



## **Blue Gold Program**

### **Annual Work Plan 2015 - 2016**

**Embassy of the Kingdom of the Netherlands,  
Dhaka, Bangladesh**

**Bangladesh Water Development Board (BWDB)  
Department of Agricultural Extension (DAE)**

**July 2015**



# Annual Work Plan & Budget

July 2015 to June 2016

Date July 14 2015

Blue Gold Program

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# Issue and revision record

<b>Revision</b>	<b>Date</b>	<b>Originator</b>	<b>Checker</b>	<b>Approver</b>	<b>Description</b>
1.0	30 June 2015	Blue Gold Team	Proteeti Masud Dirk Smits		1st Draft of Annual Work Plan 2015-2016
1.1	14 July 2015	Blue Gold Team	Proteeti Masud Dirk Smits	Hero Heering	Final Annual Work Plan 2015-2016

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# List of abbreviations

ADP	Annual Development Plan
AEO	Agricultural Extension Officer
BWDB	Bangladesh Water Development Board
CAHW	Community Animal Health Worker
CBO	Community-Based Organisation
CDMP	Comprehensive Disaster Management Program
CDSP IV	Char Development and Settlement Project Phase IV
CEIP	Coastal Embankment improvement Project
CGIAR	Consultative Group on International Agricultural Research
CIMMYT	International Maize and Wheat Improvement Centre
CO	Community Organizer
CPWF	Challenge Programme on Water and Food (CPWF)
CSISA	Cereal Systems Initiative for South Asia
DAE	Department of Agricultural Extension
DAM	Department of Agricultural Marketing
DLS	Department of Livestock Services
DoC or DOC	Department of Cooperatives
DoF or DOF	Department of Fisheries
DP III	Directorate of Planning III
DPP	Development Project Pro-forma
DTL	Deputy Team Leader
EKN	Embassy of the Kingdom of the Netherlands
EMM	Euroconsult Mott MacDonald
FFS	Farmers Field School
FGD	Focus Group Discussion
GAP	Gender Action Plan
GESAP	Gender Equality Strategy and Action Plan (of BWDB)
GoB	Government of Bangladesh
GoN	Government of the Netherlands
GPWM	Guidelines for Participatory Water Management
ha	Hectare
HH	Household
IFMC	Integrated Farm Management Component
IGA	Income Generating Activity
IPM	Integrated Pest Management
IPSWAM	Integrated Planning for Sustainable Water Management
IPSWARM	Guidelines for Integrated Planning for Sustainable Water Resources Management
IWM	Institute of Water Modelling
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
LCG	Local Consultative Group
LCS	Landless/Labour Contracting Societies
LG	Local Government
LGED	Local Government Engineering Department
LGI	Local Government Institutions
M&E	Monitoring and Evaluation

MoU	Memorandum of Understanding
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
PCD	Project Coordinating Director
PD	Project Director
PDP	Polder Development Plan
PMC	Project Management Committee
PSC	Program Steering Committee
SDE	Sub-Divisional Engineer
SWAIWRPMP	Southwest Area Integrated Water Resources Planning and Management Project
TA	Technical Assistance
TL	Team Leader
TNA	Training Needs Assessment
TOT	Training of Trainers
UAO	Upazilla Agricultural Officer
UP	Union Parishad
WAP	Water Management Group Action Plan
VC	Value Chain
VCA	Value Chain Analysis
VCD	Value Chain Development
VCS	Value Chain Selection
WASH	Water Sanitation and Hygiene education
WMA	Water Management Association
WMG	Water Management Group
WMIP	Water Management Improvement Project
WMO	Water Management Organisation
WUR	Wageningen University and Research Centre
XEN	Executive Engineer (BWDB)
ZSEs	Zonal Socio-Economists



# 1. Introduction

In April 2015 EKN requested the Blue Gold TA team to align the annual work plan with the Bangladesh financial year, which runs from July to June. To this effect an Addendum will have to be prepared by EKN to amend the applicable terms and conditions of the Public Services Contract (ARVODI 2011) with number DHA 0116534, activity number 24007 that governs the TA contract for the Blue Gold Program between EKN and Euroconsult Mott MacDonald.

Consequently, the existing annual work plan 2015 was revised to cover the period July 2015 to June 2016. Earlier, it was agreed to include the findings of the first annual review mission which took place between 22 August and 6 September 2014 in the annual work plan. The Aide Memoire of the review mission was submitted to EKN on 18 November 2014. The recommendations of the first annual review mission were translated in an Action List. This Action List is updated from time to time to report on agreed follow-up actions and to measure progress.

The Annual Plan 2015/2016 is prepared to fulfil the obligations of the TA consultant towards EKN. A planning day was organised on 16 November 2014 in Dhaka, attended by representatives of BWDB (DP III), DAE and the Blue Gold TA team. The objectives of this joint Annual Planning Meeting were:

- Review last year achievements comparing with the Annual Plan for 2014
- Share learning and best practices
- Present draft Annual Activity Plan of 2015 for each component
- Develop possible solutions to the problems encountered during last year.

Some of the main findings and recommendations of the joint Annual Planning Meeting on 16 November 2014 were:

- The community organization and institutional strengthening component has been burdened with a lot of additional work due to the exigencies of the new PWMR 2014. All WMG have to be registered with BWDB (Office of Water Management) which is a huge task that will continue well into 2015. Also, it is desirable to gradually increase the enrolment of members for each WMG to reduce management efforts and make interventions more efficient. As a result, delays are expected to occur in the formation of WMG's in new polders in 2015.
- For the water resources management component the formation and training of LCS will be an important issue in 2015. According to PWMR 2014 the procedures for the implementation of earthworks by LCS have changed. Instead of LCS being hired directly by BWDB, the contracts for earthworks will now be signed with registered WMG's and the WMG's will contract the LCS. Thus, formation and training of LCS cannot be concluded before the registration of WMGs with the Office of Water Management of BWDB is completed.
- Another lesson learned in 2014 is that the costs per hectare given in the Project Document and the DPP (Euro 100 for fine-tuning work and Euro 300 for rehabilitation work) appear to be too low. The first annual review mission in its Aide Memoire recommended to adopt a more flexible approach in the polder selection process and explore options to cooperate with projects that contain large budgets for polder infrastructure improvements, such as the World Bank funded CEIP. In 2015 scenarios will be developed to address this issue.
- For the agricultural production and food security component the coordination with the DAE part, Transfer of Technology for Agriculture Production under Blue Gold Program (TTAP-Blue Gold),

has been difficult in 2014. Main reason was that the DPP for the DAE component is not aligned to the Blue Gold Program. Revision of the DPP DAE part and establishment of clear rules for effective cooperation between DAE and Blue Gold are priorities in the Annual Work Plan 2015.

- While implementing activities in 2014, the business development component learned some important lessons and encountered challenges that need to be addressed during the implementation of work in 2015. The envisaged value chain selection, analysis and development (VCS, VCA and VCD) activities for the targeted polders in 2015 are setting a challenging objective as VCD is a systemic and time consuming process. This process will depend to a great extent on the progress of the integrated Polder Development Planning (PDP) process and the resulting setting of priorities.
- In view of promoting institutional development and sustainability a start was made in 2014 with exploring the linkages between BWDB, Union Parishad (UP) and WMOs. As such linkages are largely untested they may take time to develop and special attention will be given to this aspect in 2015 and later. The Union Parishad has been selected as one of the four boundary partners of the outcome mapping (M&E) exercise (see Technical Report TR 08).
- Another sustainability issue concerns the option to give more responsibilities and financial resources to WMA's for implementation of O&M beyond routine maintenance by WMG's. This option should be included in the overall O&M plan for the Blue Gold polders which will be developed in 2015/2016.

On Wednesday 04 February 2015 the draft Annual Plan 2015 was reviewed by the Blue Gold TA team and the Central Planning Team of DP III, BWDB at the office in Motijheel. The recommendations of this review session are incorporated in the final version of the Annual Work Plan 2015 and in the revised Annual Work Plan 2015/2016.

Chapter 2 of the Annual Work Plan 2015/2016 gives a brief overview of the context of the Blue Gold Program. Chapter 3 and Chapter 4 contain the six year overall work plan (2013 – 2019) and the general project organization.

In the chapters 5 – 12 the actual work plans for the different project components are presented and in chapter 13 some of the main challenges are summed up.

The last chapter provides information on the overall Blue Gold Program budget and the estimated budget for 2015/2016.

## 2. Context

### 2.1 Program Rationale and Objectives

Bangladesh, the largest river delta in the world, depends largely for its economic growth on integrated and sustainable water resources management. The three major river systems of the country mark its physiographic and life of its people. Its waters, its Blue Gold, have fundamentally shaped Bangladesh culture. Efficient management of this immense natural resource remains a continuing challenge and offers at the same time tremendous opportunities.

The goal of the Blue Gold Program is to establish and empower community organizations/water management organizations (WMOs) to manage their water resources in a sustainable way and to make these resources more productive. The Program aims to create strong communities or cooperatives that will interact with public and private organizations that play a role in the development of the area. Participatory water resources management is the entry point and the initial driver of the community organization process. The objective of Blue Gold is to reduce poverty of the people in the coastal areas by enhanced productivity of crops, fisheries and livestock and increasing incomes by improved processing and marketing of agricultural products including value chain development.

### 2.2 Overall and Specific Objective(s) of the Blue Gold Program

The overall objective of the Blue Gold Program is:

*"To reduce poverty for 150,000 households living on 160, 000 ha of selected coastal polders by creating a healthy living environment and a sustainable socio-economic development".*

The specific objectives of Blue Gold are:

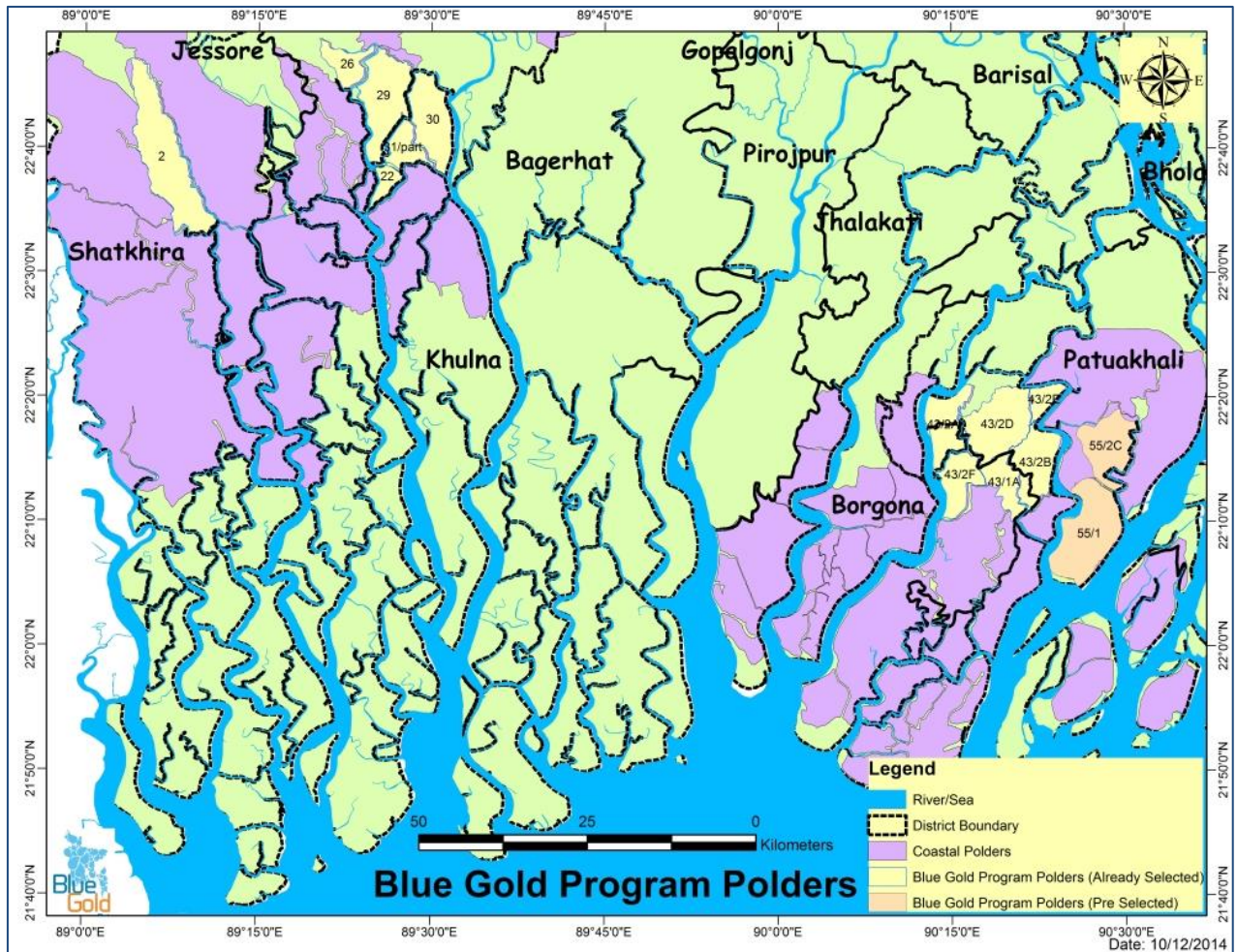
- i To protect the communities and their land located in polders against floods from river and sea (climate change adaptation) and to optimize the use of water resources for their productive sectors.
- ii To organise the communities in cooperatives which will have to become the driving force for the natural resources based development (agriculture, fisheries and livestock), whereby environment, gender and good governance are effectively addressed.
- iii To increase the household income derived from the productive sectors.
- iv To strengthen the institutional framework for sustained water resources development and related development services in the SW/SC coastal zones

### 2.3 Area

The Blue Gold Program covers a gross area of approx. 160,000 ha of selected polders in the Districts of Satkhira, Khulna and Patuakhali (including a small part of Barguna).

Twelve polders have been selected so far and are included in the program for 2015/2016. Eight more polders are planned to be selected during 2015 and 2016.

Figure 1: Blue Gold Program area



**Table 1: List of selected & preselected polders**

Sl. No.	Polder No.	District	Uapzila	Gross area (ha)	Type: FT or Rehab	Remarks
<b>Patuakhali &amp; Barguna Districts</b>						
1	43/2A	Patuakhali	Patuakhali	5,180	FT	Selected (IPSWAM)
2	43/2B	Patuakhali, Barguna	Galachipa, Amtali, Patuakhali	5,460	FT	Selected (IPSWAM)
3	43/2D	Patuakhali	Patuakhali	6,500	FT	Selected (IPSWAM)
4	43/2E	Patuakhali	Patuakhali	1,650	FT	Selected (IPSWAM)
5	43/2F	Barguna	Amtali	4,450	FT	Selected (IPSWAM)
6	43/1A	Barguna	Amtali	2,680	FT	Selected (IPSWAM)
7	46	Patuakhali	Kalapara	4,700	FT	On long list
8	47/3	Patuakhali	Kalapara	2,030	FT	On long list
9	47/4	Patuakhali	Kalapara	6,600	FT	On long list
10	47/5	Patuakhali	Kalapara	7,500	FT	On long list
11	55/1	Patuakhali	Galachipa	10,330	FT	Pre-selected
12	55/2C	Patuakhali	Galachipa	6,280	Rehab.	Pre-selected
<b>Khulna District</b>						
13	22	Khulna	Paikgacha	1,630	FT	Selected (IPSWAM)
14	30	Khulna	Batiaghata	6,400	FT	Selected (IPSWAM)
15	29	Khulna	Dumuria, Batiaghata	8,220	FT	Selected (IPSWAM)
16	31-part	Khulna	Batiaghata	4,850	Rehab.	Selected

17	26	Khulna	Dumuria	2,700	Rehab.	Selected
18	27/1	Khulna	Dumuria	3,770	Rehab.	On long list
19	28/1	Khulna	Dumuria	5,600	Rehab.	On long list
<b>Satkhira District</b>						
20	6-8 Extension	Satkhira	Satkhira, Kalaroa	18,450	Rehab.	On long list
21	2	Satkhira	Satkhira, Asasuni	11,290	Rehab.	Selected
22	4	Satkhira	Asasuni	10,320	Rehab.	Field request but not On DPP long list

## 2.4 Program Components

The Blue Gold Program is sub-divided in four main components:

- 1 - Community Mobilisation and Institutional Strengthening
- 2 - Water Resources Management
- 3 - Food Security and Agricultural Production
- 4 - Business Development and Private Sector Involvement

In addition there are teams for M&E, Training & Capacity building, Communications & Knowledge Management and Innovations.

Three other Dutch-funded projects are closely linked to the Blue Gold Program:

- 1 The Sustainable Agriculture, Food Security and Linkages (SAFAL) project, developing value chains in the subsectors aquaculture, dairy and horticulture;
- 2 The Max Value for WASH project, aiming to provide 800.000 people in rural communities with safe drinking water and sanitation facilities, as well as hygiene education;
- 3 The BRAC WASH II program, providing improved access for all to safe drinking water, sanitation and hygiene education in polders 22, 29 & 30 of Khulna District; and

### 3. Overall Work Plan 2013 - 2019

The overall work plan 2013-2019 (in MS Project) is included as Appendix 1 of the Annual Plan 2015/2016.

## 4. Project Organisation

### 4.1 Program Management

The Blue Gold Program is implemented by BWDB (Ministry of Water Resources) and DAE (Ministry of Agriculture). BWDB is the lead implementing Agency. Technical Assistance (TA) is provided through a consortium consisting of Euroconsult Mott MacDonald, the Netherlands (lead firm), Femconsult, the Netherlands, Mott MacDonald Bangladesh, Socioconsult (Bangladesh), and BETS (Bangladesh). Participation of other GoB institutions, notably the Department of Fisheries (DoF) and the Department of Livestock Services (DoLS) is channelled through the TA contract.

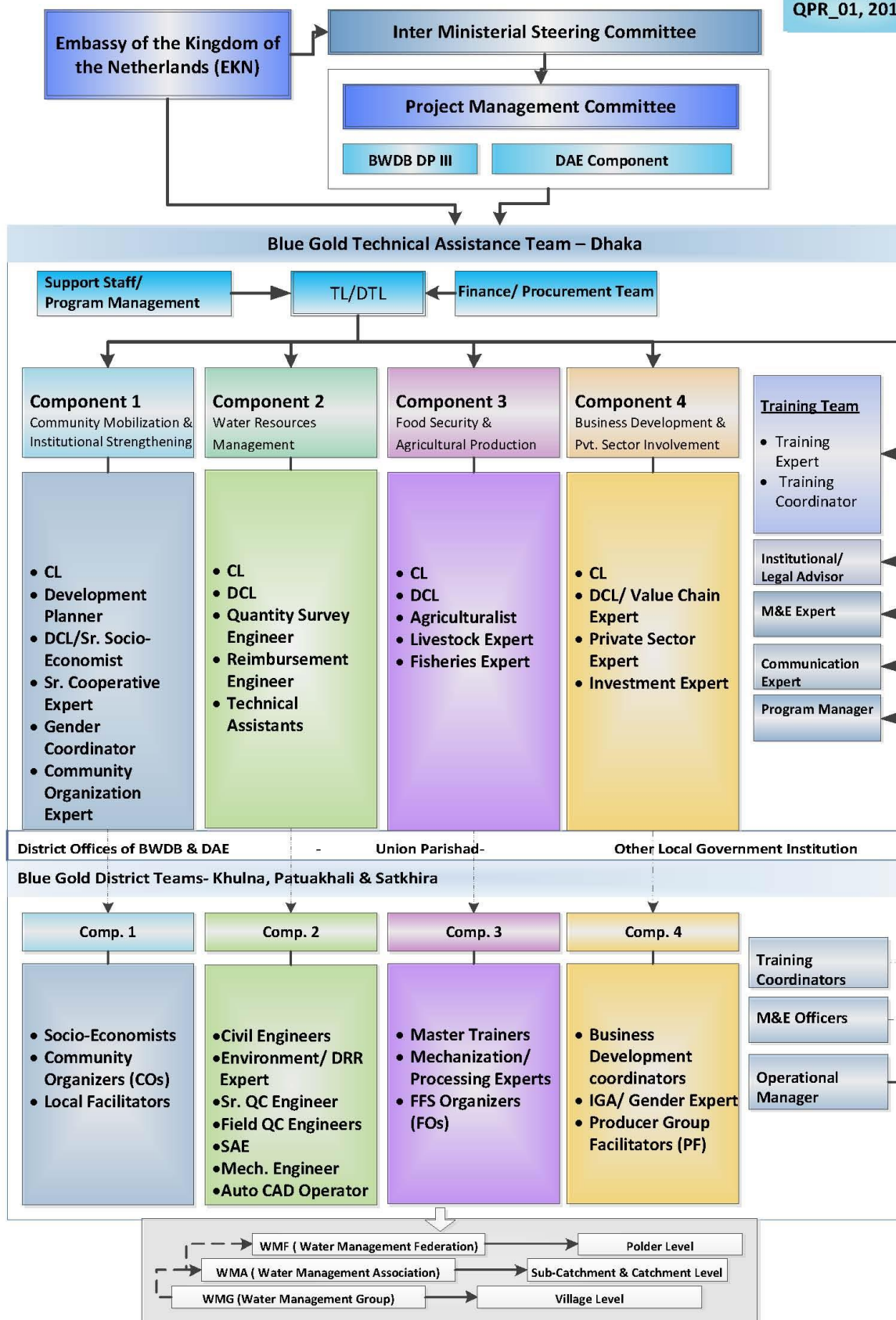
### 4.2 Organisational Issues

The Project Management Committee (PMC) is chaired by the Program Coordinating Director (PCD) of DP III, BWDB and consists of representatives from the Ministry of Water Resources (MoWR), Planning Commission, IMED and from the four executing Departments (Agriculture Extension, Fisheries, Livestock Services and Cooperatives). The TA Team Leader is the Secretary to the PMC. The office of the PCD serves as the Secretariat of the PMC. The PMC would aim to meet once a month but should at least meet every three months.

The Inter Ministerial Steering Committee (IMSC) is chaired by the Secretary, Ministry of Water Resources and consists of representatives of the Ministries of Water Resources, of Agriculture, of Fisheries and Livestock Services and of Local Government Rural Development and Cooperatives. The PCD is member secretary of the IMSC. In addition, representatives of EKN and the Team Leader of the Blue Gold TA team are observers of the IMSC. The IMSC will meet once a year. For a detailed list of the TOR of the IMSC and its members see the approved DPP (July 2013).

### 4.3 Organogram

QPR\_01, 2015





## 5. Community Mobilization and Institutional Strengthening

### 5.1 Work Plan July 2015 – June 2016

WBS	Task Name	Target	2016															
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
<b>0</b>	<b>Component 1 - Annual Work Plan (July 2015 to June 2016)</b>		[Gantt bar from May 2015 to Jun 2016]															
<b>1</b>	<b>9 IPSWAM Fine Tuning Polders</b>		[Gantt bar from May 2015 to Jun 2016]															
<b>1.1</b>	<b>WMO strengthening activities</b>		[Gantt bar from May 2015 to Jun 2016]															
1.1.1	Review / Modification of WMG By-Laws	240	[Gantt bar from Jul 2015 to Dec 2015]															
1.1.2	Registration of WMGs	3	[Gantt bar from Jul 2015 to Aug 2015]															
1.1.3	Election of new Executive Committee	12	[Gantt bars: Sep 2015, Nov 2015, Jan 2016, Mar 2016, May 2016]															
1.1.4	Assist WMGs to install/update bookkeeping and accounting system	75	[Gantt bar from Jul 2015 to Jun 2016]															
1.1.5	Assist WMGs form & develop capacity of sub committees	140	[Gantt bar from Jul 2015 to Dec 2015]															
1.1.6	Membership enrolment and firming-up membership list of WMGs (over 55% of HHs)	125	[Gantt bar from Jul 2015 to Dec 2015]															
1.1.7	Membership enrolment(equal & over 40%	125	[Gantt bar from Jul 2015 to Dec 2015]															
1.1.8	WAP formulation by WMGs	115	[Gantt bar from Jul 2015 to Jun 2016]															
1.1.9	Implementation & updating of WAP by WMGs	125	[Gantt bar from Jul 2015 to Jun 2016]															
<b>1.2</b>	<b>WMA Formation and Registration</b>		[Gantt bar from Jul 2015 to Sep 2015]															
1.2.1	WMA Formation	4	[Gantt bar from Jul 2015 to Aug 2015]															
1.2.2	WMA Registration Application	13	[Gantt bar from Jul 2015 to Sep 2015]															
1.3	Formation of WMFs/ Polder Apex Body	3	[Gantt bar from Apr 2016 to Jun 2016]															
1.4	Support Implementation of WMG and WMA training programs by Training unit e.g.OM, Gender & Leadership, O&M, FMS, MAM, S&C Training	Based on Annual Plan	[Gantt bar from Jul 2015 to Jun 2016]															
1.5	Assist WMGs in the formation and mobilisation of LCS Groups for earthwork	100 (includes)	[Gantt bar from Nov 2015 to Jun 2016]															
1.6	Assist WMAs in the formation and mobilisation of monitoring committee	27	[Gantt bar from Nov 2015 to Jun 2016]															
1.7	Formulation of O & M plan by WMAs and resource mobilisation for O & M fund (jointly with other components)	27	[Gantt bar from May 2016 to Jun 2016]															
<b>2</b>	<b>Polder 26 &amp; 31 Part</b>		[Gantt bar from May 2015 to Jun 2016]															

WBS	Task Name	Target	2016																
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
2.1	Review and update/ amend WMG By-laws	27			■														
2.2	Membership enrolment of at least 55% of HHs	6			■														
2.3	Form election committee and conduct election of WMG Executive Committee members	6				■													
2.4	Submission of WMG Registration application	6					■												
2.5	Assist WMGs to install/ update book keeping and accounting system	27			■														
2.6	Formation, ratification of By-laws and registration of WMAs	4							■										
2.7	Assist WMGs to organise, train and mobilise additional LCS groups for earthwork	27								■									
2.8	Assist WMAs in the formation and mobilisation of Monitoring Committee	4										■							
2.9	Support implementation of WMG Training programs by training unit e.g. OM, Gender Awareness Orientation, FMs	Based on Annual plan of training ..			■														
<b>3</b>	<b>Polder 2 in Satkhira</b>				▼														
3.1	Formation of Ad Hoc committees and Planning for the formation of remaining WMGs	6			■														
3.2	Review and update/ amend WMG by-Laws	58			■														
3.3	Membership enrolment at least 55% of HHs	29			■														
3.4	Form Election Committee	39			■														
3.5	Election of WMG Executive Committee Members	39			■														
3.6	Submission of WMG Registration application	45			■														
3.7	Assist WMGs to organise, train and mobilise additional LCS groups for earthwork	25 WMGs								■									

WBS	Task Name	Target	2016														
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
3.8	Support implementation of WMG Training programs by training unit e.g. OM, Gender Awareness Orientation, FMs	Based on Annual plan of training															
<b>4</b>	<b>New Polder 55/2A &amp; 55/2C Patuakhali</b>																
<b>4.1</b>	<b>WMG Formation</b>																
4.1.1	Deployment of COs+Local facilitators and community immersion	12 Cos+30 LFs															
4.1.2	Intensive programme dissemination/ information campaigns	2 Polders															
4.1.3	Data gathering/social investigation: identify villages, households and potential WMG members	2 Polders															
4.1.4	Identify WMG and catchment boundaries in consultation with local people, UP and BWDB	2 polders															
4.1.5	Form Ad Hoc Committees and Review and update/ amend by-laws	2 polders															
4.1.6	Membership enrolment	2 polders															
<b>4.2</b>	<b>Planning for Physical Works with C2</b>																
4.2.1	Needs assessment at catchment level & validation at polder level	2 Polders															
<b>5</b>	<b>Other Activities</b>																
5.1	Submit Quarterly reports & Annual Work Plan																
5.2	Conduct Training for new COs																
5.3	Conduct Staff Development Sessions with ZSEs and Cos (Quarterly)																
5.4	Participate in PDP formulation																
5.5	Organise orientation for LGIs jointly with other components																
5.6	Participate in Selection of New Polders																
5.7	Contribute to M&E Activities																
5.8	Participate in relevant workshops/training (when needed)																

WBS	Task Name	Target	2015												2016						
			May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
5.9	C1 team members to visit to CDSP, KJDRP and GK projects	10																			
5.10	Study visit of selected WMGs to Comilla BARD and South West for collective action plan/IGA	10 WMGs (2 batch)																			
5.11	Study Visit for WMO women leaders in 9 IPSWAM Polders to CDSP (Boyer Char Area)																				

Notes: 1) The number of WMGs under IPSWAM Polders is reduced to 240 because 2 WMGs were reformed and merged with other existing WMGs due to severe factions/conflicts and lack of interest; 2) C2 estimated 100 LCS Groups to be formed for FY 2015/2016 in 12 polders altogether (9 IPSWAM and Polders 2, 26, and 31-Part)

## 5.2 Strategies

- Local Facilitators (LFs) will be recruited to assist the Community Organizers (COs) on various community mobilization activities specifically in new polders. The LFs will be coming from the villages covered by the new polders. This is the strategy in addressing the limitation in hiring new Community Organizers for the new polders.
- COs originally deployed in the 9 IPSWAM polders are gradually being redeployed /re-assigned to new polders as Blue Gold's community organizing input to IPSWAM polders is becoming less as the WMOs' functionality and input is increasing.
- A social survey using FGD methodology will be undertaken in order to gather the following data: number of villages, number of households per village, number of potential members in the households (above 18 years old) and basic profile of these potential members e.g. main source/s of livelihood, land ownership and well-being status. This social survey will adequately provide the data that will serve as basis for membership enrolment in the WMG following the PWM Rules 2014.
- WMG needs assessment sessions will no longer be conducted. Instead, catchment level needs assessment sessions will be pursued. However, the COs will ensure that in the regular WMG Executive Committee (EC) meetings prior to the catchment level needs assessment session, the EC members come up with their priority needs and problems relating to water resource management and agricultural production. The COs will then consolidate priority needs and problems of the WMGs at each catchment area which will be presented and discussed during the catchment level needs assessment session.
- Assistance to WMGs in adopting a comprehensive and transparent financial management and accounts keeping system through training and follow-up sessions (joint activity with C4 and Training Unit) e.g. conduct of Management of Agricultural Machineries (MAM) and Savings and Credit Functions & FMS Training
- Formulate and implement on pilot basis (initially) with WMOs innovative approaches on resource mobilization for collective action plans and creating regular funds to sustain their organizational and operation and maintenance requirements.
- Outsource WMG annual audit in consultation with the Financial Audit Department of BWDB. Revision of the DPP is an important condition which need to be fulfilled before auditing can be implemented.

## 6. Water Resources Management

### 6.1 Six year Polder Implementation Plan

Batch	Name of Polders	No. of Polders	Implementation Years						Polder Type
			2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
1	22, 30, 43/2D, 43/2F	4							IPS-FT
	<b>Batch-1</b>	4							
2	43/2A, 43/1A, 43/2B, 43/2B, 29	5							IPS-FT
	26, 31-part	2						Rehab	
	2	1							Rehab
	<b>Batch-2</b>	8							
3	6 New FT Polders	6							OTH-FT
	<b>Batch-3</b>	6							
4	8 New FT Polders	8							OTH-FT
	<b>Batch-4</b>	8							
<b>Total No. of Polders</b>		<b>26</b>	<b>4</b>	<b>12</b>	<b>18</b>	<b>22</b>	<b>15</b>	<b>8</b>	

### 6.2 Work Plan 2015-2016

**Table 2: Work Plan from July 01, 2015 to June 30, 2016**

Sl. No.	Activities	Target (July 2015 - June 2016)	Remarks (if any)
1	Polder Identification	6 nos.	Fine Tuning Polders
2	Polder Selection	4 nos.	Fine Tuning Polders
3	Rehabilitation Works	14 polders (Approx. 500 MBDT)	2, 26, 31-part, 22, 29, 30, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F, 55/2A, 55/2C
4	PDP & WAP	9 polders	43/2D, 2, 26, 43/2A, 43/2E, 29, 30, 31-part + 1 new polder
5	Topographical Survey	2 polders	55/2A, 55/2C
6	Rehabilitation Plan for 2016-17	18 polders	2, 26, 31-part, 22, 29, 30, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F, 55/2A, 55/2C, + 4 new polders
7	Catchment Area Delineation & Needs Assessment	7 polders	2, 26, 31-part, 43/1A, 43/2B, 55/2A, 55/2C
8	Engineering Assessment	2 polders	55/2A & 55/2C
9	Estimate Vetting	14 polders (Approx. 450 MBDT)	2, 26, 31-part, 22, 29, 30, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F, 55/2A, 55/2C
10	Reimbursement (for 2014-15)	180 MBDT (Approx.)	-
11	LCS Formation	9 Polders (Approx. 180 nos.)	2, 26, 31-part, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F
12	LCS Training	9 Polders (Approx. 180 nos.)	2, 26, 31-part, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F
13	MAR Pilot	1 polder	22
14	Pump Drainage Pilot	2 polders	2, 31-part
15	CWM Pilot	1 polder (part)	30

16	GIS Portal Development	All polders (part)	2, 26, 31-part, 22, 29, 30, 43/1A, 43/2A, 43/2B, 43/2D, 43/2E, 43/2F, 55/2A, 55/2C
17	River Bank Erosion/ Hydro-morphological Study	1 polder	29
18	DEM & Delineation of Hydrological Boundaries (IWM)	3 polders	2, 26, 31-part

### 6.3 Environment & DRR

**Table 3: Work Plan of Environment & DRR related activities for July 2015 - June 2016**

Environmental Management	
1	EIA reports for new polders through CEGIS
2	Field data collection on environmental features for PDP of next polders.
3	Preparation of "Sustainable Environmental Management Plan" (SEMP) for next 5 IPSWAM polders
4	Conducting workshops at WMA level on "SEMP" implementation
5	Monitoring the implementation of the EMPs (set out in the EIA reports) during rehabilitation works
Climate Change Adaptation	
1	Conducting awareness meeting at WMG level on using Improved Cooking Stove (ICS) and follow up ICS implementation.
2	Conducting workshops at union level to build awareness on ICS, tree plantation and safe drinking water.
3	Coordination with GIZ and Grameen Shakti for collaboration of ICS implementation in polders.
4	Follow up implementation of solar desalination panels in next polders.
Disaster Risk Reduction	
1	Coordination and follow up with the selected NGOs for outsourcing training of WMG volunteers and UDMC members on DRR for next 11 polders
2	Formulation of "Community Based Disaster Risk Reduction" (CBDRR) plan (pre-disaster, during disaster period and post-disaster period) for next IPSWAM-Fine Tuning polders.

## 7. Food Security and Agricultural Production

### **7.1 Work Plan 2015-2016 (TA Part)**



ID	WBS	Task Name	Notes	2016												
				3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Qu
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
45	<b>10</b>	<b>Third cycle FFS</b>														
48	10.3	FFS follow-up workshop Khulna	20 participants													
49	10.4	FFS follow-up workshop Khulna	20 participants													
50	10.5	FFS follow-up workshop Patuakhali	24 participants													
51	10.6	FFS follow-up workshop Patuakhali	24 participants													
57	<b>12</b>	<b>Fourth cycle FFS</b>	Khulna													
58	12.1	Run 40 FFS summer vegetable poultry nutrition in Khulna														
59	12.2	Organize 40 field days														
60	12.3	FFS follow-up workshop Khulna														
61	<b>13</b>	<b>Fifth cycle FFS</b>														
62	13.1	Run 48 FFS Fish (Tilapia) poultry nutrition in Patuakhali														
63	13.2	Organize 48 field days														
64	13.3	FFS follow-up workshop Patuakhali														
68	<b>15</b>	<b>Polder level trials with field days</b>														
69	15.1	5 Polder level trials Summer tomato and other vegetables with field days														
70	<b>16</b>	<b>FFS rice-fish culture</b>														

ID	WBS	Task Name	Notes	2016														
				3rd Quarter				4th Quarter				1st Quarter			2nd Quarter			3rd Qu
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
71	16.1	6 FFS rice-fish cultivation	Khulna only. Polders 29, 30. In collaboration with DAE.															
72	16.2	6 field days rice-fish culture																
73	<b>17</b>	<b>Sixth cycle FFS</b>																
74	17.1	Run 88 FFS winter vegetable poultry nutrition																
75	17.2	Organize 88 fielddays																
78	<b>18</b>	<b>Seventh cycle FFS</b>	Could be split in separate cycles (7, 8, 9) with different modules in each district.															
79	18.1	Run 88 FFS	Modules to be decided later. Possibly Tilapia (Patuakhali), Poultry (Khulna), Milking cow (Satkhira), Summer vegetables, Nutrition, etc.															
81	<b>19</b>	<b>FFS rice-fish culture</b>																
82	19.1	6 FFS rice-fish cultivation	Tentatively (depends on evaluation last season)															
100	<b>22</b>	<b>CPWs and CAHWs</b>																
101	22.1	Follow up CAHWs and CPWs																
102	<b>23</b>	<b>Pilot use of poultry vaccination cards</b>																
104	23.2	New CPWs and CAHWs pilot use of cards																
105	23.3	Evaluate use of card and prepare report																

ID	WBS	Task Name	Notes	2016														
				3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Qu		
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
106	24	<b>Polder development plans</b>																
107	24.1	Gather agricultural information																
108	24.2	Work with C1, C2 and C4 to develop PDPs																
114	26	<b>PAR small HH ponds (WorldFish)</b>																
116	26.2	Conduct participatory action research program on small HH ponds	Extended 3 months to 30 June															
118	26.4	Reporting	Draft received															
119	26.5	3 month no-cost extension	Focus on gender indicators and sustainability															
120	26.6	Report on extension period																
121	27	<b>Follow-up SHHP</b>																
122	27.1	Follow-up research perennial SHHP	Tentative. Depends on new proposal WorldFish for innovation fund for 2016/17 .															
123	28	<b>Minipond innovation trial polder 22</b>																
131	28.8	Reporting on minipond trial																
132	29	<b>Minipond water melon trial polder 22</b>																
133	29.1	Repeat minipond water melon trial with another group of farmers	Polder 22															
134	30	<b>Sugar beet innovation</b>	Khulna only, polder 29															

ID	WBS	Task Name	Notes	2016														
				3rd Quarter				4th Quarter				1st Quarter			2nd Quarter			3rd Qu
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
139	30.5	Sugar beet post harvest trials (drying, processing)																
140	30.6	Sugar beet as fodder trials (Silage, dried, etc.)																
141	30.7	Sugar beet report																
142	30.8	Planning for next sugar beet season																
143	<b>31</b>	<b>Sugar beet 2nd season</b>																
144	31.1	Sugar beet trials 2015-16 season	Include now also Patuakhali and Satkhira															
145	<b>32</b>	<b>BAU innovation new fruits and vegetables</b>																
149	32.4	Test new fruits and vegetables with FFS graduated farmers of cycle 1																
150	32.5	Test new fruits and vegetables with farmers in ongoing FFS cycle 4	Khulna only															
151	32.6	Trial plots with new fruits and vegetables in 9 polders																
153	32.8	Follow up progress of trained nursery owners																
154	<b>33</b>	<b>Moringa introduction in Patuakhali</b>																
158	33.4	Evaluate and report	Shamim															
159	33.5	Distribute cuttings to Cycle 6 FFS participants																
162	<b>34</b>	<b>Sheep innovation program?</b>																
163	34.1	Prepare concept note sheep innovation plan with DLS	Munir															

ID	WBS	Task Name	Notes	2016															
				3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Qu			
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
164	34.2	Approval of plan?	Innovation fund?																
165	34.3	Implement plan?	Depends on approval																
166	<b>35</b>	<b>Pigeon-Quail program</b>																	
167	35.1	Prepare concept note on pigeon-quail rearing	Munir																
168	35.2	Implement plan?	Depends on approval of plan																
169	<b>36</b>	<b>Polder level fodder trials</b>																	
170	36.1	Select locations for polder level trials on fodder crops																	
171	36.2	Set x polder level fodder trials	Field days will be combined with nearby FFS field days																
173	<b>37</b>	<b>Fish nurseries</b>																	
177	37.4	Training on nurseries management																	
178	37.5	Evaluation and report nurseries management	Huda																
179	<b>38</b>	<b>Fish nurseries</b>																	
180	38.1	Training nurseries management new polders	Tentatively (depends on evaluation last season)																
181	<b>39</b>	<b>Community based fish culture</b>																	
183	39.2	Implement community fish culture Khulna and Patuakhali with DOF																	
184	<b>40</b>	<b>Fish sanctuary development</b>																	

ID	WBS	Task Name	Notes	2016														
				3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Qu		
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
186	40.2	Implement fish sanctuary development Khulna and Patuakhali with DOF																
187	41	<b>Workshops sluice gate operation</b>																
189	41.2	Implement x workshops/meetings with WMGs																
190	42	<b>Exchange visits farmers</b>	Dates are tentative															
191	42.1	Exchange visits fish		I														
192	42.2	Exchange visits fish		I														
193	42.3	Exchange visits vegetables fruits		I														
194	42.4	Exchange visits vegetables fruits		I														
195	42.5	Exchange visits poultry livestock		I														
196	42.6	Exchange visits poultry livestock		I														
198	43	<b>Possible innovation activities to start in 2015-2016</b>	Topics and ideas to be further developed															
200	43.2	Quails as innovation?	Munir to prepare plan	I														
201	43.3	Hydroponics/aquaponics as innovation?	Kim working on proposal	I														
202	43.4	Simple greenhouses as innovation?	Combine with hydroponics?	I														
203	43.5	Water hyacinth handicrafts?	Proposal needed (not really C3 activity)	I														
204	43.6	Pig farming innovation research?	Proposal ready. Depends on approval EKN.															

ID	WBS	Task Name	Notes	2016												
				3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Qu
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
206	44	<b>Producer Group Facilitators (PF)</b>														
210	44.4	PFs / FOs training Poultry	Tentative dates													
211	45	<b>Patuakhali Producer Groups</b>	Joint activity C3 & C4													
214	45.3	Follow up on mung bean producer groups														
216	45.5	MFS module Tilapia (20 MFS)														
217	45.6	Field days Tilapia														
218	46	<b>Khulna Producer Groups</b>	Joint activity C3 & C4													
221	46.3	Follow up on sesame producer groups														
223	46.5	MFS module backyard poultry (20 MFS)														
224	46.6	Field days Poultry														
225	46.7	Trials aromatic rice (20 MFS farmers)	One farmer per MFS													

**7.2 Work Plan 2015-2016 (DAE Part)**



ID	WBS	Task Name	Notes	er	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Q
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	1	<b>60 FFS Boro/Rabi 2016</b>	Boro rice and Rabi crops (e.g. sesame in Khulna, mung bean in Patuakhali). In WMGs of 12 selected Blue Gold polders + 2 new polders (55/2A and 55 2/C).														
2	1.1	Prepare and approve FFS budget															
3	1.2	Provide budget and materials to Upazilas															
4	1.3	Run 60 FFS															
5	1.4	Organize 60 fielddays															
6	2	<b>60? FFS T.Aman 2016</b>	T.Aman rice FFS in WMGs of 12+2 Blue Gold polders														
7	2.1	Prepare and approve FFS budget															
8	2.2	Provide budget and materials															
9	2.3	Run 60? FFS															
10	2.4	Organize 60? fielddays															
11	3	<b>110 Demonstration- trials</b>	Demonstrating and testing improved technologies														
12	3.1	Prepare and approve demo budgets	Detailed budgets are needed for each of the different demo topics.														
13	3.2	<b>Dwarf coconut</b>															
14	3.2.1	Select 14 farms for demos coconut orchards	One in each polder (12 selected + 55/2A + 55/2C)														
15	3.2.2	Implement 14 demos on establishment of dwarf coconut orchard															

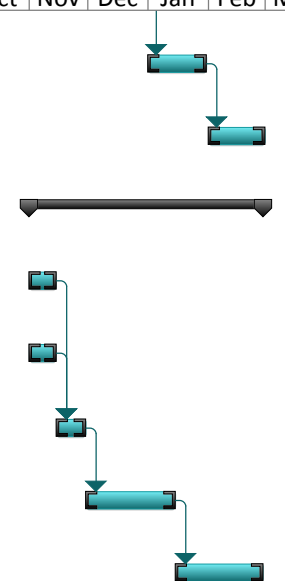
ID	WBS	Task Name	Notes	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Q
				Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
16	3.2.3	14 field days?	Not now. To be considered after 2 or 3 years.													
17	<b>3.3</b>	<b>Drumstick</b>														
18	3.3.1	Select 16 WMGs for promoting drumstick on road sides and dykes	In Patuakhali, 2 in each polder.													
19	3.3.2	Set 16 demos on planting drumstick on road sides and dykes														
20	3.3.3	16 Field days drumstick?	Not needed? Budget saved can be used to plant more trees.													
21	<b>3.4</b>	<b>Sesame</b>														
22	3.4.1	Select 20 farms for demos Sesame	In Khulna polders. No overlap with ongoing sesame MFS or sesame FFS.													
23	3.4.2	Plan technical content of the sesame demos	Black seed? Crop management?													
24	3.4.3	Set 20 demos sesame														
25	3.4.4	20 field days sesame														
26	<b>3.5</b>	<b>Mung bean</b>														
27	3.5.1	Select 20 farms for demos mung bean	All 20 in Patuakhali. No overlap with ongoing mung bean MFS or mung bean FFS.													
28	3.5.2	Plan technical content of the mung bean demos	Varieties? Line planting? Mechanical sowing?													
29	3.5.3	Set 20 demos mung bean														
30	3.5.4	20 field days mung bean														
31	<b>3.6</b>	<b>Vegetable field crops</b>														

ID	WBS	Task Name	Notes	er	3rd Quarter				4th Quarter			1st Quarter			2nd Quarter			3rd Q	
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
32	3.6.1	Select 20 farms for demos high value vegetables	Most of these in Satkhira (polder 2) and Patuakhali (where irrigation is possible)																
33	3.6.2	Select topics (type of vegetable) for demos																	
34	3.6.3	Set 20 vegetable demos																	
35	3.6.4	20 field days high value vegetables																	
36	<b>3.7</b>	<b>Summer tomato</b>																	
37	3.7.1	Select 10 farms for demos summer tomato	Select best locations in the 14 polders																
38	3.7.2	Set 10 demos summer tomato																	
39	3.7.3	10 field days summer tomato																	
40	<b>3.8</b>	<b>Sunflower</b>																	
41	3.8.1	Select 10 farms for demos sunflower																	
42	3.8.2	Set 10 demos sunflower																	
43	3.8.3	10 field days sunflower																	
44	<b>3.9</b>	<b>Management coconut</b>	Especially concerning mite management																
45	3.9.1	Select 10 locations for coconut management trial																	
46	3.9.2	Select participating farmers		Possibly group of 20-25 farmers?															
47	3.9.3	Frequent meetings to manage coconut and observe		Possibly monthly meetings over a longer period															
48	3.9.4	10 field days coconut management																	

ID	WBS	Task Name	Notes	er		3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Q
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
49	4	<b>Support 40(?) Farmer Organizations</b>	Discussions needed with Blue Gold TA team on way to use this support for farmer groups															
50	4.1	Develop criteria to select succesful FFS	Only FFS that were implemented in the 12+2 Blue Gold polders															
51	4.2	Select succesful FFS	Possibly 40? Number depends on criteria.															
52	4.3	Provide support to selected FFS groups.																
53	4.4	Follow-up visits by facilitators																
54	5	<b>Farmer Trainers TOT (78 FT)</b>	TOT for 78 FFS graduates from 12+2 selected Blue Gold polders.															
55	5.1	Pre-select candidates for FT training	By Upazila officers															
56	5.2	Interview and select participants FT TOT	Humayoun and Ashraf (select 13 pairs for each batch, total 78 candidates needed)															
57	5.3	Prepare fields for training	At Horticulture Center Khulna															
58	5.4	Select TOT facilitators and curriculum development																
59	5.5	Run TOT batch 1 (26 participants)	4 weeks training															
60	5.6	Run TOT batch 2 (26 participants)	4 weeks training															
61	5.7	Run TOT batch 3 (26 participants)	4 weeks training															
62	5.8	Prepare TOT report																
63	6	<b>78 Apprentice FT</b>																
64	6.1	78 FT as apprentice in T.Aman FFS																
65	7	<b>14 Motivational tours</b>	1-day group visits to example farmers.															

ID	WBS	Task Name	Notes	er	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Q
					Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
66	7.1	Planning and preparation of 14 motivational tours	1 for each of 12+2 Blue Gold polders														
67	7.2	14 Motivational tours for farmers	Timing depends on planning														
68	<b>8</b>	<b>Workshops Sesame Mung bean</b>	Funded by TA part														
69	8.1	Planning and preparation															
70	8.2	Workshop Mung bean	Workshop with participants Blue Gold (C3 and C4) and DAE staff Patuakhali on Mung bean														
71	8.3	Workshop sesame	Workshop with participants Blue Gold (C3 and C4) and DAE staff Khulna on Sesame														
72	<b>9</b>	<b>Technical training DAE facilitators</b>	Using the DPP budget lines of tag SAAO and Monitors training, and technology selection workshop.														
73	9.1	Curriculum development Sesame and Mung bean	Dhaka?														
74	9.2	Training for DAE FFS facilitators on mung bean	Patuakhali. 1 or 2 days. Timing to be decided.														
75	9.3	Training for DAE FFS facilitators on sesame	Khulna. 1 or 2 days. Timing to be decided.														
76	<b>10</b>	<b>Review and Planning workshops</b>	At end of each FFS season														
77	10.1	Planning workshop	Planning for Boro/Rabi season.														
78	10.2	Review and Planning workshop	Review Boro/Rabi season and plan T.Aman FFS														
79	<b>11</b>	<b>Farmers Fair</b>															
80	11.1	Planning for Farmers Fair(s)	Could be 3 smaller fairs in Khulna, Patuakhali, Satkhira														
81	11.2	Prepare and approve budgets															

ID	WBS	Task Name	Notes	er	3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Q
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
82	11.3	Preparations for fair	Involves DDs of Districts?														
83	11.4	Implement Farmers Fairs	Possibly during February														
84	<b>12</b>	<b>Folk songs / theater</b>															
85	12.1	Make plan for folk songs	Topic selection, script development														
86	12.2	Select 15 locations for performances	Possibly 1 or 2 WMGs in each of 12+2 polders														
87	12.3	Select and brief theater group	Make contract with theater group														
88	12.4	Preparations by theater group	Write songs and practice														
89	12.5	15 performances for WMGs															

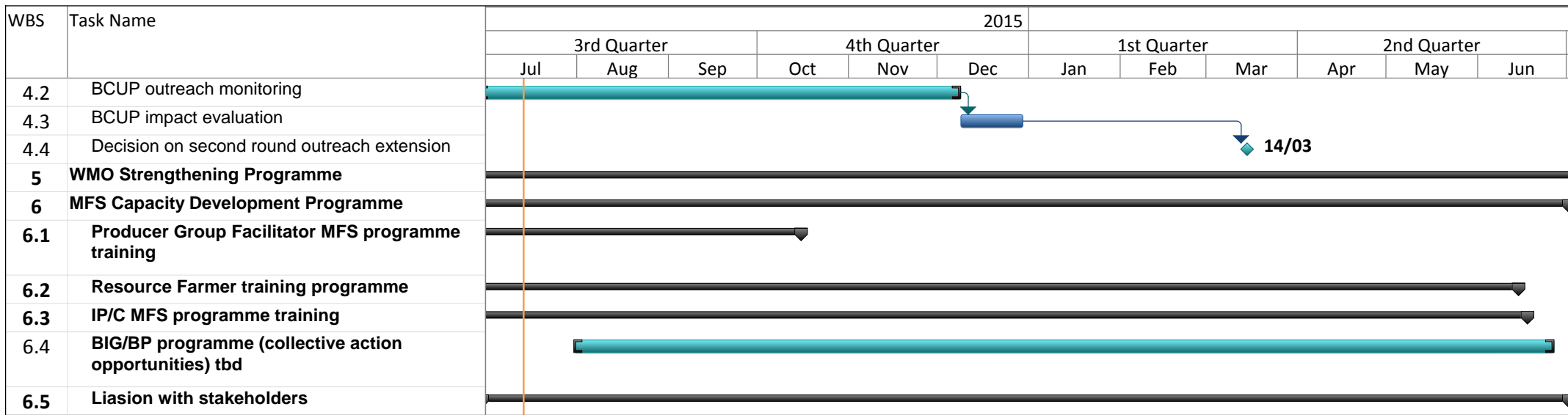


## 8. Business Development & Private Sector Involvement

### 8.1 Work Plan 2015 -2016

WBS	Task Name	2015											
		3rd Quarter			4th Quarter			1st Quarter			2nd Quarter		
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>1</b>	<b>Selection of sub-sectors/products and value chain</b>												
1.1	VCS for Polder 30												
1.2	VCS for Polder 29												
1.3	VCS for Polder 31 (part)												
1.4	VCS for Polder 26												
1.5	VCS for Polder 2												
1.6	VCS for Polder 43/2d												
1.7	VCS for Polder 43/2a												
1.8	VCS for Polder 43/2e												
1.9	VCS for Polder 43/1a												
1.10	VCS for Polder 43/2b												
<b>2</b>	<b>Undertake in-depth Value Chain Analysis</b>												
2.1	VCA 2 Mung Bean												
2.2	VCA 3 Poultry												
2.3	VCA 4 Seasonal pond Tilapia												
2.4	VCA 5 Moringa												
2.5	VCA 6 winter crop tbd												
2.6	VCA 7 winter crop tbd												
2.7	VCA 8 product tbd												
<b>3</b>	<b>Value Chain Development Programme</b>												
3.1	MFS Programme Polder 22												
3.2	MFS Programme Polder 30												
3.3	MFS Programme Polder 29												
3.4	MFS Programme Polder 31(part)												
3.5	MFS Programme Polder 26 planning												
3.6	MFS Programme Polder 2												
3.7	MFS Programme Polder 43/2d												
3.8	MFS Programme Polder 43/2f												
3.9	MFS Programme Polder 43/1a												
3.10	MFS Programme Polder 43/2e												
3.11	MFS Programme Polder 43/2b												
<b>4</b>	<b>BRAC BCUP outreach programme</b>												
4.1	BRAC BCUP outreach												





## 8.2 Strategies Work Plan 2015

As presented in the Inception Report the primary approach is Value Chain Development which we implement through three steps, namely: Value Chain Selection, Value Chain Analysis and Value Chain Development (implementation). In light of the resource constraints Component 3 and 4 have developed the Market Oriented Field School programme (MFS). This programme integrates the technical production and market orientation aspects of value chain development with a focus on the lower part of the value chains as recommended by the Annual Review Mission.

### Value Chain Development (WBS 1)

#### Value Chain Selection

We finalised the proposed selection of the key sub-sector or value chains of Polders 29, 30 part, 43/2d, 43/2e & 43/2a prepared in the previous period and proceed with the identification and selection of those in Polders 26, 2, 43/1a, and 43/2b. Upon individual completion, we will subsequently contribute to the Polder Development Plans for all these Polders as per schedule.

#### Value Chain Analysis (WBS 2)

The value chain analyses for Poultry and Tilapia in seasonal ponds have been completed and will now serve and complement the respective MFS in Polders 22 & 30 and Polders 43/2d & 43/2f. We will start and finalise the value chain analyses for the main WRM related crops/products for the remaining Polders 29, 43/2a, 31(part), 26, 2, 43/2e, 43/1a, and 43/2b (robi) and for their secondary product (other season), where these commodities differ from those already available. In addition we will undertake value chain analysis through studies for innovative products, e.g. Moringa, for the first batch of Polders 22, 30, 43/2d and 43/2f. By period end (mid-2016) we will have completed or nearly completed the Value Chain Analyses of six to eight crops/products.

#### Value Chain Development (implementation) (WBS 3)

The first MFS programme for Sesame / Poultry is nearly completed in Polders 22 and 30, and for Mung bean / seasonal pond Tilapia in Polders 43/2d and 43/2f. Upon completion of the PDP the preparation of an extension of this MFS programme for 2016 will be completed for 2 polders in Khulna and for 3 polders in Patuakhali. In addition, as the PDP process proceeds on the basis of catchment areas an MFS programme might be developed for 2016 in Polder 2 in Satkhira and in Polder 26 in Khulna. Products still have to be determined on the basis of the PDP and sub-sequent VCA.

Closely linked were our efforts to support an expansion of the outreach of BRAC's BCUP programme (WBS 4). Due to internal restructuring in BRAC of the BCUP programme the outreach across 12 Polders will be limited to a radius of maximum 10 km from their Upazila offices.

#### WMO Strengthening (WBS 5)

The capacity strengthening of the WMOs focuses at three levels. The Management of Agricultural Machinery (MAM) training will be conducted at the 137 WMG that received FAO Machinery. It consists of two parts. The first part creates awareness of the potential of this collectively owned asset amongst the members of the WMG. The second part aims at ensuring proper operational management and bookkeeping for this Mechanisation Service.

Considering many WMG have initiated a Savings and Credit function 242 WMG will be trained on Savings and Credit Function Management. This will also include a second part to ensure proper bookkeeping of this WMG function.

Finally, the training of the interested members of 242 WMG on Basic IGA management will be initiated in 2015-2016.

WBS 6 MFS Capacity Development Programme consists of a series of trainings that support our MFS programme. These trainings are part and parcel of the preparation and implementation of the MFS programme. The first focuses on properly preparing our Producer Group Facilitators, the second aims at the potential role and responsibilities which the Resource Farmers could develop and the third will support other local actors in the value chain, e.g. input providers and collectors. This programme will be further complemented by Business Planning support wherever any of the MFS PG programmes and/or WMO strengthening programmes identify or provide opportunities for collective action.

With the aim of sustainability in mind, we will seek an improved cooperation with DAE through the exchange of learning experiences with the MFS programme.

## 9. Training and Capacity Building

### 9.1 Training Plan: July 2015 to June 2016

SL	Name of the Activities	Number of Batches	Target Group	Jul 2015 –Jun 2016												Remarks	
				Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
<b>Component -1: Community Mobilization &amp; Institutional Strengthening</b>																	
1.	Community Organizing and Facilitation Skills (5 days)	02	CO, FO, PF			x											
2.	Orientation on Organizational Management Training Module (01 day)	02	CO & ZSE		x												Khulna & Patuakhali
3.	Organizational Management Training (03 day)	130	WMG		x	x	x	x	x	x	x	x	x	x	x		to be outsourced
4.	Orientation on Financial Management Training (01 day)	02	CO & ZSE			x											
5.	Training on Financial Management (02 days)	20	WMG				x	x	x	x	x	x	x	x	x		to be outsourced 2-day training + 2 f/up
6.	Orientation on Gender & Leadership Development Training (01 day)	02	CO & ZSE			x											
7.	Training on Gender and Leadership for WMG (03 day)	90	WMG				x	x	x	x	x	x	x	x	x		to be outsourced
8.	Workshop on Resource Mobilization (02 days)	02	Blue Gold, BWDB staff							x	x						
9.	Orientation on Resource Mobilization Training (01 day)	02	CO & ZSE									x					
10.	Training on Resource Mobilization for WMG (2 days)	70	WMG										x	x	x		to be outsourced

11.	Workshop on Innovative Approaches for Resource Mobilization (01 day)	12	WMA														to be determined
12.	Study visit of selected WMG to Comilla BARD, and South West for collective action plan/IGA	02	WMG									x	x	x	x		
13.	Study visit for WMO Women Leaders in 9 IPSWAM Polders to CDSP (Boyer Char)	02	WMG				x	x									
14.	Training on Water Management Organizations for Community Organizers (7 days)	01	Newly recruited CO	x													
15.	Training on Community Organizing and Facilitation Process (5 days)	05	LF/CF			x	x	x	x								
<b>Component -2: Water Resource Management</b>																	
16.	Orientation on Construction Management and Blue Gold Construction Policies (01 day)	02	Contractors				x										
17.	Orientation on Construction Management and Quality Control(1 day)	03	BWDB and Blue Gold Dist. Team	x													
18.	Refresher Training on LCS Work (1 day)	02	BWDB and Blue Gold Dist. Team	x													On revised module
19.	Training on LCS work (01 day)	--	LCS + WMG selected members						x	x							To be selected the # of batch
20.	Training on Construction Monitoring & Quality Control (01 day)	--	WMA Monitoring Committee								x						Polder wise
21.	Orientation on Operation and Maintenance (O&M) of Water Infrastructures (01 day)	02	BWDB & Blue Gold District Team				x										
22.	Training on O&M of Water Infrastructures (03 days)	--	WMA (O&M Committee)						x	x	x						to be outsourced
23.	Practical Training on Water Management Gate Operation (0.5 day)	--	Gate Operator						x	x	x						



















































24.	Training on design of Water Management Infrastructures	01	BWDB														to be outsourced
25.	Project Planning (EIA & SIA) and Planning & Management		BWDB and DAE														to be outsourced
<b>Component - 3: Food Security &amp; Agricultural Production</b>																	
26.	FFS follow-up workshop	01 day	Contact Farmers of cycle 3, 4 and 5 FFS			x				x							
27.	4 <sup>th</sup> cycle FFS	01 day	FFS farmers	x	x	x	x	x	x								
28.	5 <sup>th</sup> cycle FFS	01 day	FFS farmers	x	x	x	x	x	x								
29.	Rice-Fish FFS	01 day	FFS farmers	x	x	x	x	x	x								
30.	6 <sup>th</sup> cycle FFS	01 day	FFS farmers		x	x	x	x	x	x	x	x					
31.	PFs / FOs training Poultry	01 day	FO and PFs	x	x												
32.	7 <sup>th</sup> cycle FFS	01 day	FFS farmers										x	x	x	x	
<b>Component – 4: Business Development &amp; Private Sector Involvement</b>																	
33.	Training on Management of Agricultural Machineries (MAM) (02 days and 02 follow-up )	62 Batches	WMG	x	x	x											to be outsourced
34.	Training on Savings and Credit (S&C) (02 days and 02 follow-up )	67 Batches	WMG	x	x	x											to be outsourced
35.	IGA Management Training (--)	242 batches	WMG										x	x	x	x	to be outsourced
<b>Gender &amp; Development</b>																	
36.	Gender Orientation and Awareness Raising (01 day)	01	BWDB, DAE & Blue Gold														to be selected
37.	Workshop on BWDB Gender Equity Strategy Action Plan (GESAP) (01 day)	01	BWDB														to be selected
38.	Implementation of vocational training in the polder to enhance the skill of the youth (Both Girls and Boys) by the organization expert in Vocational Training.	--	Youth Gils and Boys in WMG level														to be selected
<b>Institution &amp; Communication</b>																	

39.	Blue Gold Orientation for Union Parishad Representatives(01 day)	--	New Polders						x	x	x							To be selected the # of batch
40.	Workshop on Good Governance and Joint Planning with UP (01 day)	--	All UP under IPSWAM Polders								x	x	x	x	x			# batch to be selected
41.	Workshop on Partnership Development (01 day)	--	All U/Z under IPSWAM Polders						x	x	x							# batch to be selected
42.	Training on Participatory Water Management (01 day)	--	All IPSWAM Polders (02 course)								x	x						# batch to be selected
<b>DRR &amp; Climate Change</b>																		
43.	Training on Prevention, Mitigation, Preparedness , Response and Early Warning System- (2 days)	--	Community Facilitator (Volunteer)					x	x	x	x	x	x	x	x	x	x	to be outsourced
44.	Training on Early Warning Material Use and First Aid – (2 days)	--	Community Facilitator (Volunteer)					x	x	x	x	x	x	x	x	x		to be outsourced
45.	DRR Coordination workshop with Local Administration (2 days)	--	UP, UZ, NGO, WMA															to be confirmed
<b>M&amp;E</b>																		
46.	Refresher Training for all COs on Tablets Operation using ODK software (3 days)	2 batches	ALL COS						x									Khulna & Patuakhali
47.	M&E System and Outcome Monitoring (Training provide from Outside Expert) (5 days)	01 batch	2 M&E Officers, 1 M&E Focal person from each Component								x							
48.	Training for Baseline Survey Enumerators (Training provide by Mott. MacDonald) (5 days)	01 batch	22 Parti. + 5 resources						x									
<b>Project Management</b>																		
49.	Annual Planning Meeting 2016	01	Blue Gold, BWDB & DAY														x	
50.	Blue Gold Retreat 2015 & 2016	02	Blue Gold						x								x	

51.	Mid-term Review Mission	--	--			x	x											
52.	Workshop on Partnership Development (01 day)	02 batches	BWDB, DAE, DoC, DoF, DoL															to be confirmed
53.	Training on Occupational Safety & Health Hazards (01 day)	--	--															to be confirmed
54.	Motor Cycle Driving Training	--	CO, FO & PF															Need based
55.	Good Governance in Water Management Project	--	BWDB DP-III, DAE, DoC															BAWIN or other organization
56.	Workshop on Institutional Issues in Water Management (01 day)	02 batches	BWDB & Blue Gold Staff															to be confirmed
57.	Training on Procedures for Reimbursable Project Aid	01	BWDB (RAC) & Blue Gold staff															to be confirmed
58.	Need based Quarterly Staff Development Training	08	BWDB & Blue Gold staff			x			x			x					x	to be confirmed
59.	Study Tours (in-country and outside country)	--	BWDB and Blue Gold Staff															to be confirmed
60.	Experience sharing/cross visit	--	--															to be selected
61.	ICT training (2 days)	02 batches	CO, FO, PF					x	x									Khulna and Patuakhali



# 10. Monitoring & Evaluation

No.	Activities	Quantity	July	Aug	Sept	Oct	Nov	Dec.	Jan	Feb	March	April	May	June
1	Regular verify and check of Output Monitoring Data, based on components' datasheets	4												
2	Data Analysis, prepare Output Progress Monitoring Report based on component reports/datasheets	4												
3	Implementation of the Outcome Mapping Monitoring plan (i.e. Training, data collection, data compilation)	2												
4	Data Analysis, Prepare Outcome Mapping Monitoring Report	2												
5	Sharing meetings/workshops on Outcome Mapping Monitoring results at regional level	2												
6	Regular observation on going activities such as WMG meetings, LCS/contractor earthworks, FFS, etc.	12												
7	Prepare Observation Monitoring Report, based on observation results/findings of on-going activities	11												
8	Implementation of the Socio Economic Baseline Survey for new 5 Polders (26, 31-part, 2, 55/2A, 55/2C)	1												
9	Regular Field visits of M&E Expert for supervision and quality control	12												

# 11. Communication & Institutional Development

## 11.1 Communication and Knowledge Management

**Table 4: Annual Work Plan July 2015 - June 2016**

S.N.	Name of Activity	From (month)	To (Month)	Remarks
1.	Producing various communication materials	Throughout the year		
2.	Midterm Video documentation	April 2016	June 2016	
3.	Community Radio program	January	June	
4.	Annual calendar	September 2015	November 2015	
5.	2D Animation	6 Animation video throughout the year		
6.	Blue Gold Mela (Fair)	January 2016	April 2016	Planned to organize 10 Melas
7.	Documenting success stories in print and online	Throughout the year		
8.	Workshop on use of ICT for grassroots workers	August 2015		
9.	Content development for web	Throughout the year		
10	Developing content for ICT communication materials	Throughout the year		Depends on decision about using ICT as communication tools.
11.	Updating digital library	Throughout the year		

## 11.2 Institutional Strengthening Annual Work Plan July 2015- June 2016

**Table 5: Annual Work Plan July 2015 - June 2016**

SL.	Activities	Quantity	Year 2015-2016												Remarks
			July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1	Updating of the key Stakeholders Action Plan	1													2 Times
2	Asses Institutional Setting of polders	9													9 Polders
3	Preparation of Polder Development Plan (Institutional Strengthen part)	9													9 Polders
4	Preparation of Polder Action Plan (Institutional Strengthen part)	6													6 Polders
6	Develop linkages with NGO's and private sector organizations, projects, organizations and networks.	As required													
7	Follow up on establishment of Zonal Planning team of BWDB as per DPP	3													3 Times
8	Assessment on establishment of effective linkage among BWDB, UP and WMO	1													
9	Blue Gold Program Orientation for Union Parishad (UP)	6													6 Polders
10	Facilitate to prepare joint work plan on cooperation between WMG's and UP representatives through participatory workshops with Comp-1 and Training team.	6													6 Polders
11	Review and follow up of BWDB staff strength at Central and Zonal planning team including Chief Water Management office concerning Blue Gold activities	2													2 Times
12	Followup meeting with UPs to include WMO members in Standing Committees, UDMC and UDCC and practice participatory planning	20													20 UPs
13	Facilitate to organize coordination meeting among BWDB, WMO, Component-1 and 2 to finalize availability of required land for re-sectioning of embankment at polders	5													5 meetings
14	Support Training Expert to prepare/update training modules for OM training for WMGs, Participatory Water Management training for UPs and facilitate to organize	2													2 Modules

15	Support Communication Expert to establish link with Community Radio for information dissemination , development of IEC materials and Blue Gold Newsletter	8													8 Issues
16	Facilitate to establish link between WMO and Local Government Institutions (UP)	14													12 Polders
17	Training of UP Chairmen on Participatory Water Management	2 Batch													
18	Facilitate to establish link between DRR Volunteers and UDMC jointly with Env. Expert and Component-1	3													3 Polders

## 12. Innovation Fund

Blue Gold has a substantial in-built Innovation Fund – consisting of two components, i.e. the Water Management Innovation Fund (EURO 2.4 mln) and the Productive Sectors Innovation Fund (EURO 1.9 mln).

The Fund makes it possible to introduce innovations and experiment with new approaches and techniques. The prime criterion is the relevance of the innovations for the population in the Blue Gold area and/or the implementing organisations. Other criteria are the broader relevance in Bangladesh, the opportunity for the Dutch private sector to showcase state-of-the art technology and the possibility that a sustainable support base is set-up.

So far use of the Innovation Fund has been limited. In 2015 the use of the fund will be accelerated by issuing competitive calls for proposals. Such competitive calls will avoid a possible conflict with EU tender rules and make it possible to reach more substantial budgets.

An Innovation Fund Manager is employed within the Blue Gold TA team since March 2015 who will (1) initiate calls for ideas and proposals from parties in the project areas and elsewhere and liaise with potential Dutch suppliers, (2) manage the innovations – i.e. making linkages with parties that could contribute to the up-scaling and (3) facilitate and manage the embedding of the innovations in the project area.

### 12.1 New initiatives in 2015/2016:

- A. Pilot with IWM and IRRI on Community Water Management (CoWM) in polder 30.
- B. Pumped drainage solutions: developing two pilots based on a feasibility study carried out by Deltares in November 2014 regarding the options of pumped drainage using renewable energy like solar/wind/tidal to reduce water logging (and increase agricultural production) in selected polders of the Khulna and Satkhira Districts.
- C. Together with Component 3, discussions will continue with WorldFish and/or others to develop a concept note for a simplified aquaponic trial (using manual techniques)
- D. Engage Dutch companies in developing options for small scale dredging of drainage canals inside the polders with the aim to increase the production of khal re-excavation which at present
- E. Regarding hydroponics the advice is to conduct a pre-feasibility study to analyse the options for hydroponic production of either fodder, or vegetables, or both. Lessons learned from other hydroponics trials may be used to steer towards an adapted (and improved) hydroponics pilot under Blue Gold. The pre-feasibility study will serve to establish Terms of Reference (ToR) for a pilot that will be funded under the Productive Sectors Innovation Fund. The pilot may be implemented by students from the Bangladesh Agriculture University and Wageningen University.

# 13. Main Challenges

## 13.1 Community Mobilisation

- 1 Timely Selection and Implementation of 14 New Polders: This has impact on CO input, WMO sustainability and exit plan. There is no sufficient time for implementing O&M and WMO sustenance activities after completion of physical works.
- 2 Time limitation: Hire more COs and Local Facilitators
- 3 New System and Procedure for LCS: requires timely WMG formation and registration
- 4 Creation of O&M Fund by WMOs: need to implement effective resource mobilization strategies. Handing over of BWDB land to WMAs may not be possible
- 5 Scope for addressing social safeguard issues in rehabilitation polders: Project Affected People (PAP) need to be resettled and/or compensated for losing house/ properties/livelihood
- 6 Political Party Intervention: Some party members/supporters have been sabotaging/influencing WMO formation and EC election/selection process. In some cases, they also tried to stop on-going earthworks, repair/renovation works of Blue Gold/BWDB offices
- 7 Strengthening of CWM Department of BWDB in order to get more involvement of Extension Overseers for periodic supervision/follow-up of WMOs
- 8 Capacity development of the Accounts and Audit Directorates in performing regular audit for WMOs
- 9 Timely registration of WMAs
- 10 Timely decision regarding guidelines on WMF formation at polder level to facilitate O&M Agreement signing between WMO and BWDB

## 13.2 Water Resources Management

### DPP revision of BWDB part

As recommended by the first annual review mission more flexibility should be observed in polder selection, both in the number of polders and area of a candidate polders for selection. This will require a revision of the DPP of BWDB. Moreover, items such as embankment retirement, per hectare costs, emergency repair and basic riverbank protection should be reflected in the revision of the DPP.

### Per hectare costs

The costs per hectare as given in the Project Document and the DPP amount to Euro 100 for fine-tuning work and Euro 300 for rehabilitation work. These costs appear to be far too low. The initial estimates of the work under the four polders, first fine-tuning polders amount to approximately EUR 188/ ha. If the control of river erosion is added this may increase to ER 205 not taking into account cost escalations over the years. This is double of the estimated cost.

The costs for the rehabilitation polders may be significantly higher because embankments will be raised to a height that makes them climate change proof, based on the same (new) benchmark levels as used in the World Bank funded Coastal Embankment Improvement Project (CEIP). Apart from the considerable earthworks involved in this, there will be additional costs for remodelling of the existing structures to fit with the new embankment height, and that for resettlement as well.

The current upper limits on investment under fine tuning and new rehabilitation works as given in the DPP, should be changed in an upper limit of EUR 250/ha for fine tuning and ER 500/ha for new rehabilitation works..

Clearly an increase in per ha cost will have implications for the total scope of work with one possibility being that a smaller area is covered, yet ensuring that work is done properly. Another option is that cooperation is sought with CEIP and work is shared between Blue Gold (within the polder) and CEIP (embankments). Current restrictions on two projects operating in the same polder would need to be relaxed.

## 13.3 Food Security and Agricultural Production

### DPP revision of DAE part

The decision of the PSC to limit activities to 10 Upazilas is very useful, but revision of the DPP of DAE is still urgently needed to firmly integrate DAE's activities in the Blue Gold Program and to allow sufficient flexibility in planning and implementation of DAE's contribution to the program. Furthermore, there are still no agreed Cooperation Procedures between TTAP BGP-DAE and Blue Gold to facilitate smooth collaboration and effective control of expenditures. Due to these problems the payment of advances by EKN is delayed.

### Budget DAE

Delays in reporting and delays in money transfers have had a negative effect on DAE's activities during the second half of 2014 and the first half of 2015. If similar delays happen again in the financial year 2015/2016 it will affect the impact of DAE's contribution to the Blue Gold Program.

### Innovations

It will be quite a challenge to identify suitable topics for innovation activities considering the large budget which is available. It is relatively easier to identify innovations that can be introduced or tested in the Blue Gold area on a small scale, but such activities are relatively cheap.

### Sustainability of FFS activities

As FFS organizers will generally implement only one FFS in a WMG and then move on to new areas, it is a challenge to provide sufficient follow-up support to sustain FFS learning in the next season. In order to find a solution, Component 3 will organize in 2015/2016 a few workshops for contact persons of each completed FFS to evaluate what happens after the FFS and to motivate them to coordinate and sustain the activities with their FFS group, possibly leading to the formation of farmers clubs or producer groups.

### **13.4 Business Development and Private Sector Involvement**

While implementing activities in 2014, the Business development component gathered some important lessons or challenges that need to be addressed during the implementation of work in 2015/2016.

Overall the envisaged VCS, VCA and VCD activities for the targeted polders in 2015/2016 are setting a challenging objective as VCD is a systemic and time consuming process. This process will be much dependent on the integrated decision-making as part of the Polder Development Planning process and its resultant setting of priorities.

For the WMO activities it was originally envisaged to encourage collective (business or service) actions by members of WMO as a means to increase income and within DOC regulations. The latter assumption was overturned by the new registration modalities under the BWDB and the findings of the review mission as well as a study assessing cooperative development, while the underlying assumption that WMOs would get access to 'common resources' to be exploited cooperatively appeared not realistic. As a result, the WMO capacity-strengthening programme has been adapted.

Both key processes, value chain development and WMO strengthening, face a similar challenge in lacking field staff to implement them. During 2014 it appeared that neither COs, nor FOs would be able to undertake Business Development activities without the risk of overburdening them. With respect to the adapted WMO strengthening program, this has led to the decision to outsource it, a process which has been started at the end of 2014 and hopefully in turn will not run into the problem of WMGs to be overburdened by activities. In addition, it has led to adapting the VCD approach by formulating the MFS program and to resource this program in alternative ways. Such adaptation will undoubtedly bring its own challenges but it appeared to be a better option under the given circumstances.

### **13.5 Institutional Development**

- Leasing out of BWDB unused land in the polders to the WMOs for collective income generating activities and the creation of an O&M fund appears to be a real challenge.
- Strengthening and supporting the registration process of WMOs is hampered by resource constraints at the Office of Water Management of BWDB
- Linkages between BWDB field offices, UP and WMOs are untested and may take time to develop
- A major question concerns the option to give more responsibilities and funding to WMA's for implementation of O&M beyond routine maintenance by WMG



## 14. Budget 2015-2016

### 14.1 Overall Project Budget

The overall project budget is laid down in the Administrative Agreement (AA) of 20 February 2013 and amounts to EUR 57,700,000 including the contribution of the Government of Bangladesh (BWDB and DAE) of EUR 7,855,000.

The following table summarises the financial and TA contributions of GoB and GoN.

Financial and TA contributions x EURO 1000					
GoB contribution		GoN contribution			Total Blue Gold Program
		RPA	DPA	Total GoN	
BWDB	7,500	15,750	33,100	48,850	56,350
DAE	355	995	-	995	1,350
<b>Total</b>	<b>7,855</b>	<b>16,745</b>	<b>33,100</b>	<b>49,845</b>	<b>57,700</b>

1 EURO = 100 BDT

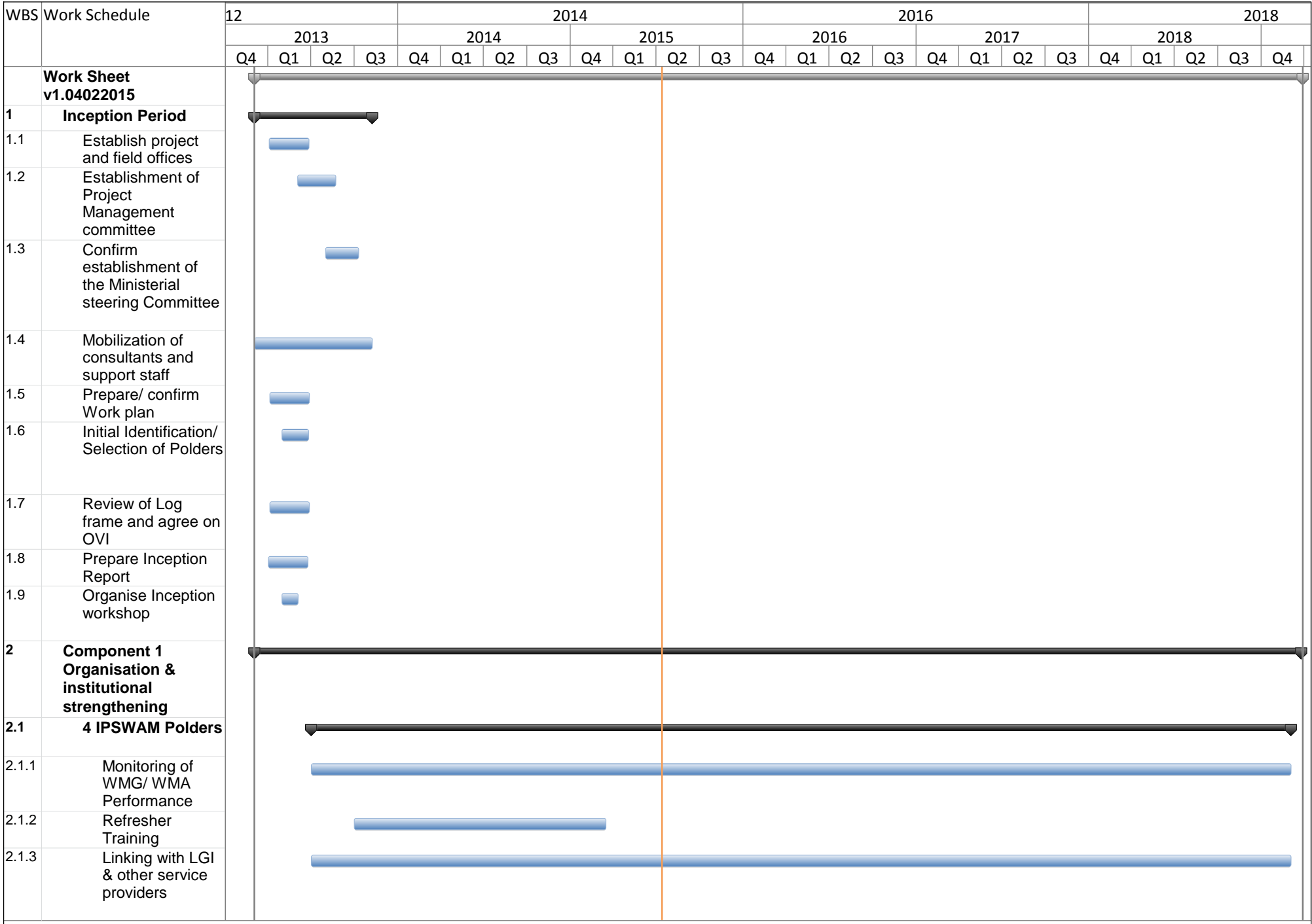
### 14.2 Estimated budget for July 2015 to June 2016

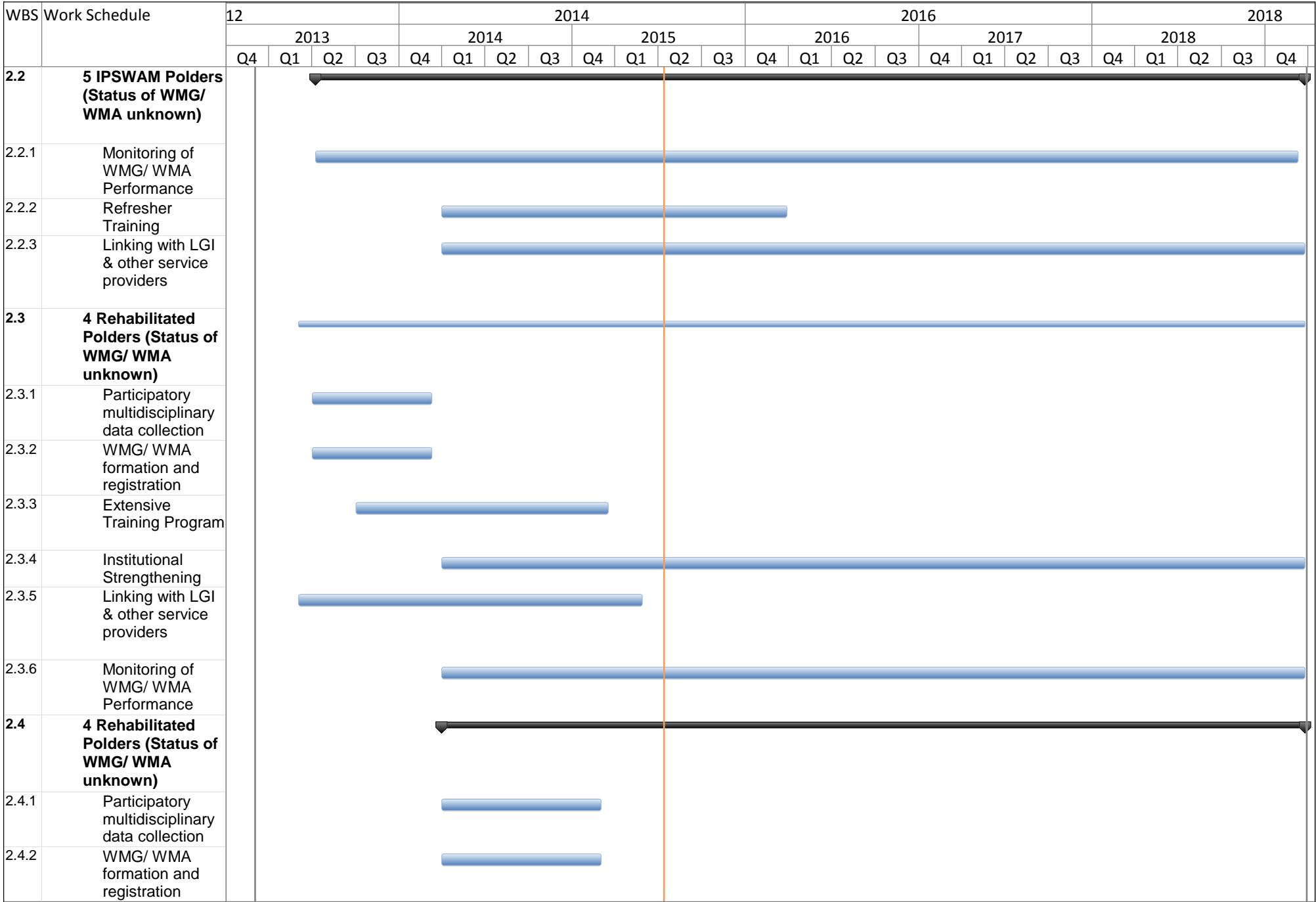
GoN Contribution	Original Budget	Budget Year 03	Annual Plan 2015-2016
<b>TA contract</b>			
TA team – Component 1	3,782,613	551,742	551,742
TA team – Component 2	2,996,412	437,065	437,065
TA team – Component 3	3,542,865	516,772	516,772
TA team – Component 4	2,127,315	310,296	310,296
Program Management	2,359,241	344,125	344,125
<b>Subtotal TA Team</b>	<b>14,808,446</b>	<b>2,160,000</b>	<b>2,160,000</b>
<b>Contracted Services</b>			
Office/ Storage Blocks	2,250,000	450,000	250,000
Innovation Funds	4,300,000	900,000	600,000
Vocational Training Program	500,000	100,000	100,000
Partnerships WUR and Los Banos	505,000	155,000	50,000
Mid Term Review	274,000	30,000	50,000
Specific Studies	988,000	245,000	100,000
Polder Development Plans	450,000	150,000	150,000
Baseline Surveys	615,000	115,000	175,000
FFS DoF/ DLS	612,000	150,000	150,000
Value Chains + Curriculum Development	824,500	145,500	170,000
Information & Awareness	278,500	65,000	40,000
Audits WMGs	245,000	35,000	40,000
<b>Subtotal Contracted Services</b>	<b>11,842,000</b>	<b>2,540,500</b>	<b>1,875,000</b>
<b>Equipment, Training, Operational Costs</b>			
Equipment	1,149,050	52,000	120,000
Training	2,521,500	504,500	480,000
Operational Cost	1,227,600	206,550	300,000
<b>Subtotal Equip., Training, Operational Costs</b>	<b>4,898,150</b>	<b>763,050</b>	<b>900,000</b>

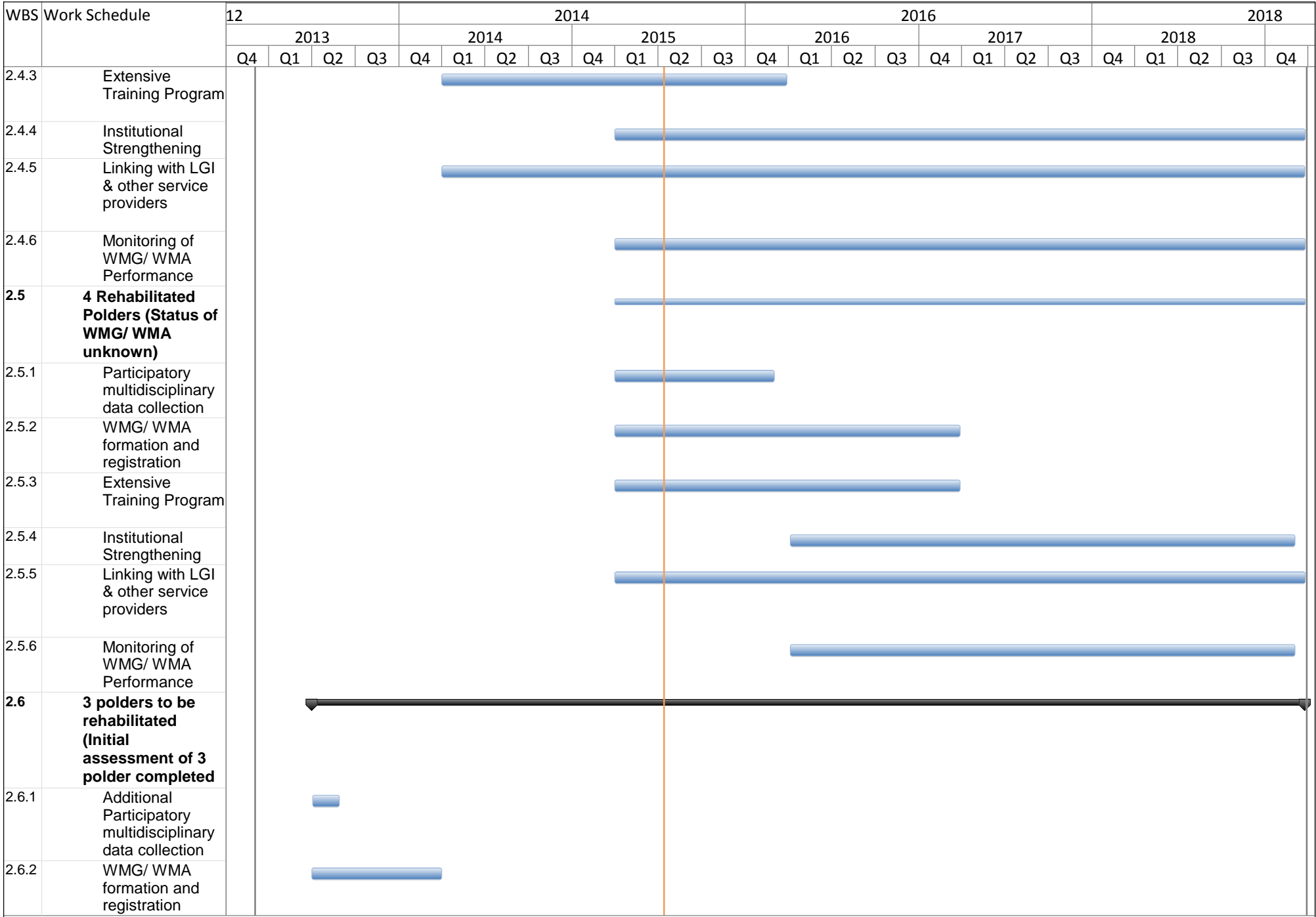
<b>SUBTOTAL TA contract</b>	<b>31,548,596</b>	<b>5,463,550</b>	<b>4,935,000</b>
GoN FA BWDB Contribution	15,750,000	3,500,000	4,500,000
GoN FA DAE Contribution	995,000	200,000	100,000
<b>Subtotal GoN contribution</b>	<b>16,745,000</b>	<b>3,700,000</b>	<b>4,600,000</b>
<b>Total GoN contribution</b>	<b>49,845,000</b>	<b>9,163,550</b>	<b>9,535,000</b>
<b>GoB contribution as per ADP 2015/2016 for BWDB</b>			<b>1,447,000</b>

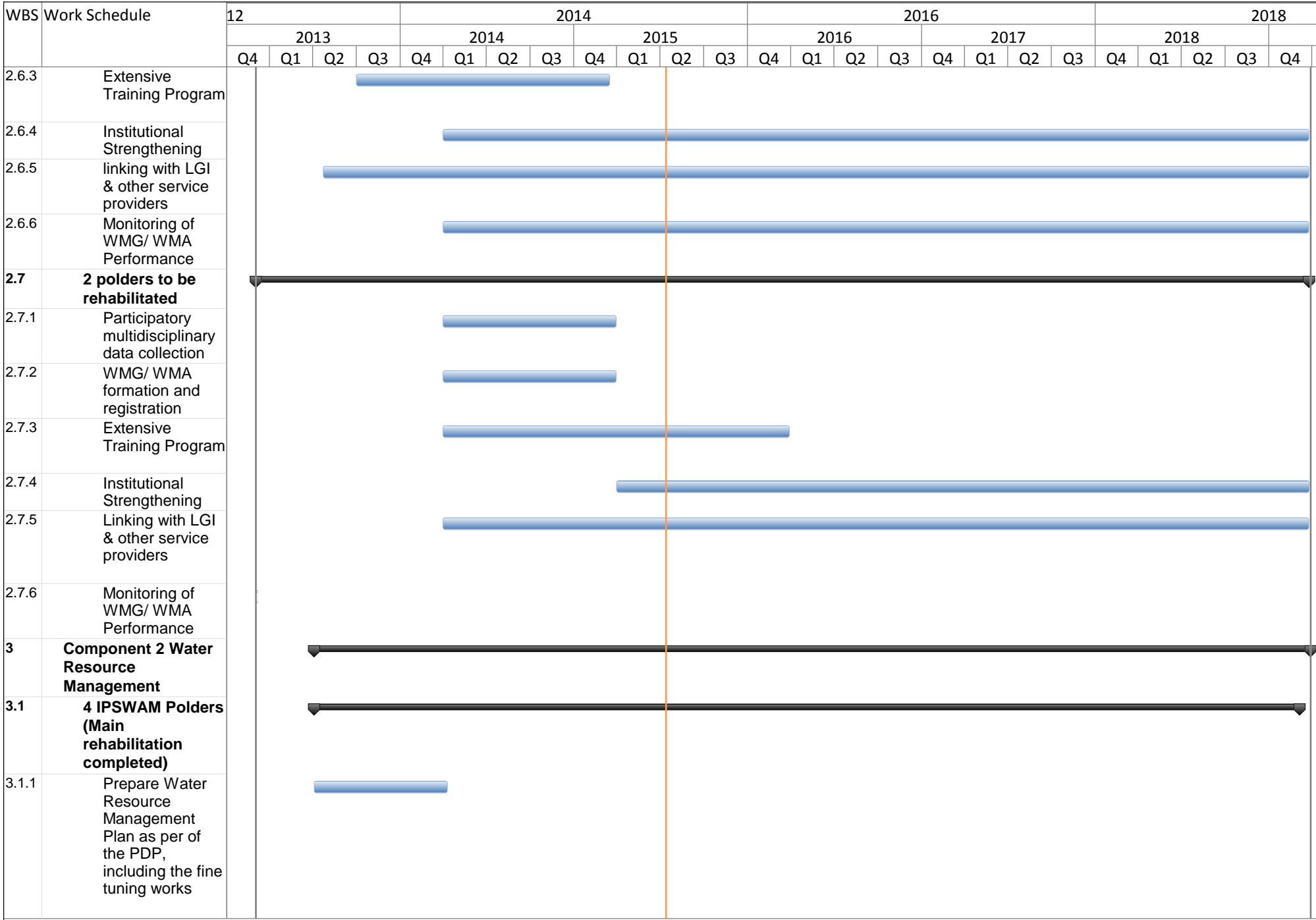
Note1: Details of BWDB implementation plan is included in appendix 2

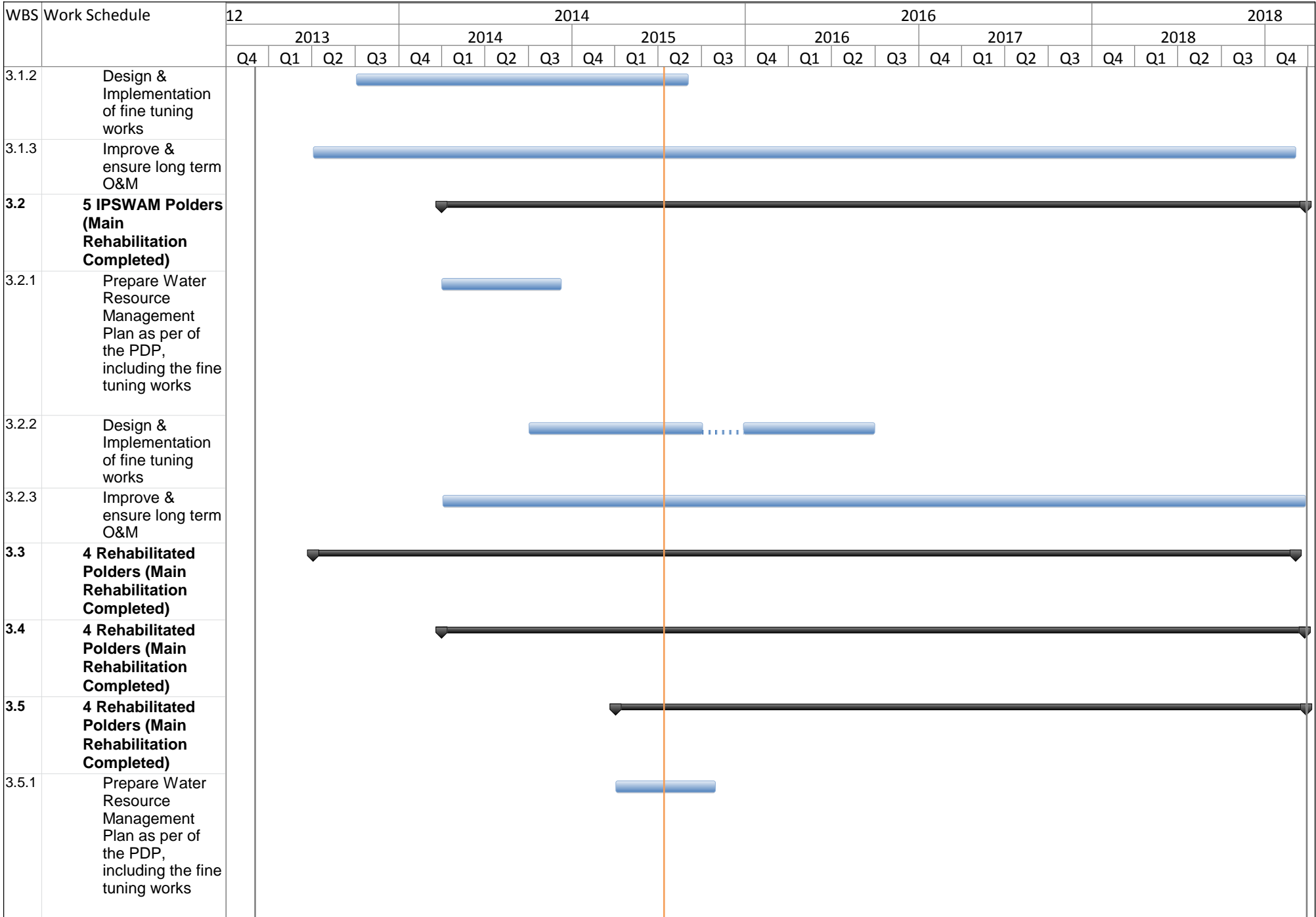
# Appendix 1. Overall Work Plan 2013- 2019



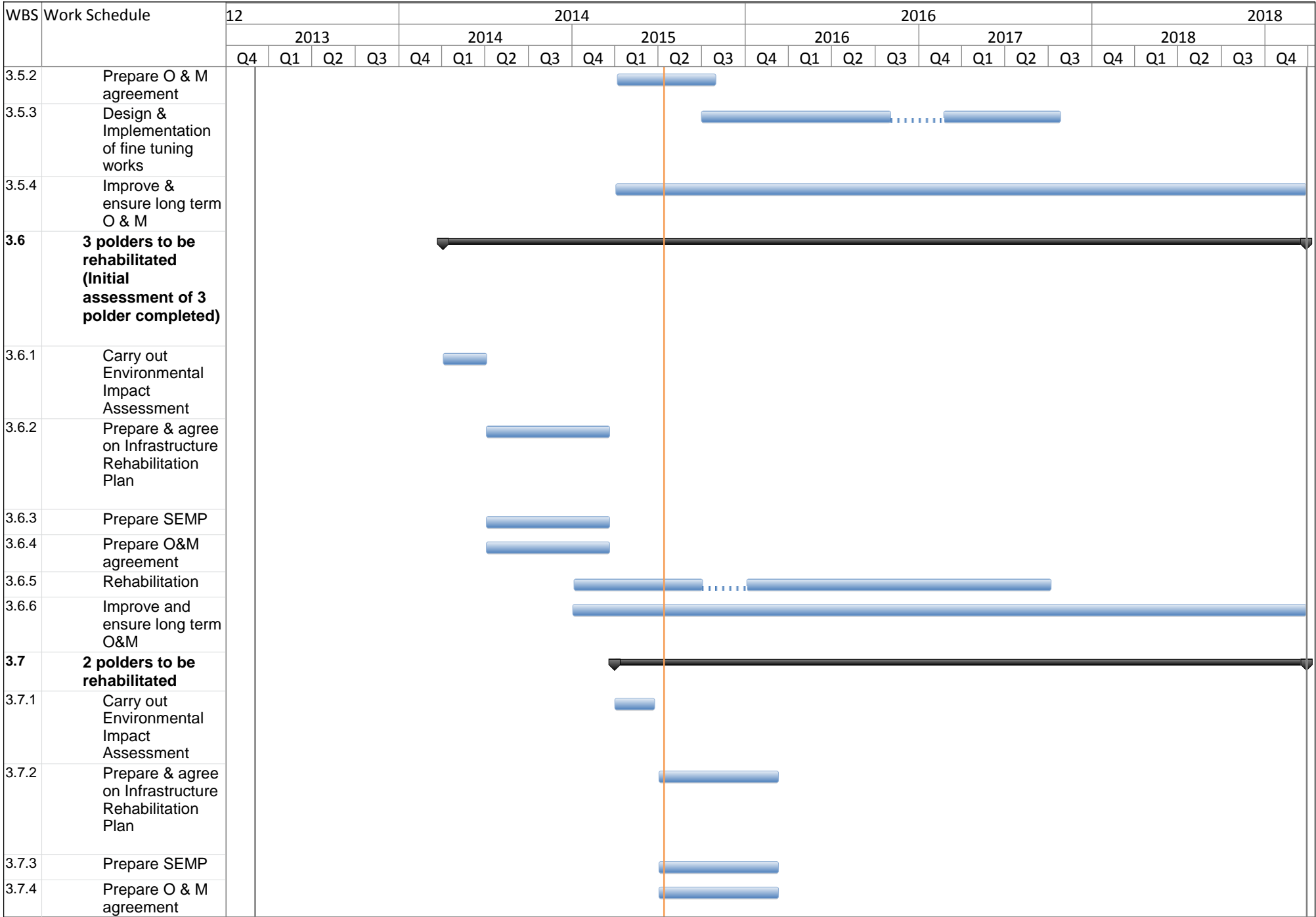


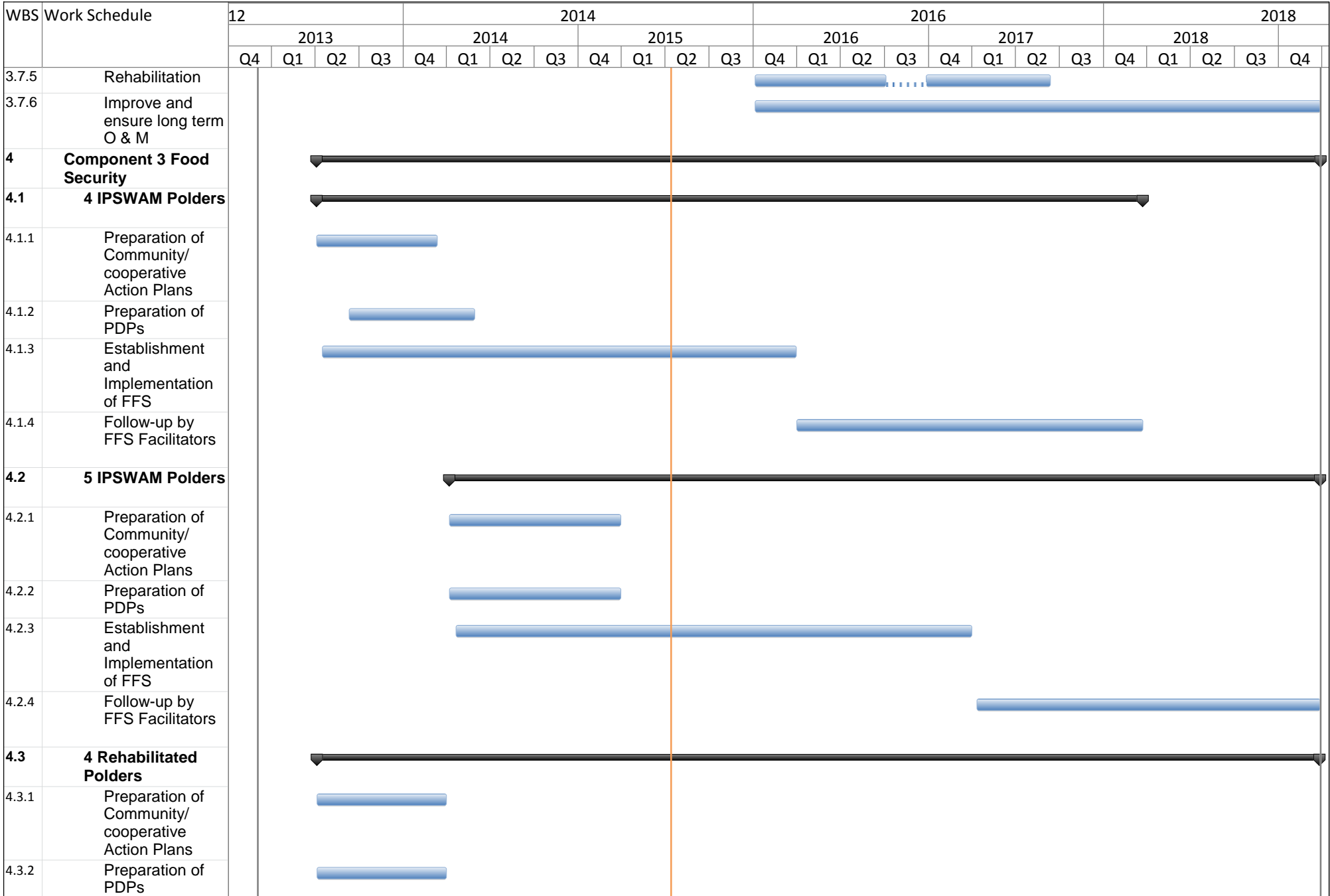


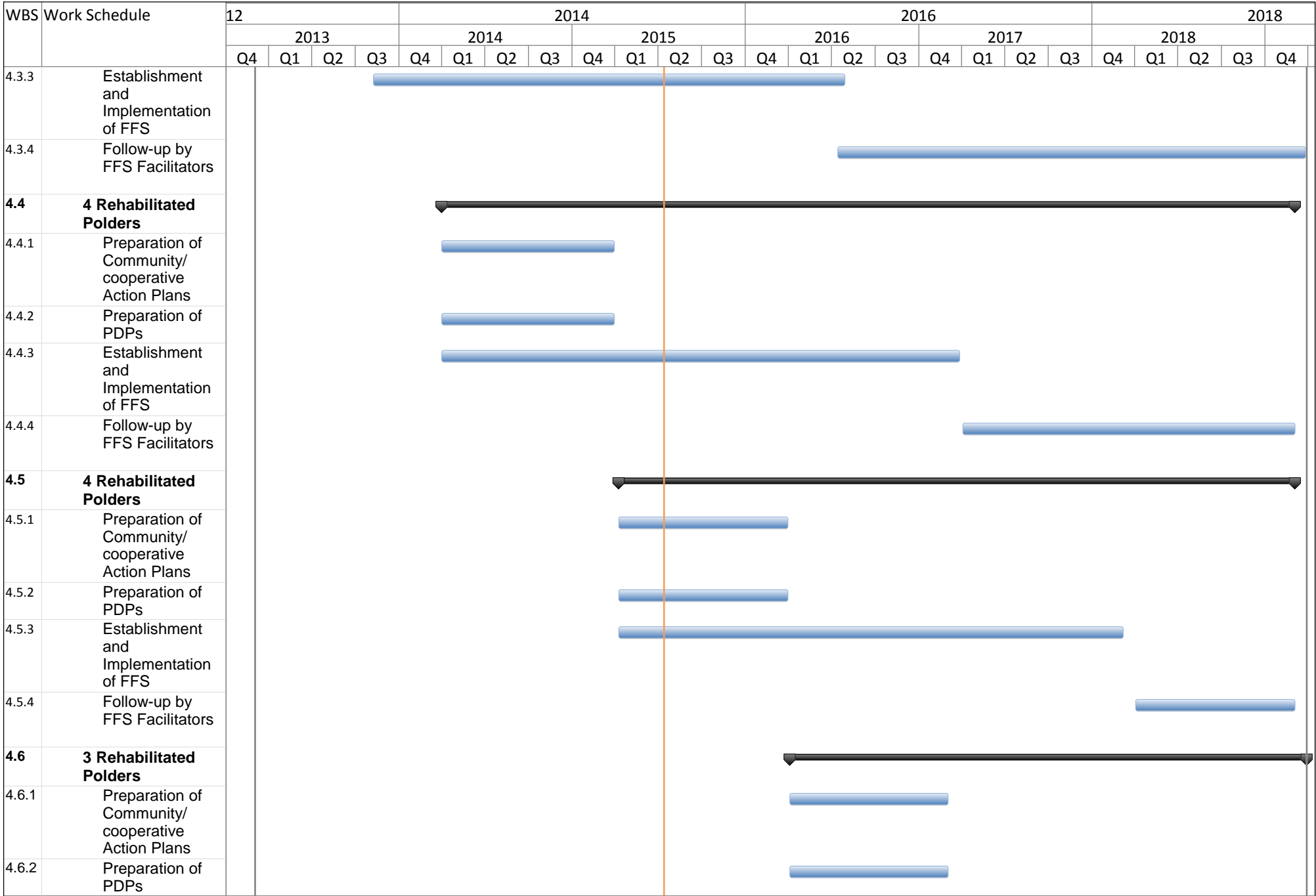


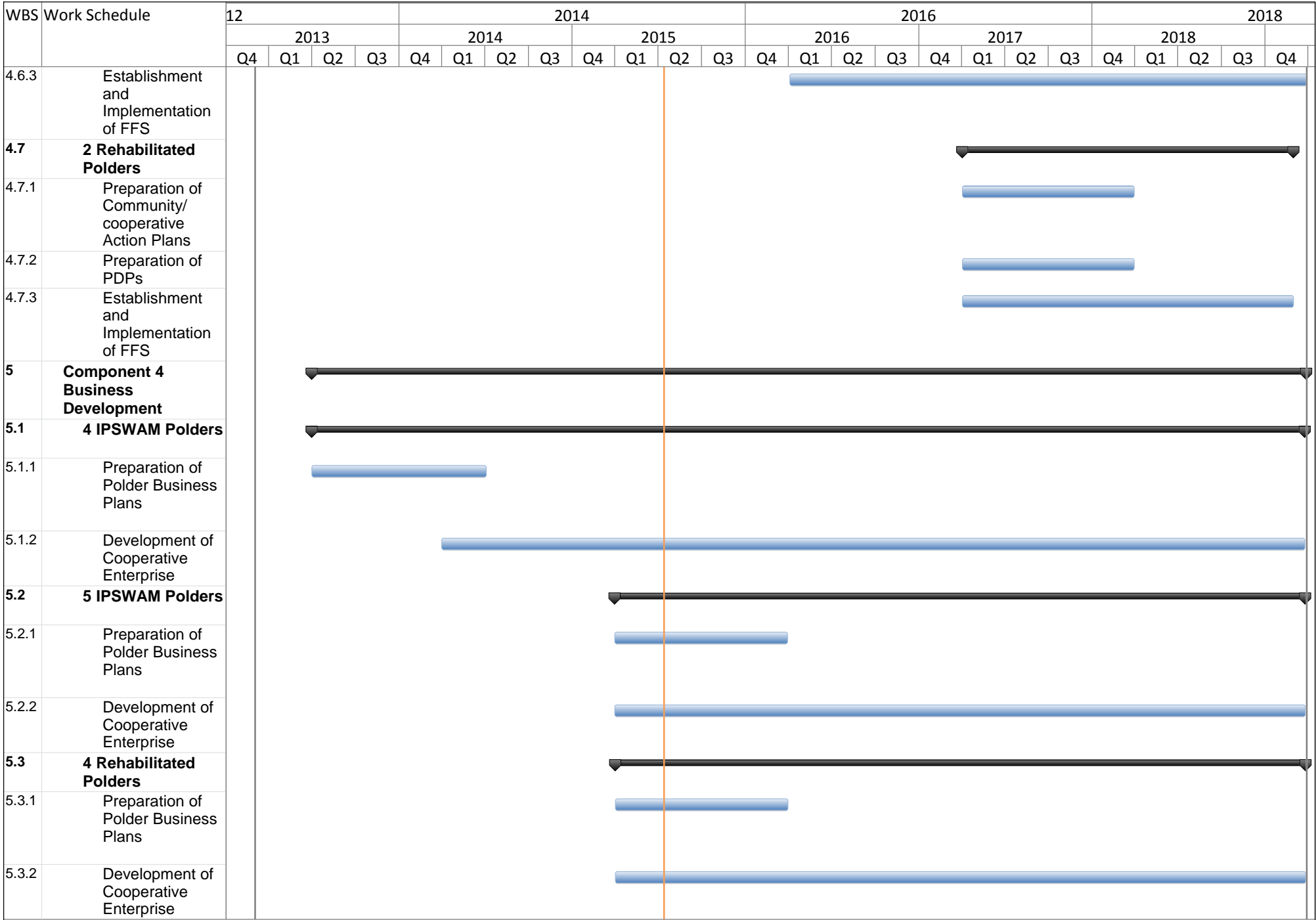


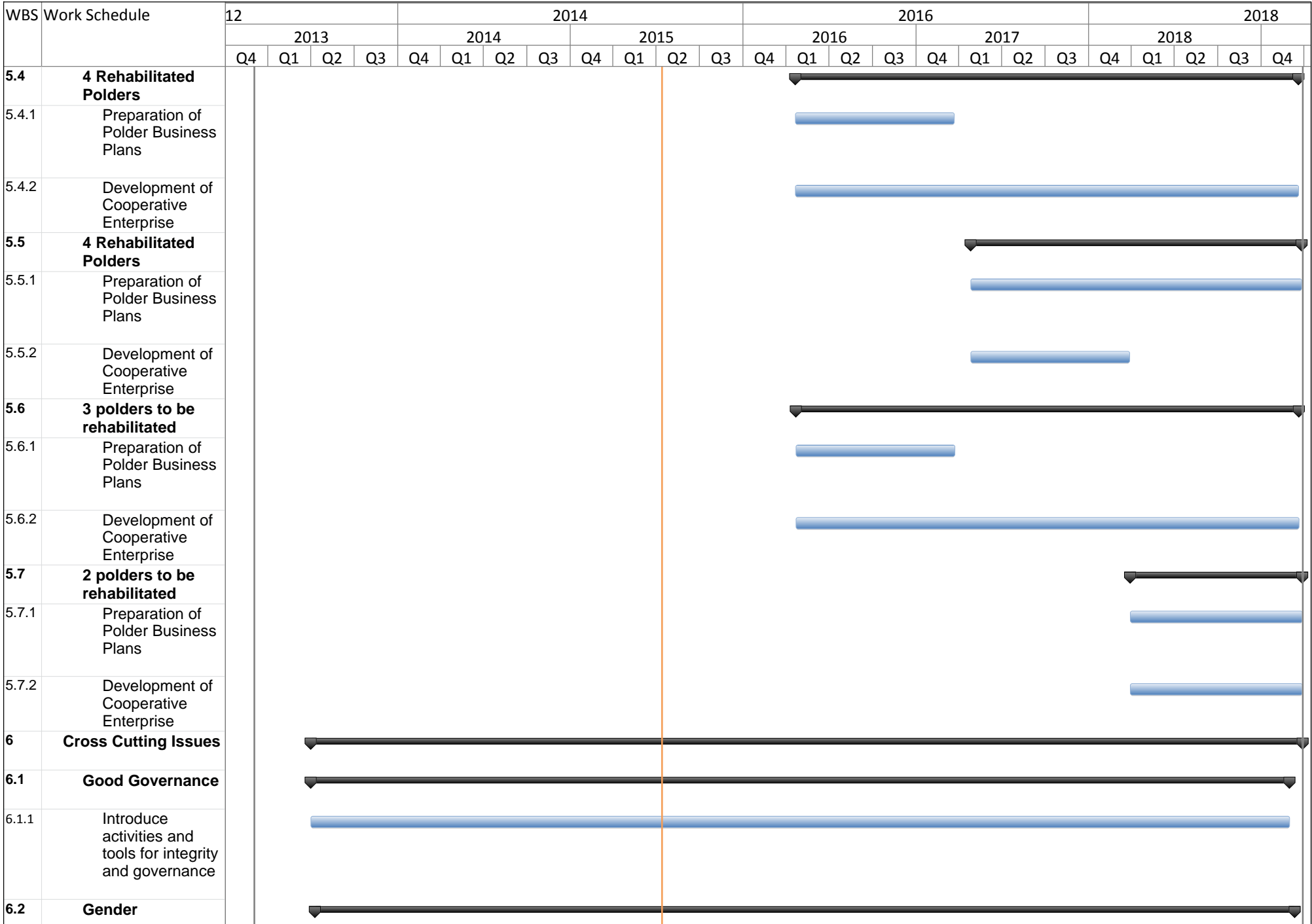


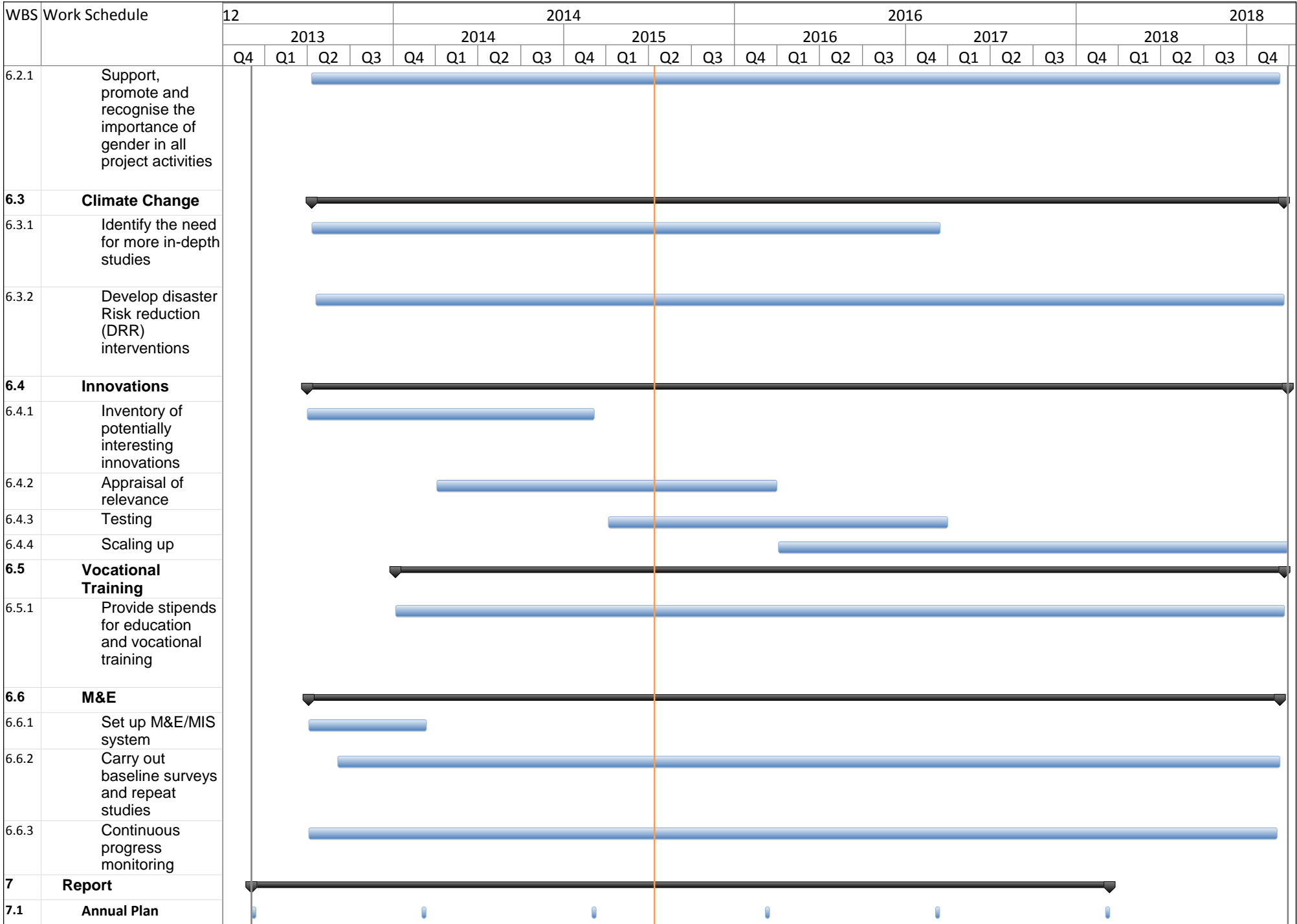












WBS	Work Schedule	2013				2014				2015				2016				2017				2018				
		2013				2014				2015				2016				2017				2018				
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
7.2	Inception Report																									
7.3	Progress Report (half yearly)																									
7.4	Fin. Statement (half yearly)																									
7.5	Final Narrative Financial Statement																									
7.6	Project Completion Report																									

# Appendix 2. Revised Tentative Infrastructure Rehabilitation Plan for 2015-2016

Date: 10-07-2015

## Patuakhali O&M Division

### 1.0 Polder 43/2A (Fine Tuning Polder)

#### 1.1 Embankment Re-sectioning/ Embankment Retirement

Sl. No.	Location	Chainage	Approximate Length, km
1.	Matherbunia	-	1.50

#### 1.2 Repair of Drainage/Flushing Sluice

Sl. No.	Name of Sluice	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Titkata Sluice	1-V	1.5x1.8	04+300
2.	Katakhal Sluice	1-V	1.5x1.8	10+260
3.	Matibhanga Sluice	1-V	1.5x1.8	13+600
4.	Nandipara Motherbunia	1-V	1.5x1.8	22+983
5.	Kazir Hat Sluice	3-V	1.5x1.8	26+850

#### 1.3 Reconstruction of Drainage/Flushing Sluice

Sl. No.	Name of Sluice	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Khatasia Sluice	3-V	1.5x1.8	31+710

#### 1.4 Repair of Drainage Outlet

Sl. No.	Name of Outlets	Number of Vent	Size (mm)	Approximate Chainage, km
1.	Tillar Khal Outlet	1-V	900	13+060
2.	Bashtala Outlet	1-V	900	28+070

#### 1.5 Construction of Drainage Outlet

Sl. No.	Name of Outlets	Number of Vent	Size (mm)	Approximate Chainage, km
1.	Dangar Khal Outlet	1-V	900	12+500
2.	Hapuar Khal Outlet	1-V	900	32+700

#### 1.6 Repair of Irrigation Inlet (May be in groups based on similar repair needs)

Sl. No.	Name of Inlets	Number of Vent	Size (mm)	Village & Location
1.	Titkata	1-V	450	Titkata, beside the house of Hatem Ali Fakir
2.	Titkata	1-V	450	Titkata, beside the brick field/near the north side of brick field
3.	Titkata	1-V	450	Titkata, beside Mobin Gazi's house
4.	Titkata	1-V	450	Titkata, beside Momotaz Hawladar's house
5.	Dakkhin Titkata	1-V	450	Dakkhin Titkata, east side of Shanu Khan's house
6.	Dakkhin Titkata	1-V	450	Dakkhin Titkata, beside the house of Noor Muhammad Gazi
7.	Titkata	1-V	450	Titkata, near Titkata Girls School
8.	Purbo Titkata	1-V	450	Purbo Titkata, beside the house of Nuruzzaman Bhakto
9.	East Titkata	1-V	450	East Titkata, beside the house of Abdur Rob



				Farazi
10.	Uttar Titkata	1-V	450	Uttar Titkata, beside the house of Hanif Hawladar
11.	Purbo Titkata	1-V	450	Purbo Titkata, beside the house of Abdul Hai Mira
12.	Dakhin Kewabunia	1-V	450	Dakhin Kewabunia, beside the house of Arshed Ali Fakir
13.	Dakhin Kewabunia	1-V	450	Dakhin Kewabunia, beside the house of Daimul Haji
14.	Purbo Kewabunia	1-V	450	Purbo Kewabunia, beside the house of Razzaque Gazi
15.	Kewabunia	1-V	450	Kewabunia, beside the Khatasia Sluice/ South side of Khatasia Bazar
16.	Boro Bighai	1-V	450	Boro Bighai, beside the house of Haji Abdur Rob
17.	Piarpur	1-V	450	Pearpur, beside the house of Amzad Gazi
18.	Piarpur	1-V	450	Pirapur, beside Majhi Bari
19.	Motherbunia	1-V	450	Motherbunia, beside the house of Nasir Hawladar
20.	Nandipara	1-V	450	Nandipara, beside the house of Shahid Sikdar
21.	Nandipara	1-V	450	Nandipara, beside the house of Babul Biswas
22.	Matibhanga	1-V	450	Matibhanga, beside the house of Abbas Sikdar
23.	Matibhanga	1-V	450	Matibhanga, beside the House of Majed Khan
24.	Matibhanga	1-V	450	Matibhanga, beside the house of Iman Hawladar
25.	Choto Bighai	1-V	450	Choto Bighai, beside the house of Asad Khandakar
26.	Choto Bighai	1-V	450	Choto Bighai, beside the house of Rejaul Hawladar
27.	Choto Bighai	1-V	450	Choto Bighai, beside Salam Gazi's house
28.	Choto Bighai	1-V	450	Choto Bighai, beside the house of Habib Hawladar
29.	Dakhin Bighai	1-V	450	Dakhin Bighai, near Bighai Hat
30.	Dakhin Bighai	1-V	450	Dakhin Bighai, beside the house of Abdul Haque
31.	Bighai	1-V	450	Bighai, beside the house of Mosharrif Sikdar
32..	Dakhin Bighai	1-V	450	Dakhin Bighai, beside the house of Afzal Pada
33.	Dakhin Bighai	1-V	450	Dakhin Bighai, beside the house of Zainuddin Mirdha
34.	Dakhin Bighai	1-V	450	Dakhin Bighai, beside the house of Abdul Aziz Fakir

Exact location and names of the irrigation inlets should be verified in the field.

### 1.7 Reconstruction of Irrigation Inlet

Sl. No.	Name of Inlets	Number of Vent	Size (mm)	Village & Location
1.	Matibhanga	1-V	450	South of Biswasher hat
2.	West Matibhanga	1-V	450	West of Hashem Mridha's house
3.	Choto Bighai	1-V	450	Beside Kabir Haowlader's house
4.	Choto Bighai	1-V	450	East of Jabbar molla's house
5.	East Matibhanga	1-V	450	East of Sultan Haowlader's house
6.	Middle Matibhanga	1-V	450	West Nazem Bayati's house

Exact location should be finalized in the field.

### 1.8 Re-excavation of Khal

Sl. No.	Name of Khals	Approximate Length (km)
1.	Matibhanga Khal	5.50
2.	Madarbunia Khal	3.50
3.	Jintala Khal	2.50
4.	Hartaki Baria Gazaliar Khal	4.50
5.	Gabtolar Khal/Patu Khali Khal	2.00
6.	Katakhali Khal	3.00
7.	Manik Kerani/Barokura Khal	2.20

8.	Titkata main Khal -1	2.20
9.	Titkata Main Khal -2	2.10
10.	Chalitabunia Khal	1.00

Lengths are indicative and may include some branch khals.

## 2.0 Polder 43/2D (Fine Tuning Polder)

### 2.1 Repair of Drainage/Flushing Sluice

Sl.No.	Name of Sluice	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Hetalia Sluice	2-V	1.5x1.8	01+030
2.	Charabunia Sluice	1-V	1.5x1.8	02+373
3.	Batgachia sluice	2-V	1.5x1.8	04+530
4.	Kanaidanga Sluice	1-V	0.9x1.2	05+713
5.	Hazi Khali Sluice	1-V	0.9x1.2	08+230
6.	Baktaria Sluice	1-V	1.5x1.8	12+127
7.	Marichbunia Sluice	2-V	1.5x1.8	15+100
8.	Nilkhola Sluice	1-V	1.5x1.8	20+580
9.	Chatua Sluice	2-V	1.5x1.8	21+045
10.	Jhapukhali Sluice	1-V	0.9x1.2	26+670
11.	Taktakhali Sluice	1-V	0.9x1.2	30+655
12.	Taltala Sluice	1-V	0.9x1.2	33+385
13.	Katakhali Sluice	3-V	1.5x1.8	36+445
14.	Koyer Khal Sluice	1-V	1.5x1.8	37+995
15.	Fultala Sluice	1-V	1.5x1.8	39+305
16.	Patukhali Sluice	1-V	.90x1.2	27+940

### 2.2 Repair of Drainage Outlet

Sl. No.	Name of Outlets	Number of Vents	Size (mm)	Approximate Chainage, km
1.	Chandatta Outlet	1-V	900	03+470
2.	Idukhali outlet	1-V	900	31+620
3.	Nakshakhali Outlet	1-V	900	34+050

### 2.3 Construction of Drainage Outlet

Sl. No.	Name of Outlets	Number of Vents	Size (mm)	Approximate Chainage, km,(Location)
1.	Akubia Khal Outlet	1-V	900	02+500 (Charabunia)
2.	Keshobpur Outlet	1-V	900	38=300 (Keshobpur)

### 2.4 Repair of Irrigation Inlet (May be in groups based on similar repair needs)

Sl. No.	Local Name of Inlets	Number of Vents	Size (mm)	Village & Location
1.	South Hazi Khali	1-V	450	South Hazi Khali, in front of Talukdar Bari
2.	South Marichbunia	1-V	450	South Marichbunia, east of Salehia Dakhil Madrasa
3.	Choto Auliapur	1-V	450	Choto Auliapur, in front of Kut Akon's house
4.	Guabaria	1-V	450	In Guabaria, beside Abu Bakkar' s House
5.	Dhokkhin Bazar Gona	1-V	450	Dhokkhin Bazar Gona, beside Sohrab Haoladar's House
6.	Chhoto Auliapur	1-V	450	Chhoto Auliapur, beside Hanif Mistri's house
7.	Pocha Koralia	1-V	450	Pocha Koralia, in front of Badsha Kha's house
8.	Purbo Auliapur	1-V	450	Purbo Auliapur, near the House of Rashid Fakir
9.	South Hazikhali	1-V	450	South Hazikhali, west of Abdul Hai Balika Madrasa

10.	South Hazikhali	1-V	450	South Hazikhali, in front of Kalukhan's house
11.	Keshabpur	1-V	450	Keshabpur, in front of Rashid Fakir's house
12.	Marichbunia	1-V	450	Marichbunia, beside Abdus Sobhan's house
13.	Marichbunia	1-V	450	Marichbunia, near Abdur Razzak's house
14.	East Auliapur	1-V	450	East Auliapur, in front of Zaynal Biswas's house
15.	Marichbunia	1-V	450	Marichbunia, north of Mollabari
16.	South Hazikhali	1-V	450	South Hazikhali, south of Abdus Sobhan's house
17.	South Marichbunia	1-V	450	South Marichbunia, east of Altaf Chowkidar's house
18.	Guabaria	1-V	450	Guabaria, east of Akhon Bari
19.	Barun Baria	1-V	450	Barun Baria, south of Forkan Chowkidar's house
20.	Shanakarpur	1-V	450	Shanakarpur, south side of Ali Azam Kha's House
21.	East Auliapur	1-V	450	East Auliapur, in front of Sayed Haoladar's house
22.	Barunbaria	1-V	450	In Barunbaria, beside Harlal Master's house
23.	Shanakarpur	1-V	450	Shanakarpur, west side of Gazibari
24.	South Hazi Khali	1-V	450	South Hazi Khali, west of Moni Kha's House
25.	Dhokkhin Bazar Gona	1-V	450	Dhokkhin Bazar Gona, north side of Rashid Matbar's house
26.	Abashon	1-V	450	North of Abashon, beside Israil Hawladar's house
27.	East Auliapur	1-V	450	East Auliapur, in front of Aziz 's house
28.	Patukhali	1-V	450	Patukhali, east side of Patukhali Sluice
29.	Chhoto Auliapur	1-V	450	Chhoto Auliapur, beside khalek Mridha's house
30.	Thengai-Keshabpur	1-V	450	Thengai-Keshabpur, near the Khal of Thengai-Keshabpur
31.	East Hetalia	1-V	450	East Hetalia, in front of Akkel Talukdar's house
32.	Thengai	1-V	450	Thengai, near Matlab Talukdar's house
33.	Chhoto Auliapur	1-V	450	Chhoto Auliapur, east of Eunos Khan's house
34.	Chhoto Auliapur	1-V	450	Chhoto Auliapur, in front of Tazim Haoladar's house
35.	Guabaria	1-V	450	Guabaria, west of Kashem Jomaddar's House
36.	Batgachhia	1-V	450	Batgachhia, south side of Batgachhiya Sluice
37.	Hazikhali Bazar	1-V	450	Hazikhali, north side of Hazikhali Bazar
38.	Barunbaria	1-V	450	Barunbaria, beside keramat Joaddar's house
39.	Barunbaria	1-V	450	Barunbaria, beside Jakir Moulabi' s house
40.	Barunbaria	1-V	450	Barunbaria, north side of Panchayet Bari
41.	Auliapur	1-V	450	Auliapur, south side of Talukdar Bari
42.	Chhoto Auliapur	1-V	450	Chhoto Auliapur, in front of Poddar's house
43.	Purba Auliapur	1-V	450	Purba Auliapur, north of Nurul Islam's house
44.	Charabunia	1-V	450	Charabunia, south side of Charabunia Sluice
45.	Dakkhin Bazargona	1-V	450	Dakkhin Bazargona, south side of Bashir Chairman's house
46.	Dakkhin Bazargona	1-V	450	Dakkhin Bazargona, north side of Rashid Chairman's house
47.	Charabunia	1-V	450	Charabunia, in front of Abdus Sattar's House
48.	Dhokkhin Bazar Gona	1-V	450	Dhokkin Bazar Gona, east side of Rashid Matbar's House
49.	Shankarpur	1-V	450	Shankarpur, north of Ali Azam Kha's house
50.	Shankarpur	1-V	450	Shankarpur, north side of Anwar's House
51.	Charabunia-Shankarpur	1-V	450	Charabunia-Shankarpur, west side of Jugi Bari
52.	Patukhali	1-V	450	Patukhali, east side of Pati Shikdar's School
53.	Charabunia	1-V	450	Charabunia, north of Jugibari
54.	Khasher Hat Bazar	1-V	450	Khasher Hat, north side of Khasher Hat Bazar

55.	Patukhali	1-V	450	Patukhali, beside Kalai Haoladar's house
56.	South Hazi Khali	1-V	450	South Hazi Khali, north of Sattar Boshar Bari
57.	Morichbunia	1-V	450	Marichbunia, in front of Kamal Gazi's house
58.	Dakkhin Bazargona	1-V	450	East of Rashid Chairman's house

Exact location and names of the irrigation inlets should be verified in the field.

## 2.5 Reconstruction of Irrigation Inlet (In place of existing damaged inlets)

Sl. No.	Proposed Inlets	No. of Vents	Size, mm	Village & Location
1.	Dakkhin Bazargona Inlet	1-V	450	Dakkhin Bazargona, south side of Bashir Chairman's house
2.	Barun Baria Inlet	1-V	450	Barun Baria, near Community School
3.	Barun Baria Inlet	1-V	450	Barun Baria, beside Hasan Talukdar's House
4.	Barun Baria Inlet	1-V	450	Barun Baria, in front of Ismail Haoladars house

Exact location and names should be finalized in the field.

## 2.6 Re-excavation of Khal

Sl. No.	Name of Khals	Approximate Length (km)
1.	Jhapuar Khal	2.40
2.	Hopania Khal	1.80
3.	Chakorer Khal	1.20
4.	Purbo Marichbunia Askhali Sota Khal	1.00
5.	Tafalbaria Napiter Sota Khal	1.18
6.	Charabunia Baro Khal	2.41
7.	Kurikurar Khal	2.03
8.	Sarindar/Monair Khal	1.20
9.	Katakhal Khal	2.50
10.	Dangar Khal	1.00
11.	Dantar Khal	1.17
12.	Naseruddiner Sota Khal	1.10
13.	Chitnakhali Branch Khal	1.20
14.	Gerakhali Khal	1.50
15.	Sutanali Khal	1.00
16.	Paschim Marichbunia Bottolar Khal	1.10
17.	Barun Baria Taltolar Khal	1.80
18.	Karamjatola Khal	2.24
19.	Bousher Branch Khal	2.20
20.	Ghoramarar Khal	1.20
21.	Idukhali Khal	1.10

Lengths of the khals are indicative and may include some branch khals.

## 3.0 Polder 43/2E (Fine Tuning Polder)

### 3.1 Embankment Re-Sectioning

Will be done as per field condition (about 5.00 km)

### 3.2 Repair of Drainage/Flushing Sluice

Sl. No.	Name of Structures	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Natuar khal Pipe Sluice	1-V	0.9m dia	17+500
2.	Naotana Sluice	1-V	1.5x1.2	01+080
3.	Katakhal Sluice	1-V	1.5x1.2	02+610
4.	Gogonkhali Sluice	1-V	1.5x1.2	06+700

5.	Dholkhali Sluice	1-V	1.5x1.8	08+900
6.	Suddurbaria Sluice	1-V	1.5x1.2	11+550
7.	Moubaria Sluice	1-V	1.5x1.2	15+970

### 3.3 Repair of Drainage Outlet

Sl. No.	Name of Structures	No. of Vents	Size (mm)	Approximate Chainage, km
1	Katurataluk Outlet	1-V	900	09+500
2	Piprabunia Outlet	1-V	900	14+100

### 3.4 Re-excavation of Khal

Sl. No.	Name of Khals	Approximate Length (km)
1.	Gagankhali Khal	1.50
2.	Dholkhali Khal	1.00
3.	Moubaria Main Khal	1.75
4.	Shuddurbaria Main Khal	1.50
5.	Naotana Khal	2.70
6.	Katakhali Khal	1.75
7.	Natuar Main Khal	1.80
8.	Katurataluk Main Khal	0.50
9.	Katurataluk Branches	2.25
10.	Piprabunia Khal	1.65

Lengths of the khals are indicative and may include branches.

## 4.0 Polder 43/2B (Fine Tuning Polder)

### 4.1 Embankment Re-Sectioning

Will be done as per field condition (about 6.00 km).

### 4.2 Embankment Re-Sectioning/Embankment Retirement

Sl. No.	Location	Chainage	Approximate Length, km
1.	Boloikathi	2 reaches	2.00

### 4.3 Repair of Drainage/ Flushing Sluice

Sl. No.	Name of Structures	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Bauria Sluice	2-V	1.50X1.80	04+180
2.	Nosaishing Sluice	2-V	1.5x1.8	14+895
3.	Badurai Sluice	2-V	1.5x1.8	19+940
4.	Masuakhali Sluice	1-V	1.5x1.8	25+183
5.	AmkholaSluice	2-V	1.5x1.8	36+910

### 4.4 Reconstruction of Drainage/ Flushing Sluice (If recommended by Design Office)

Sl. No.	Name of Structures	Number of Vents	Size (mxm)	Approximate Chainage, km
1.	Mushorikati Sluice	2-V	1.5x1.8	00+000

### 4.5 Repair of Irrigation Inlets

Sl. No.	Local Name of Inlets	Number of Vents	Size (mm)	Village & Location
1.	Suhari	1-V	450	East side Nasu Mrida house, ) 0+570
2.	Suhari	1-V	450	Beside Mosarraf Hossain's house, 1+028
3.	Bauria Chariani	1-V	450	East side of Taher Haowlader's house, 3+170
4.	Baro Gabua	1-V	450	North side of abdur Rob Mridha's house, 4+295
5.	Sonakhali	1-V	450	South side Nur Hossain Kha's house, 6+158
6.	Sonakhali	1-V	450	West side of Salam Mridha's house, 6+927
7.	Sonakhali	1-V	450	South of Adam Ali's house, 7+548

8.	Chalitabunia	1-V	450	South side of Jainal Kha's house, 9+738
9.	Chalitabunia	1-V	450	South side of Milan Haowlader's house, 11+050
10.	Chalitabunia	1-V	450	West side of Basir Talukder's house, 11+685
11.	Gerabunia	1-V	450	Northwest corner of Delowar Hossain's house, 12+360
12.	Chailabunia	1-V	450	South side of Siddique's house (motor cycle driver), 14+350
13.	Chailabunia	1-V	450	West of Amrita Padani's house house, 15+217
14.	Chailabunia	1-V	450	West of Delowar Chowkider's house, 15+805
15.	Chailabunia	1-V	450	Northwest corner of Salam Howlader's house, 17+665
16.	Chailabunia	1-V	450	Southwest corner of Soyezuddin's house, 18+470
17.	Chailabunia	1-V	450	Nort side of Jamal Haowlader's house, 19+195
18.	Badura	1-V	450	East side of Eunus Haowlader's house, 20+075
19.	Badura	1-V	450	Southwest corner of Selim Haowlader's house, 20+348
20.	Badura	1-V	450	South side of Khalil Munshi's house, 23+073
21.	Badura	1-V	450	South side of Jahangir Mridha's house, 24+724
22.	Badura	1-V	450	West side Shah Alam Police's house, 25+098
23.	Boloikati	1-V	450	South side Mannam Munshi's house, 25+533
24.	Boloikati	1-V	450	North side Late Belayet Master's house, 26+168
25.	Boloikati	1-V	450	West of Late Al Islam Haowlader's house, 26+680
26.	Boloikati (Chingaria)	1-V	450	North side Jainal Molla's house, 29+520
27.	Boloikati (Chingaria)	1-V	450	West of Kashem Biswas's house, 29+893
28.	Amkhola	1-V	450	East side of Shorab sikder's house, 31+385
29.	Daribaherchar	1-V	450	North of Ismail's house, 32+460
30.	Daribaherchar	1-V	450	South of Nuruzzaman Mridha's house, 34+195
31.	Daribaherchar	1-V	450	South of Ishaq Haowler's house, 34+923
32.	Daribaherchar	1-V	450	East of Mazu Biswas's house, 35+806
33.	Daribaherchar	1-V	450	North of Amkhola Bazar, 36+404
34.	Bhangra	1-V	450	North of Sentu Chowkider's house, 37+665
35.	Bhangra	1-V	450	North of Soez Haowlader's house, 38+221
36.	Musurikati	1-V	450	North of Berek Haowlader's house, 38+872
37.	Musurikati	1-V	450	North of Forkan Mridha's house, 39+694
38.	Dori Baher Char	1-V	450	Dori Baher Char,
39.	Dori Baher Char	1-V	450	Dori Baher Char, Chainage 35+194 km
40.	Dori Baher Char	1-V	450	Dori Baher Char, South side of Shah Alam Hawladar's House
41.	Dori Baher Char	1-V	450	Dori Baher Char, East Side of Rashid Biswas
42.	Bhangra	1-V	450	Bhangra, Beside the House of Khaleq Mirdha
43.	Masurikati	1-V	450	Masurikati, South side of Shah Alam Hawladar's House
44.	Masurikati	1-V	450	Masurikati, Beside the House of Salam Hawladar

Exact location and names of the irrigation inlets should be verified in the field.

#### 4.6 Construction of Inlets

SL. No.	Name of Structure	No. of Vents	Size, m	Location, km
1	Suhuri	1	0.45	Suhuri, Beside the house of Latif Khan
2	Dori Baher Char	1	0.45	Dori Baher Char, beside the House of Raja Chowkidar

#### 4.7 Re-Excavation of Khals

Sl. No.	Name of Khals	Approximate Length (km)
1.	Bauria Khal	3.50
2.	Bhadra Khal	1.10
3.	Bangrar Khal	1.40
4.	Karamjatolar Khal	1.10
5.	Ostakhali	0.70

6.	Sobaram Khal	1.80
7.	kalabuniar Khal	0.75
8.	Badurar Khal	3.00
9.	Machuakhali Main Khal	3.85
10.	Musurikati Khal	2.00

Lengths of the khals are indicative and may include branches.

## **Barguna O&M Division**

### **5.0 Polder 43/2F (Fine Tuning Polder)**

#### **5.1 Repair of Drainage/ Flushing Sluice**

Sl. No.	Local Name of Sluice	Vent Number	Size (mxm)	Approximate Chainage, km
1.	Kanta Sluice	1-V	0.9x1.2	03+447
2.	Angulkata Sluice	1-V	1.5x1.8	04+483
4.	Gulishakhali Sluice	1-V	1.5x1.8	06+648
5.	Jejepara/ Naiyapara Sluice	1-V	0.9x1.2	08+448
6.	Haridrbaria Sluice	1-V	0.9x1.2	11+403
7.	Solohawladar Sluice	1-V	0.9x1.2	14+542
8.	Doachara Sluice	1-V	0.9x1.2	17+055
9.	Moradhona Sluice	1-V	0.9x1.2	17+888
10.	Borachi Sluice	1-V	0.9x1.2	22+708
11.	Kalibari Sluice	1-V	0.9x1.2	25+746
12.	Gojkhali Sluice	3-V	1.5x1.8	26+921
13.	Debpur Sluice	1-V	0.9x1.2	27+872
14.	Bainbunia Sluice	1-V	1.5x1.8	28+689
15.	Bajarkhali Sluice	1-V	0.9x1.2	30+277
16.	Khekuani Sluice	1-V	1.5x1.8	32+788

#### **5.2 Repair of Drainage Outlet**

Sl. No.	Local Name of Outlets	Number of Vents	Size (mm)	Approximate Chainage, km
1.	Katakhali Outlet	1-V	600	10+454
2.	Purbokalibari Outlet	1-V	600	19+875
3.	Mondob Bari Outlet	1-V	600	25+251

#### **5.3 Construction/Reconstruction of Drainage Outlet**

Sl. No.	Local Name of Outlets	Number of Vents	Size (mm)	Approximate Chainage, km
1.	Karamjabunia Outlet	1-V	900	2+250
2.	North Kalagachia Outlet	1-V	900	15+690
3.	Mothbaria Outlet	1-V	900	28+800
4.	Paschim Kalagachia Outlet	1-V	900	12+603
5.	Ghosher Khal Outlet, Kalibari	1-V	900	18+100

#### **5.4 Repair of Irrigation Inlet (May be in groups based on similar repair needs)**

Sl. No.	Local Name of Inlets	Number of Vents	Size (mm)	Village & Location
1.	Haridrbaria	1-V	450	Haridrbaria, in front of Hatem Ali's house
2.	Bazar Gona	1-V	450	Bazar Gona, in front of Forkan's house
3.	Kali Bari	1-V	450	Kali Bari, near Ismail Shikdar's house

4.	Gulisha khali	1-V	450	Gulisha khali, Jelepura, east of Samsul Haque's house
5.	Kalagasia	1-V	450	Kalagasia, in front of Abul Hossain's house
6.	East Kalibari	1-V	450	East Kalibari, near Satter's house
7.	North kalibari	1-V	450	North kalibari, north of Maolana Moazzem Pada's house
8.	Kalagasia	1-V	450	Kalagasia, in front of Raja Matbor's house
9.	Kalagasia	1-V	450	Kalagasia, in front of Kamal Shikder's house
10.	Angul Kata	1-V	450	Angul Kata, in front of Zainal Haoladar's house
11.	Angul Kata	1-V	450	Angul Kata, in front of Sattar Haoladar's house
12.	Gulisha khali	1-V	450	Gulisha Khali, east of Showdagar Hatkhola
13.	West Kalagasia	1-V	450	West Kalagasia, in front of Jabbar Molla's house
14.	Gulisha khali	1-V	450	Gulisha Khali, beside Samsul Meber's house
15.	Haridrabaria	1-V	450	Haridrabaria, in front of Gazi Bari
16.	Hargola Kalibari	1-V	450	Hargola Kalibari, south of Shardar Bari
17.	North Kalagasa	1-V	450	North Kalagachhiya, beside Khalek Mridha's house
18.	Goskhali	1-V	450	Goskhali, near Kalpana's house
19.	Dalachora	1-V	450	Dalachora, in front of Raja Mia's house
20.	Kalagasia	1-V	450	Kalagasia, in front of Dr. Harlal's house
21.	Gulishakhali	1-V	450	Gulishakhali, south of Gulishakhali Bazar/ North of Gulisha khali sluice
22.	Angul kata	1-V	450	Angul Kata, south of Launch Ghat
23.	Haridrabaria	1-V	450	Haridrabaria, in front of Anwar Talukdar's house
24.	Angulkata	1-V	450	Angul Kata, in front of Musolli's house
25.	Angulkata	1-V	450	Angulkata, near Eusuf Munshi's house
26.	Kalagasia	1-V	450	Kalagasia, Beside Jafar Mridha's house
27.	North Kalibari	1-V	450	North Kalibari, north of Sultan Maolana's house
28.	Bainbunia	1-V	450	Bainbunia, near Mojid Chowkidar's house
29.	Khekuani	1-V	450	Khekuani, in front of Nawab Gazi's house
30.	Khekuani	1-V	450	Khekuani, beside Wahed Gazi's house
31.	North Kalibari	1-V	450	North Kalibari, near Matlab Pada's house
32.	Angul Kata	1-V	450	Angul Kata, In front of Jaynal Fakir's house
33.	East Kalibari	1-V	450	East Kalibari, in front of Firoj Kazi's house
34.	Kalagasia	1-V	450	Kalagasia, west of Kalagasia Bazar
35.	Angul Kata	1-V	450	Angul Kata, in front of Abul Haoladar's house
36.	Angul Kata	1-V	450	Angul Kata, in front of Hakim Pada's house
37.	East Kalagasia	1-V	450	East Kalagasia, in front of Lalmiya's house
38.	Gulishakhali	1-V	450	Gulishakhali, in front of Razzak Gazi's house

Exact location and names of these irrigation inlets should be verified in the field.

#### 5.5 Construction of Drainage Sluice (In place of existing damaged Moradhona Outlet, as reported this outlet was also undersized)

Sl. No.	Proposed Sluice	Size & No. of Vents	Village & Location
1.	Moradhona Sluice	Field condition	Kalibari, in place of damaged Moradhona Outlet

#### 5.6 Construction/Reconstruction of Irrigation Inlet (In place of existing damaged inlets)

Sl. No.	Proposed Inlet	No of vents	Size, mm	Village & Location
1.	Bain Bunia	1-V	450	Near Shanu Commander's house
2.	Uttar Kalibari	1-V	450	Near Ali Peada's house
3.	Dakkhin Bazargona	1-V	450	Near nurul Islam's house
4.	Dakkhin Bazargona	1-V	450	Near Akks Haowlader's house

#### 5.7 Re-excavation of Khal

Sl. No.	Name of Khals	Approximate Length (km)
1.	Debpur Khal	1.25
2.	Battola Khal	1.00



3.	Banno Kura Khal	2.20
4.	Gulishakhali Khal	1.33
5.	Motbari Khal	1.50
6.	Debpur Branch Khal	0.85
7.	Barachi Khal	2.00
8.	Doachara Khal	1.05
9.	Khekuani Khal	1.40
10.	Dalachara Branch Khal	2.05

Lengths of the khals are indicative and may include branches.

## 6.0 Polder 43/1A (Fine Tuning Polder)

### 6.1 Repair of Drainage/ Flushing Sluice

Sl. No.	Local Name of Sluice	Vent Number	Size (mxm)	Approximate Chainage, km
1.	Kewbunia Sluice	1-V	1.5X1.8	00+440
2.	Golbunia Sluice	1-V	1.5x1.8	06+155
3.	Chaola Sluice	2-V	1.5x1.8	12+588
4.	Amtola Sluice	3-V	1.5x1.8	25+860

### 6.2 Repair of Drainage Outlet

Sl. No.	Local Name of Outlets	Number of Vents	Size (mm)	Approximate Chainage, km
1.	Burir Khal Outlet	1-V	600	2+270
2.	Golbunia Outlet	1-V	900	4+450
3.	Atharogachia Outlet	1-V	900	17+220
4.	Sonakhali Outlet	1-V	900	21+170
5.	Kukua Outlet	1-V	900	26+571

### 6.3 Repair of Irrigation Inlets (May be in groups based on similar repair needs)

Sl.No.	Local Name of Inlets	Number of Vents	Size (mm)	Approximate Chainage, km
1	Kewabunia	1	450	00+260
2	Kewabunia	1	450	01+050
3	Paschim Kewabunia	1	450	02+140
4	Gulbunia	1	450	05+360
5	Gulbunia	1	450	07+243
6	Shakharia	1	450	08+800
7	Chowla	1	450	10+238
8	Sonakhali	1	450	17+570
9	Dakhin Sonakhali	1	450	20+082
10	Gazipura	1	450	23+942
11	Kukua	1	450	25+382

### 6.4 Reconstruction of Inlets

Sl. No.	Local Name of Inlets	Number of Vents	Size (mm)	Approximate Chainage, km
1.	Badura	1-V	600	10+550
2.	Chowla	1-V	450	14+176

### 6.5 Re-Excavation of Khals

Sl. No.	Name of Khals	Approximate Length (km)
1.	Kathalir khal, Patabunia khal & Jamiuddin khal	2.40
2.	Mohiskata main khal	2.40
3.	Kewabunia main khal	1.40
4.	Kewabunia branch khal	1.40
5.	Gulbunia branch khal	1.40
6.	Khatashia khal	1.40
7.	Baular khal	1.40
8.	Burir khal (Chowla)	1.40

9.	Burir khal (Gulbunia)	0.90
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Lengths of the khals are indicative and may include branches.

## **Khulna O&M Division-2**

### **7.0 Polder 22 (Fine Tuning Polder)**

#### **7.1 Repair of Outlet:**

Sl. No	Name of Outlet	No. of Vents	Size, mm	Chainage/Location, km
1.	Horinkhola Outlet	1-V	900	10+080/ Field Condition

#### **7.2 Construction of Inlet**

Sl. No	Name of Inlet	No. of Vents	Size	Chainage/Location
1.	Horinkhola Inlet	1-V	450	Field condition
2.	Kalinagar Inlet	1-V	450	03+105

### **8.0 Polder 30 (Fine Tuning Polder)**

#### **8.1 Embankment Re-sectioning**

Sl. No	Location	Approximate Length, km
1.	As per field condition	1.00
2.	As per field condition	1.00

#### **8.2 Repair of Drainage/Flushing Sluice**

Sl. No	Name of Structure	No. of Vents	Size (mxm)	Approximate Location (km)
1.	Fultola Flushing Sluice	1-V	0.90 X 0.90	3+718
2.	Amtala Drainage Sluice (DS-5)	2-V	1.50 X1.80	17+645
3.	Kalatala Drainage Sluice (DS-5A))	2-V	1.50 X1.80	21+800
4.	Mailmara Drainage Sluice (DS-6)	1-V	1.50 X1.80	25+115
5.	Parbatiaghata Drainage Sluice (DS-7)	2-V	1.50 X1.80	27+201
6.	Beeler Khal Drainage Sluice (DS )	1-V	0.90 X 1.20	30+935
7.	Chalksoilmari Flushing Sluice	1-V	0.90 X 0.90	32+940
8.	Hatbati Flushing Sluice	1-V	0.90 X 0.90	38+452

#### **8.3 Re-excavation of Khal**

Sl. No	Name of Khal	Approximate Length (km)
1.	Citibunia Khal/Shonarbari Khal	2.50
2.	Fultala/Kakrabunia Khal	2.00
3.	Kalatola Khal	0.50

### **9.0 Polder 31-part (Rehabilitation Polder)**

#### **9.1 Re-sectioning of Embankment:**

Sl. No	Chainage, Location	Approximate Length, km
1.	As per field condition	8.50

#### **9.2 Resectioning/Retired Embankment**

Sl. No	Chainage, Location	Approximate Length, km
1.	km.20.70 to km.21.05, km.21.50 to km.21.70, km.22.30 to km.22.50 (Barunabad)	2.00

#### **9.3 Repair of Drainage/ Flushing Sluice**

Sl. No	Name of Structure	No. of Vents	Size (mxm)	Approximate Location (km)
1.	Gaoghora Sluice(DS-2)	1-V	1.50 X 1.80	7+955
2.	Gazalia Sluice(DS-3)	1-V	1.50 X 1.80	10+648
3.	Sapa Sluice(DS-5)	1-V	1.50 X 1.80	17+585
4.	Barobhuyian Sluice(DS-6)	1-V	1.50 X 1.80	20+230

#### 9.4 Construction of Drainage Sluice

Sl. No	Name of Structure	No. of Vents	Size (mxm)	Location (km)
1.	Nandon khali	Field Condition	1.50x1.80	Field Condition

#### 9.5 Construction of Outlet

Sl. No	Name of Structure	No. of Vents	Size, mm	Location (km)
1.	Barobhuiya Charar khal	1-V	900	Field Condition

#### 9.6 Construction of Inlet

Sl. No	Name of Structure	No. of Vents	Size, mm	Location (km)
1.	Goriadanga	1-V	450	Field Condition

#### 9.7 Re-excavation of Khal

Sl. No	Name of Khal	Approximate Length (km)
1.	Nondonkhali khal	4.50
2.	Bozrar khal	2.00
3.	Bogar khal	3.40
4.	Charar khal	2.00
5.	Kechor khal	3.00
6.	Surkhali khal	4.00
7.	Roypur kata khal	3.00

Lengths of the khals are indicative and may include branches.

### Khulna O&M Division-1

#### 10.0 Polder 29 (Fine Tuning Polder)

##### 10.1 Re-sectioning of Embankment

Sl. No	Location/ Chainage	Approximate Length, km
1.	Ch. at km.18.800 to km.20.000, km.24.020 to km.25.000 or as per field condition.	2.00

##### 10.2 Repair of Drainage/ Flushing Sluice

Sl. No	Name of Structure	No. of Vents	Size (mXm)	Location (km)
1.	Katakhal	1-V	1.83 x 1.50	02+319
2.	Kanaidanga	1-V	1.20 x 0.90	07+895
3.	Bakultala DS	1-V	1.38 x 1.22	10+748
4.	Kanchannagar	2-V	1.83 x 1.20	13+625
5.	Telekhali (Old)	2-V	1.83 x 1.53	16+163
6.	Jaliakhali	4-V	1.20 x 0.90	23+668
7.	Ruhitmara	1-V	1.83 x 1.20	25+444
8.	Ratankhali Sluice	1-V	1.83 x 1.20	32+903
9.	Ashan Nagar	1-V	1.38 x 1.07	35+002
10.	Chatchatia DS	2-V	1.83 x 1.53	36+114
11.	Golaimari	1-V	1.83 x 1.20	39+530

##### 10.3 Repair of Outlet

Sl. No	Name of Outlet	No. of Vents	Size, mm	Location (km)
1.	Agunkhali Outlet	1-V	900	20+206
2.	Shundar Mahal (Mora Bhadra) Outlet	1-V	900	30+624

**10.4 Construction of Outlet**

Sl. No	Name of Proposed Outlet	No. of Vents	Size, mm	Location, (km)
1.	Kodla-Mothbari Drainage Outlet	1-V	900	27+085

**10.5 Re-excavation of Khal**

Sl. No	Name of Khal	Approximate Length (km)
1.	Arua/Taner khal	1.40
2.	Nalghona khal	1.00
3.	Agunkhali-Machmara khal	3.50
4.	Khamarbari/Mulamer khal	1.60

Lengths of the khals are indicative and may include branches.

**11.0 Polder 26 (Rehabilitation Polder)****11.1 Re-sectioning of Embankment**

Sl. No	Location	Approximate Length, km
1.	As per field condition	2.00

**11.2 Repair of Drainage/ Flushing Sluice:**

Sl. No	Name of Structure	No. of Vents	Size, mxm	Location (km)
1.	Zialtala Sluice	3-V	1.50 x1.80	10+176

**11.3 Construction of Drainage Sluice**

Sl. No	Name of Sluice	No. of Vents	Size, mxm	Location (km)
1.	Kadomtola/Patibunia	3-V	1.50 x1.80	Field Condition

**11.4 Construction of Outlet**

Sl. No	Name of Structure	No. of Vents	Size, mm	Location (km)
1.	Padmabunia	1-V	900	Field Condition
2.	Borobeler khal	1-V	900	Field Condition

**11.5 Re-excavation of Khal**

Sl. No	Name of Khal	Re excavation Length (km)
1.	Baorer Khal	2.60
2.	Balayjhakhi Branch Khal	3.60
3.	Dangar Khal	1.40
4.	Bablatala Khal	2.30
5.	Chingra Kodalkata Branch Khal	5.00

**12.0 Polder 2 (Rehabilitation Polder)****12.1 Re-sectioning of Embankment**

Sl. No	Location	Approximate Length (km)
1.	km.0.00 to km.1.60, km 4.50 to km. 6.00, Km 7.00 to Km 40.00	20.00

**12.2 Repair of Sluice**

Sl. No	Name of Structure	No. of Vents	Size, mxm	Location (km)
1.	Ahmed Khali Sluice (S-7/1)	3-V	1.50 x 1.80	15+002
2.	Surja Khali Sluice (S-11/1)	2-V	1.50 x 1.80	33+101

**12.3 Reconstruction of Drainage/ Flushing Sluice**

Sl. No	Name of Structure	No. of Vents	Size, m	Location (km)
1.	Maheswar Khati Sluice (S-9, 3-V, dia-0.9mPipe Sluice)	Field Condition	Field Condition	22+258
2.	Chapra Sluice (S-10, 1-V, dia-0.9m, Pipe Sluice)	Field Condition	Field Condition	24+839

3.	Madra Sluice (S-11, 1-V, 1.5m X 1.8m)	Field Condition	Field Condition	29+384
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#### 12.4 Re- excavation of Khal

Sl. No	Name of Khal	Approximate Length (km)
1.	Dohakula khal	2.29
2.	Haji Khali khal	3.51
3.	Ahmed Khali khal	6.17
4.	Him Khali khal	2.67
5.	Setpur khal	1.49
6.	Baula Beeler khal	0.93
7.	Shisher Khal	1.34
8.	Shisher Outfall Khal	1.90