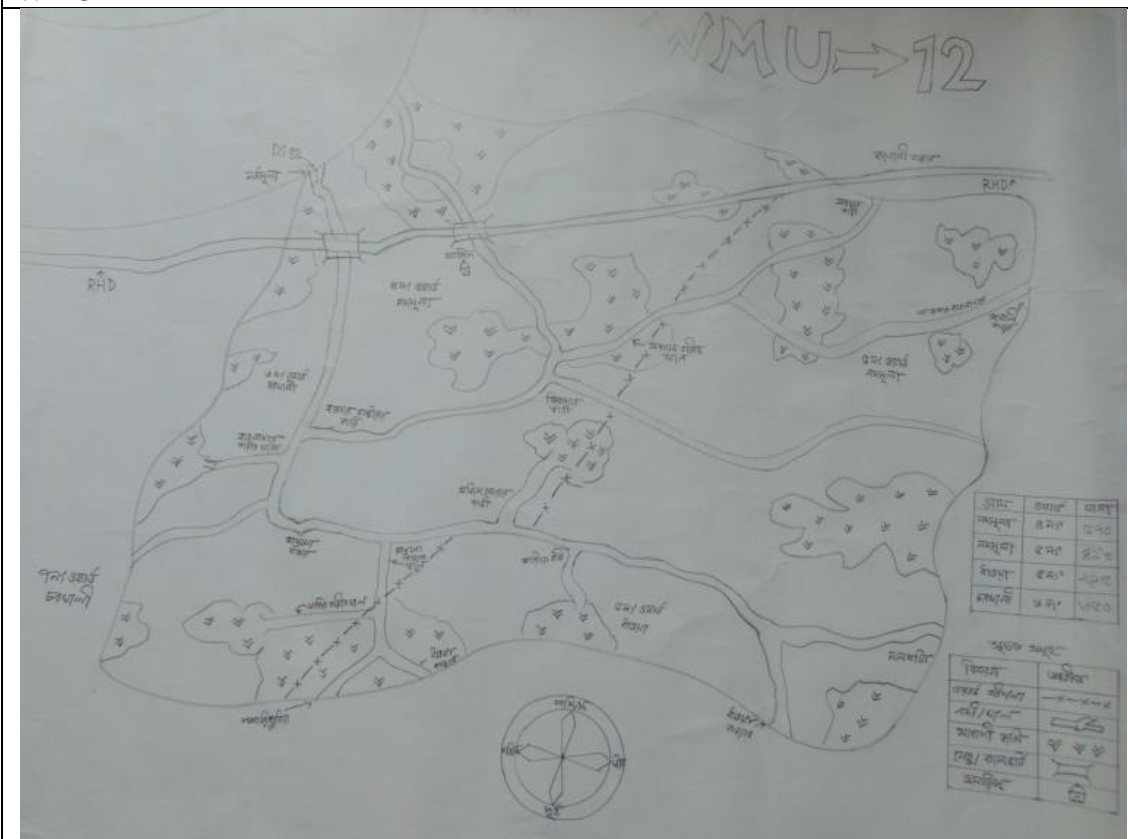
WMU-8



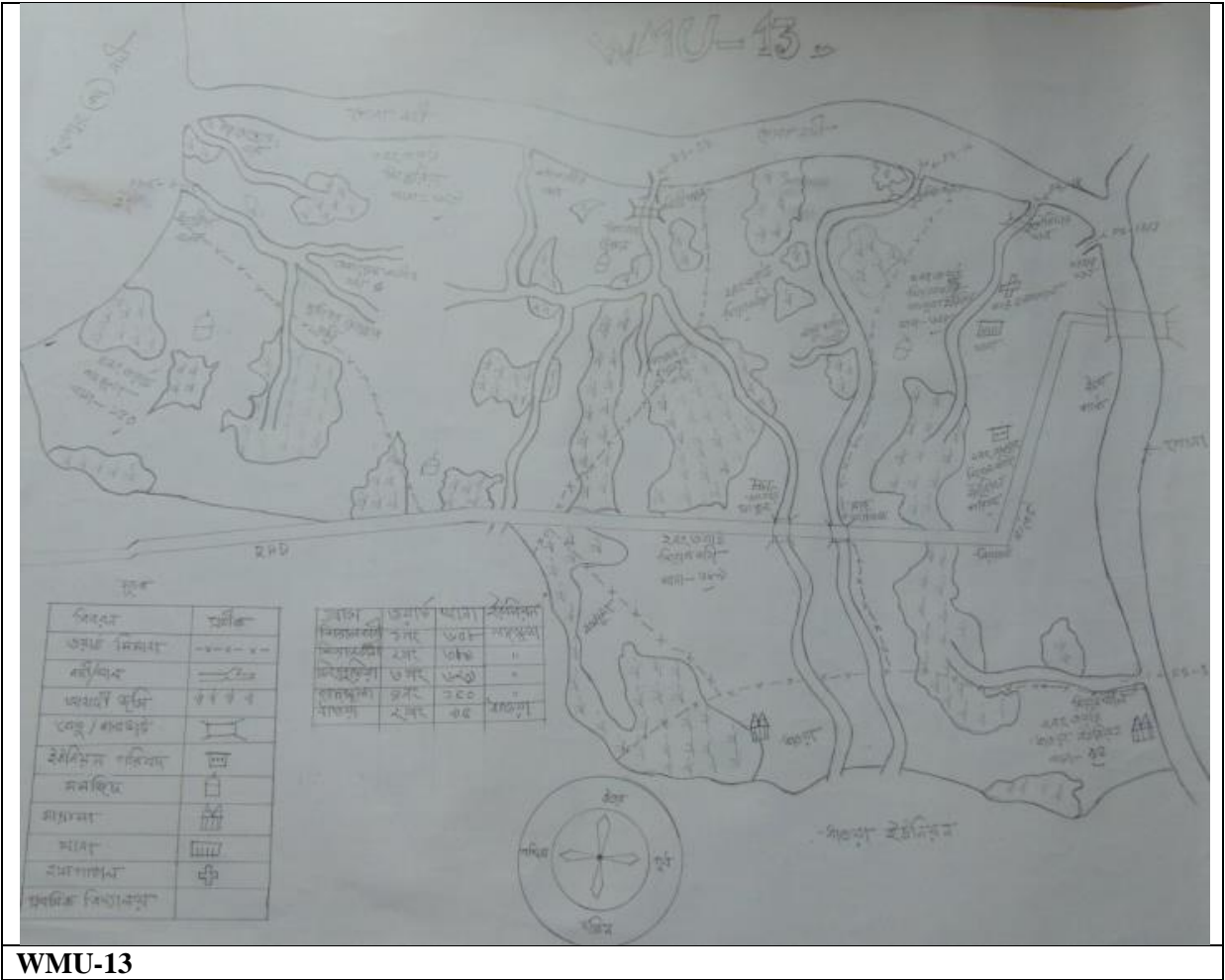
WMU-10



WMU-11



WMU-12



WMU-13

Annex-3: The questionnaire for household census survey

Coastal Embankment Improvement Project (CEIP-1), BWDB

সেবার নামঃ পানি ব্যবস্থাপনা ও অবকাঠামো রক্ষণাবেক্ষণে স্থানীয় জনগণকে সরাসরি সম্পৃক্তকরণ, সামাজিক বনায়ন এবং সমন্বিত ফসল ব্যবস্থাপনা কার্যক্রম

বাস্তবায়নকারী সংস্থাঃ বাংলাদেশ পানি উন্নয়ন বোর্ড (বাপাউবো)
বাস্তবায়ন সহযোগী সংস্থাঃ (যৌথভাবে) রিক ও এসএসইউএস
চুক্তি নং :

খানা (শুমারী) সার্ভে

আসসালামু আলাইকুম, আমার নাম। গণপ্রজাতন্ত্রী বাংলাদেশ সরকারের পানি সম্পদ মন্ত্রণালয়ের অধীনে বাংলাদেশ পানি উন্নয়ন বোর্ড (বাপাউবো) উপকূলীয় বাঁধ উন্নয়ন প্রকল্প (১ম পর্যায়) এর অধীনে পানি ব্যবস্থাপনা ও অবকাঠামো রক্ষণাবেক্ষণে স্থানীয় জনগণকে সরাসরি সম্পৃক্তকরণ, সামাজিক বনায়ন এবং সমন্বিত ফসল ব্যবস্থাপনা কার্যক্রম হাতে নিয়েছে। সে লক্ষ্যে বাস্তবায়ন সহযোগী সংস্থা হিসেবে(সহযোগী সংস্থার নাম:.....) কে নিয়োগ প্রদান করা হয়েছে। আমি উক্ত প্রতিষ্ঠান হতে এসেছি, উপরোল্লিখিত কার্যক্রমের সাথে সংশ্লিষ্ট কিছু তথ্য আপনার কাছ থেকে জানব যা এই প্রকল্প বাস্তবায়নের সবিশেষ ভূমিকা রাখবে। আপনার প্রদত্ত সকল তথ্য শুধুমাত্র প্রকল্প/গবেষণার কাজে ব্যবহৃত হবে এবং গোপন থাকবে।

ক. খানার পরিচিতি:

প্রশ্ন নং	প্রশ্ন	উত্তর	প্রশ্ন নং	প্রশ্ন	উত্তর
১	গ্রাম		৫	ওয়ার্ড নং	
২	ইউনিয়নের নাম		৬	পোল্ডার নং	
৩	উপজেলার নাম		৭	ফোন নম্বর	
৪	মৌজা		৮	এনআইডি	

খ. খানার জনমিতিক চিত্র:

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড/সংখ্যা
৯	খানা প্রধান এর নাম		
১০	খানা প্রধানের পিতার নাম		
১১	খানা প্রধানের জন্ম তারিখ		
১২	খানা প্রধান নারী /পুরুষ	পুরুষ=১, নারী=২	
১৩	খানার সদস্য সংখ্যা	পুরুষ= , নারী= ,মোট=	

গ. খানা প্রধানের পেশা ও শিক্ষা সংক্রান্ত তথ্য:

১৪	খানা প্রধানের শিক্ষা (কোড লিখুন)*	
১৫	খানা প্রধানের প্রধান পেশা (কোড লিখুন)*	
১৬	খানা প্রধানের সহায়ক পেশা-১ (কোড লিখুন)*	

১৪. শিক্ষা কোড: ১ = প্রাথমিক শিক্ষা/এবতেদায়ি, ২ = মাধ্যমিক শিক্ষা/সমমান, ৩ = উচ্চ মাধ্যমিক শিক্ষা/সমমান, ৪ = বিএ/বিকম/বিএসসি/বিএসএস/সমমান, ৫ = এমএ/এমএসসি/ এমকম/এমএসএস/সমমান, ৬ = অশিক্ষিত, ৭ = শুধু স্বাক্ষর করতে জানে, অন্যান্য (উল্লেখ করুন)

১৫. পেশা কোড লিখুন ১=কৃষিকাজ (নিজ জমি), ২= কৃষিকাজ/চাষী (নিজ+বর্গা), ৩= মৎসচাষ/ব্যবসায়ী, ৪= গৃহস্থলী/গৃহিনীর কাজ, ৫= কৃষি দিনমজুর, ৬= অকৃষি দিনমজুর,কারখানাশ্রমিক, ৭= জেলে/মাছ ধরা (নদী/খাল/বিল/সাগর), ৮= মাছ ব্যবসা, ৯=ছোট ব্যবসা (মুদি/চা-দোকান/কাঁচামাল/তিরতরকারী/হকার/ফল বিক্রয়), ১০= বড় ব্যবসা (আড়তদার/ঠিকাদার/কন্ট্রোল/সাপ্লায়ার/মজুদদার, ১১=চাকুরী সরকারি/বেসরকারি, ১২=চাকুরী বিদেশ, ১৩= স্থানীয় পেশাজীবী চেয়ারম্যান/মেম্বর, ১৪= হস্তশিল্প/কুটির শিল্প ১৫= সেলুন/নািপিত, ১৬=টেইলরিং, ১৭=কার্টমিস্ত্রী, ১৮=রাজমিস্ত্রী, ১৯=স্বর্ণকার, ২০=কামার/কুমার/ধোপা, ২১=মোটর সাইকেল চালক, ২২=গ্রাম ডাক্তার/কবিরাজ,ওঝা, ২৩=পরিবহন শ্রমিক (ড্রাইভার/হেলপার/কন্ট্রোল, ২৪=নৌকাচালক, ২৫=ভ্যান/রিপ্তা চালক, ভটভটি/নসিমন/করিমন চালক, ২৬=মৌয়াল/বাওয়ালী, ২৭=শিক্ষক (স্কুল,

কলেজ, মাদ্রাসা), ২৮=নাসরী, ২৯=গবাদিপশু/গাভী পালন, ৩০=ইমাম/মুয়াজ্জিন/পুরোহিত/যাজক/ধর্মীয় নেতা, ৩১=ভিক্ষুক, ৩২=কৃষি সরঞ্জাম ভাড়া দেয়া, ৩৩=গার্মেন্টস কর্মী, ৩৪=ওষুধ বিক্রেতা, ৩৫=মোবাইল ফোনের ব্যবসা/মেরামত, ৩৬=ইজারাদার (হাট/বাজার/ঘাট), ৩৭=টিউশনি/প্রাইভেট পড়ানো, ৩৮=মানুষের বাড়ীতে কাজ করা/বিএর কাজ, ৩৯= অন্যান্য (উল্লেখ করুনযেমন চিংড়ি পোশা ধরা, কাঁকড়া ধরা, গরু/মহিষ পালন গরু মোটাজাকরণ ইত্যাদি)

ঘ. খানার সামাজিক তথ্য:

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড
১৭	খানার সদস্যদের বসত ঘরের ধরন।	১=পাকা (বিল্ডিং), ২=আধা-পাকা (সেমি-পাকা), ৩=টিন, ৪=কাঁচা, ৫=ঝুপরি ঘর	
১৮	আপনার খানার পানির উৎস ও ব্যবহার সম্পর্কে বলুন। (১=বাঁচুখু ধিঃবং, ২=টিউবওয়েল, ৩=পুকুর, ৪=নদী/খাল)	পানি পান গৃহস্থলীর কাজে	
১৯	খানার সদস্যরা কোন্ ধরনের পায়খানা/টয়লেট ব্যবহার করেন।	১=সেনিটারী (সেপটিক ট্যাংক সহ টয়লেট), ২=ওয়াটার সিল/প্যান সহ টয়লেট, ৩=ওয়াটার সিল প্যান বিহীন/পিট ল্যাট্রিন, ৪= কাচা/ ঝুলন্ত টয়লেট, ৫= টয়লেট নাই	
২০	খানায় বিদ্যুৎ সংযোগ আছে কিনা?	১=হ্যাঁ, ২=না, ৩=সৌরবিদ্যুৎ	
২১	খানায় তথ্য/সামাজিক যোগাযোগ মাধ্যমসমূহ (একাধিক উত্তর হতে পারে)	১=মোবাইল ফোন, ২=ইন্টারনেট, ৩=ডিশ সংযোগ, ৪=টেলিভিশন (ডিশ ছাড়া)	
২২	খানায় জ্বালানীর ব্যবহার (একাধিক উত্তর হতে পারে)	১=গ্যাস (এলএনজি), ২=কাঠ, ৩=বিদ্যুৎ, ৪=অন্যান্য (লিখুন)	

ঙ. খানার অর্থনৈতিক তথ্য:

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড
২৩	পরিবারের মাসিক আয় (টাকা)		
২৪	পরিবারের মাসিক ব্যয় (টাকা)		
২৫	খানার ১৮ বছরের উপরে কর্মক্ষম বর্তমানে কাজে নিয়োজিত সদস্য সংখ্যা	পুরুষ = নারী = মোট =	
২৬	খানার অর্থনৈতিক শ্রেণীবিভাগ (নিজস্ব অভিমত)	১=ধনী, ২=মধ্যবিত্ত, ৩=গরীব, ৪=হতদরিদ্র	
২৭	খানার খাদ্য নিরাপত্তা (নিজস্ব অভিমত)	১=উদ্বৃত্ত, ২=ঘাটতি নাই, ৩=ঘাটতি থাকে	
২৮	পরিবারের মোট জমির পরিমাণ:	বসত+ভিটা+বাগান = কৃষি জমি = পুকুর/জলমহাল =	
২৯	পরিবারের গবাদি পশু ও পোল্ট্রি	গরু/ মহিষ (সংখ্যা) = ছাগল/ভেড়া = রাজ হাঁস/ হাঁস/ মুরগি =	
৩০	খানার সম্পদের তথ্য	১=সেচযন্ত্র, ২=পাওয়ার টিলার/ট্রাকটর, ৩=ধান মাড়াই মেশিন, ৪=নৌকা, ৫=রিকসা/ভ্যান/অটোরিকসা, ৬=মাছ ধরার জাল, ৭=টেলিভিশন, ৮=সেল ফোন, ৯=কম্পিউটার/ল্যাপটপ, ১০=মটর সাইকেল,	

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড
		১১=মাইক্রোবাস/কার	

চ. সামাজিক সংগঠনের অংশগ্রহণ, অবকাঠামো ও প্রাকৃতিক সম্পদ ব্যবস্থাপনা সম্পর্কিত জ্ঞান ও মনোভাব:

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড
৩১	আপনি কি কোন সামাজিক সংগঠনের সাথে যুক্ত আছেন?	১=হ্যাঁ, ২=না	
৩২	উত্তর হ্যাঁ হলে, সংগঠনের নাম		
৩৩	আপনি কি কোন কৃষি ও পানি ব্যবস্থাপনা দলের সদস্য হতে চান কিনা?	১=হ্যাঁ, ২=না, ৩=জানিনা ৪=নিরন্তর	
৩৪	আপনার এলাকায় কোন কৃষি/পানি ব্যবস্থাপনা দল/সংগঠন আছে কি না?	১=হ্যাঁ, ২=না	
৩৫	উত্তর হ্যাঁ হলে, দল/সংগঠনের নাম কি?		
৩৬	আপনি কি এটার সদস্য?	১=হ্যাঁ, ২=না	
৩৭	আপনার এলাকায় স্লুইচগেট ঠিকমত ব্যবস্থাপনা হয় কি না?	১=নিয়মিত ২=অনিয়মিত ৩=হয়না ৪=নষ্ট	
৩৮	নিয়মিত না হলে, কারণ কি?		
৩৯	স্লুইচগেট অনিয়মিত/নষ্ট থাকলে আপনার কৃষি কাজে কোন ক্ষতি হয় কি না?	১=হ্যাঁ, ২=না	
৪০	উত্তর হ্যাঁ হলে কি ধরনের ক্ষতি হয়		
৪১	আপনার বাড়ি থেকে কাছাকাছি স্লুইচগেটের নাম্বার কত?		
৪২	আপনার বাড়ি থেকে কাছাকাছি স্লুইচগেটের দূরত্ব কত?		
৪৩	স্লুইচগেটের মাধ্যমে আপনি চাষাবাদের পানি পান কি না?	১=হ্যাঁ, ২=না	
৪৪	বাঁধ আপনার কি কি উপকার করে?		
৪৫	বাঁধ আপনার কি কি ক্ষতি করে?		
৪৬	বাঁধের ভবিষ্যৎ ব্যবস্থাপনায় কোন ফান্ড গঠন করা হলে তাতে অংশগ্রহণ করতে আপনি আগ্রহী কি না?	১=হ্যাঁ, ২=না	
৪৭	কৃষি কাজ বা চাষাবাদ করতে গিয়ে আপনি কি ধরনের সমস্যার সমস্যার সম্মুখীন হন?		
৪৮	কৃষি কাজে সেচের উৎস কি?		
৪৯	কৃষি কাজে রাসায়নিক সার/কীটনাশক ব্যবহার করেন কি না?	১=হ্যাঁ, ২=না	
৫০	কি কৃষি কাজে অর্গানিক কীটনাশক/জৈব সার ব্যবহার করেন?		
৫১	হ্যাঁ হলে, কি ধরনে জৈবসার/ জৈব কীটনাশক ব্যবহার করেন		
৫২	আপনার এলাকায় পানি উন্নয়ন বোর্ড এবং সরকারী কোন খাস জমি আছে কি না?	১=হ্যাঁ, ২=না	
৫৩	উত্তর হ্যাঁ হলে, কোন কোন খাতে এ সমস্ত খাস জমি ব্যবহার করা প্রয়োজন বলে আপনি মনে করেন?		
৫৪	সামাজিক বনায়ন সম্পর্কে আপনি জানেন কি?	১=হ্যাঁ, ২=না	
৫৫	অত্র এলাকায় সামাজিক বনায়ন প্রোগ্রাম আছে কিনা?	১=হ্যাঁ, ২=না	
৫৬	আপনি কি বনায়ন কমিটির সদস্য?	১=হ্যাঁ, ২=না	
৫৭	আপনি এই বনায়ন থেকে উপকৃত হয়েছেন কি?	১=হ্যাঁ, ২=না	
৫৮	উত্তর হ্যাঁ হলে কি ধরনের উপকার পেয়েছেন		
৫৯	আপনায় এলাকায় সামাজিক বনায়নের কর্মসূচি নেওয়া হলে	১=হ্যাঁ, ২=না	

প্রশ্ন নং	প্রশ্ন	উত্তর	কোড
	আপনি কি অংশগ্রহণ করবেন?		
৬০	সামাজিক বনায়ন হলে আপনি পাহারা দিতে ইচ্ছুক কি না?	১=হ্যাঁ, ২=না	
৬১	নতুন করে সামাজিক বনায়নের ক্ষেত্রে আপনার কোন পরামর্শ থাকলে বলুন (পরামর্শগুলো কিকি?)		
৬২	আপনি বর্তমানযেপেশায় আছেন মান/দক্ষতা উন্নয়নের জন্য কোন প্রশিক্ষণের প্রয়োজন আছে কি?	১=হ্যাঁ, ২=না	
৬৩	আপনি কি বিকল্প পেশায় নিয়োজিত হতে চান?	১=হ্যাঁ, ২=না	
৬৪	উত্তর হ্যাঁ হলে কেন?		
৬৫	আপনার এলাকায় বিকল্প পেশার সূযোগ আছে কিনা?	১=হ্যাঁ, ২=না	
৬৬	এলাকায় বিকল্প পেশায় যাওয়ার জন্য প্রশিক্ষণের প্রয়োজন আছে কি?	১=হ্যাঁ, ২=না	
৬৭	এলাকায় বিকল্প পেশায় যাওয়ার জন্য প্রয়োজনীয় মূলধন আছে কি?	১=হ্যাঁ, ২=না	
৬৮	আপনি বর্তমান পেশা সুন্দরবনের উপর নির্ভরশীল কিনা?	১=হ্যাঁ, ২=না	
৬৯	উত্তর হ্যাঁ হলে কেন?		
৭০	সুন্দরবনের উপর নির্ভরশীল পেশা থেকে সরে যেতে চান কিনা?	১=হ্যাঁ, ২=না	
৭১	উত্তর হ্যাঁ বা না হলে কেন?		

তথ্য সংগ্রহকারীর নাম ও পদবী:	সুপারভাইজারের নাম ও পদবী:
তথ্য সংগ্রহের তারিখ:	ফরম্যাট চেকিংয়ের তারিখ: