



Blue Gold Program

Inception Report

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

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

**November, 2013
Revised March, 2014**



Inception Report

November, 2013

Government of the Netherlands

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List of Acronyms and Abbreviations

ADB	Asian Development Bank	
ADP	Annual Development Plan	
AEC	Agricultural Extension Component	Component under the DAE-DANIDA funded Agricultural Sector Program Support phase-2 (2007-2013)
ANEP	Agriculture and Nutrition Extension Project	
AEO	Agricultural Extension Officer	
ASPS	Agricultural Sector Program Support	
AWIS	Annotated Water Integrity Scan	
BADC	Bangladesh Agricultural Development Corporation	
BARI	Bangladesh Agricultural Research Institute	
BBC	British Broadcasting Corporation	
BBS	Bangladesh Bureau of Statistics	
BRRRI	Bangladesh Rice Research Institute	
BWDB	Bangladesh Water Development Board	
CAHW	Community Animal Health Worker	
CAP	Community Action Plan	
CBO	Community-Based Organisation	
CDMP	Comprehensive Disaster Management Program	
CDSP III & IV	Char Development and Settlement Project Phase III & and Phase IV	
CEGIS	Center for Environmental and Geographic Information Services	
CEIP	Coastal Embankment improvement Project	
CGIAR	Consultative Group on International Agricultural Research	
CIG	Common Interest Group	
CIMMYT	International Maize and Wheat Improvement Center	This is a CGIAR Consortium Research Center. CIMMYT is the Spanish abbreviation for Centro Internacional de Mejoramiento de Maíz y Trigo.
CO	Community Organizer	
CSISA	Cereal Systems Initiative for South Asia	A program involving CIMMYT, IFPRI, ILRI, IIRRI

DAE	Department of Agricultural Extension	
DAM	Department of Agricultural Marketing	
DANIDA	Danish International Development Agency	
DCRMA	Disaster and Climate Risk Management in Agriculture	Project in Bangladesh supported by UKaid, European Union, Norwegian Embassy, Sida, Australian AID, and UNDP
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 Proforma	
DTL	Deputy Team Leader	
ECRRP	Emergency Cyclone Recovery & Restoration Project	
EKN	Embassy of the Kingdom of the Netherlands	
EMM	Euroconsult Mott MacDonald	
EUR	Euro	
FBC	Farm Business Cluster	
FBG	Farm Business Group	
FBS	Farmers Business School	
FCD	Flood Control and Drainage	
FCDI	Flood Control, Drainage and Irrigation	
FF	Farmer Facilitator	
FFS	Farmers Field School	
FGD	Focus group Discussion	
FT	Farmer Trainers	
FtF-AQ	Feed the Future - Aquaculture Project	
FY	Financial Year	
GAP	Gender Action Plan	
GESAP	Gender Equality Strategy and Action Plan (of BWDB)	
GDP	Gross Domestic Product	
GFFDP	Greater Faridpur Fisheries Development Project	
GoB	Government of Bangladesh	

GoN	Government of the Netherlands	
GPWM	Guidelines for Participatory Water Management	
ha	Hectare	
HH	Household	
HIES	Household Income and Expenditure Survey	
HYV	High Yielding Variety	
ICDDR,B	International Centre for Diarrhoeal Disease Research, Bangladesh	
ICM	Integrated Crop Management	
ICZMP	Integrated Coastal Zone Management Program	
IFI	International Financing Institutions	
IFM	Integrated Farm Management	
IFMC	Integrated Farm Management Component	DANIDA project. Large FFS program almost country wide (this is the next phase of AEC and RFLDC combined, starting mid 2013 for 5 years)
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	
IRRI	International Rice Research Institute	This is a CGIAR Consortium Research Center
IWM	Institute of Water Modeling	
IWMI	International Water Management Institute	
IWRM	Integrated Water Resources Management	
LCG	Local Consultative Group	
LCS	Landless/Labor Contracting Societies	
LF	Local Facilitator	
LG	Local Government	
LGED	Local Government Engineering Department	
LGI	Local Government Institutions	
M&E	Monitoring and Evaluation	
M4P	Markets for the Poor	
MASP	Multi-Annual Strategic Plan	

MDG	Millennium Development Goals	
MF	Max Foundation	
MoA	Ministry of Agriculture	
MoFL	Ministry of Fisheries and Livestock	
MoU	Memorandum of Understanding	
NARS	National Agricultural Research System	
NATP	National Agricultural Technology Project	
NGO	Non-Governmental Organisation	
NMTPF	National Medium-Term Priority Framework	
O&M	Operation and Maintenance	
PAR	Participatory Action Research	
PBP	Polder Business Plan	
PCD	Project Coordinating Director	
PD	Project Director	
PDP	Polder Development Plan	
PMC	Project Management Committee	
PPP	Public Private Partnership	
PSC	Programme Steering Committee	
PTD	Participatory Technology Development	
RFLDC	Regional Fisheries and Livestock Development Component	Component under the DAE-DANIDA funded Agricultural Sector Program Support phase-2 (2007-2013)
SAAO	Sub-Assistant Agricultural Officer	
SAFAL	Sustainable Agriculture, Food security and Linkages	Programme by Solidaridad Network Asia and CARE Bangladesh
SDC	Swiss Agency for Development Cooperation	
SDE	Sub-Divisional Engineer	
SME	Small and Medium Enterprise	
SPEMP	Strengthening Public Expenditure Management Program	
SPPS	Strengthening Plant Protection Services project	DANIDA-DAE funded project 1997-2001
SPPS-2	Strengthening Plant Protection Services project Phase 2	DANIDA-DAE funded component under Agricultural Sector Program Support phase-1 (2001-2006)
SRDI	Soil Resources Development Institute	

SRHR	Sexual and Reproductive Health and Rights	
SSSWRDSP	Second Small-Scale Water Resources Development Sector Project	
SSWRDSP	Small Scale Water Resources Development Sector Project	
SWAIWRPMP	Southwest Area Integrated Water Resources Planning and Management Project	Often called: South-West project
SWOT	Strengths, Weaknesses, Opportunities, and Threats	
TA	Technical Assistance	
TL	Team Leader	
TNA	Training Needs Analysis	
TOF	Training of Facilitators	
TOT	Training of Trainers	
UAO	Upazila Agricultural Officer	
UP	Union Parishad	
VAP	Village Action Plan	
VC	Value Chain	
VCA	Value Chain Analysis	
VCD	Value Chain Development	
VCS	Value Chain Selection	
VDP	Village Development Plan	
WASH	Water Sanitation and Hygiene education	
WB	World Bank	
WFC	World Fish Centre	This is a CGIAR Consortium Research Center
WIN	Water Integrity Network	
WMA	Water Management Association	
WMG	Water Management Group	
WMIP	Water Management Improvement Project	
WMO	Water Management Organisation	Combined WMG and WMA
WUR	Wageningen University and Research Centre	
XEN	Executive Engineer (BWDB)	

Executive Summary

Since around 1975 the Bangladesh and Netherlands Governments are working closely together in the coastal zone of Bangladesh to create an environment conducive for sustainable economic growth with close involvement of the local communities. The Blue Gold Program has been designed taking into account the lessons learnt over the past ten years, the new insights in how to deal with the challenges created by the very dynamic rivers of Bangladesh and the new communication technologies.

Blue Gold became operational in March 2013 and extends over a 6 years period, until March 2019. Its operations concentrate on the polders of three districts: Patuakhali, Khulna and Satkhira. The Program covers 160,000 ha (gross) where an estimated 150,000 household will have direct benefits from the 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*

In the Inception Phase, the TA team has reviewed the strategy and assumptions underlying the Blue Gold project program and work plans in consultation with the donor agency and the implementing partners BWDB and DAE. Also, stock was taken of on-going and planned projects and initiatives in the coastal areas, relevant for Blue Gold. At the same time, steps were taken to mobilize the Blue Gold team, establish offices in Dhaka (at BWDB and DAE) and in two of the three Districts, namely Khulna and Patuakhali.

This Inception Report provides the main findings, recommendations and proposals of the TA team aiming specifically at work plans, schedules of activities, timings and logistics for each of the five project components. It also includes the overall Blue Gold log frame with revised key indicators. The Blue Gold approach – which is based on the proven IPSWARM guidelines for sustainable water resources management - provides the structure for planning, implementation and coordination between the different project components.

Component 1: Community Mobilization and Institutional Strengthening

Objectives

The IPSWAM polders have 246 WMGs that are registered under the Cooperative Societies Act and these are mainly focused on routine operation and maintenance (O&M) of the water management infrastructures. While substantive work has been successfully carried out in organizing the communities to form WMGs, and WMAs at the polder level, as well as in carrying out routine O&M work in joint collaboration with the Bangladesh Water Development Board (BWDB), further development is necessary to engage the communities in sustainable socio-economic development activities. In addition to the 246 WMG cooperatives, the Blue Gold program is tasked to form new 600 WMG cooperatives and strengthen these to jointly manage the water management infrastructures, engage in economic activities, and enter into market transactions within the local territories or with outside parties in order to enhance production income levels, raise the standard of living and sustain the environment. The cooperatives need to develop into private business enterprises and be able to operate at a commercially feasible and solvent manner.

Approach and Methodology

Following the experience of IPSWAM and Southwest projects, community mobilization and institution strengthening process is summarized in Table 3 of Chapter 3.

Timing and Sequence of Key Community Mobilization and Strengthening Processes

Community mobilization and institutional strengthening activities starting with the planning process and WMO formation/strengthening activities will require 1-2 years prior to the actual implementation of fine tuning/rehabilitation works depending on the size and level of complexity of the polder.

Cooperative registration process in polders other than IPSWAM will start after WMO formation process. Parallel to this process is the mobilization of the WMOs to participate in actual rehabilitation works i.e. quality monitoring and LCS activities

Strengthening/expansion of cooperative and business activities by WMGs in the IPSWAM polders can be started after the assessment of WMG functionality specifically for IPSWAM polders. How they want to expand and what activities/projects they want to undertake will be the decision of the members of the WMGs. It is expected that the Executive members of each WMG will need to assume specific responsibilities to enable the WMG in handling its multiple functions. Managing business/cooperative activities as well as their water management /responsibilities must be carefully planned and implemented.

Challenges

- Difficulties and restrictions are foreseen in WMG registration with the Department of Cooperatives as experienced by IPSWAM and Southwest. Logistic support and capacity building assistance to DoC including creation of water cell and establishment of MIS have been initiated by LGED through the PSSWRS project funded by ADB. Similar initiatives can be under taken by Blue Gold. Moreover, some amendments in the registration requirements and procedure should be made to facilitate WMO registration;
- It is a big challenge for the program to develop self-sustaining WMOs amidst projects/initiatives in the program areas which are being implemented in a 'dole-out' manner. As far as possible, the program will coordinate and/or collaborate with the other projects to harmonize approach and methodology;

Crucial to long term sustainability of WMOs is the reliability and functionality of water management infrastructures and facilities over a long period of time. This will be attained if BWDB will adequately fund and address timely preventive O&M requirements of major structures and facilities under its responsibility and provide technical guidance and supervision to the WMOs during and after project completion.

Component 2: Water Resources Management

The objectives of the water resources management component are:

1. ascertain flood protection in polders with gross area of approximately 25,000 ha in total by rehabilitation of the embankments and water intakes and outlets and an improved water distribution and drainage system;
2. optimal use of the water resources for the productive sectors through the fine-tuning of the drainage and water distribution system for 45,000 ha of IPSWAM polders and 90,000 ha already rehabilitated polders;
3. the partnership between BWDB and WMGs/WMAs is effectively operational resulting in continuous and high standard O&M works and effective water management;
4. BWDB zonal offices are applying the IPSWARM guidelines (six steps approach); the planning, design, tendering, and construction are conducted following the highest standards of quality.

A pre-selection of polders in the three Districts has been made in accordance with the IPSWARM guidelines 2008. A long list of probable program polders is included in the DPP (BWDB component) of May 2013, from which 26 polders have been initially selected for indicative planning. All 9 IPSWAM polders are included in the program as well as 2 polders for which the water management assessment has taken place already. For the remaining 15 polders it is planned to make annual selections of new and rehabilitated polders by the end of 2013, end of 2014 and end of 2015. In the final selection, implementation plans of other projects such as the World Bank funded CEIP will be taken into account.

The fine tuning works will include minor repair, tuning and upgrading of the already rehabilitated polders. For each polder there will be a summary initial assessment report containing the required fine tuning works and costs. The works will in general include re-sectioning of embankments, repair and/or improvement of drainage outlets and irrigation inlets, re-excavation of internal canals and improvement of on-farm water management.

In a few cases fine tuning of polders, because of some uncontrollable external causes, may also require major works like re-designing of the drainage direction involving re-excavation of the outfall link channels and construction of additional sluices or the construction of so-called retired embankments with new drainage-flushing infrastructures.

In May and June 2013 topographical surveys were carried out for fine-tuning works in four IPSWAM polders in Khulna and Patuakhali Districts to be included in the BWDB ADP 2013-2014. Implementation in these four polders is planned for Year 1 and Year 2.

The rehabilitation works— for which implementation is planned to start in Year 3 - will include major rehabilitation of the newly selected polders. There will be an initial assessment report for each polder. The works will in general include (re-) construction of embankments, sluices, regulators, drainage outlets and irrigation inlets, (re-)excavation of canals and construction of low compartmental dykes for efficient on-farm water management; at least 50% of the earthwork will be Landless Contracting Societies (LCS).

Some rehabilitation polders may also require hydro-morphological study, water modeling, river training and bank protection works. These works will be done subject to the provision in the DPP and /or concurrence of BWDB and EKN and in any case in consultation with other ongoing or planned donor-funded rehabilitation and protection projects in the coastal area.

Monitoring and quality control of implementation works are planned to achieve the highest possible quality of works that will form a strong foundation for implementation of other Blue Gold components. It will follow the participatory approach as in the past but with a stronger field technical TA team. The TA team will guide and coordinate the overall quality control and monitoring process.

Once the rehabilitation activities are concluded, the responsibilities for routine O&M are, in line with an O&M agreement, transferred from the BWDB to the WMO. The WMOs will be responsible for resource

mobilisation for routine O&M. To do this in a sustainable manner the WMOs need real access to income generating resources. One preferred option is for BWDB and other authorities to lease land to the WMOs for a specific period of time, with steps taken to ensure that the WMOs actually gain access to that land. For this reason it is important to continue efforts to realize the practical hand over of khals, borrow pits and slopes of the embankments to the WMOs.

Component 3: Food Security and Agricultural Production

Objectives

Following the rehabilitation or fine tuning of water management in the polders (Component 2) and effective Operation and Maintenance by functional Water Management Organizations (Component 1), Component 3 will support the productive sectors (crops, aquaculture and livestock) so that performance will be higher for the benefit of male and female producers.

Immediate objectives are that production of the agricultural sectors will be increased, which will contribute to higher income and improved food security of the target population. Improved water management will create opportunities for diversification of agricultural production, such as the introduction of new crops or varieties, and for increasing production of fish and livestock. Improved technologies, such as farm mechanization and irrigation, will improve farm efficiency and increase productivity.

All WMG members will benefit from more effective research and extension services. The Farmer Field School (FFS) approach will be used to offer a wide range of learning opportunities to WMGs, based on their resources, wishes and opportunities. Some of the more advanced FFS groups will form commodity based producer groups, which with support by Component 4 can become more market oriented and can benefit from stronger value chains with improved input supply and marketing of their produce.

Approach and Methodology

Subgroups of WMGs will receive training using the FFS approach. Supported by DAE, which has many years of experience with FFS, crops related FFS will be organized. Existing FFS curricula will be used to train groups on production of rice, other field crops and homestead vegetables and fruits. If polders have opportunities for new high value crops, special training curricula for these crops will be developed in collaboration with DAE and other organizations and projects experienced with FFS (Danida, FAO).

FFS on homestead vegetable and fruit production will be used for groups that are focusing on food security issues, which are often poor and landless households. Not only vegetable and fruit production but also topics related to nutrition will be important in these FFS. It is expected that many female farmers will show interest in this type of training. Component 3 has as target that at least 50% of all FFS farmers are women.

For advanced FFS groups (second season FFS or existing farmer clubs) new training modules will be developed to support the groups becoming more marketing and research oriented. For example, training modules related to farm mechanization may be developed in collaboration with CSISA project (CIMMYT), new rice varieties could be tested in collaboration with IRRI, and market or value chain related FFS modules will be developed for Component 4, possibly in collaboration with Danida's IFMC project.

Training curricula for FFS that relate to aquaculture and livestock will be developed in collaboration with DOF and DLS. Technical expertise of these departments will also be needed in Training of Facilitators courses, to develop Blue Gold's capacity to implement aquaculture and livestock FFS. Blue Gold will also collaborate and harmonize fish and livestock related work with other relevant development partners, such as FtF-Aqua (WorldFish), IAPP (Integrated Agricultural Productivity Project), IFMC and FAO. Many of the fish and livestock FFS will target household level production of poultry, small and large ruminants, and fish, with the aim to increase income and improve nutrition. Other FFS could be linked to specific value chains, such as shrimp or tilapia, which will be coordinated with SAFAL and FtF-Aqua.

Capacity building of good FFS facilitators (30% females) is essential for an effective FFS program.

- Crops related FFS will be implemented by Departmental Trainers of DAE and also by Farmer Trainers (i.e. lead farmers who have been trained to conduct FFS). Training of Facilitator courses for these FFS facilitators will be organized together with DAE.
- Fish and livestock related FFS will be implemented by Farmer Trainers who will be trained in Training of Facilitator courses organized by Blue Gold with technical support by DOF, DLS and related projects.
- Blue Gold will also recruit a number of FFS Organizers who will be also trained to conduct FFS (crops, fish, livestock) and who can support and backstop FFSs conducted by Farmer trainers.
- For new FFS modules (e.g. mechanization, new crops, and market orientation) capacity building will be organized in collaboration with relevant organizations and projects (DAE, DOF, DLS, IRRI, CIMMYT, FAO, FtF-Aqua, SAA, IFMC, IAPP, etc.)

Innovations

Improved water management in the polders creates opportunities for diversification and intensification. Already it is clear that water shortages during the Rabi/Boro season will be an important limiting factor for agricultural production. Another common problem in the Blue Gold polders is salinity. Innovations that address these two issues deserve priority. Possible innovations, including farm mechanization and post-harvest technologies, will be tested on-farm, together with farmers, using principles of Participatory Actions Research (PAR).

Challenges

- As in all FFS programs, a challenge is to maintain quality of training by giving importance to the development of qualified FFS facilitators.
- Different types of FFS require a lot of flexibility and coordination with many partners. This is a challenge that especially relates to adapting and designing new FFS curricula and training modules, training of FFS facilitators, and flexible budgeting for different types of FFS. As DAE is used to roll-out large uniform FFS programs, this is an issue which will need a lot of attention by Blue Gold.
- The Blue Gold area overlaps with the working areas of many projects (e.g. SAFAL, IFMC, DAE IPM, DCRMA, FtF-Aqua, SAA, CSISA, NATP, ECRRP, IAPP, etc.), including some that operate within DAE and also use the FFS approach. The challenge is to develop synergy between all these development partners.

Component 4: Business Development

Objective:

The basic premise of the Blue Gold Program is the rehabilitation of infrastructure to facilitate appropriate water resource management and the subsequent increase of agricultural productivity. The Business Development Component supports the farming households, their association and other market actors to capture the full benefit of this increase in polder productivity. This component seeks to enhance the market linkages and systems, to identify opportunities for value adding and to develop enterprises through value chain improvements to the benefit of the polder community.

Ultimately the objective is to increase farm household income from agricultural production, generate business income and expand employment to improve livelihoods and reduce poverty through market orientation and development. This will result in producer groups which farm on a more market oriented basis and pursue collective actions and benefit from better linkages with respect to inputs, processing and

marketing, along with improved public and private services providers. Simultaneously, businesses will generate higher incomes and non-farm employment.

Approach and Methodology

The central approach to Business Development in Blue Gold is Value Chain Development. A value chain can be defined as all the firms that buy and sell from each other in order to supply a particular set of products or services to final consumers. This chain includes producers, processors, input suppliers, wholesalers, exporters and retailers and is defined by a particular finished produce or service. Value chain development rests on building trust and facilitating relationships or linkages. It is all about improving collaboration and coordination along the value chain to improve competitiveness.

The Business Development approach of Blue Gold will consist of three steps:

- Value Chain Selection: In this first stage, we will select those product value chains which will contribute most to the objectives of the programme. For this purpose criteria will be established, including gender considerations, to compare and rank value chains. The result will form part of the Polder Development Plan and define those value chains which merit further analysis.
- Value Chain Analysis: The second step analyses the linkages between and performance of each function within the chain as well as the chain's supporting services and enabling environment. The analysis will focus on binding constraints in order to identify promising opportunities to intervene. These potential interventions will include opportunities for collective action for the WMG.
- Value Chain Development: In this implementation step, value chain development solutions will aim to facilitate business operations at the level of producers, processors and other actors in the chain and/or the (contractual) relationships among them, as well as on access to services, the flow of knowledge and information along the chain and the improvement of the business enabling environment. Blue Gold facilitates this process as the actual interventions will be brought to fruition by the private sector actors themselves in a sustainable market-based way.

In each of the steps there will be extensive engagement with the value chain actors, several of which undertake activities beyond the polder boundaries. Within the polder, the members of the WMG have varying production interests. This will be reflected in their choice for and participation in the various FFS formed through Component 3. These FFS are the primary producer groups of the value chain. We will address their input supply, processing and market concerns through Farm Business Modules which will be incorporated in the FFS programme. Some producer groups will give priority to food security and focus primarily on input related constraints, while their market focus is limited to home consumption and local markets. Other groups, constituted by more endowed and experienced farmers, will seek to produce surpluses for end-markets beyond the polder boundaries. This will pose different demands on their roles and form of organisation.

As the FFS participants provide feedback to their WMG, the opportunities for collective action will be assessed and their benefits and feasibility evaluated in Business or Operations Plans. In pursuit of economies of scale, this process can lead producers to different forms of association in order to maintain cohesion. Blue Gold will keep an open mind to this and Component 4 will work closely with Component 1 on the strengthening of the WMGs.

The majority of Blue Gold's business development interventions will be of a facilitation, awareness creation and capacity building nature. These will cover the general increase of market literacy amongst male and female producers, the improvement of producer and service provider awareness by better information about market scale and opportunities; the linkage of demand- and supply-sides through facilitated meetings and visits; the capacity building of producers' organisations to secure services collectively; the enhancement of business skills and planning, and the development of service providers' capacities to deliver services by linking them to sources of training.

Considering the magnitude of the task and to avoid geographic overlaps, we will cooperate and collaborate closely with other on-going programmes, such as SAFAL, Feed-the-Future and IFMC in this process of enhancing the capacities of the actors.

Start of business development activities

Originally it was planned to start business development in year 2 in four of the IPSWAM polders and in year 3 in other polders. However, it was decided to start right away in year 1 as component 4 has an important contribution to make in defining the economic development of the polders and in consideration of the long lead time of value chain developments.

Challenges

- Catering for a variety of market aspirations: The members of the WMG constitute a homogeneous group vis-à-vis their water safety concerns but a heterogeneous group in terms of market orientation. Amongst this group some households repeatedly experience food deficits while others are generally able to produce surpluses. In between, there is a range of households with varying degrees of market orientation which simultaneously impacts on their interests and decision making incentives. In our approach we will select a portfolio of value chains to cater to the market aspirations of the different segments within the WMG, including male and female producers.
- Over-extending of cooperative development: Producer organisations in cooperative form of association can play a role in value chain developments. The underlying need for organisation is not easy to achieve and budding cooperatives might end being 'over-extended' by failing to fully recognise the constraints. In our approach we will take particular care to avoid this by allowing cooperatives to develop at their own pace, keeping a balance between internal capabilities and externally presented business development objectives.
- Confusion due to similarity: There is a multitude of on-going efforts focusing on agricultural production. All involve producer groups but do so in a variety of approaches, for a variety of purposes and as a result in a variety of associating forms. Besides risking overburdening communities with a quick succession and variety of activities, the approaches can easily be confusing. In our approach we will place substantial emphasis on coordination and harmonisation of approaches to producer organisations.
- Influence of different on-going approaches: Being a cyclone and flood prone area, inhabited by a majority of poor people, the area draws often relief mode assistance. Natural disasters disrupt markets, and in the aftermath relief mode assistance donating or distributing commodities, machinery, infrastructure and services have the side effect of distorting markets even more. Relief mode programmes often ignore market forces and disrupt private sector actors thereby exacerbating the problems of markets, market infrastructure and market relations. With a major part of the target population facing food insecurity and a minority being market oriented, our approach will cater for both by diverse end-market value chain development while avoiding the distorting nature of relief mode assistance.

Component 5: Cross Cutting Issues

Training and Capacity Building

Training and capacity building in the directly involved institutions and in particular the WMOs is a key factor for a successful implementation of Blue Gold. Multiple training activities will be developed based on a thorough Training Needs Assessment (TNA), comprising all Program implementers, notably members of the WMOs, BWDB, DAE and the other partner GoB-agencies (DoC, DoF and DLS). In addition, the TNA will collect information about on-going or planned training by other projects in the area in order to avoid duplication and to explore ways and means to combine and share training activities.

The TNA will be carried out between July and September 2013 and result in the preparation of a detailed Training Plan, which will be multi-level (national, zonal, polder level) and will aim at different target groups

of participants, involving GoB staff, members of WMOs, farmers and private sector groups. Apart from direct training and capacity building of groups of individuals, the Training Plan will also comprise workshops, seminars and conferences at central and zonal level. Depending on funding and approval by EKN specific overseas study tours and training in relevant subjects such as participatory water management, monitoring & evaluation techniques, GIS/MIS, climate change adaptation, FFS and value chain development may be included in the final Training Plan.

An Indicative Training Plan covering the six years of program implementation has been prepared during the Inception Phase. This Indicative Training Plan will be finalized after completion of the TNA and discussed with EKN and the implementing partners BWDB and DAE for approval and budget allocation.

Implementation of the Training Plan is embedded in each Component of Blue Gold. In order to facilitate implementation, a zonal training coordinator will be stationed in each of the three District offices, who will assist and guide the Blue Gold staff in planning and implementing all training at zonal level.

Gender

The purpose of the gender approach of Blue Gold is enhancing the participation of women and men (i) to enable men and women benefiting more equally from the interventions by the program in terms of increased food security and livelihoods, increased socio-economic status and participation in decision-making and (ii) to improve the program's performance and increase the likelihood of sustainability. Blue Gold's Gender Approach builds on experiences in earlier projects, in particularly IPSWAM. Gender perspectives are mainstreamed in the four main components of Blue Gold, as well as in other cross-cutting issues where relevant, such as Disaster Risk Reduction.

Component 1 encourages men and women to become WMG member, including of Executive Committees, emphasizing their meaningful participation and promoting (women's) leadership. Gender Action Plans (GAPs) will be prepared by men and women WMG / WMA members as part of each Polder Development Plan, operationalizing Blue Gold's gender approach and reflecting local needs and opportunities. In component 2 women and men participate in validation meetings discussing water management options. Landless Contracting Societies (LCS) include female LCS. Component 3 targets men and women in equal numbers as FFS participants, even though certain modules will attract more women and others more men, but aiming that both male and female farmers adopt improved farm practices and increase their production. In component 4 gender considerations form part of the selection criteria of value chains ensuring that at least half of the selected value chains include women as VC actors. Support to value chain development will promote that also women increase productivity and benefit from improved services.

Blue Gold will support BWDB to review and update their Gender Equality Strategy and Action Plan (GESAP) 2006-2011. Networking and exchange of lessons learnt regarding gender mainstreaming is also pursued. Gender (refresher) training will be provided to staff and beneficiaries; and gender perspectives will be integrated in relevant other training and capacity building activities.

Blue Gold's gender experts will participate in designing the M&E system and baseline survey, to ensure that gender perspectives and gender indicators are appropriately included. Data collection, analysis and reporting will be gender-disaggregated. The gender perspectives in monitoring and impact surveys not only aim to assess the progress and success of the gender approach, but should also provide evidence on the benefits of the gender approach: demonstrating that the additional resources (i.e. staff and budget) required for a gender approach are outweighed by benefits in terms of increased production and income, in better functioning WMOs, and/or in less tangible improvements such as improved status of women.

Monitoring & Evaluation

The M&E team will develop a participatory monitoring system for all Program components, together with the component leaders. They will organise the collection of information required for the proper operation of the monitoring system, impact assessments and evaluations. They will also report on progress per component and on constraints experienced during implementation. The M&E team plays a coordinating role in assisting with the compilation of Program Progress Reports and in the design and implementation of the Blue Gold comprehensive base-line survey of which the first part is planned to be carried out between September and December 2013.

The M&E team will also be involved in data collection and compilation for the result frameworks for water management, food security and SRHR/gender which EKN will monitor up to 2015 under the present MASP. Benchmark surveys and subsequent result monitoring of the relevant indicators will be included in the Blue Gold logical framework and M&E framework.

Blue Gold and SAFAL have been selected by the evaluation unit of the Dutch Ministry of Foreign Affairs, IOB, to become part of the external evaluation of the Dutch food security policy 2012 - 2015 in Bangladesh. The M&E team of Blue Gold will be involved in this evaluation, which will comprise a baseline study by the end of 2013 and an impact study at the end of 2015.

A senior international M&E expert will join the M&E team for a mission of about three weeks in August / September 2013. For proper follow-up of the baseline survey design and implementation, and for training and capacity building a junior international M&E expert will be added to Blue Gold's national M&E team for a period of three months (September – December 2013).

Environment

The overall objective of the environmental concern of Blue Gold is to reduce environmental degradation through adoption of various measures for sustenance of environmental good practices throughout the project life and beyond. Some of the specific objectives include: a) environmental awareness building at WMO level; b) capacity building of the local stakeholders to reduce environmental degradation; and c) creation of an environmentally friendly situation for improved life and livelihood through the Blue Gold interventions (notably in Component 2 – Water Management). These objectives will be met through preparation of environmental management and monitoring plans, conducting training for environmental awareness building, and formulation and implementation of Sustainable Environmental Management Plans (SEMP) as part of the Polder Development Plans.

Disaster Risk Reduction (DRR)

Blue Gold is implemented in the south western coastal districts where natural hazards are manifold. Cyclones, storm surges, salinity intrusion, siltation, drainage congestion are some of the common natural hazards faced in this area. Climate change adds a new dimension to the existing community risk and vulnerability as this could substantially increase the frequency and intensity of existing adverse climatic events. As a cross cutting issue climate change and Disaster Risk Reduction (DRR) will be mainstreamed into the activities of the four components of Blue Gold.

One of the expected effects of climate change is the increased incidence and severity of extreme weather events such as cyclones, but also droughts and extreme precipitation. These events have obvious consequences, not only for the water management infrastructure (embankments, irrigation and drainage works), but also for the agricultural production systems.

The objective of the DRR interventions is therefore to reduce vulnerability and increase resilience of communities by (i) undertaking Community Risk Assessment (CRA) and develop Community Based Disaster Risk Reduction (CBDRR) plans at polder level through WMOs and (ii) implementation of selected effective disaster risk reduction and climate change adaptation measures.

Good Governance

The Program supports Good Governance at several levels. It is concerned most directly with the Governance of the water sector itself. For this purpose the TA team will make use of the Annotated Water Integrity Scan (AWIS) developed by the Water Integrity Network (WIN). This approach is based on a participatory assessment of working practices in the water sector. In principle the AWIS presents an analysis of the Transparency, Accountability and Participation of the following elements governing the water sector:

- Policy and Legislation;
- Regulations;
- Investment projects and program;
- Service provision;
- Anti-corruption framework.

For application in the context of the Blue Gold Program, the TA team will seek support from WIN expertise to adapt the approach to the specific situation in the Program area and train some of Blue Gold and BWDB staff in the implementation of the AWIS.

Innovation

Introducing innovative technologies and approaches to accelerate the development process in the Program area is one of the spearheads of Blue Gold. Two separate Innovation Funds are created within Blue Gold, one with focus on water management and the other one for the productive sectors (food security and business development). Innovations may emerge from other projects/programs or organisations in Bangladesh, or from Dutch (knowledge) institutions or enterprises. Potential innovative technologies and approaches include:

- research results to maximise the use of available fresh water after the monsoon period (water storage and crop diversification);
- cage fishing;
- rainwater harvesting through infiltration (managed aquifer recharge)
- saline tolerant rice varieties and other crops;
- Improved cropping system and technologies;
- dealing with the siltation and erosion problems in water courses;
- improved drainage by pumping, using renewable energy; and/or
- Web based GIS/MIS
- Use of geo data for information to farmers.

Project Management and Administrative Issues

Program management structure

The Program requires an effective institutional linkage between the Ministries of Water Resources, Agriculture, Fisheries & Livestock and Local Government Rural Development & Cooperatives. Representatives from these ministries will form an Inter-Ministerial Steering Committee (IMSC), chaired by the Secretary, MoWR.

BWDB is the executing agency of the Program on behalf of GoB. Within BWDB Blue Gold is situated in DP-III. The Director of DP-III is the Program Coordinating Director (PCD).

Other government agencies involved in Blue Gold implementation comprise Department of Agriculture Extension, Department of Fisheries, Department of Livestock and Department of Cooperatives. For the

MoA/DAE component of Blue Gold a separate DPP has been drafted.

The PCD is the chairman of the Project Management Committee (PMC), which will meet at least once every three months. The Team Leader of the TA team will act as Secretary to the PMC.

Donor Coordination

A large number of stakeholders are engaged in the coastal areas. In addition to the Government of the Netherlands (EKN), WB, ADB, DANIDA, USAID, as well as a large number of public sector agencies and departments are engaged in those projects. There is a need to coordinate different on-going and planned activities within the areas covered by Blue Gold. More importantly there is an increased opportunity to collaborate between the different projects in order to complement tasks and enhance results. This could be achieved through a structured process such as the formation of the Local Consultative Group (LCG) for the development of the coastal areas. For many sectors such as education, private sector development, rural infrastructure development, water management the Government Donor Coordination Committee and Local Consultative Group meet regularly. Multilateral and bilateral development partners participate together with senior government representatives. This group provides a forum in which the government and development partners can achieve a consensus on policies and programs and then harmonise and coordinate related development activities. We recommend that an LCG or an LCG sub-group is formed for the development of coastal areas and that EKN chairs the LCG meetings.

Institutional Strengthening

Institutional strengthening within the scope of Blue Gold relates to the project team with its strategies and actions in relation to the actors and factors in or connected with the targeted polders. The Blue Gold program, with its participants, plans, tools and activities needs to be embedded in a strong supportive, productive and critical setting. In the methodology with the 6 step process, institutional strengthening is a cross cutting issue and forms a parallel process. Input from the four project components needs to be included in the institutional strengthening strategy and actions.

For community mobilization the “Guidelines for Participatory Water Management” (GPWM) as approved by the Ministry of Water Resources in 2000 will be followed. Within this GPWM framework, BWDB follows the IPSWARM guidelines (September 2008) on dealing with community participation. DAE on the other hand views the Farmer Field Schools as a well-accepted approach for participation and development in the productive sectors.

Both approaches show various forms of organizations and methods regarding water resources management and the productive sectors, respectively.

The FFS may function as dedicated subcommittee under a WMG. Important is in this respect to carefully analyze the existing situation in the targeted polders and to find a way to build on that following the Blue Gold concept. This means that development of participatory water management and development of the productive sectors have to be blended in a realistic and effective way with support of involved people, without enforcement of a ‘one blue print solution’. The intention therefore is to use the 6-step methodology in a flexible manner based on the fundamental principles of integrated water resources management planning and of development of productive sectors with the participation of community members in all stages of the program.

WMOs will be registered under the Cooperative Rules with the Department of Cooperatives. Previously, registration under DoC showed problems because in the vision of DoC registration was requested too early but also due to a lack of DoC resources and infrastructure for proper communication and auditing. A recent developed Cell on Water Management Cooperatives under DoC may change this problematic registration and support. This new Cell is promising and needs to be elaborated and supported by Blue Gold during this stage. Resources are available in the program to support the DoC Cell.

Special focus is required on (possible) cooperation issues with BWDB, DAE, DoF, DoL, Division of Rural Development and Cooperatives and the other government levels. With these organizations a set of requirements or conditions for durable cooperation and or good governance needs to be defined and agreed upon as soon as possible.

1. INTRODUCTION

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 physiography 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.

About 38% of the population in the coastal regions of Bangladesh live below the poverty line and face high vulnerabilities in terms of insecurity of food, income, water and health. However, there are ample opportunities to harness the resources of the coastal areas that, if successfully achieved, can raise the population from poverty, create a sustainable environment and provide security and quality of life to present and future generations.

Blue Gold builds on the results and lessons learned from previous programs and projects in Bangladesh and the Bangladesh and Dutch experiences and expertise in participatory water management in polders.

The essence of Blue Gold is to establish and empower community organizations/water management organizations (WMOs) to sustainably manage their water resources and to make these resources more productive. The Program aims to create strong 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 explicit 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.

The Administrative Arrangement between GoB and GoN for the six year Blue Gold Program was signed on 20 February 2013 in Dhaka. The project started on 15 March 2013 with an Inception Phase. At the same time a start was made with mobilising the core project team and organizing the logistics for the project.

On 26 June 2013 the draft Inception Report of the Blue Gold Program was presented in a workshop at BRAC Center Inn, attended by many government officials and development partners. Proceedings of the Presentation of 26 June were issued in September 2013.

In this Inception Report the findings of the Blue Gold TA team during the first three months of the project implementation are laid down. The findings are based on field visits, meetings with government officials and other stakeholders, interviews at field level and study of relevant reports and documents.

After a description of the general approach (Chapter 2), the different project components are described extensively in Chapter 3. Chapters 4 and 5 present the main issues regarding Project Management and Institutional Strengthening, while the Chapters 6, 7 and 8 describe activities and plans for Training, Communication and M&E. Chapter 9 gives an overview of the main project risks and Chapter 10 contains a list of relevant references.

2. OVERALL APPROACH

2.1 Program Objectives

For the Blue Gold Program, water resources development is the entry point and the initial driver of the community organization process, but the explicit objective of the program is to reduce poverty of the people in the coastal areas by enhanced productivity of crops, fisheries and livestock and enhancing incomes by processing and improved marketing of agricultural products. The overall objective of the Program is:

“To reduce poverty by creating a healthy living environment and a sustainable socio-economic development for 150,000 household living on the 160,000 ha of coastal polders”

Specific objectives are to:

1. 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;
2. Organize 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;
3. Increase the household income derived from the productive sectors;
4. Strengthen the institutional framework for sustained water resources development and related development services in the SW/SC coastal zones.

2.2 Program Principles

An overarching principle in the Blue Gold approach is that harmonization will be actively be promoted, i.e. linking up to an already tested and ongoing experience, initiatives, and results and to build synergies through collaboration with other ongoing programs whenever relevant. This will be done by:

-exchanging experiences from IPSWAM, CDSP, SSWRSDP, Southwest Project, WMIP and other similar projects about the organisation of communities, registering these organizations under Cooperative Law and promoting broad based socio-economic and gender equality development through these organisations;

-cooperating with CDSP, Southwest Project and WMIP to continue the process of embedding the participatory approach for the development of FCDI projects in BWDB;

-cooperating with other relevant projects (notably CEIP) and institutions to address technical water management issues that have a bearing beyond the Blue Gold Program (e.g. the problems of concrete measures for climate change adaptation, siltation of river courses in the coastal area and how to protect the polders against unabated river bank erosion);

-cooperating with agricultural development projects supported by other development partners, (notably FAO and DANIDA) that have extensive experiences with Farmers Field Schools, including exchanging experiences and harmonising approaches.

-cooperating with agricultural crop improvement and technology development projects working in the project area such as the Cereal Systems Initiative for South Asia (CSISA) in Bangladesh, and the

Agriculture and Nutrition Extension Project. In these projects the CGIAR institutes (CIMMYT, IRRI and World Fish) are involved in community based participatory demonstrations and adaptive research trials.

For the implementation of the project a process oriented approach is used which is based on 'learning-by-doing' principles. This entails that changes can be made as a consequence of experiences obtained from the field. This dynamic way of working provides much needed flexibility and allows Blue Gold to make adjustments based on the conditions faced in the field. It also means that the overall implementation approach and methodology in itself can be further developed and adapted when applied in various areas with different socio-economic conditions.

Blue Gold will be implemented in a way that allows for a fair amount of flexibility. The two intermediate reviews (at the end of year 2 and the end of year 4) will be used to make adjustments to the project, its planning budget and staffing if considered necessary.

2.3 Program Area

The Blue Gold Program area covers 3 districts of Patuakhali, Khulna and Satkhira in the coastal zone of Bangladesh. The program area includes 160,000 ha of polder area and approx. 150,000 households. The coastal area of Bangladesh covers about 32% of the total area and 28% of the total population. It is anticipated that 26 polders will be included in the program area. Final selection of these polders has not yet been done. However, 26 polders have been preliminarily selected from the long list given in the DPP to draft an indicative implementation plan. This selection was based on desk work and field information.

Table 1: Tentative district wise distribution of polders based on the preliminary selection

District	Tentative Number of Polders			
	IPSWAM Fine Tuning	Other Fine Tuning	New Rehabilitation	Total
Patuakhali	6	6	2	14
Khulna	3	4	2	9
Satkhira	0	2	1	3
Total	9	12	5	26

Table 2: Upazilas that might be covered in each district

District	Upazilas	Remarks
Patuakhali	Patuakhali, Galachipa, Kalapara, Amtali	Amtali is actually in Barguna district. But in Blue Gold Program it is considered under Patuakhali district.
Khulna	Dumuria, Batiaghata, Paikgacha, Koyra, Dacope	
Satkhira	Satkhira, Asasuni, Kalarua, Shyamnagar	

Final selection of the polders will be done in accordance with the established selection criteria and project objectives. The exact number of polders in each district may slightly change during finalization of the polder selection process. Obviously, care will also be taken to liaise with the new CEIP project to avoid duplication and overlaps.

2.4 Development Coordination

2.4.1 Related Projects

Several projects are currently implemented in the coastal zone and elsewhere in Bangladesh that could have an influence on the implementation of the Blue Gold Program. We will actively promote harmonization, i.e. linking up to already tested and ongoing experiences, initiatives, and results and to build synergies with other ongoing programs whenever relevant. In addition we will take notice of the lessons learned from these projects and incorporate the outcomes in our approach to project implementation. Below an overview is given of the most relevant projects in relation to community organization, participatory water resources management, food security and agricultural development, business development and /or private sector involvement.

South-west Area Integrated Water Resources Planning and Management Project (SAIWRPMP)

The Southwest Area Project funded by the ADB and the GoN started in August, 2006 and its expected completion date is June, 2014. The Project is located in the Southwest region of Bangladesh covering the districts of Narail, Jessore, Magura, Faridpur and Rajbari with the objective to rehabilitate a total area of about 100,000 ha. Two sub-projects, Chenchuri Beel and Narail will be rehabilitated fully under the project covering an area of about 57,000 ha.

The goal of the project is to reduce poverty incidence in terms of incomes and nutritional status of the population. The purpose of the project is to institutionalize effective mechanisms for enhancing and sustaining the performance of FCD/I systems. The intermediate objective is to enhance and sustain water security and livelihoods of rural people within the hydrological boundaries defined by existing low-performing FCD/I systems.

Water Management Improvement Project (WMIP)

The project started on 1 January 2008 and implementation will end on 31st December, 2014. The project is financed by the World Bank and GoB. The outcomes expected from WMIP are to reduce vulnerability, but at the same time enhance livelihood opportunities, for the beneficiaries, and the creation of a favorable institutional environment for improved water resources management.

The project consists of four components:

Component 1: System Improvement and Management Transfer

Component 2: O&M Performance Improvement

Component 3: Institutional Improvement

Component 4: Flood Damage Rehabilitation 2007

Char Development and Settlement Project Phase IV (CDSP IV)

The fourth Char Development and Settlement Project (CDSP-IV) is to continue the work of char development and settlement which has been supported by the Netherlands since the 1980s. The overall objective of the project is to reduce poverty and hunger for people living on newly accreted coastal chars. Security for people and livelihoods is to be provided via a climate resilient infrastructure and by providing poor households with a legal title to land. To productively utilise these char lands, the project is assisting to:

- (i) provide protection from salt water intrusion and flooding;
- (ii) protect people and property from periodic cyclones and the effects of climate change with climate resilient rural infrastructure;
- (iii) ensure access to potable water;
- (iv) introduce appropriate agricultural technologies and practices;
- (v) build infrastructure within the char and connect it to external markets and population centres.

Small Scale Water Resources Development Project (SSWRDP)

The objective of this project which is financed by Japan Bank for International Cooperation (JBIC) is to increase and streamline agriculture and fisheries production through effective utilization of water resources by developing small-scale infrastructure for control of water resources in the North Central, North-Eastern Region Zone and central region South-Western Zone (greater Faridpur area), and thereby contribute to the economic and social development as well as poverty reduction in these regions. The Local Government Engineering Department (LGED) is implementing the project.

Coastal Climate Resilient infrastructure Project (CCRIP)

The Coastal Climate Resilient infrastructure is a new project expected to start at the end of 2013. The project is financed by the ADB through the ADB Strategic Climate Fund, (IFAD and KfW. The project aims at raising incomes in the selected 12 south-western coastal districts of Bangladesh vulnerable to climate change. The key objectives are to:

- improve rural connectivity and upgrade market services through development of climate proofed Upazila roads, Union roads and Village roads with drainage structures, as well as Growth centers and Rural markets for enabling access of small producers and the poor to markets.
- enhance climate change adaptation capacity and increase safety of population during extreme climatic events through increased availability of climate disaster shelters. strengthen the institutional capacity of LGED, LGs and other stakeholders with particular emphasis on climate resilience and adaptation measures.
- create employment opportunities through project interventions.

Agricultural Sector Program Support (ASPS)

The DANIDA funded ASPS has two components, the Agricultural Extension Component (AEC, crops) and the Regional Fisheries and Livestock Development Component (RFLDC, fish and livestock). AEC works within DAE and organizes FFS in Integrated Crop Management, usually in rice but occasionally also in other field crops. RFLDC (2007-2013) has developed FFS in aquaculture and livestock, often targeting female farmers. For the last two years, AEC and RFLDC together have been developing and testing a new FFS curriculum on Integrated Farm Management (IFM), which consists of several modules combining the crops, fish and livestock sectors in one FFS.

Timeline: 2007- June 2013.

The next phase (2013 – 2018) called the Agriculture Growth and Employment Program (AGEP) consists of 3 components, the Integrated Farm Management Component (IFMC), the Agro Business Development Component (ABDC), which will be implemented through Katalyst and the Agriculture and Food Security Project (AFSP) which is limited to Chittagong Hill Tracts area.

World Fish and its CGIAR partners CIMMYT and IRRI are also operating in the Blue Gold area. Some of the projects under implementation are:

Agriculture and Nutrition Extension Project (ANEP)

ANEP aims to improve food and nutrition security of poor and vulnerable households in Bangladesh and Nepal, with focus on women and children. The objectives are: (1) improve the food security and nutrition of smallholders; and (2) create/improve market linkages to improve food and nutritional security of both rural producers and urban consumers in four districts in Nepal and one district in Bangladesh.

Timeline: 2012 - 2014

Increasing the Resilience of Agricultural and Aquaculture Systems in the Coastal Areas of the Ganges Delta: G2 - Productive, profitable and resilient agriculture and aquaculture systems

This project seeks to develop and disseminate productive and resilient intensified and diversified production systems. It builds on community managed water infrastructure strategies to develop and disseminate agriculture technologies and cropping systems for the saline influenced areas of the coastal Ganges Basin (Bangladesh and India). WorldFish leads all aspects of aquaculture/fisheries research, ensuring high scientific quality and relevance. Timeline: 2011 – 2014

Cereal Systems Initiative for South Asia (CSISA) in Bangladesh (CSISA-BD)

WorldFish, together with IRRI and CYMMIT, is managing CSISA-BD which is being implemented in 6 hubs, four in southern and two in northern Bangladesh. CSISA-BD aims to increase farm household income and productivity, principally focusing on improved cereal cropping systems but also including fish and other high value agriculture opportunities.

Donor: USAID through IRRI. Timeline: 2010 - 2015

The National Food Policy Capacity Strengthening Programme

The National Food Policy Capacity Strengthening Programme, supported by EU, FAO and USAID, helps build Bangladesh's institutional and human capacities to design, implement, and monitor food security policies. Its immediate objective is to strengthen the capacity of the Food Planning and Monitoring Unit - the Government unit for food security policy support - and its collaboration with the policy wings and planning units in the Government of Bangladesh to:

1. effectively implement the National Food Policy, its associated Plan of Action, and the Country Investment Plan; and
2. plan, monitor and assess food security situation and interventions in order to improve food availability; enhance physical, social and economic access to food; and promote food safety and better nutrition for all.

The ADB funded **Coastal Towns Infrastructure Improvement Project (CTIIP)** aims to address issues relating to climate change adaptation along with social, environmental and institutional constraints to develop coastal towns. It concerns development of urban water supply, sanitation and drainage infrastructure in the coastal city corporations of Khulna, Chittagong and Barisal and is expected to be implemented from 2013.

The recently (July 2013) started World Bank funded **Coastal Embankment Improvement Project-Phase 1 (CEIP) 1**, will increase the resilience of coastal population to climate change and natural calamities. The project development objectives are to (a) increase the area protected from tidal flooding and frequent storm surges; (b) improve agricultural production by reducing saline water intrusion; and (c) improve GoB's capacity to respond promptly and effectively to an eligible crisis or emergency.

IDA funded **Multipurpose Disaster Shelter Project (MDSP)** will improve and construct cyclone shelters, roads, bridges and culverts in 20 coastal districts of the Khulna, Barisal and Chittagong divisions.

Rural Enterprise Development (RED) is a component of "**Market Infrastructure Development Project in Charland Regions (MIDPCR)**" funded by GoN, GoB and IFAD, Implemented by LGED. RED team, based at Noakhali and Barisal regions aims to develop national market linkages, add value to produce and build local capacity of smallholders.

'**Nobo Jibon**' is an international effort led by Save the Children and supported by USAID to build a five-year integrated food security program to reduce food insecurity and vulnerability of 1 million people in the coastal zone of Barisal in Bangladesh. The market based production and income generation component of the project is managed by International Development Enterprises (iDE).

Feed the Future of USAID aims to help an estimated 879,000 vulnerable Bangladeshi women, children and family members escape hunger and poverty.

The Bangladesh Integrated Household Survey (BIHS) dataset is a thorough assessment of current standard of food security in Bangladesh taken from 2011-2012. The dataset includes all baseline household surveys made under the Feed the Future initiative, the BIHS sample is statistically representative at the following levels: (a) nationally representative of rural Bangladesh; (b) representative of rural areas of each of the seven administrative divisions of the country: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet; and, (c) representative of the Feed the Future zone of influence.

The Dutch funded **Profitable Opportunities for Food Security (PROOFS)** project aims to improve the food and nutrition security and WASH status of 80,000 households in SW (Barisal, Bhola and Patuakhali) and NW Bangladesh through enhancement of farming systems and value chains. The project started on 01 July 2013 and will run for four years and is implemented by ICCO and iDE.

2.4.2 Policies relevant to Blue Gold

In recent years, the GoB has progressively improved the policy, institutional, and planning framework for the water sector. The **National Water Policy (NWPo)** published in January 1999 adopted key principles including integrated water resource management (IWRM), sustainable service delivery and O&M and the transfer of management tasks to Water Management Organizations (WMOs). These principles have been elaborated further in the **National Water Management Plan (NWMP)** and the **Guidelines for Participatory Water Management (GPWM)**.

The National Water Policy (NWPo)

The water policy of the government aims to provide direction to all agencies working with the water sector, and institutions that relate to the water sector in one form or another, for achievement of specified objectives. These objectives are broadly:

- a. To address issues related to the harnessing and development of all forms of surface water and ground water and management of these resources in an efficient and equitable manner
- b. To ensure the availability of water to all elements of the society including the poor and the underprivileged, and to take into account the particular needs of women and children
- c. To accelerate the development of sustainable public and private water delivery systems with appropriate legal and financial measures and incentives, including delineation of water rights and water pricing
- d. To bring institutional changes that will help decentralise the management of water resources and enhance the role of women in water management
- e. To develop a legal and regulatory environment that will help the process of decentralisation, sound environmental management, and improve the investment climate for the private sector in water development and management
- f. To develop a state of knowledge and capability that will enable the country to design future water resources management plans by itself with economic efficiency, gender equity, social justice and environmental awareness to facilitate achievement of the water management objectives through broad public participation

IPSWARM guidelines

The development of guidelines was one of the tasks assigned to the IPSWAM programme. Starting from the Guidelines for Participatory Water Management (GPWM), the Guidelines for Integrated Planning for Sustainable Water Resources Management for medium sized existing FCD projects were developed for

use within the BWDB on the basis of the extensive experiences of projects that have been executed in the past, are being executed at the moment and the lessons that could be drawn from them. The guidelines are intended to describe and make available a standard procedure for the efficient participatory planning process for rehabilitation and sustainable operation and maintenance activities of existing FCD projects. The guidelines were adopted by the BWDB in September 2008 for use throughout the country.

Gender Equity Strategy and Related Action Plan

In December 2006 the BWDB Gender Equity Strategy and Related Action Plan was approved by the BWDB. The goal of the Gender Strategy is that the BWDB will work to ensure gender equity in the efficient development, conservation and management of water resources and in all its activities, through the empowered participation of staff and communities.

While addressing the gender issues as a consequence of the gender equity strategy, the BWDB should place particular attention on the creation of positions for women at field level. This is a critical issue that needs to be addressed, if the BWDB wants to institutionalise integrated participatory planning in the future and principally relates to the specialised functions in the areas of community organisation, training and capacity building. As a consequence, the BWDB may also have to create conditions for female staff deputed at field level that enables them to indeed work and live in the field areas, such as suitable residential accommodation and separate toilet facilities.

The Poverty Reduction Strategy Paper (PRSP)

The Poverty Reduction Strategy relates the importance of water resources management with pro-poor growth, sustainable development and poverty reduction. Improved water resources management could also address other major issues of concern such as floods, drainage congestion, droughts, cross-boundary flows, river erosion and accretion, cyclones, water quality and rights, surface water salinity, groundwater quality, climate change and environmental management.

In line with the above, the current Government has declared food security as one of its main policy objectives. Increased food and agricultural production is in Bangladesh very closely associated with proper water management and dependent of functioning FCD/FDCI infrastructure.

The Bangladesh Climate Change Strategy and Action Plan (BCCSAP)

The Government of Bangladesh, through the recently published Bangladesh Climate Change Strategy and Action Plan (BCCSAP) 2008, clearly recognizes the impact that climate change will have. The National Adaptation Programme of Action (NAPA) was prepared in 2005 and has been updated in 2009. The updated NAPA has moved from the immediate and urgent needs to wider adaptation requirements to address medium and long-term climate issues. A number of possible climate change impacts as a consequence of a projected increase in monsoon rainfall, a possible reduction in winter rainfall and a rise in mean sea level (MSL) include:

- Increased flooding in terms of both intensity and frequency.
- Increased moisture stress during dry periods.
- Increased salinity intrusion during low flow conditions.
- Increased sedimentation in channels.

The coastal belt is exposed to natural hazards such as floods, river erosion, cyclones, droughts, tornadoes, drainage congestion/water logging, arsenic contamination, salinity intrusion etc. The **National Plan for Disaster Management (2008-2015)** focuses on – (a) incorporation of disaster risk reduction measures in sector development planning, (b) hazard specific multi-sectorial disaster management plans, (c) cyclone and flood shelter management plan, (d) development of a rescue, relief and rehabilitation plan of action - based on comprehensive risk assessment, (e) accumulation of physical, technological and economic assets - to reduce hazards and vulnerability, (f) wider stakeholder involvement and participation.

The National Food Policy, its associated Plan of Action, and the Country Investment Plan

The National Food Policy of 2006 is Bangladesh's main policy document on food security. It represents an important departure from the past by applying a comprehensive and integrated approach to food security, including the availability, access and utilization dimension of food security. While previous efforts focused almost exclusively on increasing national food production, the 2006 policy broadens the Government's approach to food security by outlining three main objectives:

- Objective 1: Adequate and stable supply of safe and nutritious food
- Objective 2: Increased purchasing power and access to food of the people
- Objective 3: Adequate nutrition for all individuals, especially women and children

To provide programmatic guidance in implementing the National Food Policy, the Government formulated **the National Food Policy Plan of Action (PoA)**. The Plan identifies 26 strategic areas of intervention and priority actions that cover all dimensions of food security. The Plan, which is in line with the Millennium Development Goals, stretches over the period 2008-2015.

In June 2010 the Government of Bangladesh released the **Country Investment Plan** to support the implementation of the National Food Policy and its Plan of Action. Specifically, its purpose is to:

- plan and invest resources that address the three dimensions of food security in a coordinated way;
- increase the convergence of Government investment and external funding in order to avoid gaps and redundancies;
- mobilize additional funds, including from external sources; • monitor, evaluate and – if necessary – adapt investments in agriculture, food security and nutrition.

The Country Investment Plan covers a five-year period, is anchored in the existing national framework and benefits from the Government's strong political support.

The **Sixth Five Year Plan FY2011 – FY2015** of GoB has named devolution to local governments one of its four pillars. Moreover, a number of laws were adopted, such as the **Local Government (Union Parishad) Act** (2009) and the **amended Upazila Parishad Act** (2011), with the intent to empower elected local councils to represent their citizenry and provide and coordinate local service delivery.

2.4.3 Donor Coordination

Several ongoing and planned projects are being implemented in the coastal areas. GoB and donors have focused on key areas of strengthening physical planning for improved coastline and increasing livelihoods of the coastal population, such as:

- To ensure coastal towns and rural areas have improved infrastructures that are resilient to climate change and can minimize risks of disaster and loss of assets and life.
- To establish water supply, sanitation, drainage infrastructures, roads, cyclone shelters, and market buildings that can withstand infrastructures from climate change vulnerabilities.
- To protect the coastline from tidal flooding and frequent storm surges
- To improve agricultural, livestock and fisheries production to increase town and rural businesses and incomes.

A large number of stakeholders are engaged in the coastal areas. In addition to EKN, WB, ADB, IFAD, DANIDA, USAID, KfW as well as a large number of public sector agencies and departments are engaged in those projects. There is a need to coordinate different ongoing and planned activities within the areas

covered by Blue Gold. More importantly there is an increased opportunity to collaborate between the different projects in order to complement tasks and enhance results. This could be achieved through a structured process such as the formation of the Local Consultative Group (LCG) for the development of the coastal areas. For many sectors such as education, private sector development, rural infrastructure development the Government Donor Coordination Committee and LCG meet regularly. Multilateral and bilateral development partners participate together with senior government representatives. These LCG provide a forum in which the government and development partners can achieve a consensus on policies and programs to harmonise and coordinate related development activities. We recommend that LCG is formed for the development of coastal areas and that EKN chairs the LCG meetings.

2.5 Blue Gold “Polder Development Approach”

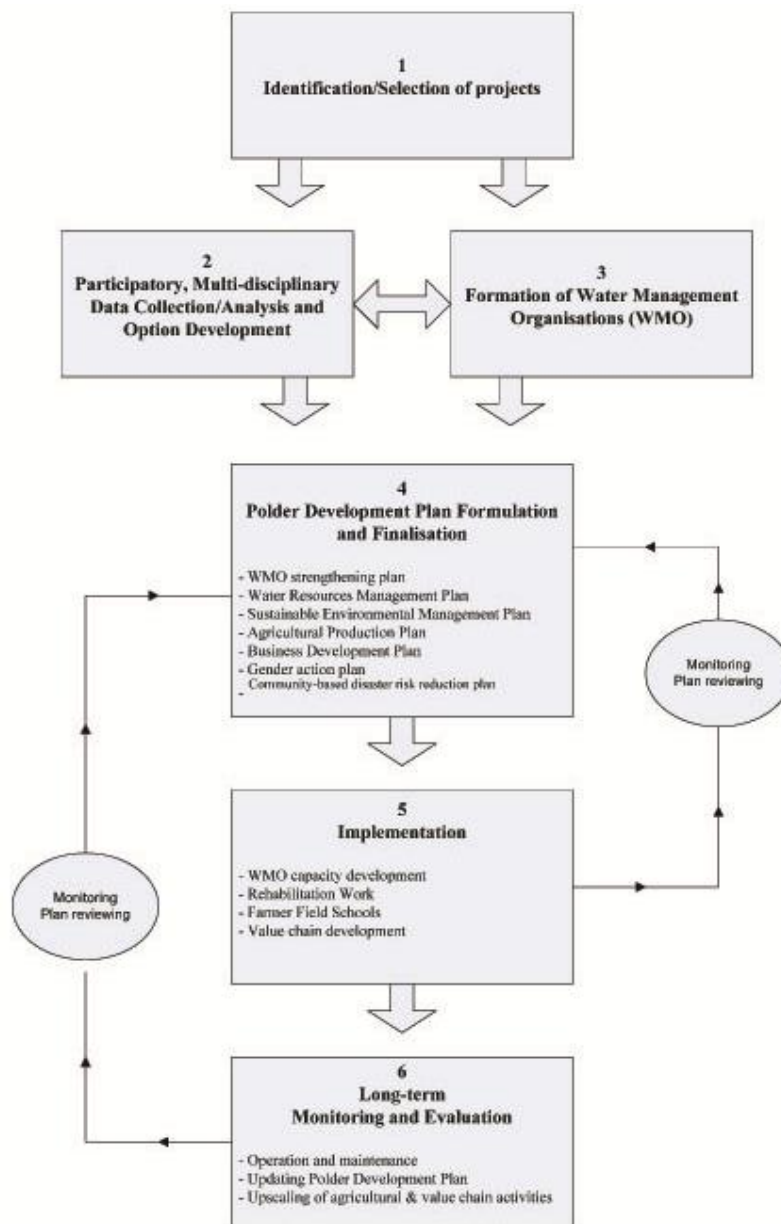


Figure 1: Blue Gold Polder Development Approach (1)

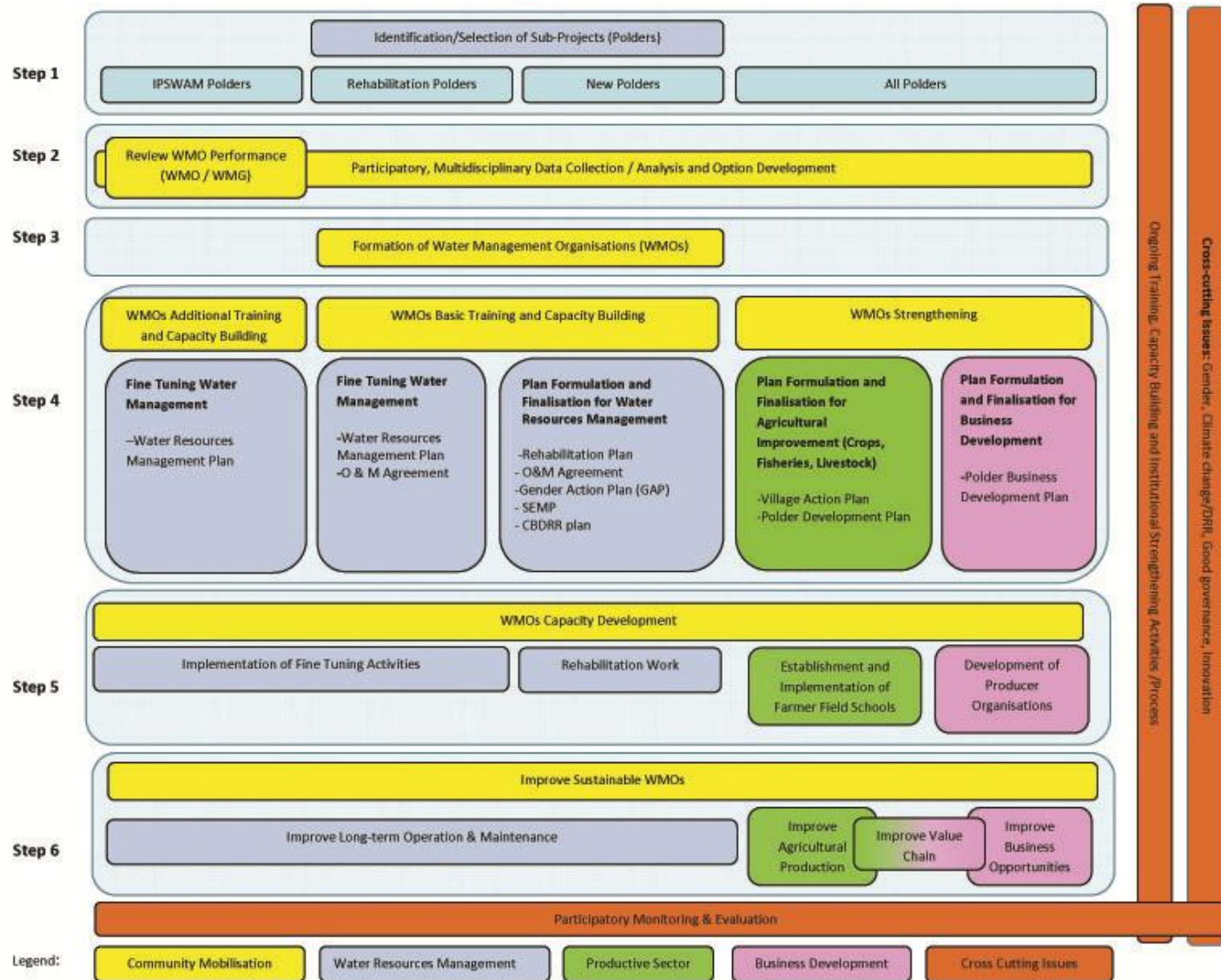


Figure 2: Blue Gold Polder Development Approach (2)

3. PROGRAM COMPONENTS



Figure 3: Blue Gold Program Components

The Blue Gold program has six distinct but interlinked components that are shown in Figure 3. We will be responsible for the first five components: community mobilization and institutional strengthening, water resources management, food security, business development and cross cutting issues. Separate contracts have been awarded to Max Foundation (Max WASH) and Solidaridad (the SAFAL project) to implement Livelihood Improvement activities that cover drinking water and sanitation facilities, nutrition, reproductive health, and value chain development respectively.

3.1 COMPONENT 1: Community Mobilization and Institutional Strengthening

3.1.1 Overview and Policy Framework

There are 246 Water Management Groups (WMGs) and 16 Water Management Associations (WMAs) in the 9 IPSWAM polders. All the WMGs have been registered under the Cooperative Societies Act and several of them are now implementing savings and loans activities and the Department of Cooperatives (DoC) is performing annual audits on these active WMG Cooperatives. The existing WMGs and WMAs are mainly focused on routine operation and maintenance (O&M) of the water management infrastructures. While substantive work has been successfully carried out in organizing the communities to form WMGs, and WMAs at the polder level, as well as in carrying out routine O&M work in collaboration with the BWDB, further development is necessary to engage the communities in sustainable socio-economic development activities. In addition to the 246 WMG cooperatives, the Blue Gold program is tasked to form 600 new WMG cooperatives and strengthen these to jointly manage the water

management infrastructures, engage in economic activities, and enter into market transactions within the local territories or with outside parties in order to enhance production income levels, raise the standard of living and sustain the environment. The cooperatives need to develop into private business enterprises and be able to operate at a commercially feasible and solvent manner¹

3.1.2 Objectives

Community organisations are the driving force for development in the Program area. The aim is to organise the communities to create an effective partner at the local level that is in a position to formulate community priorities as the starting point for the program. This demand-driven approach will ensure the sustainability of the Program in the long-run. Organised communities will play a role as a countervailing force to enhance transparent local governance. The specific objectives of this component are:

1. Formation and/or strengthening of Water Management Groups (WMGs) in the selected polders that can effectively participate in the planning, implementation and O&M of the water management infrastructure;
2. Guide and facilitate cooperative development and registration of WMGs and the Water Management Associations (WMAs) of the WMGs (second tier) whenever the private sector or Government cannot provide the services or in particular the inputs required such as for inputs supply, processing, marketing, credit, etc. The responsibilities of the WMG and WMA Cooperatives will be defined in more detail and these will be strengthened to fulfil these responsibilities;
3. Establish effective partnerships between WMGs/WMAs and government institutions, knowledge centers, NGOs and the private sector whenever needed for sustainable socio-economic development in the polders; and
4. Stimulate and introduce professionalization of the WMGs/WMAs.

3.1.3 Approach and Methodology

3.1.3.1 *Lessons Learned from other Projects*²

In the Southwest project polders and in the CDSP area the further development of the productive sectors and the livelihood in general was included from the start of the WMO formation process. In the case of IPSWAM, It became apparent that after successful establishment of WMOs and rehabilitation of the water management infrastructure, many of the WMOs took the initiative to develop livelihood activities (IGAs).

In IPSWAM, the basic unit for planning and formation of a WMG is the village. In the South West project, a WMG is formed based on each sub-unit/hydrological unit corresponding to water controlling structure. The WMGs are generally based on clusters of villages with the exception of a few cases where these are based on single village. In CDSP I and II, the basic unit for formation of a WMG was the smallest

¹ Blue Gold Program Technical Proposal, October 2012

² Blue Gold Program Formulation Report, March 2012

hydrological unit. This was changed during CDSP III when in addition to hydrological factors; sociological concerns were also taken into consideration. First, the water management systems of the whole project area were identified. Then each water management system was divided into several water management blocks. While dividing into blocks, besides hydrological considerations, social units or communities (Samaj) were also considered.

The Southwest project follows the procedures of IPSWAM to a large extent, with little adaptation based on the prevailing social and hydrological complexities of the area. One major difference in approach between the Southwest project and IPSWAM relates to the provision of financial resources by the members for O&M fund. The Southwest project requires the members of the WMGs to make provision for up-front financial resources whereas in IPSWAM the resources are mobilized as and when these are required. In most cases, the members contribute to their share of fund requirement for O&M in kind by providing free labour and in some cases, materials.

Blue Gold incorporates these lessons from past experience. The entry point for the formation/strengthening of the WMOs will be the formulation of village/collective action plans based on the identified needs and problems, initial polder development options and outcome of the WMO Functionality Assessment (in the case of IPSWAM polders),

Annex 11.4 presents the key informants from various institutions who were met during the inception phase specifically by the TA members of component 1.

3.1.3.2 Community Organizing Principles and Strategy

Community mobilization and institutional strengthening under Blue Gold will follow basic community organizing principles: 'building on what exists' which means starting where the people are in terms of their knowledge, skill and experience. More basic to this principle is the need to let the people decide on key issues directly affecting them. The role of the Blue Gold staff is to guide and facilitate the capacity building process that will enable the local communities and institutions to make good decisions and effectively carry out their roles and responsibilities and in the process become self-reliant and self-sustaining organizations.

Gender considerations will be mainstreamed in all component 1 steps, based on principles of valuing men's and women's experience and knowledge, recognizing their needs and (potential) roles and responsibilities, and ensuring that men and women participate in decision making in and benefit from WMOs and improved water management. Box 1 at the end of section 3.1.3.3 summarizes the gender issues in Component 1.

3.1.3.3 Steps and Process

Guided by the basic principles and strategy in community organizing, there will be varying activities and processes in implementing Community Mobilization and Strengthening of Local Institutions' component depending on the category of the polder selected: 1) IPSWAM Polders (for fine tuning); 2) Rehabilitation polders e.g. ECRRP and CEIP (for fine tuning); and 3) New Polders (for full rehabilitation).

Table 3 presents the steps, key activities and indicative time frame for each step in the polder development process.

Table 3: Steps, Activities and Role of TA and BWDB in Community Mobilization and Institutional Strengthening

STEPS	ACTIVITIES ³	INDICATIVE TIME FRAME PER POLDER
1. Polder Selection (refer to Chapter 3.2 section 3,2,1)		
2. Participatory, Multidisciplinary Data Collection, Analysis and Option Development	<ul style="list-style-type: none"> a) Conduct data collection/update data on: basic socio-economic and gender data, hydrological aspects, status of the environment and primary production (agriculture, fisheries, livestock and others), earlier training programs (e.g. FFS) that were implemented, existing WMOs/CBOs and other data; b) Preparation of village and polder maps; c) Project information dissemination on Blue Gold Program: Goals, Objectives, Component; d) Problem/Need Identification and Prioritization, Analysis and Option development 	<p>a) This will take about 2-3 months per polder. For the 9 IPSWAM polders, the multidisciplinary team of Blue Gold (Components 1-5) will update and add to the data previously gathered during IPSWAM project through conduct of FGDs and stakeholder household survey. Based on the data gathered, Blue Gold team will analyse the needs/problems and present conditions in the polder and come-up with the polder assessment and options for development interventions for the polder.</p>
3. Plan Formulation: Village action plans (VAPs) and polder development plan (PDP) which include the following: fine tuning /rehabilitation and O&M plan; agricultural production and FFS plan; business development plan; WMO Strengthening Gender action plan, Sustainable Environmental Management Plan	<ul style="list-style-type: none"> a) Based on polder assessment and initial polder development options , key informants or WMGs (in the case of IPSWAM polders) initiate VAP formulation process; b) When WMOs have been formed, WMA meetings are organized to review, validate and consolidate initial VAPs and integrate this in the formulation of the PDP; c) Identify and stimulate partnership with service providers (relevant government Departments, LGIs 	<p>This will take about 2-3 months depending on the size and complexity of the polder. This process will overlap at some point with the WMO Formation/Strengthening process (Step 4). This plan formulation process will be done annually by the WMGs and WMA. In this activity, the initial polder development options/interventions earlier formulated by the Blue Gold team (Components 1-5) will be presented to the villagers/WMGs for validation and will be used as the framework of the WMGs/villagers in formulating their VAPs. Once VAPs have</p>

³ Gender data, concerns and issues will be mainstreamed in the community mobilization activities as described in Chapter 3.5.2 on Gender.

STEPS	ACTIVITIES ³	INDICATIVE TIME FRAME PER POLDER
(SEMP), Community Based Disaster Risk Reduction (CBDRR) Plan.	and partner organizations like Solidaridad, BRAC and Max Foundation);	been formulated and WMOs have been established, the formulation of the PDP will be initiated with the WMAs taking into account the initial polder development options/interventions developed by the Blue Gold team.
4. Strengthening/Formation of Water Management Organisations and registration under Cooperative Law	<ul style="list-style-type: none"> a) Create awareness on benefits of local level organisation; b) Selection/election/Re-election of WMG executive committee and WMA representatives c) Formation of the WMGs/WMAs and formulating By-Laws, rules and regulations; d) Registration/renewal of registration of WMG and WMA with Department of Cooperatives e) For IPSWAM polders, conduct functionality assessment of existing WMGs and WMAs and re-organize them where needed 	<p>a) This will need about 6 months to one year depending again on the size and complexity of the polder: a) 3-6 months for organizing the WMOs (WMGs and WMAs); and, b) registration of the WMGs to the Department of Cooperative will be undertaken 6 months after formation as per policy of the Department of Cooperatives. Processing of registration application may take about 3-6 months. Note that this step will be started at Step 3. However, the process of planning and preparation for WMO formation will be done simultaneously with Step 2. This will ensure that the villagers are getting involved in organizational activities/collective activities prior to the formal organization of WMOs. Thus, allowing the identification of potential leaders and building community cohesion prior to the WMO establishment.</p>
5. Plan Implementation	<ul style="list-style-type: none"> a) WMAs and WMGs participate in the implementation of fine tuning/rehabilitation works through the Committee on Quality Control; b) WMAs/WMGs participate/involved in organizing and monitoring LCS groups and LCS works and quality of construction works, O&M Agreement (its formulation, signing and implementation), <i>Agricultural production and FFS plan implementation, cooperative and business enterprise activities and projects/livelihood activities, SEMP and CBDRR activities;</i> c) WMGs and WMA coordinate closely with concerned service providers in implementing other activities e.g. <i>water supply and sanitation, hygiene and</i> 	<p>At the initial stage, we will expect the WMGs to be implementing one or more collective action plans relating to water management, O&M, business enterprise, FFS and other IGAs. Throughout the plan implementation, action-reflection sessions will be initiated with the WMG participants to discuss problems/constraints in implementation and surface lessons to further improve implementation process. Output of this action-reflection process will be considered in the annual VAP planning and PDP updating</p>

STEPS	ACTIVITIES ³	INDICATIVE TIME FRAME PER POLDER
	<i>reproductive aspects, nutrition, agriculture assistance, other water management interventions (LGED/private organizations).</i>	
6. Sustainable performance of the WMOs in their implementation of water management, agricultural production and cooperative/ business activities	<ul style="list-style-type: none"> a) WMA and WMGs create O&M funds and undertake routine O&M based on O&M Agreement. Likewise, BWDB performs its O&M responsibilities; b) WMA and WMGs conduct regular meetings to review implemented collective action activities (VAPs and PDPs) and plan next activities /projects; c) Participatory monitoring activities are regularly conducted by the Project and WMOs; d) WMOs get technical support and guidance in their activities; e) Up scaling of agricultural production and value chain activities and stimulating partnership of WMOs with other service providers 	a) Blue Gold field staff will provide guidance and support to the WMOs up to at least one year after rehabilitation works have been completed and O&M Agreement reached between WMA and BWDB.

The following is a description of the key community mobilization activities.

Conduct Stakeholder Household Survey and Mapping

As part of the social investigation process, a stakeholder household survey will be conducted in order to identify the different stakeholder groups present in the polder area which is crucial in surfacing problems and needs that will be the basis for formulating collective action plans i.e VAP and PDP. The survey will also establish the number of households and families in each village as well as the socio-economic profile of the potential members of the WMGs to be formed which will be useful in the WMG formation/strengthening process. Annex 11.5 presents the survey format.

Village and polder mapping will be initiated by the COs with the key informants from each village and polder. The maps should present a clear picture of the socio-economic, physical, environmental and hydrological/water management situation and condition of the villages and the polder.

In-Depth information and Dissemination Campaigns on Blue Gold Project

There will be different methods for this activity that will be initiated at various levels. At the polder level, small group meetings within the village and village wise meetings will be organized for this purpose. Leaflets/brochures and posters will be used during these meetings. It should be noted here that orientation meetings will be conducted with the Upazila and Union Parishad Chairmen and members including local elites not only to get their support for the project but to make them understand how the

project will be implemented. They will be informed about the Blue Gold objectives, components, key activities and approach and strategies for project implementation.

During project orientation/information campaign, emphasis will be put on the development of the productive sectors and livelihood aspects with the improvement of water management as the entry point. The cooperative model and concept will also be explained as early as possible, specifically during the project orientation / information dissemination meetings. However, the pace and process of cooperative formation should not be rushed and it should be dependent on the level of interest, cohesion, confidence and trust developed within the community/organization, overall level of skill and capacity of the existing WMOs to carry out cooperative functions and its financial capacity to put-up required capital for cooperative registration.

Problem/Need Identification

Following project orientation process, active involvement of the majority of the households in a village and/or WMG members (male and female) will be sought in the analysis of their present situation and conditions in the polder. Based on the outcome and analysis of stakeholder household survey data, FGDs and other PRA methods will be used to guide the community/village people (different stakeholder groups including the landless and destitute sectors) in identifying and prioritizing their needs/problems specifically on WMO formation/strengthening, water management, environmental issues, productivity ,livelihood, gender, and WASH issues. This process should also involve determining which problems/needs can be addressed by Blue Gold, by the community itself and by Blue Gold partner organizations and government agencies. COs and FFS Organizers will conduct FGDs with the various sectors/stakeholder groups in the 'para' community/village spearheaded by the key informants/WMG executive to identify and prioritize their needs/issues In areas where women participation is weak/limited, separate FGDs will need to be initiated by the COs and FFS Organizers in order to ensure that their needs and interests are surfaced and considered. The Core group or ad hoc committee will be oriented and mobilized to assist in the conduct of this activity.

Planning Process

The problem/need identification is followed by the formulation of the village action plan (VAP) on the problems and needs they have prioritized categorized as follows: fine tuning/rehabilitation works; sustainable environmental management (in the case of IPSWAM polders, status of Sustainable Environment Management Plan--SEMP implementation will be evaluated); establishment of FFS (with choice of modules in crops, livestock and aquaculture); cooperative development/business opportunities; gender action plan and plan for WASH. In the case of IPSWAM polders, the polder plan that was developed earlier will be updated to integrate productivity and business development components. For example, WMGs will be involved in selecting relevant FFS modules, selecting participants for the FFSs, and planning the timing and location of the FFS.

It is expected that this whole planning process will be a continuing process that should be evolving depending on the needs and problems and the level and capacity of the village/WMG at certain stages. Based on field observations in some IPSWAM polders, functionality levels of existing WMGs vary. Some are still active in conducting meetings to plan O&M and cooperative activities while some are no longer active but have kept their cooperative funds in the bank intact. Active WMGs may already plan on enhancing their cooperative activities even at the initial stage of the village action planning process. The Blue Gold team at the zonal level (consisting members from 1-5) with assistance from the HQ team, will provide support to the WMGs in the planning process.

WMG sub-committees will be formed to monitor and support the various activities/action plans in the VAP. The WMAs through the representatives from WMGs will facilitate the review and consolidation of initial VAPs into an initial PDP. The WMA and WMGs will continue reviewing plan implementation and updating their VAP and PDP. The UP Chairman and representative/s of the UP Village Development Committee should be made aware of the VAP and seek their support for its implementation.

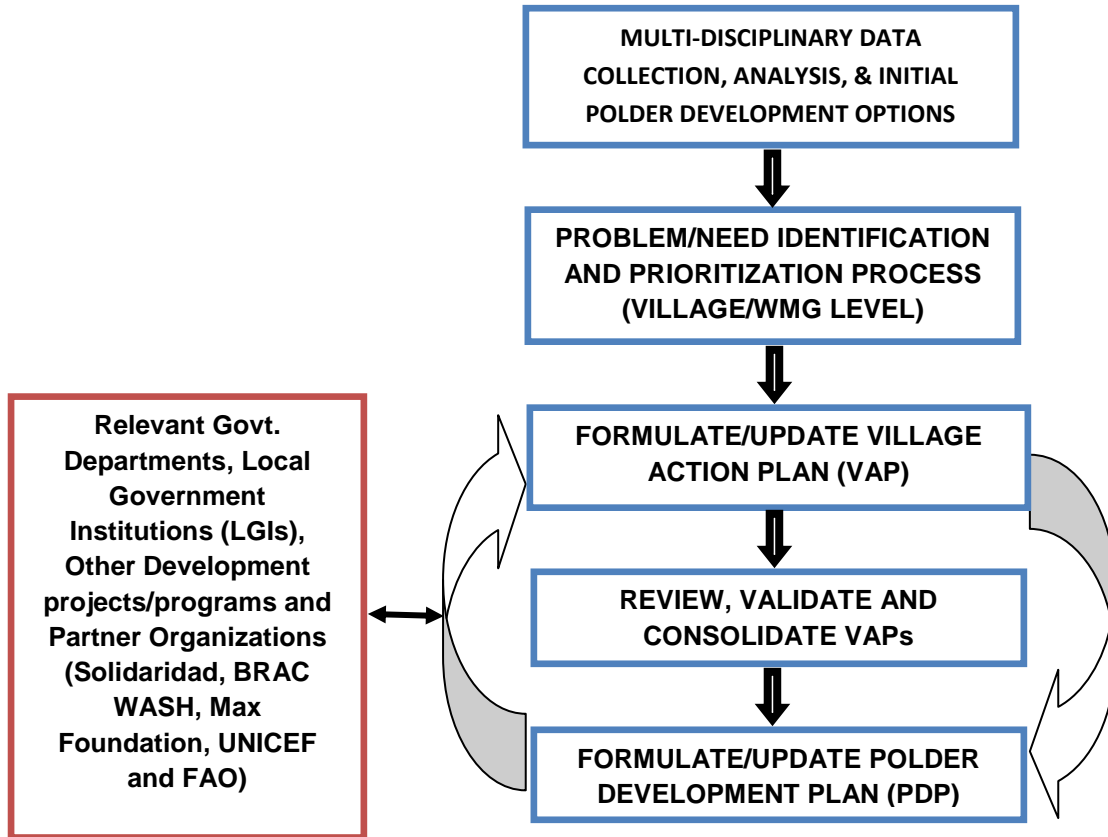


Figure 4: Flow of Planning Process

Following Figure presents a sample VAP and PDP that may be formulated by a WMG in one of the 4 IPSWAM polders selected for implementation in 2014. It shows the activities/projects and integration of these into the PDP. This initial VAP and PDP is expected to be formulated during the first year of Blue Gold implementation for the first batch of polders.

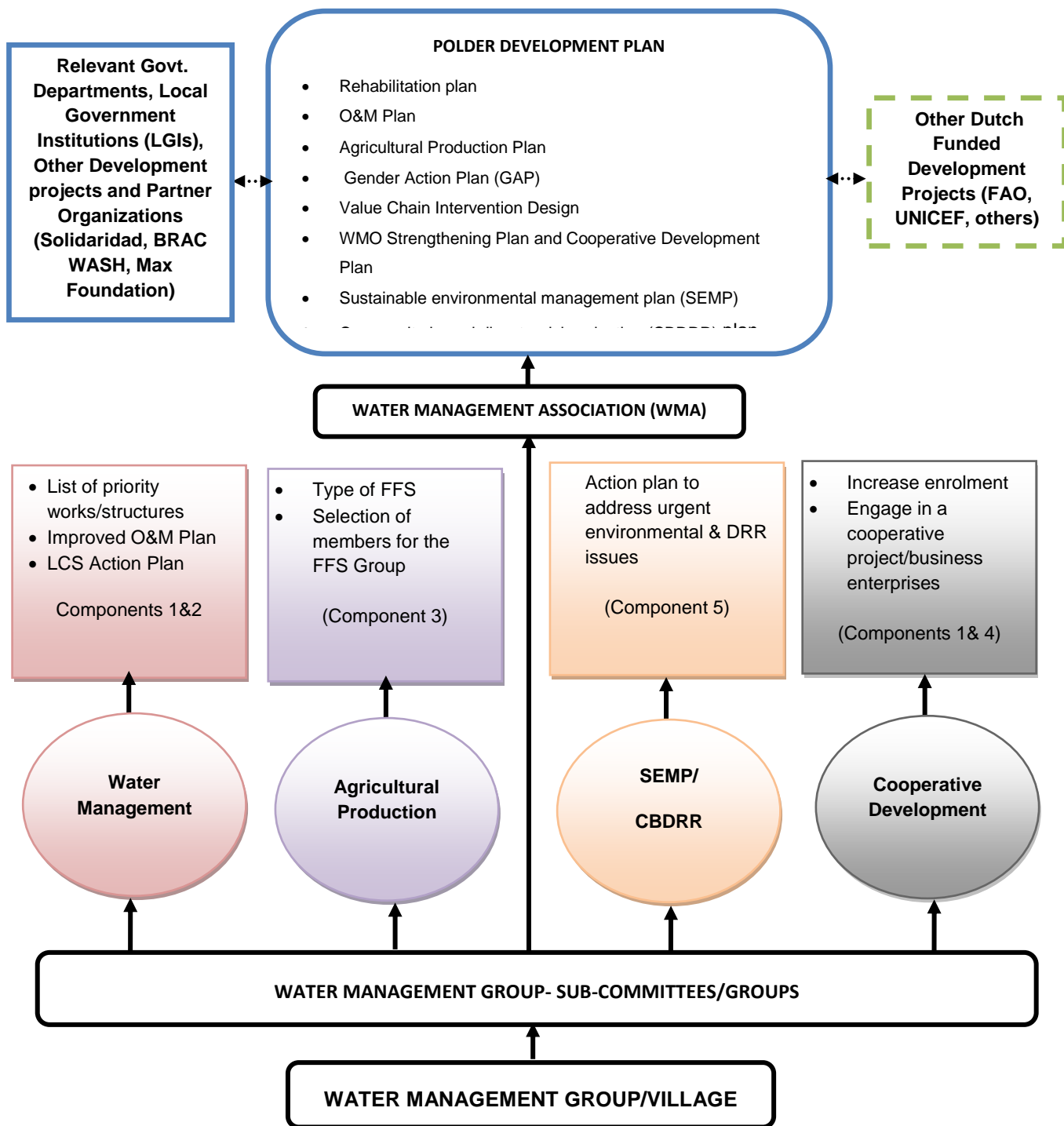


Figure 5: Sample Village Action Plan (VAP) and Polder Development Plan (PDP)

Strengthening/Formation of Water Management Organizations (WMOs)

Parallel to the planning process is the formation and/or strengthening of the WMGs and WMA. Assessment of the functionality of the WMGs and WMAs will be undertaken in IPSWAM polders as well as in polders rehabilitated by other projects (if WMOs/CBOs have been formed) as a parallel activity during the data collection stage. A format was developed for this (see 11.5 and 11.6). The format is not only a tool for assessment of the WMO functionality but also a tool for awareness building among those who will be involved in the assessment process. The functionality assessment focuses on 4 parameters: Organizational Management; Cooperative Management; Management of O&M; and Conflict Management. The outcome of this assessment will be the basis for identifying the specific areas where WMO strengthening process should focus on and which areas to sustain. Table 4 shows the list of IPSWAM Polders with corresponding number of WMGs and WMAs.

Table 4: List of IPSWAM Polders, Number of WMGs and WMAs

BWDB Division	IPSWAM Polder	Number of WMGs	Number of WMAs
Khulna 1	Polder 29	56	2
	Polder 22	12	1
Khulna 2	Polder 30	41	1
Patuakhali	Polder 43/2A	22	1
	Polder 43/2B	28	6
	Polder 43/2D	34	2
	Polder 43/2E	12	1
Barguna	Polder 43/2F	27	1
	Polder 43/1A	14	1
Total	9	246	16

Formation of WMGs and WMA in selected polders rehabilitated by projects other than IPSWAM and new polders (Types 2 and 3) will build on the experience in IPSWAM and Southwest projects. The process will be as follows:

i) Identification of Stakeholder Group/Interest Groups (Social Investigation)

In every village of a selected polder where WMO's have not yet been formed, existing stakeholder/interest groups will be identified. Different groups will have different needs and priorities, and interests of one group may even conflict with the interests of another group. Identification of stakeholders' group is an important input to the village action plan formulation at the village/WMG level and to the formation of WMGs/WMA. The stakeholder household survey activity that was earlier discussed will be an important tool in identifying the different stakeholder groups in the polder area.

During this stage, the COs will also gather information about influential persons in the village and the existing power structure in the village that will have an impact in the WMG and WMA formation.

ii) Pre-WMO Formation Stage

Following IPSWAM experience, a walkthrough of the whole polder area will be conducted by the Zonal team and COs in order to get a clear picture of the physical system (embankment, structures, facilities and *khals*) and to understand the present water distribution system and problems e.g. water shortage in one area or flooding in another part that creates conflict among the villagers; identify village boundary and existing conflict, if any between and among stakeholder groups such as fisher folks, farmers, highland and lowland groups. Moreover, they will observe the land use pattern (single, double cropped area) and land (high, low and medium) situation in the polder area. All this information will be used in delineating WMA/WMG boundaries. WMGs will basically be based on village boundary. The most important reasons for using the village as the planning unit and WMG boundary are: a) it will hasten process of building cohesion among different stakeholder groups; b) based on IPSWAM experience, resource mobilization during emergency maintenance works is facilitated because communication is easier among members; c) planning and implementing income generating activities requires transparency, frequent communication and trust among members. When the village area is large and the number of households (HHs) is high i.e. more than 300 HHs, 2 or more WMGs may be formed. The WMA boundaries will be based on hydrological units and/or natural boundary. One WMA will be formed for small polders while 2 or more WMAs will be formed in large polders. In between the WMA and WMG organizational structure, a sub-committee on operation and maintenance (or block committee) will be formed to be composed of male and female representatives from WMGs. The sub-committee will coordinate O&M activities of the sub-system controlled by a structure. The number of sub-committees will depend on the number of sluice gate structures in the polder. This will facilitate implementation of the O&M plan based on the O&M agreement with BWDB.

Figures 6 and 7 are IPSWAM polder maps showing WMG and WMA boundaries.

Before starting WMG formation activities in a new polder, an orientation meeting will be organized at Union Parishad (UP). The Community Organizers, will – with the assistance from UP--- reach as many people as possible in the communities to deepen their understanding of the Blue Gold project and the role that the people will play in project activities. Individuals will be identified and selected to form the initial ad hoc committee/core group. During their community immersion and social investigation, the Community Organizers will be identifying potential leaders not only coming from the elite and traditional leaders but also from ordinary people who represent the majority of the villagers. The COs will make conscious effort in raising the awareness of the villagers to select/elect leaders who will work for the interest of the majority and who have the commitment to provide genuine service as leaders.

The Community Organizers with assistance from the Ad hoc Committee/Core group will initiate 'para' to 'para'⁴ visits in their respective villages in order to reach as many people as possible to discuss about Blue Gold and the need for them to get organized in order to systematically participate in project activities. They should be able to motivate people to organize a village meeting to further discuss and plan the formation of their WMG. Elected UP Member of the concerned village will be invited in the village meeting. At the village meeting, detailed discussion of the following topics will be done: a) objectives of the WMG and WMA; b) the need to formulate by-laws/constitution; c) organizational set-up (e.g. officers and number of Executive Committee (EC) members (at least one third or $\geq 40\%$ of members are women);

⁴ A 'Para' is a sub-unit of a village based on informal groupings among villagers. A group of households living in one street can be categorized as one para.

d) duties and responsibilities of the EC officers and members; e) membership requirement/qualification; and f) qualities of leaders to be selected/elected. The cooperative concept will be further discussed during this meeting to deepen their awareness of its potential benefits and the requirements and preconditions for forming and registering a cooperative. At the end of the village meeting, a schedule for the selection/election of the executive committee of the WMG should have been fixed.



5

Figure 6: Map of Polder 22 showing WMG Boundary Lines (Village Boundaries)

⁵ Technical Note No. 39: Participatory Monitoring Report (July-December 2006), IPSWAM, April 25, 2007



Figure 7: Map of Polder 43/2D Showing Boundary of Two WMAs (in bold black line)

6

⁶ Ibid

iii) *Formal Organization of WMG and WMA*

Prior to the selection/election of executive committee members, the ad hoc committee/core group together with COs should continue raising the level of awareness/knowledge of the people about qualities of a good leader through individual talks/household visits to guide them in selecting/electing their leaders.

During the election/selection of EC members, the COs will assist in facilitating the process. The aim is to establish a conducive environment where majority of the village people can freely select/elect who they think are the suitable persons to be members of their WMG Executive Committee.

The process of formulating WMG by-laws/constitution will follow the formation of the WMG Executive Committee (at least 4 women with 2 holding key posts). After which, the Executive Committee members of the WMGs formed will be mobilized to initiate the process of forming the WMA. Two (2) representatives (one male, one female) from each WMG will become the general members of the WMA (at least 50% women). The Executive Committee of WMA will be elected/selected by the general members of WMA (at least 4 women with 2 holding key posts). The WMA Executive Committee will contribute in formulating the polder development plan in consultation with the general members of WMA.

iv) *Registration of WMG and WMA*

Registration of the WMGs with the Department of Cooperatives (DoC) will be pursued as indicated in the program document. It is important to mention at this stage of the urgent need to build the capacity of DoC to effectively guide the WMOs in registration process and in annual audit preparations. On this regard, the following are recommendations:

- WMGs need to be fully oriented on cooperative objectives, its benefits and the requirements for registration and annual audits. The criteria to become good and successful cooperatives have to be discussed clearly by DoC to the WMGs and provide necessary guidance accordingly. Study tour/visits to successful cooperatives will also be useful;
- DoC as a department should be strengthened in terms of capacity and logistic aspects to enable its personnel to perform their tasks effectively without becoming a burden to the very cooperatives they are serving;
- TA team specifically the Community Organizers and Socio-Economists at the zonal level should have a clear understanding of the Cooperative Laws and procedure, types and objectives of cooperatives, registration and annual audit requirements. An orientation training/workshop among the DoC staff (at district and upazila levels), Zonal staff and COs should be carried out;
- There is a need to establish a better working relationship between the WMGs and the DoC staff which at present is not a congenial one, specifically in the IPSWAM polders. Coordination meetings between WMG representatives and DoC district and Upazila level staff need to be established to discuss and address problems/issues together with the TA team;
- Aside from providing logistic support to DoC, Blue Gold should discuss and agree with DoC on the requirements for registration, conduct of annual audits and taxation policies in order to avoid/limit the difficulties and restrictions experienced in IPSWAM and Southwest projects. The steps, process and registration requirements in federating the WMGs into a WMA multi-purpose cooperative association will also need to be developed and discussed with DoC; and
- The MoU that has been signed between BWDB and DoC in February, 2009 will be reviewed

Strengthening of WMOs/Local Institutions and Institutional Framework

Once the WMGs and WMAs have been formed, the initial development plan formulated at the village level (VAP) will be discussed and presented at the WMA level for review/validation and consolidation into a Polder Development Plan (PDP). Implementation of some of the activities in the VAPs and PDP is foreseen (example water supply/sanitation activities, agricultural programs by partner organizations and cooperative/business plans especially in the case of IPSWAM polders) even before fine tuning/rehabilitation works are actually undertaken. Existing FFS groups/clubs can be stimulated by Blue Gold to further enhance/expand their activities.

Once fine tuning/rehabilitation works are completed in a polder, a contract agreement between the BWDB and the WMO will be signed whereby routine O&M responsibilities will be transferred to the WMOs. To enable the WMOs assume their O&M responsibility, the WMOs should be given training on proper operation of the infrastructure and assistance in acquiring resources to generate funds for operation and routine maintenance⁷. Efforts will be made to initiate discussions with BWDB on procedures and requirements to implement the measures to assist the WMOs in mobilizing funds not only for routine O&M but also for its organizational activities which is crucial to its long term sustainability. In addition, as experienced in IPSWAM, WMO members can contribute labor and materials in undertaking routine O&M and emergency repair works. The WMO may also be motivated to raise funds for O&M following the experience of the Southwest project wherein O&M costs are calculated to come up with an O&M rate per hectare which WMG members will pay to create their own O&M fund.

Sustaining the functionality of WMOs will require continuing education and training. Various training courses and capacity building activities will be initiated (details on this are elaborated in Chapter 7- Training). Training will be more of experiential type of learning and learning by doing activity. Some examples of this are: interactive sharing sessions between more successful WMG and weaker ones; WMGs/WMO representatives will be exposed to other successful projects/cooperatives, producer groups, private enterprises. Implementation of socio-economic activities and projects is another key element in strengthening functionality of WMOs as shown by the IPSWAM and Southwest experience. Implementing socio-economic activities (cooperative activities) is not only concerned with mere increase of income nor provision of specific services and facilities. More than these, the projects become venues for further enhancement of the group's organizational capabilities to handle more complex problems and group action.

Timing and Sequence of Key Community Mobilization and Strengthening Processes

As shown in table 3, community mobilization and institutional strengthening activities starting with the planning process and WMO formation/strengthening activities will require 1-2 years prior to the actual implementation of fine tuning/rehabilitation works depending on the size and level of complexity of the polder.

Cooperative registration process in polders other than IPSWAM will start after WMO formation process. Parallel to this process is the mobilization of the WMOs to participate in actual rehabilitation works i.e. quality monitoring and LCS activities

⁷ Guidelines for Integrated Planning for Sustainable Water Resources Management, September 2008

Strengthening/expansion of cooperative and business activities by WMGs in the IPSWAM polders can be started after the assessment of WMG functionality. How they want to expand and what activities/projects they want to undertake will be the decision of the members of the WMGs. It is expected that the Executive members of each WMG will need to assume specific responsibilities to enable the WMG in handling its multiple functions. Managing business/cooperative activities as well as their water management /responsibilities must be carefully planned and implemented.

Box 1 Gender in Component 1 – Community Mobilization:

- 1.1 In social investigation and data collection –including baseline and impact surveys- male and female field staff will be employed, men and women at community level will be consulted, and gender specific and disaggregated data will be collected, analysed and reported upon. It will be kept in mind that women and men do not form homogeneous groups and separate PRA or FGD sessions with different categories of women and men may be held. The status of women in the community and their leadership role will be assessed and bottlenecks to their mobility and participation.
- 1.2 In assessing the functionality of existing WMOs not only the proportion of women members will be assessed, also their meaningful participation and the degree of influence they have.
- 1.3 Both mixed mass meetings and separate meetings for men and women are foreseen for the new polders. For the mass meetings men and women will be invited to participate. Separate meetings for men and women will be held according to need in order to better explain why participation of both men and women in WMGs is needed. The women will be encouraged to participate in all Blue Gold activities whereas the men will be requested to cooperate with them.
- 1.4 Thereafter meetings for the formation of WMG will be organized for which also both men and women will be explicitly invited. Men and women of all social classes –including from female headed households, destitute women, fishing families and, if relevant, other minority groups- will be encouraged to become members of WMG, promoting at least one member per household of the community⁸, and targeting that $\geq 40\%$ of WMG members are women.
- 1.5 At least 30% or one third of the members of the EC of WMG must be women (≥ 4 of 12). Women will be encouraged to compete for the five important positions in the EC of WMG, which are president, vice-president, secretary, joint-secretary and cashier/treasurer (target: 2 women).
- 1.6 Training on Organizational Management will be conducted for the EC members immediate after the formation of EC. Training on Cooperative Development, Accounts Management and Resource Mobilization will be organized thereafter. Participation of women will be ensured also in these training courses, targeting at least 30% women.
- 1.7 Gender orientation and awareness training will be organized for the male and female members of the EC of WMGs. Leadership training will be conducted for selected women WMO members, especially for women who have potential to develop leadership capacities. Leadership training for men will also be conducted based on needs.
- 1.8 Both women and men members of the WMGs will be involved in the preparation of By-laws of the WMG. In the process of registration of the WMG with the Cooperative Department and at the time of Annual General Meetings (AGM) and the Audits, at least one, but preferably two, suitable women members will be included in the process, so that they can learn the process.

⁸ Especially the lowest income households face two major constraints to become WMG member: the obligation to save Taka 10 per month and the fact that attending a meeting may mean foregoing a daily wage.

- 1.9 One male and one female representative from each WMG will form the Water Management Association (WMA). The formation of the EC of WMA follows the same approach as the above described formation of EC of WMG.
- 1.10 For each polder a Gender Action Plan (GAP) will be developed, based on the action plans that will be prepared by the male and female participants at the end of the WMG gender training imparted to them. The implementation of the polder level GAPs will be supported, and monitored as part of the overall Blue Gold monitoring system.

3.1.3.4 Deployment and Supervision of Community Organizers

1st Year Implementation and Selection of 4 IPSWAM Polders

In order to ensure inclusion of fine tuning and rehabilitation costs in the 2014 BWDB-ADP and for efficient planning of community mobilization activities, 4 IPSWAM polders have been pre-selected by the TA. This is in accordance to the DPP proposal of implementing fine tuning works in 4 out of 9 IPSWAM polders for the first year (2014). The 4 IPSWAM polders are: Polder 43/2D and Polder 43/2F in Patuakhali; and Polders 22 and 30 in Khulna.

Initially, 30 COs will be hired starting June 2013 for immediate deployment to the 9 IPSWAM Polders and 2 new polders already selected (Polders 26 and 45). On June 9, 2013, thirteen COs were deployed to the 4 IPSWAM polders scheduled for implementation in 2014. They were given project orientation and briefing on data collection and how to conduct the WMO functionality assessment and polder/village mapping which will be their initial tasks.

In addition to the IPSWAM Training Course for Community Organizers, a training module on Community Organizing will be provided to the COs, Zonal Socio-Economists and BWDB counterpart staff in August 2013.

Deployment Scheme of Community Organizers

Based on the experience of IPSWAM and the Southwest project, the deployment scheme and workload for COs will be as follows:

- Hiring and training Community Organizers (COs) will be done in-house. Screening, interviews and selection of CO candidates proposed by the project partners will be done. Blue Gold will strive to achieve gender balance in the CO recruitment process;
- Overall CO requirement for Blue Gold will be determined considering the size and complexity of the polders as well as the number of households;
- For the first 2-3 months, the number of COs to be deployed in a polder will be higher in order to facilitate the following activities: conduct social investigation and data collection/updating; organizing and facilitating PRA meetings/sessions and UP/village/WMG meetings for project dissemination; identification of stakeholder groups, key informants/potential leaders in their assigned polders; and assessment of WMO functionality (specifically in IPSWAM polder). After which, at least 2 COs will remain in the polder and the rest will be re-assigned to other polders to assist in the project dissemination, data collection and stakeholder groups identification activities.

Supervision of Community Organizers and Coordination of Project Field Activities

The Socio-economists who will be posted at the District Project Office will monitor and supervise the work of the COs. It is expected that there will be regular field supervisory meetings and reflection sessions among the Socio-Economists and the COs to assess status of field activities, identifying lessons learned, strengths and weaknesses of the community mobilization and institutional strengthening activities. In addition, regular coordination meetings among the zonal Engineers/Staff (BWDB and Component 2 TA

field staff), Socio-Economist and Community Organizers including Component 3 and 4 team members should be carried out in order to integrate effectively project activities, address problems and issues timely and plan next activities.

3.1.4 Indicative Work Plan for 1st Year

Annex 11.7 presents the indicative work plan for this component during the 1st year.

3.1.5 Review of Manpower Requirement, Budget and Recommendations

3.1.5.1 Community Organizers

The Community Organizers in the Blue Gold program will play a significant and crucial role in facilitating awareness building, formation/strengthening of WMOs and capacity building. It is therefore important to recruit qualified people who have basic community organizing knowledge, skills and experience. They should be strongly motivated to be able to perform their role effectively and efficiently. In this regard, the project should be able to provide competitive salary rates in order to get qualified and good Community Organizers.

3.1.5.2 Socio-Economists

In the Blue Gold Program document, there is a provision for only 4 Socio-Economists to be placed in 3 districts: Patuakhali, Khulna and Satkhira who will supervise the Community Organizers deployed in the polders.

It is proposed that there should be 2 Socio-Economists at each District Office (one male and one female) bringing a total of 6 posts for Socio-Economists in the project. This will be done by reshuffling and slightly readjusting the present staffing for Component-1. See Annex 11.3

3.1.6 Challenges

- Difficulties and restrictions are foreseen in WMO registration with the Department of Cooperatives as experienced by IPSWAM and SWAIWRPMP. Logistic support and capacity building assistance to DoC including creation of a water cell and establishment of MIS have been initiated by LGED through the PSSWRS project funded by ADB. Similar initiatives can be undertaken by Blue Gold. Moreover, some amendments in the registration requirements and procedure should be made to facilitate WMO registration and annual audits. It is also recommended that profit tax regulation should be reviewed;
- It is a big challenge for the program to develop self-sustaining WMOs amidst projects/initiatives in the program areas which are being implemented in a 'dole-out' manner. As far as possible, the program will coordinate and/or collaborate with the other projects to harmonize approach and methodology; Crucial to long term sustainability of WMOs is the reliability and functionality of water management infrastructure over a long period of time. This will be attained if BWDB will adequately fund and timely address preventive O&M requirements of major structures under its responsibility and provide technical guidance and supervision to the WMOs during and after project completion.

Other important challenges that are relevant for Component 1 are mentioned in Chapter 9: Main risks and mitigating measures.

3.2 COMPONENT 2: Water Resources Management

3.2.1 Selection of Polders

Starting Position

The starting position for the selection of polders is as follows:

IPSWAM polders (9 polders, 45,000 ha.) have already been selected for fine tuning of the water management infrastructure and maintaining the existing WMOs' commitment (and the commitment of BWDB) to fulfil their responsibilities for O&M. All 9 IPSWAM polders will be included, so no selection of polders is required. Fine-tuning will start in four polders⁹ in early 2014, after rapid physical assessment by BWDB and TA (Teams 1 and 2), with WMOs.

Table 5: Which Upazilas are covered by the 9 IPSWAM polders

District	Upazila	Remark
Khulna	Paikgacha	Polder: 22
Khulna	Dumuria	Polder: 29
Khulna	Batiaghata	Polder: 30
Patuakhali	Patuakhali Sadar	Polders: 43/2E, 43/2D and 43/2A, and Part of polder: 43/2B
Patuakhali	Galachipa	Part of polder: 43/1A and Part of polder: 43/2B
Barguna	Amtali	Polder: 43/2F and Part of polder: 43/1A

Polder	Upazilas
22	Paikgacha
29	Dumuria
30	Batiaghata
43/2E	Patuakhali Sadar
43/2D	Patuakhali Sadar
43/2A	Patuakhali Sadar
43/2B	Patuakhali Sadar + Galachipa
43/1A	Galachipa + Amtali
43/2F	Amtali

In polders where full rehabilitation of the water management infrastructure is required (5 polders, 25,000 ha.): community organisations will be involved in the planning, implementation and monitoring of the construction of water management infrastructure and, almost simultaneously, start planning of the development of agricultural production and small scale business development. This will require careful timing of interventions. In two polders a water management assessment has taken place already (namely polder 26 in Khulna and polder 45 in Barguna¹). On this basis, these polders have already been selected by BWDB, which has also identified a list of polders for further selection¹⁰.

⁹ Already identified by name in the Development Project Proforma (DPP)

¹⁰ Ibid

Polders where the main water management infrastructure has been rehabilitated with support from the BWDB or from other projects (12 polders, 90,000 ha.) are also included. In these polders no or only rudimentary efforts have been made to organise communities to participate in the planning, implementation and supervision of the rehabilitation of the infrastructure. There is a risk that there is little commitment from the communities to contribute to the O&M of the infrastructure constructed without their involvement. This commitment must be gained initially on the basis of the fine-tuning of the water management infrastructure that is required followed by the development of agricultural production and market development. An initial selection has been made in collaboration with the BWDB¹¹.

For the selection of the three polders for full rehabilitation and the twelve that are already rehabilitated the following criteria will be used:

The proposed sub projects (polders) should be of a medium size and such that a total area of approximately 25,000 ha will have infrastructure rehabilitated by the project, and also WMOs will be established in polders totalling 90,000 ha.

- There should be no major conflicts in the communities and between occupational groups.
- The concerned Local Government Institution should have a positive attitude with regard to the project.
- Basic organisations dealing with water management should already be present in the area. If not, the stakeholders should show interest in establishing WMOs and in taking over responsibilities for Operation and Maintenance (O&M). They should further express their willingness to contribute to the O&M costs, and to participate in the planning, implementation and O&M activities.
- There should be a good prospect for the project to have significant positive impacts.
- The polder has a reasonable level (to be defined during implementation) of current and potential economic activity and production.
- The return on investment and benefits for the activities should be well distributed among the different stakeholders residing in the area.
- There should be scope for better utilisation of the available water resources, involving relatively minor rehabilitation of the infrastructure.

Situation of Other Projects

In the project area of operations, several other large BWDB programmes are currently active, from which Rehabilitated Projects have been identified in the Development Project Proforma. These are:

WMIP - Water Management Improvement Project. The programme originally focused on participatory water management by disseminating the approach developed by IPSWAM, but may now be concentrating on physical rehabilitation.

Southwest Project. This project aims to enhance economic growth and reduce poverty in the concerned FCD/I areas, by enhancing and sustaining the productivity of the selected existing FCD/I systems suffering from low performance and high incidence of poverty.

ECRRP - Emergency Coastal Rehabilitation and Recovery Project. This programme has as objective the rehabilitation of (cyclone) damaged flood control infrastructure in coastal polders to the pre-Sidr state - and not to design levels. Because crest levels of embankments tend to decrease over time as a result of soil consolidation, erosion and other effects, after completion of this programme rehabilitated embankments might still be below design level.

¹¹ Ibid

CEIP - Coastal Embankment Improvement Project. This programme has as its objective to rehabilitate all the infrastructure in 17 coastal polders, taking climate change into account during design. Construction work is expected to start in 2013 and to be finished by mid-2015.

ECRRP specifically does not include the institutional and participatory water management sectors of Blue Gold, and neither is its infrastructure scope as wide as that of Blue Gold. Blue Gold could also include polders that have been rehabilitated under CEIP. The emphasis of this project is on the rehabilitation of main embankments and infrastructures. In these polders the participatory approach of Blue Gold may focus on rehabilitating and improving the internal water management infrastructure.

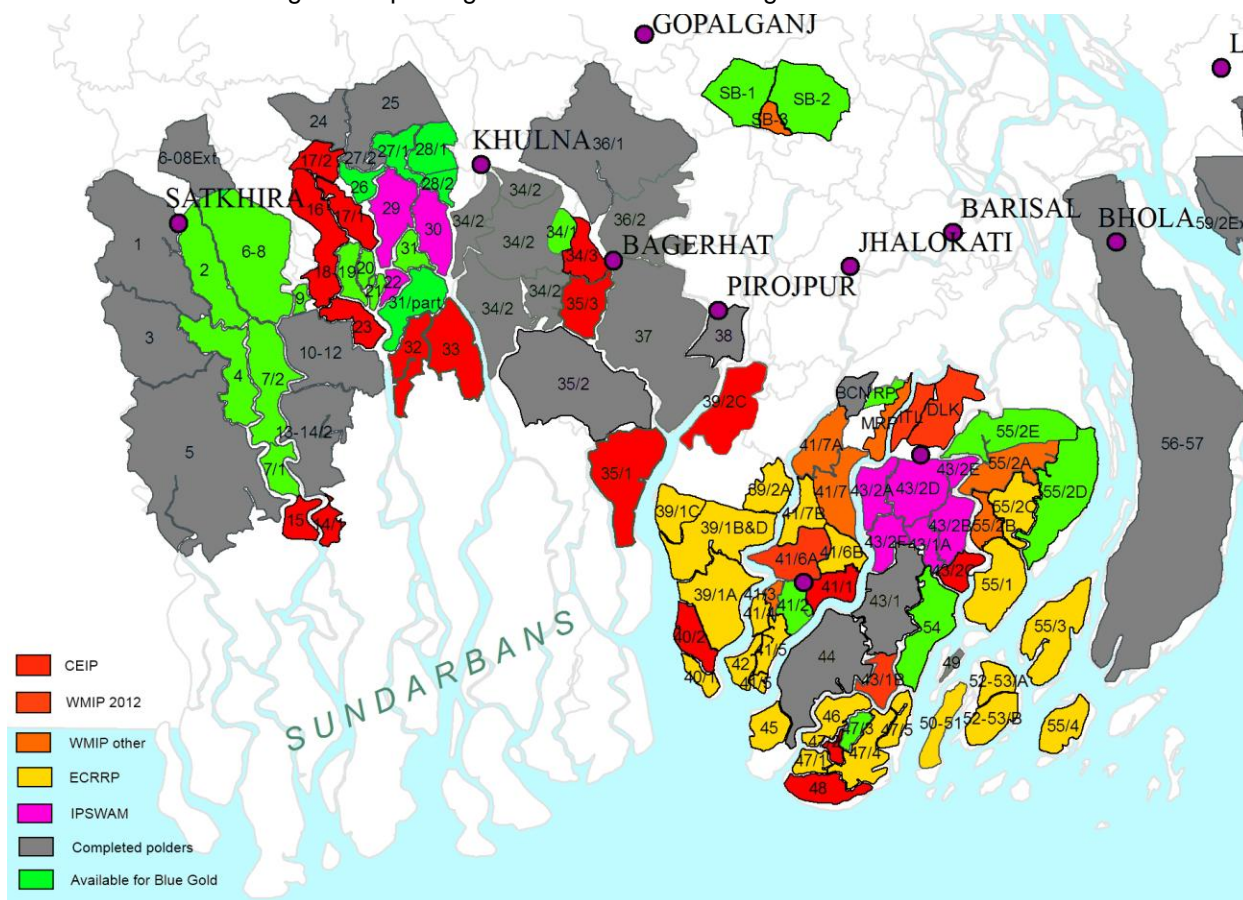


Figure 8: Polder Status in South and South West Bangladesh (2012)

Selection Process Based on this, it is planned to make annual selections of New and Rehabilitated polders by end of 2013, end of 2014 and end of 2015. This will make it possible to adjust to changing circumstances and new information.

Thus, batches of two New Polders and four Rehabilitated Polders will be selected by August 2013 from the initial lists (in the Development Project Proforma – see Annex 11.8.1) by means of: accessing and analyzing the detailed information available with CEGIS, which is essential for this process; Field visits by BWDB and TA teams (component 1 and 2) to verify the data. Suitable and prioritised polders can then be proposed for confirmation by BWDB.

It may be noted that this will allow about one year for WMO formation and detailed planning in Rehabilitated Polders and about two years for WMO formation with detailed planning and design in New Polders, which will probably also require an Environmental Impact Assessment.

It may also be noted that, by mid-2014 and mid 2015, cost estimate information may be available for fine-tuning IPSWAM Polders, rehabilitating New Polders, and work in Rehabilitated Polders. This will enable annual and mid-term review missions to review projected overall costs.

In addition to the general selection criteria given above, efforts will be made to cluster polders to allow (i) greater effectiveness of the development process, and (ii) dealing with technical development challenges (e.g. river erosion and product chain development) which exceed the geographical extend of one polder.

The Blue Gold Project has identified two categories of implementation works. The first category is the fine tuning of polders rehabilitated under IPSWAM and other agencies like ECRRP and CEIP. The second category is total rehabilitation in newly selected polders.

3.2.2 Fine tuning water management

The fine tuning works will include minor repair, tuning and upgrading of the already rehabilitated polders. For each polder there will be a summary initial assessment report containing the required fine tuning works and costs. The works will include but not be limited to:

- Re-sectioning of embankment.
- Minor repair and tuning of sluices and regulators including repair or replacement of gates and hoists.
- Minor repair and tuning of drainage outlets and irrigation inlets including repair or replacement of gates and hoists.
- Construction of some new irrigation inlets and drainage outlets to meet localized irrigation and drainage requirements.
- Re-excavation of some internal canals for efficient irrigation and drainage management
- Establishment of water level gauges at locations along the internal canals for efficient on-farm water management (drainage and irrigation in the high and low lands, operation of the gates).
- Construction of low compartmental dykes (where necessary) to separate high and low lands for efficient on-farm water management.
- Construction/upgrading of on-farm irrigation and drainage networks within the scope of DPP and the project document or as agreed by BWDB and EKN.
- Construction/upgrading of some non-critical system elements like foot bridges, culverts, internal road links, ramps, ghats/steps etc., within the scope of DPP and project document or as agreed by BWDB and EKN.
- Identifying existing drinking water and sanitation problems that cannot be solved within the scope of component-2 and coordinating all water resources related activities carried out by Max Foundation, BRAC WASH II and other agencies in the field of water supply and sanitation.

In a few cases fine tuning of polders, because of some uncontrollable external causes, may also require major works like:

- Re-designing of drainage direction because of external hydro-morphological changes in the outfall rivers. The works might include re-excavation of the outfall link channels, re-directing the drainage flow of some internal canals and construction of additional sluices (for example polder 30).
- Hydro-morphological study, water modeling, river training and bank protection works (for example polder 29 and polder 43/2A where the embankment is being continually retired without much positive impact).

- Construction of retired embankment and drainage-flushing infrastructures on the retired embankment.

These types of major works in the fine tuning polders, which might be unavoidable for the existence/ proper functioning of the polder, will be done only if BWDB and EKN agree and can arrange necessary funds beyond the scope of fine tuning.

3.2.3 New rehabilitation works

The rehabilitation works will include major rehabilitation of the selected polders. There will be an initial assessment report for each polder. The works will include but not be limited to:

- Construction/reconstruction/re-sectioning/repair/shifting/backing of embankment.
- Construction of retired embankment and temporary protective works (if any).
- Construction/reconstruction/repair of sluices and regulators including repair/ replacement of gates and hoists.
- Construction/re-construction/repair of drainage outlets and irrigation inlets including repair/replacement of gates and hoists.
- Re-excavation of internal canals, diversion canals and canals linking to the outfalls.
- Establishment of water level gauges at locations along the internal canals for efficient on-farm water management (drainage and irrigation in the high and low lands, gate operation).
- Low compartmental dykes (where necessary) to separate high and low lands for efficient on-farm water management.
- Construction/upgrading of on-farm irrigation and drainage networks within the scope of DPP and project document or as agreed by BWDB and EKN.
- Construction/repair of some non-critical system elements like foot bridges, culverts, internal road links, ramps, ghats/steps etc., within the scope of DPP and the project document or as agreed by BWDB and EKN
- Identifying existing drinking water and sanitation problems that cannot be solved within the scope component-2 and coordinating all water resources related activities carried out by Max Foundation, BRAC WASH II and other agencies in the field of water supply and sanitation.

Some rehabilitation polders may also require hydro-morphological study, water modeling, river training and bank protection works. These works will be done subject to the provision in DPP/project document and /or concurrence of BWDB and EKN.

There will be some research/study on innovative water management including development of water efficient irrigation systems like drip irrigation, alternating wetting and drying, hydroponics and pumped drainage etc., for areas having high salinity and acute scarcity of fresh surface water; and use of renewable energy in water management.

For the Blue Gold policy regarding climate change effects, see section 3.2.10 below.

3.2.4 Implementation planning and execution

The implementation planning, both for fine tuning and rehabilitation polders, is the process of participatory selection & prioritizing, surveying and assessing, budgeting, validating by WMOs, designing, contracting and implementation of the system elements. It is anticipated that to cover an area of 160,000 ha under Blue Gold, a total of 26 polders will be selected based on specific selection criteria. Final selection of the polders will be done in phases during the first 3 years. In the mean time to make an indicative plan these

26 polders have been preliminarily selected from a long list shown in the DPP based on desk analysis of the selection criteria and field information. There might be some changes during the process of rigorous selection analysis.

The polder rehabilitation activities will include but not be limited to:

- Consultation with and validation by WMOs
- Separation of low and high areas based on land contours with low internal dykes where feasible and incorporation of efficient water management.
- Joint identification of critical, non-critical and redundant system elements.
- Joint definition of service/catchment area for each system element.
- Joint selection and finalization of implementation of critical system elements.
- Justifying implementation of non-critical system elements.
- Justifying removal/ inactivation of the redundant system elements.
- Scheduling implementation works, surveying and assessing volume/quantity of works, preparation of cost estimates, budgets and ADP.
- Preparation of fund placement schedule.

After completion of the multi-disciplinary planning/assessment and validation by the WMOs, the following activities will be carried out for implementation of the selected works.

- Submission of initial estimates by field offices for inclusion in the ADP, checking and vetting by T.A Team.
- Registering and archiving of vetted estimates
- Hydrologic, hydraulic and engineering design of selected works by respective BWDB Design Circles. Design data will submitted by BWDB field offices.
- Consultation with the local people via the WMOs and modification of the design if technically feasible.
- Where required, respective BWDB design engineers will attend the validation meetings.
- Preparation of the final designs and drawings by respective BWDB Design Circle.
- Preparation of detailed final estimates by BWDB field offices and approval by relevant authority
- Selection of contractors/LCS and work award.
- Notification of work award to PCD, WMO and TA team (DCL/CL).
- Fund placement to the field RAC offices.
- Formation of WMO monitoring committees.
- Technical training of WMOs, Monitoring Committees, Contractors, LCS and Blue Gold field team by the Blue Gold Planning Team and respective design offices.
- Checking pre-work measurement by the BWDB field Technical Staff and endorsed by Field TA Team.
- Participatory quality control and progress monitoring by WMOs, BWDB field technical staff, Blue Gold field TA team and Central Planning Team including DCL/CL.
- Engineers from respective BWDB Design Circles will make occasional field visits during design, implementation, monitoring and quality control phases.
- Post work checking by BWDB field office and endorsement by Blue Gold zonal planning team.
- Submission of progress reports by field TA team to the PCD, TA Team Leader/CL, DCL and the field executive engineer.
- Bill payment by BWDB field offices as per fixed RPA/GOB ratio as mentioned in DPP/Project Document/Contract Document/Inception Report.

- Submission of final bills along with field measurement sheets, a resolution from WMA general meeting¹² certifying satisfactory completion of works and the final progress reports to Blue Gold TA team for reimbursement processing.
- Random checking of field measurement sheets, comparing bill amounts with the final progress and preparation of reimbursement documents and letters.
- Reimbursement of the bills by the TA Team Leader.
- Registering and archiving of the bills.

A tentative implementation schedule based on initial selection of 26 polders is given in Annex 11.8. The time schedule is indicative and will be updated in due time when enough information is available.

Coordination will be maintained with LGED to find out if any of the Blue Gold polders has PSSWRSP/SSWRDSP subprojects. In that case an implementation plan will be prepared having concurrence of BWDB, LGED and the TA team.

Physical survey of rehabilitation works for estimate preparation and or pre- and post- work measurements will be done by BWDB field office. In case BWDB field office is unable to carry out physical survey works, support will be provided from TA fund through hiring survey staff or outsourcing of the survey works.

BWDB will ensure that the gates and hoists are installed in time while civil contractors' cross dams are in place. In case ME (Mechanical Engineering Department of BWDB) fails to supply and install the gates in time, they will be responsible for any compensation needed. Initiatives will also be taken to develop some private companies for fabrication and installation of gates.

The staff provision/requirement for planning and implementation of the component-2 activities is given in Annex 11.9 with an alternative suggestion for proper functioning of the component-2 activities. With the current staff provision in the project document, vetting of field estimates and reimbursement of bills will be difficult. So, some adjustment has been proposed. The adjustment in the staffing will be budget neutral and can be accommodated within the savings resulting from reduction of number of Irrigation Agronomists from 3 to 1. See also Annex 11.3, Revised Staffing Schedule.

All works related to implementation planning of construction/reconstruction/repair of sluices/regulators and construction/reconstruction/re-sectioning of embankments will be the responsibility of the Blue Gold Civil Engineers in the Districts.

All works related to implementation planning of irrigation and drainage networks like canal re-excavation, on-farm works, establishment of water level gauges, compartmental dykes will be the responsibility of the field Irrigation and Drainage Engineers. The District Irrigation Agronomist will establish the existing and future cropping patterns, estimate individual crop water requirements and the total irrigation water requirement for the polder. He will assist the Irrigation and Drainage Engineers in designing and implementing adequate drainage and irrigation facilities in the polder.

All estimates submitted by field offices for vetting by TA Team Leader will be handled, checked, processed and archived by the Quantity Survey Engineer and the Quantity Survey Assistant under the guidance of DCL.

¹² For running bills, resolution of the WMA Executive Committee is sufficient.

All bills submitted by field offices for reimbursement recommendation by TA Team Leader will be handled, checked, processed and archived by the Reimbursement Engineer and the Reimbursement Assistant under the guidance of DCL.

The Reimbursement Engineer and the Quantity Survey Engineer will also assist in occasional monitoring and quality control of implementation works and coordination of engineering designs by concerned BWDB design circles.

BWDB will be responsible for tendering, execution and day to day monitoring and quality control of the implementation works.

A detailed ToR of the component-2 experts/staff is given in Annex 11.20.2.

As per DPP 50% of the earth work will be contracted to LCS. However, based on IPSWAM experience and suggestions of WMOs, it is proposed that 100% earth work be given to the LCS and it should be implemented in the second year based on the experience of the first year. WMOs also suggested that minor structure repair works should be given to some kind of specialized LCS instead of contractors as they had very bad experience with contractors during IPSWAM period. It is also proposed that at least 40% of the LCS be women LCS. These matters will be resolved with concurrence of both EKN and BWDB.

All earth work in canal re-excavation will be completed before April 30 and that in embankment re-sectioning before May 31. The volume of the spoil earth on the banks of the canals will be taken as one of the indicators of the volume of the re-excavation done.

Throughout the entire process of implementation planning and execution of component-2 activities, coordination and liaison will be maintained with other component experts.

Implementation cost of the infrastructure rehabilitation works has been based on 100 euro/ha and 300 euro/ha for fine tuning and rehabilitation polders respectively. However, it is anticipated that actual cost of fine tuning and new rehabilitation will be much higher than this provision.

3.2.5 Monitoring and quality control of implementation works

Monitoring and quality control of civil works are planned to achieve the highest possible quality of works that will form a strong foundation for implementation of other Blue Gold components. It will follow the participatory approach as IPSWAM but with a stronger field technical TA team. The DCL/CL will guide and coordinate the overall quality control and monitoring process. The WMO monitoring committees will form the lowest tier of the monitoring system. The field XEN (BWDB) will issue identity cards to the WMO monitoring committees and officially inform them through the WMAs of the name and location of works, name of the contractor/LCS and date of commencement of the work. The monitoring committees will observe and verify specific activities as defined by the DCL/CL.

The field Civil Engineers, assisted by field Quality Control Engineers, will be responsible for monitoring and quality control of the civil works related to embankments, sluices, regulators, protection and river training works (if any), outlets and inlets. The field mechanical Quality Control Engineer in association with the field civil Quality Control Engineer will be responsible for monitoring and quality control of installation of gates and hoists.

The Irrigation and Drainage Engineers, assisted by the field Quality Control Engineers, will be responsible for monitoring and quality control of irrigation and drainage networks like re-excavation of drainage and irrigation canals, diversion canals and canals linking to outfalls rivers/canals.

BWDB field engineers and technical staff will be responsible for day to day monitoring and quality control of all execution works. Blue Gold central planning team including the DCL/CL will pay random visits for monitoring and quality control of sample/specific implementation works.

The Project Coordinating Director/ TA Team Leader will also make occasional field visits to ensure desired progress and quality of the works. If anomalies are found, the PCD/TL will instantly stop the work.

The DCL, under the guidance of the CL/TL will coordinate the overall monitoring and quality control of civil works and prepare quarterly summary reports. If the contractor/LCS does not respond to the recommendations/instructions of any of the Monitoring and Quality Control Teams, the TL will stop the work and recommend non-reimbursement of any bill paid to them.

3.2.6 Disbursement and reimbursement procedures

The following procedures will be followed:

- Tendering and other activities related to implementation will only start after approval of the implementation agreement by all parties (WMO, BWDB, EKN representative).
- All BWDB standing procedures along with these IR specifications on payments, certification of bills and disbursement to the contractors/LCS will be followed.
- All ADP, disbursement and reimbursement will be based on a fixed RPA/GOB contribution ratio as mentioned in the DPP, the project document and this Inception Report. It will remain constant throughout the project period.
- BWDB will ensure timely fund placement in the BWDB field offices, the first installment not later than November and the last installment not later than April of every financial year. If needed, EKN will be asked for follow-up.
- Payment to the contractors will be limited to the progress mentioned in the progress report submitted by respective TA field monitoring engineers and the progress mentioned in the WMA general meeting resolution.
- Only final bills along with field measurement sheets and a resolution from WMA general meeting endorsing satisfactory completion of each work will be submitted to the TA Team Leader for reimbursement. Running/progressive bills will be discouraged as there will be hundreds/ thousands of bills that may be difficult to handle both by the TA team and EKN. However, for activities involving more than one implementation year, progressive bills greater than 30% of the contract amount can be considered for reimbursement. No bill will be reimbursed without the resolution of WMA general meeting¹³.
- Upon receipt of the bills, the TA reimbursement assistant will register them in the register book with name of work, name of the contractor/LCS, location of the work, type of bill, contract amount and the bill amount.
- After registration, the bills will be sent to the reimbursement engineer for arithmetic checking, comparing with ADP, DPP, vetted estimate, RPA/GOB ratio, WMA resolution, field monitoring and quality control report, agreed progress, tax & VAT and previous reimbursement if any. After checking and comparing, he will calculate the reimbursement amount for each bill, deduct any previous reimbursement and work out the net reimbursable amount. He will also make a data base of all reimbursable and non-reimbursable bills and will prepare summary sheets.

¹³ Or Executive Committee resolution in the case of running or progressive bills.

- The DCL, in consultation with the CL/TL, will guide and coordinate the entire reimbursement processing and prepare reimbursement letters to be signed by the TL. The DCL will also randomly check the bills, agreed progress and reimbursement sheets.
- After reimbursement, the bills will be returned to the reimburse assistant for re-registering and archiving for any future reference and final handing over to BWDB.
- The reimbursement engineer and the reimbursement assistant will occasionally visit zonal RAC offices to resolve any anomalies in bill recording and reimbursements recommended/ not recommended and or matters of disagreement on any other related issue.

3.2.7 Operation and Maintenance

Establishing participatory O&M in the polders

Once the rehabilitation activities are concluded, the responsibilities for operation and routine maintenance are, in line with an O&M agreement, transferred from the BWDB to the WMO. This is the final step in the six step methodology 'the long term operation and maintenance with monitoring'. The implementation of the O&M consists of two activities:

- **Operation:** i.e. the manipulation of water management infrastructures to manage and maintain the appropriate water levels in the project area.
- **Maintenance:** i.e. the actions undertaken to prevent the deterioration of the water management infrastructure and keep the physical components in such a condition so that they can serve the purpose.

In line with the above, the objectives of operation are:

- To control the water levels and flow of water in the canal system of the scheme.
- To ensure that through effective water management, the water availability matches with the requirements of the stakeholders for agricultural, fisheries or domestic purposes.

The objectives of maintenance are:

- To retain the hydraulic infrastructures in line with the technical objectives of the scheme.
- To preserve the infrastructure, protect the investments made and prevent high rehabilitation costs.

The general objectives of "long term operation and maintenance with monitoring" are:

- To ensure the implementation of the agreed long-term O&M arrangements between the BWDB and WMO, including the transfer of responsibilities.
- To carry out monitoring in an effective and participatory way, that will enable the various parties involved in the water resource management to monitor their activities and assess the progress and impact made through them.

In order to realize the objectives above, two approaches have been developed:

- a methodology for implementation of routine O&M by the WMOs;
- an O&M training programme for the WMOs.

O&M responsibilities of the WMA

The O&M responsibilities of both the BWDB and the WMA will be stated in the O&M agreement between BWDB and the WMA. In the O&M agreement the WMA is given the following O&M responsibilities:

- a) Daily management, operation and routine maintenance of the water management infrastructure.
- b) Tree plantation and cultivation of crops on the embankment can be done according to the rules, and in return for that, maintenance of the infrastructure should be taken care of (depending on the need).

- c) Ensuring that no one cuts the embankment and taking legal action if anybody cuts the embankment.
- d) Ensuring that no one passes logs through the sluices or inlets.
- e) Paying due attention to proper operation of sluices, i.e. opening and closing of sluice gates.
- f) Identifying resources (acquired borrow-pits, land along embankment, khals and other water bodies, etc.) that can generate funds for O&M of the water management structures subject of the agreement.

Organisation of routine O&M in the polder

Formation and tasks of O&M sub-committees

The villages that drain to the same sluice will work together in organising urgent O&M matters. The main idea behind this “catchment wise” organisation of O&M is that the villages further away from the sluice are also affected by the sluice operation and therefore should have a say in it. At the same time, these villages should contribute to the maintenance of this sluice and the embankment around it because they benefit from the infrastructure.

The tasks of the O&M sub-committee are:

- to jointly plan routine O&M by the villages in the catchment;
- to organise mobilization of labour and materials needed for routine O&M;
- to monitor implementation of routine O&M;
- to function as a platform for discussion about O&M in the catchment.

Generally, the O&M sub- committee consists of:

- the WMA members from all villages in the catchment (2 per village);
- a limited number of extra WMG members with O&M experience in the catchment (optional, maximum 1 per WMG);
- the operators of the sluice.

To avoid confusion it should be stressed that the O&M sub-committee is **not** an extra tier in the WMO hierarchy. It rather is a committee consisting of WMA members from each WMG in the catchment, which organises joint routine O&M of all villages in the catchment.

Tasks of the WMA in routine O&M

The WMA will sign the O&M agreement for the polder and therefore maintains overall responsibility for routine O&M in the polder. However, it is not desirable and possible for the WMA to make detailed decisions in O&M in every catchment of the polder. The formation of a limited number of O&M sub-committees gives the WMA the opportunity to ensure their responsibilities are met through working with these committees. Communication between the O&M sub-committees and the WMA is ensured through including the WMA members in the O&M committees concerned.

The tasks of the WMA in routine O&M are:

- to monitor if the routine O&M in the polder is carried out properly (if the responsibilities assigned to the WMA in the O&M agreement are met);
- to resolve any O&M related problems that cannot be solved within the O&M sub-committee or between the WMGs;
- to contact with BWDB Division whenever cooperation / technical input is required.

Tasks of the WMGs in routine O&M

The tasks of the WMGs in routine O&M are:

- to work with the O&M sub-committee to mobilize labour and materials for O&M in the villages to implement routine O&M;
- to monitor the water management and infrastructure situation in the villages every 6 months (see IPSWAM technical note 33 for the participatory monitoring methodology) and to share the findings with the O&M sub-committee. In this way, the monitoring results can be used in updating the O&M plans by the O&M sub-committee.

Tasks of the BWDB Division in routine O&M

The BWDB has no leading role in routine O&M anymore, as responsibilities for routine O&M were carried over to the WMOs. However, the BWDB and WMO will jointly assess and monitor routine O&M works and agree upon corrective action when necessary. The BWDB division will also provide technical assistance and training to the WMO when required.

The routine O&M process

The routine O&M process requires five steps, which are carried out by WMGs, WMAs, O&M sub-committees and the BWDB Division Office jointly as follows:

Table 6: The routine five steps of O&M process

Steps in the routine O&M process	Frequency	Responsibility
1. Obtaining possession of the infrastructure	1 time only	WMA/Div/Blue Gold
2. Inspection and assessment of O&M needs		
Systematic visual inspection of polder water management infrastructure	Every year	WMA/O&M sub committee / Division
Inspection of water management infrastructure and monitoring of water management situation (see TN 24 for participatory monitoring methodology)	Every 6 months	WMG/ O&M sub committee
Define catchments (areas drained by a single structure with one or more WMGs)	1 time only/ updated when required	O&M sub committee
Testing the system/ identifying bottlenecks	1 time, after rehabilitation	O&M sub- committee / Blue Gold
3. Planning of O&M		
Make a calendar with regular maintenance requirements and seasonal water requirements throughout the year.	1 time only/ to be updated or improved when required	O&M sub committee
Make an O&M activity plan for the coming 6 months based on monitoring/inspection results, calendar and acute maintenance needs (including resources needed)	Every 6 months	O&M sub committee
4. Implementation		
Ensure resources needed for plan implementation are available (mainly voluntary labour, see 2.5)	Throughout the year	O&M sub committee/ WMGs
Installation of gauges, small bunds and pipes as required for operation as required	When applicable/ necessary	O&M sub committee
Carrying out maintenance planned and operate as planned	Throughout the year	O&M sub committee / WMGs
Monitoring during implementation and operation	Throughout the year	O&M sub committee / WMA

5. Post-inspection		
Inspection of quality of maintenance works + assessment of overall situation (O&M) in new monitoring round (loop to step 2)	Every 6 months	WMG/ O&M sub committee / WMA / Division

Resource mobilisation for routine O&M

The WMOs will now be responsible for resource mobilisation for routine O&M. It has been found that the WMGs were able to mobilise the labour and materials for routine O&M through voluntary contributions of the beneficiaries and the use of WMG savings.

From discussions with WMO members, BWDB officials, TA team members and from previous experiences in the Water Sector it has been learned that sustained willingness to mobilisation of these resources can only be ensured if:

- The WMOs have a true feeling of ownership of the water management infrastructure;
- The WMOs are able to use the infrastructure for income generation activities.
- The O&M agreement between the BWDB and the WMA provides a clear basis to meet both those conditions.

Real access to income generating resources is necessary for WMO sustainability. One preferred option is for BWDB and other authorities to lease land to the WMOs for a specific period of time, with steps taken to ensure that the WMOs actually gain access to that land.

Even when potential sources of funds have been identified, it sometimes proves to be difficult or impossible for the WMOs to generate the desired funds. For this reason it will be important to continue efforts to realize the practical hand over of khals, borrow pits and slopes of the embankments to the WMOs. BWDB will ensure that WMOs get possession of these resources and EKN will follow it up.

O&M responsibilities of the BWDB: periodic and emergency maintenance

As stated in the O&M agreement between BWDB and the WMA, the BWDB will keep the following responsibilities in O&M:

- Provide technical assistance and training to the Water Management Association (WMA) to manage, operate and maintain the infrastructure mentioned in this agreement.
- Major repair of the infrastructure mentioned in this agreement including periodical and emergency maintenance.
- During implementation of the project and afterwards, at least 50% of earth work involved should be implemented by the LCS and under the supervision of the Water Management Association (WMA).
- Will take legal action against anybody who hampers the water flow in any khal in the Polder.

Long term O&M cooperation between the WMOs and the BWDB Division

Cooperation in planning of O&M

It is envisaged that the WMA, the O&M sub committees and staff of the XEN (probably the SDE), will carry out a systematic visual inspection of the polder water management infrastructure annually (see above) and that this will form the basis for:

- Semi-annual routine maintenance activity plans to be executed by the WMA and WMGs.
- Occasional plans for periodic maintenance to be prepared by the XEN in consultation with the WMA and forwarded to the O&MD for financing.

Assistance in routine O&M by BWDB extension overseers and O&M Division staff

As stated in the O&M agreement, the BWDB division will provide technical assistance and training to the WMO to manage, operate and maintain the water management infrastructure.

Cooperation in enforcement of proper use of water management infrastructure

It is envisaged that the WMO and the BWDB division will work together to keep the drainage network free from obstructions and to ensure proper use of the water management infrastructure.

Project assistance

Training

To ensure the WMOs (WMAs, WMGs and the O&M sub-committees) know what is expected from them in O&M and to equip them to fulfil their O&M responsibilities, an O&M training programme will be carried out using the existing training materials developed under IPSWAM. In this programme the WMA executive members and the O&M committee members of the different catchments will be trained.

3.2.8 Gender Issues

Implementation planning and execution will be done in consultation with the WMOs which comprise a significant number of women members. All implementation works will be validated in WMA general assembly meetings, and thus the opinions of women members are taken into account.

Box 2 Gender in Component 2 – Water Resources Management:

- 2.1 Women's and men's problems and needs will be considered in option development for water management system improvements. They will be involved in the analyses of causes and the identification of solutions. Women and men will participate in the WMO validation By WMOs of the implementation plans for water management infrastructure.
- 2.2 As per DPP at least 50% of the earth work will be carried out through Landless Contracting Societies (LCS). A higher proportion will be aimed for as WMOs opined that up till 100% of the earthwork and other minor work should be given to LCS. 40% of the LCS will be women. Men and women LCS will receive training. Provision for basic facilities (like temporary toilets, shade, drinking water, First-aid box etc.) at the site especially for women will be ensured by the relevant authority: either the implementing agency or the contractors.
- 2.3 Besides construction management and other LCS training, skill development training will be provided especially to the women LCS members (target: 7500). This training aims to enable them to engage in more profitable income generating activities (IGA), including by investing their earning from earth work properly. Suitable IGAs are expected to include poultry, homestead gardening, small ruminants and/or mini ponds; coordination with component 3 is foreseen for this. Depending on local opportunities (such as resources and markets), non-farm IGA skills may be developed.
- 2.4 All contractors will be oriented to employ also women as unskilled and skilled labour, pay equal wages to men and women for work of equal value, and give attention to occupational health and safety issues, which includes provision of basic facilities. Field staff will be oriented to supervise the implementation of the above.
- 2.5 Committees will be formed in WMOs (or at Block level, one Block covering several WMGs), including male and female members, for the supervision, monitoring and O&M of construction of water management infrastructure (target: 30% women members).

3.2.9 Challenges

- RPA/GOB ratio changes frequently during ADP, fund placement and bill payment. This creates reimbursement problems having different reimbursement ratios for single activity. Therefore, one ratio should be followed throughout the project period.
- Fixed allocation in DPP and ADP jeopardizes participatory planning and execution which needs flexibility of changes during the process of participatory planning and execution. This can be taken care of by introducing rolling budget and block ADP allocations.
- Irregular fund placement jeopardizes progress and quality of works. Because of this the LCSs suffer most and WMOs get frustrated. BWDB should ensure timely fund placement.
- Delayed clearing of engineering designs by BWDB design offices sometimes delays the overall progress of works. This is mainly because the design offices are usually understaffed and can't always handle the peak load. Necessary measures should be taken to ease their work load and to ensure submission of the design data by the field offices in a timely manner.
- Delayed/non-installation of gates and hoists jeopardizes implementation of civil works. All concerned actors should strengthen their monitoring and coordination activities.
- Cyclones during/after the rehabilitation will jeopardize the success of the program. The program should develop some emergency provisions to take care of this.

3.2.10 Climate Change Effects and Innovation

3.2.10.1 *Climate Change Effects*

General

There is an increasing consensus about the reality of climate change and associated disasters and their manifold implications for the lives and livelihoods of the communities living along the coast. It is anticipated that long and short term climate change effects in the Blue Gold polders might be as follows:

- i. Sea level rise & increased high tide levels resulting in inundation of coastal plains; tidal blockage and subsequent drainage congestion and water logging inside the polders.
- ii. Strong winds and high waves causing overtopping and erosion of embankments and subsequent flooding inside the polders.
- iii. Frequent cyclones and tidal surges damaging water infrastructure, crops and properties and sometimes endangering human and animal lives.
- iv. Increased salinity in estuaries that destroys soil structure and impede crop production.
- v. Increased siltation in the estuaries due to push back of the high tidal prism resulting in reduced drainage/ flow capacity of the estuary rivers, that in turn impede drainage of the internal canals.
- vi. Increased drought and or excessive rainfall causing water stress and or flood damage to the crops.
- vii. Environmental problems that affect human and animal health.

Mitigation measures

In Blue Gold all the above anticipated problems are recognized and plans are developed to mitigate these problems within the scope and limitations of the program. The plans will be of a limited nature for the fine

tuning polders and more extensive for the new rehabilitation polders. Final decisions on design parameters for crest level height of embankments and size and capacity of inlet and outlet structures will be taken by BWDB and will be based on previous experience and on criteria applied in other projects such as WMIP, ECRRP and CEIP. Blue Gold will follow the decisions taken in this respect.

- A) Mitigation plans for fine tuning polders (already rehabilitated)
- i. Ensuring technical high quality rehabilitation and strict O&M of water management infrastructure to increase their resilience to high tides and possible overtopping.
 - ii. Community Based Adaptation (CBA): Awareness building training will be organized on disaster risk reduction (DRR); community based adaptation (CBA) on measures like organizing climate change awareness campaigns; motivate community to cope with climate variability and change.
 - iii. Promotion of Disaster Resilient Structures, such as strengthening weak sections of the house with affordable, yet durable construction materials, or raising the plinths of the house. The expertise of IUCN Bangladesh and BRAC University in this field will be called upon.
 - iv. Linking the WMOs to other agencies for construction of raised and protected drying and storage sheds for crops and seeds, and also for construction of cyclone shelters.
 - v. Introduction of salt tolerant crop varieties.
 - vi. Undertaking research/study on:
 - using pumps for increased capacity for the removal of drainage congestion in the polders due to sea level rise or siltation,
 - development of efficient irrigation/ soilless agriculture systems for water stressed / saline areas,
 - feasibility of using renewable energy (solar, wind or combination) for pumped drainage and irrigation.
 - vii. All related structural mitigation measures will be coordinated by the component-2 engineers with BWDB Design Cell. Non-structural mitigation measures will be coordinated by other related components/agencies.
- B) Mitigation plans for to-be-rehabilitated polders
- i. For new rehabilitation polders, all the measures as for the fine tuning polders will be considered. In addition the following measures will also be taken:
 - ii. Adopt latest design standards, as approved by BWDB for embankment and sluices.
 - iii. Raise embankment design height to a level as recommended in the latest BWDB approved design standards.
 - iv. Construct bigger sluices/outlets for quick removal of the internal drainage congestion caused by sea level rise and subsequent increased tidal blockage.
 - v. Address social safeguard issues (land acquisition and compensation) resulting from raised embankment crest level and subsequent increase in the base width.

Observations

For new rehabilitation polders, raising of embankment crest levels and increasing the size/vantage of sluices will increase the polder rehabilitation cost far beyond the present limit. Therefore, either additional budget will have to be ensured or the number of polders will have to be reduced.

Alternatively, cooperation could be sought with other projects in the Southwest of Bangladesh which have their main emphasis on implementation of civil works for polder rehabilitation. Blue Gold could select the new rehabilitation polders in such way that the hard core civil works will be implemented by one of those projects (such as CEIP) while Blue Gold under Component-2 concentrates on secondary infrastructure and on-farm water management.

3.2.10.2 Research/studies for innovation under component-2

The following innovation research/studies are envisaged under Component-2:

- i. Introduction of pumped drainage for increased capacity and faster evacuation of excess drainage water from the polders.
- ii. Development of efficient irrigation/ soilless agriculture systems for water stressed / saline areas.
- iii. Use of renewable energy (solar, wind or combination) for pumped drainage and irrigation.
- iv. Innovative fresh/ground water storage and or recharge systems (in cooperation with UNICEF/Acacia Water)
- v. Innovative designs for river training and bank protection works with geotextiles/spurs etc.
- vi. Innovative rain water harvesting technology for irrigation and domestic use.
- vii. Changes in polder drainage pattern due to varying tide levels around the polder and consequent overloading of specific sluices.
- viii. Innovative dredging technology and systems.
- ix. Remote sensing techniques for early detection of waterlogged areas
- x. Use of GIS/MIS to develop operation & maintenance plans for polder infrastructure.
- xi. Smart dyke sensor technology

3.3 COMPONENT 3: Food Security and Agricultural Production

3.3.1 Rationale Component 3

The objective of Component 3 is to improve income and food security of WMG members through increased agricultural production.

With improved water management in the Blue Gold polder the potential for agricultural production will change. Farmers in all agricultural sectors (crops, livestock, aquaculture) will receive support to adapt their farm management and make optimal use of the changing environment and be better prepared for changes in the future.

The support to WMG farmers involves education through Farmer Field Schools (FFS) on a wide range of topics that are selected based on their relevance for the polder and WMOs. Horizontal learning from the FFS experiences will be expanded via the WMO platform. Value chain analysis will identify potential roles for the producers through association and coordination in input supply, processing and marketing.

Organizing FFSs early on in the process of community mobilization provides opportunities for the people to identify good leaders and to initiate collective action (e.g. input supply or service functions). Collective action will bind them together and will help avoid conflicts.

3.3.2 The Farmer Field School approach

It is important for everybody involved in the Blue Gold project to understand that the Farmer Field School (FFS) approach is not designed to be a “technology transfer” tool but rather as an extension approach to *empower* farmers and help them become more confident in making their own crop management decisions.

Principles of the FFS approach are that the training is season-long (seed to harvest, egg to egg, etc.) and is based on learning from experience (experiential learning) through a participatory learning process.¹⁴¹⁵

A very important outcome of a FFS is that farmers have learned to make observations and collect data in their own farm (crop field, homestead garden, pond, chicken pen, cowshed etc.), to analyze these data and to make well-informed farm management decisions. Farmers also learn to test new ideas (e.g. new technologies, new crop varieties, fertilizer management, improved animal feeds) by setting small experiments on their own farm. They learn how to evaluate, adapt, optimize and perhaps reject them for their own situation.

Farming takes place in an ever changing environment. Rather than giving top down recommendations, which are often of a general nature and do not consider the specific conditions of an individual farmer, it is better to support the farmers in becoming confident decision makers who can quickly adapt to a new situation.

Farmers who have participated in a FFS will be the *experts* of their own farm. They can be valuable partners in development, for example when collaborating with researchers who have a real interest in Participatory Action Research (PAR).

3.3.3 Short history of FFS in Bangladesh and how this relates to Blue Gold

The FFS approach was initially developed in Indonesia to educate farmers on Integrated Pest Management (IPM). Also the first FFSs in Bangladesh (in the mid 1990s) by the Department of Agricultural Extension (DAE) were focusing on Integrated Pest Management with the main objective of reducing pesticide misuse. The 14 weekly IPM FFS sessions were spread out over an entire (rice) cropping season.

Gradually the FFS curriculum shifted to Integrated Crop Management (ICM) with a more holistic view on growing healthy crops, for example by including learning about seed health, soils and fertilizer management. While most FFS were conducted in rice, also some other field crops were gradually included.

Another change that took place was that the earlier IPM FFSs had 25 (mainly male) participants while the ICM FFSs included 50 participants of 25 households (1 male and 1 female from each household). These FFS had 20 weekly sessions, usually 11 for crop related topics (male participants), 4 for topics that are of interest to women (homestead gardens, nutrition), and 5 sessions with all 50 participants together to develop a farmers club to sustain FFS activities in the following seasons.¹⁶¹⁷

In the meantime the FFS approach was also introduced by DANIDA in the fisheries and livestock sectors where new training modules were developed for aquaculture, big and small ruminants and poultry.

Through collaboration between the two DANIDA projects (AEC and RFLDC, 2007-2013), ideas started to develop to bring the crops, livestock and aquaculture together in one modular FFS curriculum for Integrated Farm Management (IFM). The projects initiated pilot FFSs to test and develop this IFM approach, which from mid-2013 onwards will be used by DAE in the new DANIDA funded Integrated

¹⁴ See: Fundamental Elements of a Farmer Field School, Kevin Gallagher, LEISA magazine, March 2003

¹⁵ See: Farmer Field Schools for IPM: Refresh Your Memory, Hein Bijlmakers, 2005

¹⁶ See: Farmer Field Schools in the Agricultural Extension Component (2006-2012), Hein Bijlmakers, April 2011.

¹⁷ See: Changing the strategies of Farmer Field Schools in Bangladesh, Hein Bijlmakers & Ashrafur Islam, LEISA Magazine, December 2007

Farm Management Component (IFMC). The IFM FFS consist of 52 sessions divided in different modules (e.g. rice, poultry, small ruminant, large ruminant, fish, nutrition, homestead garden) and works with 25 male and 25 female participants (same household). Many of these FFSs will eventually form a Farmers Club. IFMC will organize 20,000 IFM FFS over a period of 5 years in 354 Upazilas, which overlap with 21 of the 25 Upazilas under the Blue Gold project.

Apart from IFMC there are several other projects that, at least partly, overlap with the Blue Gold area and are also using FFS or similar group based approaches. These include a DAE funded IPM FFS project, a Disaster & Climate Risk Management Project (DCRMA, with multiple donors), and the FtF-aqua project (WorldFish, funded by USAID). This may cause certain “problems” for example if projects rely on the same DAE field staff and Farmer Facilitators. Differences between projects (e.g. allowances, free hand-outs of seeds or equipment) may lead to undesired “competition”, and farmers in the area may be overloaded with too many development activities. Regular harmonization meetings between these projects will be needed.

While the FFS curricula and modules developed by the DANIDA components can be used or adapted for FFS in Blue Gold, a major difference in strategy is that Blue Gold works with Water Management Groups (WMGs). The formation of a farmer club with FFS participants in Blue Gold is therefore not needed and perhaps even not desirable.

Close collaboration between the FFS programs of Blue Gold, IFMC and other projects will be needed to efficiently work together in the same Upazilas and to share experiences, for example in curriculum development.

3.3.4 FFS in Blue Gold

Without the “vision” to organize FFS participants into a formal farmers club, it is not required to have FFS with 50 participants from 25 households (as in the DANIDA program). Rather, one FFS can consist of just 25 participants (the original FFS size, which is very suitable for participatory learning activities) and several FFSs, each with a different focus, can be organized as subgroups in the WMGs. Following the FFS season, the FFS graduates will play a leading role in larger “producer groups”, sharing information with other WMG members, and taking the lead in testing improved production methods. Producer groups can in some cases extend beyond the geographic area of the WMG to better organize input supplies, services and marketing. Possibly they could link up at WMA level if the WMA is functioning at the required level.

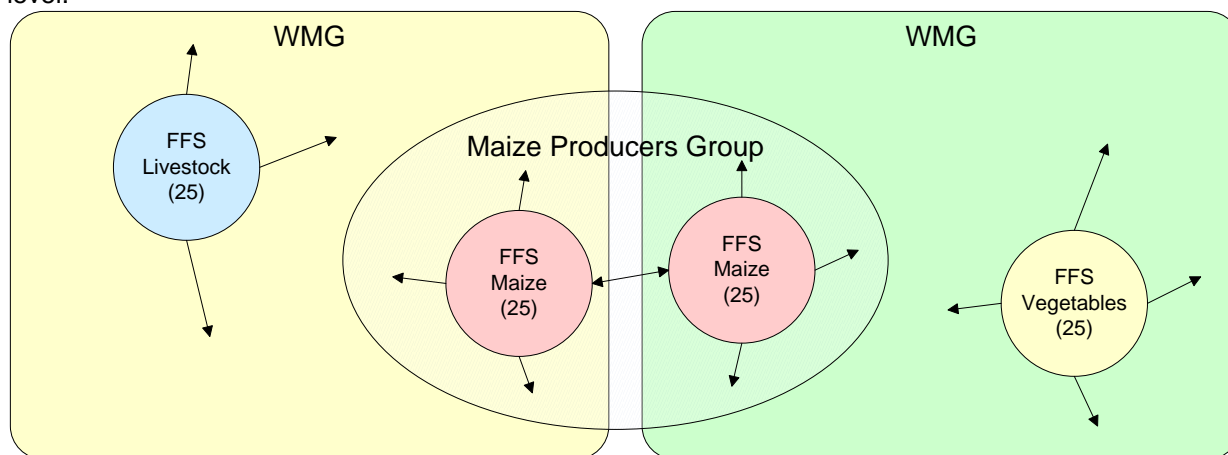


Figure 9: FFS trained farmers with a common interest may form larger commodity based producer groups.

- This illustration shows how FFSs (25 participants) with a focus on one main commodity are sub-groups of the WMG.
- The arrows represent the sharing of knowledge between FFS participants and other WMG members as FFSs will be designed for the benefit of everyone.
- Two Maize FFS have formed a larger Maize producers group and work together on issues related to input supply and marketing.

FFS in Blue Gold will initially be based on experiences of DAE-AEC and RFLDC with Integrated Farm Management (IFM) curriculum. Currently this IFM curriculum consists of 9 modules:

- Preparatory module (4 sessions)
- Rice production module (14 sessions)
- Homestead garden module (vegetables & fruits) (7 sessions)
- Small ruminants module (4 sessions)
- Poultry module (4 sessions)
- Large ruminants module (5 sessions)
- Aquaculture (5 sessions)
- Nutrition module (3 sessions)
- Farmer organization and social issues (4 sessions)
- Field day (2 sessions)

An individual FFS in Blue Gold will not include all these modules, but rather a selection, based on the resources and interest of the WMG members as indicated in their Village Development Plan (VDP). Each FFS will have a clear commodity based focus (e.g. crops or fish or livestock). The FFS planning process will as much as possible be integrated in the activities of Component 1. New FFS module/sessions will be developed, together with Component 4, on increasing “market literacy” and for orientation of FFS participants on value chains (especially related to input supply, marketing, and where relevant processing).

Before initiating FFSs, Blue Gold will organize curriculum development workshops to see how the existing modules can be used for FFS of the Blue Gold WMGs. Based on special requirements in the Blue Gold area, the modules will be adapted or additional modules may be developed (for example a choice of fish related modules, or modules on new field crops, instead of rice).

Considering the budget provision (1000 crops FFS in DPP by DAE, and 200+200 livestock and aquaculture FFS in the TA budget) it may be possible to organize on average 2 different FFS within a WMG. These FFSs will have a different commodity focus, based on the Village Development Plan. But also Polder Development Plan and Value Chain Selection will help determine which types of FFS are needed.

The WMG will not only select the type of FFS (main commodity) but also the 25 participants. Participants can be any farmer (male or female) within the WMG area (i.e. general members of the WMG). A group of FFS participants can be mixed, all females, or all males, depending on their interest. The target is that at least 50% of all FFS participants in Blue Gold will be women.

Blue Gold’s strategy is to let WMGs have the lead in selecting FFS main topic and FFS members. This will be reflected in the Village Development Plans and Polder Development Plans.

3.3.5 Challenges

- One of the challenges is that the *entire WMG* should benefit from the learning activities in the FFS group. Information exchange between FFS participants and other WMG general members will be part of the FFS program. Field days and other experience sharing events will be organized in connection with the FFSs. Also in general meetings of the WMGs, information sharing can be put on the agenda,

for example including presentations by male and female FFS participants. Where relevant a FFS group may be developed into a larger, commodity based, producer group.

- Another challenge is that having different types of FFS is more demanding for the training capacity development. FFS Organizers (Departmental Trainers of DAE and Farmer Trainers) will have to be trained to work with different FFS curricula. Curricula may be changed and new modules may be added. This requires frequent training workshops for FFS Organizers.
- While different FFS within a WMG concentrate on different topics (e.g. crops FFS, livestock FFS) a big challenge will be to consider each topic/module in the context of the entire farm. The reason that the IFM FFS were developed (DAE/DANIDA) is that most farming households deal with crops and fish and livestock simultaneously, and these sectors have relationships which each other (e.g. manure of cows can be used in rice field or homestead garden, fish or shrimp production in rice fields, vegetables grown on edge of fish ponds). FFS Organizers have to make sure that the FFS does not focus entirely on one sector; they should facilitate discussions with participants on how to develop Integrated Farm Management strategies for the WMG. WMG level interaction and planning can help to make more efficient use of available resources (water, manure, machineries, etc.)
- It is very likely that within a WMG already a Farmer Field School or other extension activity has taken place before the start of Blue Gold. Some earlier FFS may have even sustained as permanent groups, for example as a farmers clubs (IPM club, ICM club) or Community Based Organizations (CBO). This offers opportunities for Blue Gold to organize “advanced” FFS, because these FFS graduates are already familiar with making field observations and setting simple experiments. These advanced FFS groups can be linked with research institutes/organizations/projects (BRRI, BARI, IRRI, CIMMYT, WorldFish, FtF-Aqua, AAS etc.) to test innovations and work on Participatory Action Research (PAR). While this is a great opportunity, it is also a challenge which puts an extra demand on the quality of FFS Organizers.

A farm cannot function in isolation. Linkages with input suppliers and markets are essential for efficient and profitable farm management. It's a challenge for Component 3 and 4 to work close together to identify weaknesses and opportunities and to find solutions to give farmers a stronger position in the value chain(s). Special training modules will be developed to be included in FFSs to discuss problems and solutions related to input supply, storage, processing and marketing. With these modules, the FFS becomes a vehicle to focus on market orientation. Collective action initiated by the FFS will be organized with and for the whole community.

3.3.6 Capacity Development

Success of a FFS depends on the quality of the FFS Organizers. In the past two decades, many DAE field staffs have been trained as FFS Organizers through season-long Training of Trainers courses. Each Upazila within the Blue Gold area will probably have several of these Departmental Trainers (DT). DAE staffs who are trained as DT are usually the Agricultural Extension Officer (AEO) and/or one or more Sub Assistant Agricultural Officers (SAAO).

Also hundreds of farmers (FFS graduates) have undergone similar training and are now used as Farmer Trainers (FT), Local Facilitators (LF) or Farmer Facilitators (FF) to organize FFSs in crops, aquaculture or livestock. Some of them will even be familiar with FFS modules in all three sectors.

Blue Gold will make use of existing training capacity and work with Departmental Trainers (DAE) and Farmer Trainers available in the polders, but will also develop new facilitators. For already trained facilitators, short refresher courses will be needed to familiarize them with the FFS modules that will be implemented in the Blue Gold FFSs.

DAE will train additional 50 Departmental Trainers (SAAOs) through season-long Training of Trainers (TOT) courses and 150 Farmer Trainers, who will be emphasizing crops related FFS (rice, field crops, homestead garden). In addition Blue Gold will train 50 Farmer Trainers to implement Fish and Livestock related FFSs. Special training courses for DTs and FTs will be developed to facilitate advanced FFSs, which will concentrate on PAR.

When training DAE staff as FFS facilitator, priority will be given to female staff who are available in the Upazilas. When training farmers to become new FFS, the target is to include at least 30% women as facilitators.

During TOT courses for DTs and FTs, Blue Gold will make use of existing experience and expertise in DAE, DOF and DLS and, where relevant, will work close together with other development partners such as WorldFish, IRRI, CIMMYT and FAO. For example experienced facilitators of WorldFish could be asked to contribute to training in fish related modules.

3.3.7 Implementation strategy for Component 3

Component 3 is about “food security” and “agricultural production”, but will address this in the context of an ever changing environment. Not only climate change and yearly fluctuations in weather conditions, but also fluctuations in market prices, availability of inputs, government policies, new technologies, and other external factors, will require farmers to operate in conditions with which they are not familiar. Farmers need the knowledge and skills to make decisions and to adapt their farm management as a response to any new problems or opportunities. The real strategic keywords for component 3 will therefore be “farmer empowerment” and “adaptability”.

3.3.7.1 Crops

3.3.7.1.1 Field crops

Depending on the earlier experience of the FFS participants the main crop in the FFS could be rice (T.Aman or Boro) or a Rabi crop (vegetables and other cash crops). Selection of the main crop in the FFS will be based on the Village Action Plan and available training curricula.

Rice is very suitable for farmers who have never attended an FFS. They learn the basic principles of integrated crop management and become familiar with making field observations, collecting data, setting small learning experiments, etc. The next step for the FFS group is to start experimenting with new ideas, such as System of Rice Intensification (SRI), testing of new varieties, and mechanization (e.g. simple weeding equipment) and to strengthen their position in the value chain(s).

FFS in Rabi crops or Boro rice will be designed to make optimal use of the improved water management in the polder. Optimizing the use of scarce irrigation water will be at the heart of these FFSs. Compared to rice, there is relatively little experience with FFS in Rabi crops. DAE has some experience with FFS in potato, cabbage, wheat and beans. Curricula for other crops will have to be designed.

All “crops modules” will be designed building on experiences in IPM and ICM FFS. It is understood that while the FFS may focus on one crop, the farmers will also develop knowledge and skills which they can use in other crops.

3.3.7.1.2 Homestead garden

FFS modules on homestead garden vegetables and fruits will take an important place in Blue Gold. Participants in these FFS will almost entirely be women, who benefit in two ways; growing vegetable and fruits provides a small income and it is a source of better nutrition for their own family.

The existing module on homestead gardens (as in DANIDA’s IFM curriculum) can be used but will be adapted in Blue Gold. The aim is to further develop the homestead module so it will provide the

participants with experimental skills that make them more flexible to adapt their gardens in the future. Developing the homestead module will be done in close collaboration with IFMC.

Topics on “pesticide risk reduction” will be included in all crops modules (rice, field crops, homestead garden) and includes messages related to health risks, use, storage, disposal of containers, handling equipment, etc.

3.3.7.2 Aquaculture

3.3.7.2.1 Ponds Fishery

Ponds fishery is very popular in Bangladesh, especially for carp mix culture, carp-polyculture, carp-golda culture and Thai pangus. Fish production rate in ponds has increased all over Bangladesh and highest production rate is observed in Mymensing and Tangail district. While production rate in Blue Gold polders is below the national average, there is a scope for higher production through farmer education programs like FFS and on-farm activities. Existing training modules of different development projects (SAFAL, RFLDC, World Fish and SW project) will be adapted for use in the Blue Gold Program.

3.3.7.2.2 Seasonal ponds / ditch

Seasonal ponds will play a vital role for increasing production and employment opportunities. Most participants in aquaculture FFS will be women, who will benefit in two ways: growing fish for increasing income and also to increase protein intake of their family members. An integrated farming approach will be followed, which includes growing vegetable on pond dykes (e.g. bean, bottle gourd, Indian spinach and white gourd). Indigenous species (mola) and valuable fish (sing, magur and koi) will be introduced in the polder areas. Existing training modules of development projects can be used but will be modified and adapted for use in Blue Gold. The training modules will be developed in close cooperation with DOF and World Fish.

3.3.7.2.3 Cage culture

Practice of cage culture is gradually increasing in South Western part of Bangladesh for creating employment opportunities and additional incomes. Introduction of cage culture will be carried out wherever feasible in rivers, canals or other water bodies. A group of WMG members, especially the women and poor people, will be organized for conducting the work. Existing modules of CARE and World Fish will be adapted in the project area.

3.3.7.2.4 Mud crab

Feasibility of crab culture has received attention in some countries because of high market demand and decreasing availability. Mud crab, *Scylla serrata*, is abundantly available in coastal districts and is reported to be suitable for coastal aquaculture. The easy availability of natural crab seeds, high demand, and good market price made mud crab culture and fattening very popular. Emphasis will be given to selecting suitable sites for crab fattening by WMOs.

3.3.7.2.5 Integrated fish farming: Rice-Fish culture

Integrated fish farming is a technique of combining fish culture with production of other organism (animals and plants). Major objective of this technique is to get maximum output while minimizing inputs in short periods of time. More production can be achieved in Rice-Fish culture when compared with rice culture alone. Existing training modules of the Greater Faridpur Fisheries Development Project (GFFDP) will be adapted and modified for Blue Gold polder areas.

3.3.7.2.6 Community based water bodies management

Some parts of water bodies (canals, beels and floodplains) can be used for introduction of Daudkandi style community based fisheries management practices, which can significantly increase fish production by organizing WMOs member into an effective fish production team. If properly organized, this can also be turned into an enterprise sort of effort, in which also poor farmers can participate.

3.3.7.3 Livestock

3.3.7.3.1 Poultry, chicken, ducks and pigeon

FFS modules on poultry are available and have been very successful in DANIDA's RFLDC component. These modules are especially relevant for poor farm families, landless families and for LCS women groups, as a source of extra income and improved nutrition (eggs, meat) for their own family.

3.3.7.3.2 Small ruminants, goats, sheep

Goat is known as 'Poor man's cow' in Bangladesh. It is a multi-functional animal and plays a significant role in the economy and nutrition of landless, small and marginal farmers. Goats are popular and are often kept as a source of additional income and as an insurance against disaster. Goats are also used in ceremonial feasting and for the payment of social dues and have ritualistic importance in many societies.

Goat management is often done by housewives who will receive preliminary training in stock management through FFS approach. Goat farming requires small capital and the running cost is very low, as their feeds are local available.

Small ruminant modules in the FFS developed by RFLDC can be used in Blue Gold. They will be reviewed and learning sessions will be modified to fit to the context of the polder areas.

3.3.7.3.3 Large ruminants, beef, milk

Livestock play a vital role in the agricultural and rural economies in Bangladesh. They provide a ready source of cash, for example to buy inputs for crop production (seeds, fertilizers and pesticides) and other expenses (school fees, medicine and clothes). While income from cropping is highly seasonal, the production of milk or curd can provide a regular small income. Larger animals such as cattle are a capital reserve, built up in good times to be used when crops are poor or when the family is facing large expenses such as the cost of a wedding or a hospital bill.

The large ruminant module for FFS for Blue Gold will be based on the modules which were developed by RFLDC and deal with milk production as well as beef fattening. These FFS modules are suitable for participants at least having one cow per family. Women will be the main participants in learning sessions. The learning session for milk production and beef fattening will be reviewed where necessary.

3.3.7.3.4 Community Animal Health Workers

To support small-scale livestock production and strengthen the value chain(s), the project will train 52 Community Animal Health Workers (CAHW) and supply them with CAHW kits. This training will be developed and implemented in collaboration with DLS and FAO and will draw on experiences with the establishment of livestock healthcare system in Gopalganj district (Kotalipara and Tungipara Upazilas).

3.3.7.4 Other FFS topics/modules

3.3.7.4.1 Nutrition

A nutrition module in the FFS has been developed by the DANIDA projects, but has been used mainly for female FFS participants. Blue Gold will use a similar module, but will also try to reach more male participants and educate them on the need for balanced food. Training men on nutrition is needed because when buying food they have to make choices that relate to the family's eating habits.

An adapted nutrition module/session for men will have to be developed and this will be done in close collaboration with IFMC.

3.3.7.4.2 Value chain – Market orientation

A new FFS module will be developed with Component 4 to be included in the FFS curriculum. Each group of FFS participants (whether working on homestead level production or involved in more commercial farm activities) will analyze constraints and opportunities for improvement and upgrading in the value chain they relate to. Issues such as availability and quality of farm inputs, opportunities to add value and relationships with buyers of farm produce will be discussed. To mitigate these obstacles generally faced by small-holders and reduce transaction costs, special attention will be given to the opportunities offered by collective action in different forms of association and coordination. The value chain approach is discussed in more detail under Component 4 (section 3.4).

3.3.8 Activities Component 3

Agricultural production of the WMG will be addressed by a sequence of activities:

1. **Information collection** to know the current situation of the agricultural production in the WMG/polder (crops, aquaculture, livestock), resources, problems, potentials (related to improved water management), and wishes of WMG farmers
 - The information to be collected from the community/WMO members will also include data on earlier training programs (e.g. FFS) that were implemented in the same area. Who was trained, when, by whom, on which topics, etc? Were any permanent groups formed (e.g. farmer clubs, CBOs) and are they still active?
 - Information on earlier training programs and information about problems and potentials of the area will also be obtained from relevant organizations and projects (i.e. DAE, DOF, DLS, AEC, RFLDC, FAO and others).
2. Analyze and integrate this information in the **village and polder development plans**
 - WMA/WMG will make a participatory FFS plan as part of the village development plan. The WMA/WMG discusses which type(s) of FFS are needed and who will be participants to form FFS groups.
 - Within one WMG there can be several (usually 1 to 3) FFS groups. Each group with a different background and interest.
 - **Existing FFS groups.** If earlier FFS were implemented and the FFS graduates are interested, they can form an advanced FFS group. As they have experience with simple field experiments these advanced groups can take the lead in testing new ideas (Participatory Action Research) for which they can be linked to research partners such as IRRI and CIMMYT. It is expected that these groups can focus on high value crops that are grown in the Rabi season.
 - **New FFS groups.** For farmers who have never attended an FFS (or similar training) the FFS will have modules that are similar to those used in DANIDA's IFM Component. Depending on the interest and gender of the group members the main modules will be crop, aquaculture, or livestock topics. Modules on rice (the preferred crop for new FFS) and field crops will probably have mostly male participants, while relatively more female farmers are expected to show interest in homestead vegetable production, poultry and livestock.

- **Landless farmers.** Groups of landless farmers (such as LCS women) can also receive training through FFS. Modules on homestead gardens, livestock and poultry will be most suitable and provide opportunities to earn a small income or to improve the nutrition and food security in their families.

3. Determine **training capacity** in the Polder/Upazila

- DAE and DANIDA funded projects (AEC, RFLDC) have built a lot of capacity to organize FFS. Through season-long Training of Trainers (TOT) courses they have trained Departmental Trainers (DT) at Upazila level and Farmer Facilitators (Farmer Trainers, Local Facilitators) who are capable of conducting FFS. Blue Gold will assess which facilitators are available in the Blue Gold area and what training they have received. In coordination with the Upazila (UAO) it can be decided which DAE facilitators and FTs are available for Blue Gold activities.
- Meetings with District level and Upazila level DAE, DOF and DLS staff will be organized to introduce the Blue Gold project, to get feedback on existing training capacity, and to establish good working relationships to implement activities including Training of Facilitators, implementation of FFS, and monitoring/backstopping of FFS.

4. **Curriculum design for FFS** / Adapting and developing FFS modules

- Curriculum design workshop(s) to design FFS curricula
 - FFSs will be largely based on existing modules in DANIDA's IFM FFS. Further development or adjustments will be made in coordination with IFMC and other organizations involved in farmer education (e.g. WorldFish)
 - Blue Gold will design several additional FFS modules, for example for FFS in other field crops, for training related to farming innovations, or related to business development and value chain improvements.
 - FFS budget issues will as far as possible be harmonized with DANIDA and other projects involved in FFS programs.

5. Design a system for **sharing knowledge and experiences** within the WMG

- Within a WMG only a selected number of farmers will be FFS participants. It is desirable that all farmers in the WMG can benefit from the learning activities and experience of the FFS participants.
- Knowledge sharing will be promoted in several ways such as:
 - Visits of WMG general members to the FFS plots during the FFS season
 - Field days at the end of the FFS season
 - Posters or displays prepared by FFS participants
 - Sharing of information during WMG general meetings

6. **Training needs assessment** for facilitators

- Based on availability of facilitators and their background/experience there will be need for refresher training or complete season-long training courses.

- Orientation and refresher training for DTs and FFs in the Blue Gold area who are available to organize FFS, and similar orientation for Community Organizers (CO) and FFS Organizers (FO)
- Season-long TOT for new FFS Organizers of DAE. (The first season-long TOT can probably be organized by the DAE component during Boro 2014 season.)
- TOT courses for new Farmer Trainers (Timing will depend on availability of FFS graduates who are good candidates to become FTs)

7. Planning of training courses / **Curriculum design for TOTs**

- Curriculum design workshops to prepare courses
 - TOT for DTs, TOT for FTs
 - Refresher courses
 - Short specialized courses (e.g. on new modules)
- Curriculum design will be done in collaboration with DAE and DANIDA, DOF, DLS, WorldFish, FAO, etc.

8. **Implement courses and orientation workshops**

- Orientation workshops for District and Upazila officers of DAE, DOF and DLS to familiarize them with Blue Gold program
- Refresher training for DTs and FFs in collaboration with DAE, DOF and DLS
- Season-long TOTs for new DTs (= Upazila level staff of DAE)
- TOT courses for new Farmer Trainers

9. **Planning FFS**

- Blue Gold's field offices in Upazila, Patuakhali and Shatkira will make FFS planning together with the WMGs and in consultation with Upazila offices.

10. **Implement FFS**

- FFS baseline (data of the FFS participants)
- Orientation/preparatory meeting(s)
- Implement the selected FFS (season-long)
- Monitoring and evaluation and backstopping (DAE, DOF, DLS)
- Documentation of FFS results

11. **Implement information sharing and follow up of FFS**

- Information sharing with other WMG farmers, field visits, posters, etc.

- Field day
- Planning for after FFS activities (form producer groups, business development, input supply, marketing, etc.)

12. Other FFS related activities (with advanced FFS groups)

- Advanced learning for selected FFS groups
- Linkages with research institutions and organizing special studies (Participatory Action Research)
- Demonstrations (together with FFS groups) of advanced production methods (crops, fish, livestock)
- Awareness campaigns and farmer forums

3.3.9 Risks / Complicating factors

1) Flexibility in FFS

Ideally, each FFS should be tailor-made to match with the Village Development Plan of the WMG. This puts a high demand on FFS Organizers and coordinators (curriculum design, logistics, budgets, etc.) who have to be flexible and should respond positively to this challenge.

Initially the program will develop, adapt and use few standard FFS types (e.g. rice, homestead garden, livestock) which are suitable for a large number of WMGs. For specific situations the program will develop additional FFS modules or sessions (e.g. another field crop or a module about business development) that can be implemented where relevant and needed.

2) Overlapping projects

At the same time and within the same Upazila there will be FFSs organized by Blue Gold, the DANIDA IFMC and possibly by other projects (DAE IPM project, DCRMA, etc). Also other group based training activities will be organized by other organizations or projects (e.g. WorldFish, NATP, FAO).

Problems may arise if different projects want to use the same facilitators within the same Upazila, or if projects differ in the allowances they pay to facilitators. On the positive side, the presence of many projects creates opportunities for exchanging experiences, for example in curriculum design workshops.

Coordination meetings will be held to harmonize and facilitate collaboration between projects.

3) Focus

Blue Gold aims to improve agricultural production of the polders, but at the same time it will target the poorest households and women. Training of these vulnerable groups will often address homestead level production (poultry, vegetable garden, goats). While there can be an important gain at household level (additional income, improved nutrition) it will have a relatively small effect on overall production of the polder.

Other activities, such as diversification and intensification of field crops and introducing new technologies (e.g. irrigation, mechanization) will often involve mainly male farmers who are land owners. These activities are expected to have a larger effect on production of the polders.

The Blue Gold project will find a balance in working with these different target groups and different levels of agricultural production. Baseline and follow-up studies will consider these differences as well.

The following illustration shows 3 “levels” of FFS:

- FFS with a focus on Food security (homestead based, poor farmers, women, etc.)
- FFS with a focus on Food production (previously untrained farmers, but with potential for increased production)
- FFS with market oriented group (advanced FFS groups, previously trained by Blue Gold or other projects)

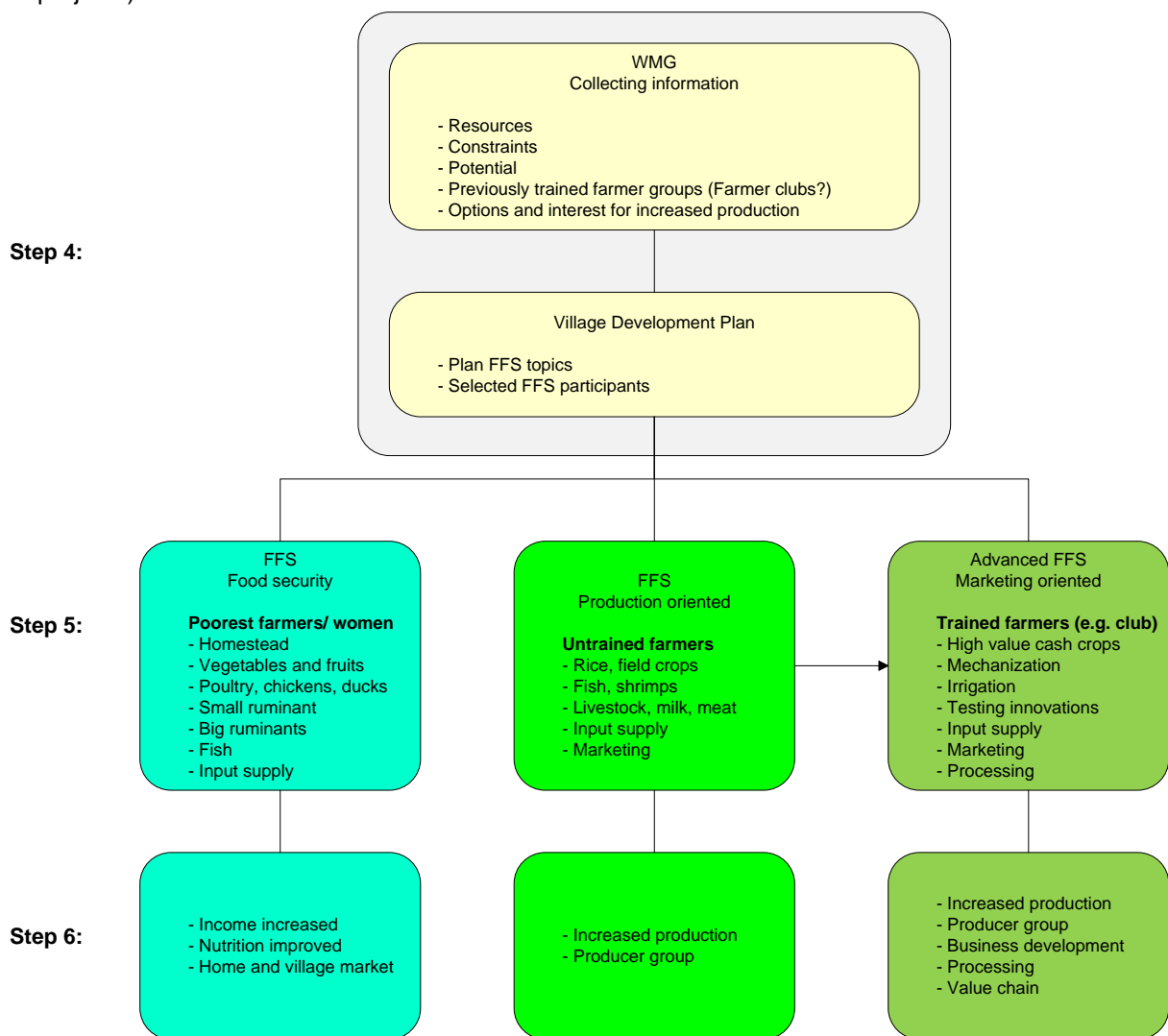


Figure 10: 3 “levels” of FFS

3.3.10 Innovations

Improved water management in the polders creates opportunities for diversification and intensification. Already it is clear that water shortages during the Rabi/Boro season will be an important limiting factor for agricultural production. Another common problem in the Blue Gold polders is salinity. Innovations that address these two issues deserve priority.

Possible topics for innovations that can be explored include:

3.3.10.1 Crops

1. Testing by farmers of crops or crop varieties that need less water or that are saline tolerant
2. Improved irrigation systems, e.g. drip irrigation or sprinklers
3. Village level planning of the use of water resources (e.g. water stored in canals)
4. SRI (System of Rice Intensification) which uses less water than current rice cultivation techniques.
5. Soilless agriculture, hydroponics, for high value crops?(Note that this is advanced technology that may be tested/demonstrated on small scale, but is at this moment not feasible for up-scaling. Input supply and high initial investment costs are among the limiting factors.)
6. Fodder crops (for poultry, fish, livestock) during the Rabi season

3.3.10.2 Fish

1. Different fish species and stocking densities
2. High value fish (cat fish, koi)
3. Indigenous fish species in ponds
4. Integrated farming (vegetables) on dikes and borders of pond
5. Tilapia in cages (in rivers or canals)
6. On-farm testing of fish feed from different sources

3.3.10.3 Livestock

1. Fodder crops
2. Women group for two cow (or more) milk production for marketing
3. Homemade curd marketing
4. Animal health card for record keeping
5. Pigeon farming
6. Duckling hatchery through Rice Husk Technology
7. Commercial egg production (e.g. 100 layers) by rural women

8. Commercial chicken production (e.g. 100 local or 100 broiler) by rural women
9. Integrated community aquaculture (Carp ,Prawn, Ducks and Jarman fodder) in water logged areas

In Blue Gold, innovations will be developed and tested *on-farm* together with the farmers, using Participatory Action Research (PAR) approach. For this, strong support and collaboration with research institutes such as IRRI, CIMMYT and WorldFish will be developed so that these development partners will be efficiently linked with advanced FFS groups and WMGs.

3.3.11 Employment in agricultural services

Value chain analysis together with Component 4 and SAFAL project will identify possible interventions that may lead to employment, for example in input supply (e.g. seed, fertilizer, fingerlings, fodder, irrigation equipment), services (e.g. poultry vaccination, postharvest activities, farm mechanization) and marketing (e.g. processing, transport, storage).

3.3.12 Gender issues

Component 3 targets are that at least 50% FFS participants are women and at least 30% of FFS Organizers are women. See Box 3 for more detail on gender in this component.

Box 3 Gender in Component 3 – Food Security and Agricultural Production:

- 3.1 In farming system analysis and data collection on related issues both men and women will be employed. Men and women of the community, especially who are engaged in agricultural activities, will be consulted. Data on the roles, access to resources and needs of men and women in agricultural production, postharvest activities and marketing will be collected; the findings will be presented in a gender disaggregated way.
- 3.2 Women and men members of WMOs will be involved in the preparation of plans for improving their agricultural production taking into account the new options that will be created by the water management improvements. On the basis of the plan for each polder options for Farmer Field Schools (FFS) training modules will be established, ensuring that these cover the interests and needs of male and female farmers. Blue Gold will promote that also female farmers, including landless, get involved in more profitable production opportunities, increasing their potential for food production and income generation.
- 3.3 Blue Gold's FFS approach will be based on Danida's FFS approach implemented by the Department of Agricultural Extension (DAE). This FFS approach has already a built-in gender approach, which includes both men and women equally as FFS participants (50:50). Danida's new FFS program (IFMC, starting per July 1, 2013) has a more elaborated gender strategy; experiences will be shared to enable replication of best practices and to promote a more uniform gender approach within DAE.
- 3.4 Under Blue Gold the FFS will be formed within the WMGs as subgroups. To establish the training topics to be offered per WMG, the training needs of men and women members will be considered carefully. Training is provided according to their own training plan. Though certain subjects may attract only male or only female participants, in principle all FFS sessions will be kept open for both women and men.
- 3.5 Blue Gold targets that at least 30% of the FFS facilitators -DAE staff, Farmer Trainers and FFS Organizers- are female.
- 3.6 During the training season male and female FFS participants will have to present what they have learnt in their FFS at the monthly WMG meetings. Besides, they are encouraged to teach and guide interested neighbours to enhance the spin-off of the FFS training.

- | | |
|-----|--|
| 3.7 | In the training on agricultural production related information on nutrition will be woven into the relevant modules to increase the awareness and knowledge on nutritional issues among women and men. This will encourage the FFS participants to produce and consume more agricultural products (crops, livestock, fish) which contain more nutritional value resulting in the improvement of the nutritional status of the household members. |
| 3.8 | Linkages will be established between men and women producers and market facilities and access to market information systems will be enhanced. For example, day to day prices of essential commodities and inputs from a fixed contact point in the local markets might be made available by mobile phone (in cooperation with component 4). |
| 3.9 | To improve service provision at community and polder level, both men and women will be selected from the community as potential service providers, e.g. women as poultry vaccinators and men for livestock vaccination and treatment. Necessary training will be provided to service providers including simple business planning (also in coordination with component 4). |

3.3.13 Collaboration with other organizations and projects

Blue Gold works in an area where many other organizations and projects are having similar activities. Harmonization and collaboration with these partners in development is necessary to avoid problems (e.g. overload of farmers or extension workers, different allowances, different messages, etc.) and to benefit from each others' experiences (e.g. existing training curricula, involvement of research organizations in innovations, etc.).

3.3.13.1 DAE/DANIDA

Within Blue Gold DAE has the responsibility for about 1000 FFS. At the same time, DAE will work with DANIDA's IFMC to organize thousands of FFS in IFM throughout the country. Harmonization and collaboration with IFMC is essential to the Blue Gold FFS program.

Regular meetings between management and staff of Component 3 and IFMC will be organized to harmonize and streamline collaboration. Topics of harmonization include curriculum design, shared use of facilitators (DTs FTs), FFS budgets and training allowances, etc.

3.3.13.2 SAFAL

Closely linked to Blue Gold, SAFAL will focus on Fishery, Horticulture and Livestock value chains in the Satkhira and Khulna districts. See component 4 for more details.

3.3.13.3 CGIAR

Several of the CGIAR research organizations are present in the Blue Gold area (WorldFish, CIMMYT, CIP and IRRI) which opens opportunities of collaboration with Blue Gold.

WorldFish implements **the Feed the Future-Aqua** project (FtF-Aqua) which organizes group based training courses on shrimp and fish production in ponds. These training courses are very similar to the aquaculture module in the FFS curriculum. Possible points of collaboration between Blue Gold and FtF-Aqua were discussed and include:

- Selection of farmer groups: In areas where the projects overlap we can agree how to do farmer selection. The WorldFish project can select farmers for fish/shrimp training within a WMG (for

example if Blue Gold has FFSs that focus on other topics) or alternative, they could stay out of a WMG if there would be too many activities at the same time going on.

- Training of Facilitators: The WorldFish project has a lot of experience and expertise with fish/shrimp training and can assist during training courses for facilitators.
- Curriculum design: The WorldFish project can assist in design of curricula for fish/shrimp related modules.
- Fingerlings/shrimp and fish seed: Quality inputs for stocking ponds can be obtained from input suppliers that were trained/supported by the WorldFish project.

Agricultural productivity can benefit from good collaboration between farmers, extension and research. However, the traditional linear concept (researchers develop technologies → extension workers pass them on as recommendations → to farmers who have to follow recommendations) has not resulted in the level of adoption, often because the technologies and practices being promoted do not meet the farmers' needs. Researchers, extension agents and farmers need to collaborate more effectively together in a triangular relationship to ensure they are interacting and changing information with each other during the entire research to extension process.

Blue Gold will promote these “triangular relationships” especially by bringing advanced FFS groups and their facilitators in contact with CGIAR researchers and their national research partners to work on innovations through Participatory Action Research (PAR).

A joint program of the CGIAR including IWMI, IRRI, CIMMYT and WorldFish is the **Aquatic Agriculture Systems** project (AAS). This project currently works with Participatory Action Research in a limited number of villages in Khulna, Satkhira and Barguna, testing bottom-up processes of research with farmers supported by diverse research teams. The project also looks at how information flows between farmers and communities, in relation to the spread and adoption of new technologies. The project has strong interest to work together with Blue Gold, especially to initiate more PAR with advanced FFS groups.

The **Cereal Systems Initiative for South Asia** (CSISA) works in South-West of Bangladesh partly overlapping with Blue Gold polders. Activities include the promotion of mechanized farming (axial flow pumps, planting and harvesting equipment, power tillers) and introduction of new rice varieties of shorter duration, which shorten the season and create opportunities for more intensive cropping systems. CSISA has interest to work with Blue Gold, where especially the advanced FFS groups could be linked with their farm mechanization activities.

3.3.13.4 DOF and DLS

The Department of Fisheries (DOF) and the Department of Livestock Services (DLS) have no grass root level extension workers and their staff cannot be used as FFS Organizers. However their Upazila and District level officers will be involved as trainers/facilitators in fish and livestock training courses. For example they will be invited as specialists to contribute in Training of Trainers courses or in courses to develop Community Animal Health Workers (CAHW) and Farmer Trainers. They will also be asked as occasional monitors or back stoppers for fish or livestock related modules in the FFS.

MOUs will be made with DOF and DLS to guide their collaboration with Blue Gold. If possible, each Department should have one officer who acts as a focal person to liaise with Blue Gold.

3.3.14 Budget for FFS

Budget for FFS is partly in DAE (1000 crops FFS) and partly in the TA budget (200 fish and 200 livestock FFS). Based on these budgets it should be possible to organize about 1400 FFS, possibly more.

- In 850 WMGs this would be about 2 FFS per WMG.
- In 25 Upazilas this would be an average of 56 FFS per Upazila (but note that the Blue Gold area may not include all 25 Upazilas that are mentioned in the DAE DPP)

Having part of the budget for FFS in TA and part in DAE-DPP can become a complicating factor. Budgets for the 1000 crops related FFS will be channeled via the Upazila Agricultural Officers (UAO) following a similar procedure as was used in AEC. Budgets for 400 FFS with a focus on fish and livestock can possibly be managed through the Blue Gold District offices in Khulna and Patuakhali.

3.3.15 Staffing schedule Component 3

The staffing schedule includes 3 Agriculturalists, 1 Fisheries expert, 1 Livestock expert, 3 Mechanization / processing experts and 4 Master Trainer (Rice Agronomist, OFWM Specialist, Homestead Gardening, High Value Cash Crops).

While different technical specializations are needed to deal with a wide range of production related topics, it is even more important that staff of component 3 has a very thorough understanding of the Farmer Field School approach and is experienced with participatory adult education processes. They should be dynamic persons who are familiar with working with farmers and fostering relationships between farmers, extension and research. They should be willing to have Blue Gold zonal offices as their duty station and to spend a lot of time in the field.

If any of the persons who were pre-selected for the above positions are not available, Blue Gold will consider these requirements when trying to find replacements.

The three Component 3 staffs proposed as “Mechanization/Processing Experts” are all three experienced as processing experts and not in mechanization. At least one of these will have to be replaced with a person who is experienced with farm mechanization, such as the use of power tillers, water pumps, mechanical weeding, etc.

For data management related to the FFS programme, Component 3 needs services of an experienced database developer (MS Access and/or internet based MYSQL databases) who can develop, maintain and update databases related to WMGs, FFSs, FFS Organizers, training courses, etc. His/her task will also include making information available to component leaders, field staff, training coordinators and others. This work will be part of the Blue Gold MIS and this position can be placed in Monitoring & Evaluation.

In addition to 12 senior staff positions, Component 3 budget has allocation for a number of “FFS Organizers” (166 m/m in year 1, 220 m/m in following 4 years, 110 m/m in last year). The term “FFS Facilitator” which is used for these Blue Gold staff positions may lead to confusion as FFS are going to be implemented also by Departmental Trainers (DTs) of DAE and by Farmer Trainers (FTs). Therefore it is proposed to refer to the Blue Gold staffs as “FFS Organizers”. This reflects a role that is more than just implementing an FFS, but also involves coordinating and providing logistical support to other FFSs in their area.

Recruitment of these “FFS Organizers” (FO) will be supervised by the Component 3 Leader. It is desirable that candidates have previous experience as FFS Organizers (for example as LF or FT in the AEC or RFLDC projects). Initially these positions will be recruited for the 9 IPSWAM polders where FFS activities can be started. Later they will have to be moved (or replaced) to cover other polders when new WMGs have been formed. To facilitate the recruitment, terms of reference and required qualifications will be prepared. The target is to have at least 30% female FFS Organizers. FFS Organizers will be supervised by Blue Gold District offices (agriculturists, livestock and fisheries experts).

3.3.16 FFS planning for Blue Gold

In the context of the Blue Gold program, FFSs are organized as sub-groups of WMGs. This means that no FFSs can be scheduled until WMG formation has started, which in the 27 polders is a step-wise process spread out over several years (see Table 4).

Capacity development for FFS (training of DTs and FTs) can start throughout the Blue Gold area (the 25 Upazilas in DAE DPP), but actual implementation of FFS can only start where a WMG has been formed. During year 1 this is limited to the 9 IPSWAM polders (i.e. 250 WMGs). However, it is clear that not enough training capacity will be available to start in all 250 WMGs, and actual implementation of FFS in these areas will have to be scheduled over several years. The planning of the training program, especially for crops, will be coordinated with Upazila Agricultural Officers (UAO) of DAE.

The WMGs of the last polders that are going to be included in Blue Gold will probably not be known before 2016. It may be difficult in these polders to have the same intensity of FFS implementation as in the earlier polders. This could be a problem in reaching the expected targets for production related indicators in these polders. Mid-term reviews will have to look into this matter.

3.3.17 Monitoring and Evaluation

Baseline data collected for Blue Gold will include indicators related to production sectors (field crops, homestead vegetables and fruits, aquaculture and livestock). These are quantitative indicators (e.g. yield/ha) that can be measured in mid-term evaluations and impact studies to document progress.

Apart from this project level monitoring it is very important for farmers participating in FFS (and for their WMG) to collect locality specific information and to document their own production before and after the FFS. Each FFS group will always start with collecting production related data (this is part of the FFS process) which includes information about their resources (land area, soil types, pond size) and production (kg/ha, number of eggs, kg of fish, etc.).

FFS farmers will measure their own progress during the FFS season, which will help them to make decisions when adopting or rejecting new technologies (e.g. crop varieties, production methods). They will also present these data during field days and share them with other WMG members. Each FFS facilitator maintains an FFS register which includes data on members, participation, sessions conducted, results of experiments conducted in the FFS, etc.

3.3.18 Support to Farmer Organizations

The DAE-DANIDA funded FFS programmes (AEC and RFLDC) have in the past provided some budget support to Farmer Clubs and CBOs. This money could be invested for example to construct a simple club building or to initiate income generating activities for the club or CBO. In the DAE DPP, a similar budget is reserved to support farmer organizations (the DPP budget includes 20,000 Taka for each of 375 good farmer groups/clubs).

Blue Gold has not the intention to turn FFSs into Farmer Clubs, but rather organizes FFSs within a WMG. The financial support will therefore be given to selected WMGs, based on strict criteria, which specify that the budget will be used for production and businesses development. Planning for this budget support will have to be coordinated with Component 4.

Blue Gold has also a plan to build office blocks for a maximum of 250 WMGs. It should be decided whether or not the 20,000 Taka budget support will include these 250 WMGs.

3.4 COMPONENT 4: Business Development and Private Sector Involvement

3.4.1 Objective and Result of Component 4

- The basic premise of the Blue Gold Programme is the rehabilitation of infrastructure to facilitate appropriate water resource management and the subsequent increase of agricultural productivity. This will simultaneously contribute to a reduction of local food shortages and to the increase of surplus production. Overall the demand for agricultural production and food is secured by sustained economic growth, rising income levels and urbanisation trends.
- To capture the full benefit of this increase in polder productivity the farming households, their representative organisations, public and private service providers and other market actors are supported by the Business Development Component. This component seeks to enhance the market linkages and system, to create opportunities for value adding and to develop enterprises through value chain development to the benefit of the polder community.
- Ultimately the objective is to increase farm household income from agricultural production, to generate business income and expand employment to improve livelihoods and to reduce poverty through market orientation and development. Underlying are the secondary objectives to improve access to more diverse and higher quality food, to reduce periods of food shortfalls and deprivation, and to increase household assets and the consumption of services.

3.4.2 Approach and Methodology:

This section presents our Business Development Component perspective. It is based upon the preliminary findings during the Inception phase which are of importance to the envisaged approach.

- **Beneficiaries:** At the centre of business development is the definition of the main beneficiaries. In Blue Gold this is a given. The community of farming households in the polders are the programme's target group, thereby instituting a geographic unit for development. While belonging to the same polder and WMO, this target group is not homogeneous. Amongst this group some households repeatedly experience food deficits while others are generally able to produce surpluses. In between, there is a range of households with varying degrees of food insecurity and market orientation. This has two consequences.
Firstly, one finds a mixture of approaches co-existing in the polders, namely from relief mode measures and assistance for the former to private sector development approaches for the latter. As

“ In the South West Project (Narail District), the wellbeing status of the WMG members are around 4% rich farmers, 32% marginal farmers, 42% poor farmers and 22% landless, while in the IPSWAM Project (Khulna – Polders 22, 29, 30), the situation is more or less the same - rich farmers 6-7%, marginal farmers 16-17%, poor farmers 55-56% and landless 21-22%. Figures based upon land possession in Solidaridad's 'Assessment of WMO's in Khulna and Narail Districts'.

these approaches are not mutually reinforcing, in fact the contrary, a clear distinction and separation of target groups is recommended to avoid confusion and distortive side-effects.

Secondly, this distinction is of importance for the component's business development objectives and value chain development approach. The households have distinctive interests and decision making incentives - not all smallholders are equally land or capital constrained, market oriented or vulnerable to risk. The food insecure group seeks a reduction of their vulnerability to risk, a lowering of household food purchases and an improvement in food security by increase in access, diversity and consumption. With their lack of, or limited, market orientation, their primary interest is in short value chains supplying the home or local markets and in a portfolio of such value chains reducing overall livelihood risks. Better endowed farmer households will initially invest gradually to produce surpluses taking on the related production and market risks. Only when managing the associated risks better they will subsequently enter a process of intensification of an accelerating nature. This will determine their readiness to participate in longer value chains seeking to supply markets of a higher hierarchy. In summary, consideration will have to be given to the segmentation of households/farmers upon their vulnerability to risks, in turn determining their market participation readiness.

A value chain can be defined as all the firms that buy and sell from each other in order to supply a particular set of products or services from primary producer to final consumers. A sub-sector includes input suppliers, producers, processors, wholesalers, and retailers and is defined by a particular finished produce or service.

- **Horizontal cooperation and vertical collaboration in Blue Gold:** The core approach to business development in Blue Gold is through Value Chain Development and the involvement of the private sector. While the producers of any of the Value Chains have their geographic basis in the selected polders, the value chains as such, stretch far beyond these boundaries to actors and markets at regional, national and international levels. The Blue Gold business development approach can best be represented by the cross-roads of horizontal cooperation in the polders and vertical collaboration along value chains and market hierarchy. See graph.

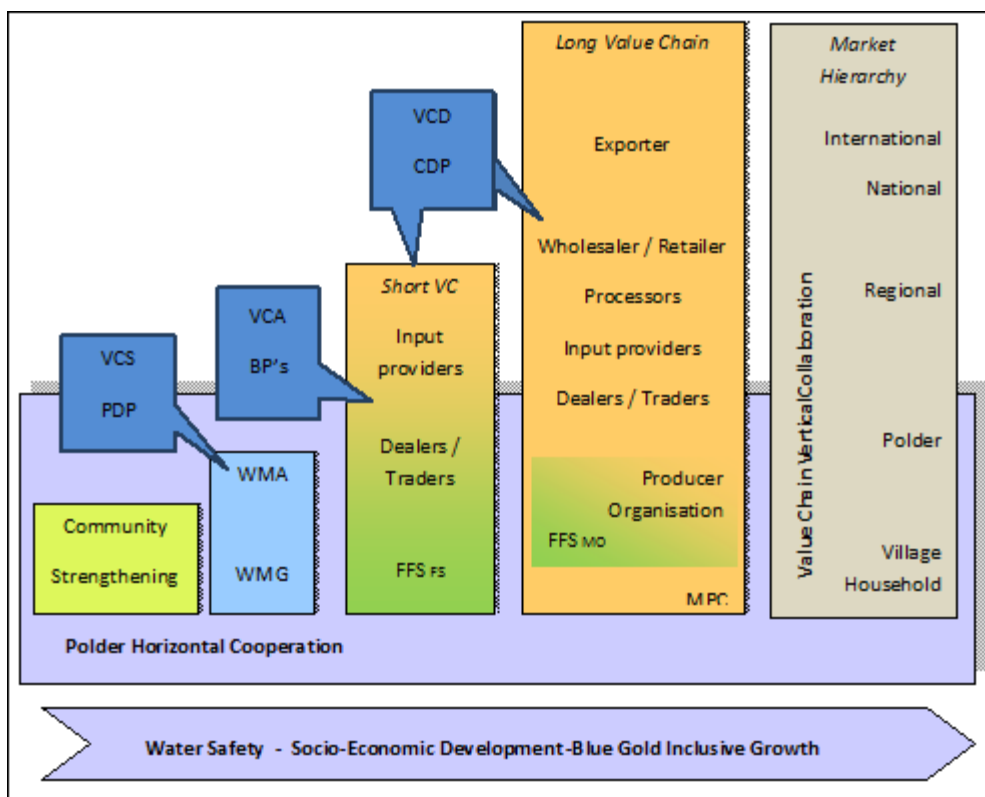


Figure 11: Blue Gold Business Development Approach

The horizontal process focuses on establishing WMO's as sustainable cooperative organisations. Their members, grouped by production interests around FFS, are the focus of the primary production actors in the value chains. The Blue Gold logic notes that by expanding their roles through collective actions, farmer cooperatives can embed themselves in the value chains. Any form of legal association should be pursued in harmony with the development of other private sector actors in the value chains.

The linking pin between the horizontal and vertical processes is best defined by existing producer groups, e.g. in the form of the farmer field schools, sub-sector producer groups and farmer business groups, which subsequently can develop their association entity in accordance with their needs, perception of benefits, stage of development and capacity level.

So while both, cooperative development in Component 1 and value chain approaches in Component 4 will be pursued in Blue Gold, one should be conscious of the fact that cooperative development setting out to integrate functions will be perceived to crowding out or encroach on present actors in the value chains. It will thereby appear in conflict with value chain development which pursues improved collaboration on the basis of trust between legitimate actors in the market system. Pursuing both approaches in one programme will require intricate management of the thin line where contrary perceptions might arise of the principles of our business development activities.

- **Value Chain Development Steps:** Three steps are distinguished within Value Chain Development in Blue Gold, namely Value Chain Selection (VCS), Value Chain Analysis (VCA) and Value Chain Development (VCD). These steps are practically correlated with steps in the Blue Gold Planning

process as presented in the graph below. The Value Chain Selection or Prioritisation will be an input to the Polder Development Plan (PDP), and constitutes a matching process between participatory defined priorities, available resources and identified market opportunities. The Value Chain Analyses will steer the Business Plans, defining the business opportunities and assessing the feasibility of proposed interventions for a variety of actors. The final Value Chain Development step will implement a value chain intervention strategy and the Capacity Development Plan (CDP) envisaged for the range of actors. While presented as a seemingly neat linear process, it is not so and in practice more of an iterative nature.

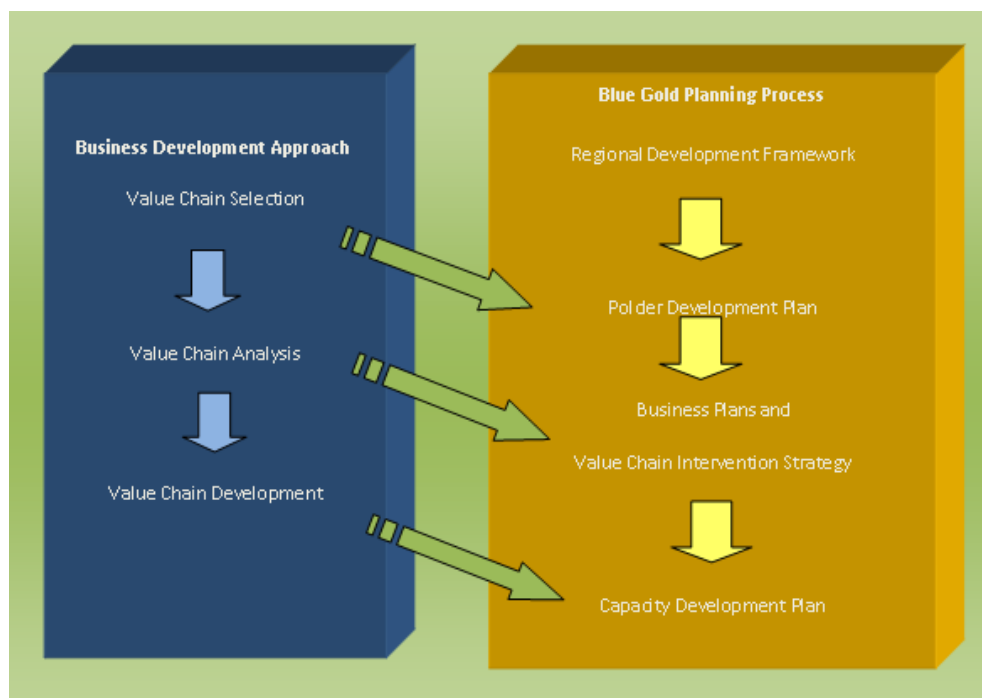


Figure 12: BDA in Blue Gold Planning Process

- Value Chain Selection:** Regarding Value Chain Selection (VCS) or focus in Blue Gold, it is worth to note that a variety of producer group and business or market development initiatives are undertaken and/or planned in the Blue Gold programme area. It is imperative that cognisance is taken of these existing or envisaged programmes and activities are coordinated and harmonised to the extent required. Of some concern are the relief mode and top-down operations versus the private sector development initiatives, as they could be the source of confusion, of distortive market impacts and ultimately of debilitating programmes. From an efficiency perspective we will pay particular attention to the coordination with the EKN-funded SAFAL programme (Solidaridad). Within this programme aquaculture), livestock and horticulture value chains will be pursued. While the geographic overlap is not complete, Blue Gold will initially focus on crops and coordinate with SAFAL with respect to their value chains in the remaining area. Some value chain experiences are thereby more easily replicable than others and various ways of cooperation and coordination can be thought off, depending on the context.

The Polder Development Plan (PDP) expresses the territorial development aims of Blue Gold, and will set the direction of agricultural production priorities and ultimately the VCS. With the majority of the target population within the polder poor and vulnerable to risk, and only a small percentage comfortable with surplus production, a balance will have to be struck between food security and business development objectives. This will be reflected in the FFS programme and resulting Value Chain portfolio. The FFS programme will have to provide sufficient attention to the food security concerns of the majority of households and take an integrated farm perspective. This will cover nearly all, if not all, polders Blue Gold will be active in. Where the production and farmer capacity conditions are conducive to surplus production FFS with a market orientation will be implemented. The geographic coverage hereof will be determined by the PDP. The selection can be directed to those areas with most potential and as a result not cover all polders. This prioritisation appears in line with the original indicator to develop 250 multi-function cooperatives and storage facilities, on an envisaged total of 850 cooperatives.

Multi-market or Value Chain portfolio oriented programmes are demanding, but impact is enhanced when working in groupings of related markets; where markets are closely related or share similar geographic concentration or where the constraints and/or solutions are somewhat similar. This enables cross-fertilisation of ideas and impact. Where the portfolio is made up of isolated and unrelated markets and interventions, substantial impact is harder to achieve. While it seems necessary to have a portfolio approach, Blue Gold will have to make a very careful selection to remain efficient and effective.

- **Association of and capacity development of producers:** Value Chain interventions constitute a process of change. Besides incentives for change, the capacity of the actors has to match the envisaged interventions. Capacity Development efforts will cover the actors across the value chain.

Agricultural producers and producer organisations are the base actors of value chains. Value Chain Analysis provides a vision for the future, the envisaged interventions and the required capacities. Blue Gold recognises the potential role of cooperatives in overcoming the constraints faced by small individual farmers. Marketing agricultural products, especially from rural areas, tends to be hampered by market imperfections, such as imperfect information reinforced by the geographic dispersion of agents and by poor infrastructure and communications. Collective action can therefore be a way in which to address these obstacles and reduce transaction costs but competitiveness relies also on non-price factors such as quality. Formal horizontal cooperation, as through cooperatives, could be the answer to achieve economies of scale but are just one form of association and coordination strategies for producer groups. The Cooperative Development process is not only challenging but also takes time to nurture the necessary trust and cohesion. The market system development vision should not impose demands beyond the absorptive capacity of the WMO. While WMO's are strengthened, Value Chain Analysis and Development will start with existing producer groups as organised in a variety of forms such as FFS, Farmer Business Groups and Sub-sector producer groups, engaged under component 3.

With the scarcity of resources in the public sector to support the productive sector and the still underdeveloped private sector, collective action in input provision and marketing can mitigate transactions costs and be a means to overcome the constraints faced by small scale farmers. While horizontal cooperation can be an asset, its formation demands should not be underestimated. Market access is not just a matter of economies of scale, but also of cohesion, and deals with the dynamics of innovation, learning by doing, stakeholder's legitimacy and capacity for priority setting, negotiation and expressing interests. Specialisation is recognised as a good means to promote efficacy and efficiency in organisations but actually rural cooperatives usually pursue a wide range of activities. Generally 5 roles are recognized, economic, social, representation, information sharing and capacity building, and coordination. Some principles in supporting and promoting small scale producer cooperation are:

- Consider the diversity of organisations; support the implementation of their own strategies, clearly identifying the roles they want to pursue at a particular stage, and avoiding dependency on external support.
- Adapting capacity building to the roles envisaged, and to the organisations' structuring stage, focus on learning by doing and accept it is a long and difficult process.
- Build capacity to efficiently take on economic functions, accepting these are very highly demanding in terms of skills, capacities and institutional arrangements while facing high expectations of quick benefits.
- Recognise groups and/or opportunities with market-linkages of a different nature and develop support accordingly.
- Promote a participatory process to change the institutional and business enabling environment.

Based upon a study from the 'Centre de Coopération International en Recherche Agronomique pour le Développement' CIRAD, Montpellier

When considering the total population of the WMG, the WMG's strengthening process towards a multi-purpose cooperative is likely to identify and select its priority roles along socio-economic lines. This is in contrast to the sub-group of surplus producers which are likely to opt for priority roles of a more commercial nature and of less immediate interest to the majority. Blue Gold should remain flexible to the fact that it will not be necessarily the cooperatives which will form the linking pin between horizontal cooperation and vertical collaboration but also that the associative development of WMO and producer groups might diverge in form and pace of development. Producer groups and organisations could thereby still function as early adapters and setting the example as change leaders of the benefits of collective action and for broader cooperative development. They should not be constrained in their pursuit of market participation.

The business development component will keep an open mind to the ultimate form of producer organisation involved in business development. Their form of association or coordination will be the subject of further analysis and scenario development. The process is very likely opportunity driven and definitely local capacity determined, with an emphasis on light touch facilitation and local ownership, and on maintaining flexibility and continuous monitoring of results. Outcomes are unlikely to be uniform and will primarily be context driven.

The above impacts on the business planning as envisaged in Blue Gold. Firstly, reference is made to *Polder Business Plans* and their content description in the ToR largely coincides with the proposed Polder Development Plans which is rather the reference guide for territorial development. Meanwhile

these *Polder Business Plans* are envisaged at the WMG level to facilitate the collective action and sustainability of the cooperative. We can pursue this Business Planning in the cooperative development process as envisaged above, in consideration of the priorities of the total community of members. Also the value chain development approach will include a series of Business Plans, at various levels of complexity, for a variety of producer groups and other actors in the selected value chains.

- **Rural Finance:** While it was not (yet) the focus of our attention there are indications of the importance of rural finance to facilitate business development objectives in Blue Gold. There is clear evidence of the interest in the savings and credit opportunity within the WMG. During the field trips the constraining role of the household funds and cash flow conditions over the year became apparent when e.g. having to sell the crop still in the field or immediately upon harvesting. Overcoming these constraints appears a major challenge to facilitate the market orientation of the households as financial constraints are a primary driver of their decision making.

On the one hand the savings and credit function could prove a critical entry point for the bottom-up development of the cooperatives and provide the investment for vertical integration of activities, without increasing the dependence on external support by having made its development too complex and too quick. On the other hand, it supports the portfolio approach in Value Chain Selection aimed at reducing risks. Namely, a portfolio selection should contribute to a household's even fund requirement and cash flow condition over the production year. Finally, it shows the need for more attention to rural finance than originally envisaged. It is suggested this includes the consideration of financial product development linked to market developments beyond the savings and credit function in cooperatives.

Related to this, we became aware of a new envisaged project to start in the middle of 2013 and to be implemented by ICCO. This project will pilot a more appropriate agricultural credit product developed by IDE together with the United Leasing Company. Their presence in the Pathuakali district will allow us to cooperate on this issue.

- **Physical Connectivity:** Connectivity in terms of communication, roads, waterways, power and market infrastructure constitutes the physical element of market development and is of major importance. Overall there seems a dearth of regional planning information and documentation. When developing and rehabilitating the water resource management infrastructure, connectivity considerations will be incorporated in the Multidisciplinary Data Collection effort. The appropriate mapping of these spatial elements in a GIS will facilitate the Polder Development Planning. Blue Gold includes a provision for market infrastructure analogue to several recent or on-going programmes. Much of these appear to be the subject of rather top-down decision making in the process of their needs identification, location and construction. By taking this up in the participatory Polder Development Plan process Blue Gold should attempt to be more bottom-up, with the likelihood that the needs will be defined differently and more limited in design than envisaged.
- **Gender:** Compared to the other components, the foreseen interventions and activities for component 4 are relatively new and less specified in detail at the time of the inception phase since these will depend on the outcomes of the value chain selection and respective value chain analyses. The gender approach for this component, as presented in Box 4, therefore also remains more general, but may be refined or expanded when the interventions under this component have been more clearly defined. For example, if market development is undertaken, space will be also allocated to (poor) women vendors and women will be included in the market management committees.

Box 4 Gender in Component 4 – Business Development and Private Sector Development:

- 4.1 The purpose of a gender approach in this component is to achieve:
- Equal access to assets for women and men, including inputs, markets and profit;
 - Strengthen the participation and decision-making of women in the Value Chain governance;
 - Achieve a balanced work load for women and men, including by increasing the efficiency in the selected Value Chains.
- 4.2 Basic gender related principles for Value Chain (VC) activities:
- (i) All economic data will be gender disaggregated whenever possible and relevant;
 - (ii) “Gender inclusive language” is promoted ensuring that terms like farmer or entrepreneur include male and female persons;
 - (iii) Economic analysis will also include non-market productive activities. In this context not only the increase of cash income will be taken into account but also the decrease of expenditure on food.
- 4.3 When conducting preparatory studies to map the current business situation and identify value chains to be further analysed male and female resource persons will be consulted. Since women’s role in business / value chain is often less visible, special efforts will be undertaken to identify female resource persons.
- 4.4 When selecting value chains for further analysis, it will be ensured that in -at least- half of the selected VCs women play a significant role in one or more of the segments of the value chain, such as primary production and/or processing.
- 4.5 In the first mapping of the value chain the involvement of men and women will be indicated for each VC segment / activity.
- 4.6 A gender lens will be applied in further analysing the first mapping. Questions will be raised such as:
- What are the main VC activities in which women are involved;
 - Have all categories of “invisible” women (or men) in the VC been identified;
 - Are women involved in the VC segments where value addition is high;
 - What are the barriers / constraints that keep women out of the activities designated as “male” activities and/or in activities adding high value?
- 4.7 When identifying measures for addressing blockages or constraints in the VC or enhancing value addition, opportunities for both men and women will be investigated and promoted. Where women and men (especially the landless and poor) are structurally involved in low value segments, they will be supported to either increase the value within their segment and/or encouraged to participate in other segments with higher value.
- 4.8 It will be ensured that men and women participate and benefit when engaging VC actors, such as organising producers groups, consultations, imparting training, and providing support. Special emphasis will be on promotion of women entrepreneurship, where possible.

- **Innovation:** The Business Development Component will focus on regionally produced commodities until new products have proven their suitability to be produced locally, to match the VC selection criteria, to constitute feasible options and to be justified from an end-market perspective. The most likely innovations are in products and product quality, processing and market innovations. Innovation opportunities will generally arise from the value chain analysis work. A more pro-active way consists of pursuing lead firms, including Dutch business interest.
- **Institutional Development:** The Business Development activities rely largely on the private sector actors to bring it to fruition, including enterprises, cooperatives and business membership organisations. The implementation of interventions will also draw upon public and private sector service providers and NGO’s. There is little problem for the project to undertake interventions of a

one-off nature, but those likely to be needed in the future should be embedded with a market actor or facilitator in a sustainable manner. Institutional linkages are of primary importance for the determination of polder development priorities, connectivity and business enabling environment issues (Public Authorities) and particularly cooperative development (Department of Cooperatives). These would benefit of the insights, and lessons learned of the Local Consultative Group on Private Sector Development.

3.4.3 Risks and Assumptions

- Catering for a variety of market aspirations: The members of the WMG constitute a homogeneous group vis-à-vis their water safety concerns but a heterogeneous group in terms of market orientation. Amongst this group some households repeatedly experience food deficits while others are generally able to produce surpluses. In between, there is a range of households with varying degrees of vulnerability to risk and as a result market orientation which simultaneously impacts on their interests and decision making incentives.

In our approach we will select a portfolio of value chains to cater to the market aspirations of the different segments within the WMG.

- Over-extending of cooperative development: Producer organisations in the form of cooperatives can play a role in value chain developments. They may have several functions in ensuring quality production, providing extension, and collecting, storing, processing and marketing agricultural products, thereby exploiting economies of scale along with reducing transaction costs. Certain value chain opportunities could be very enticing. The underlying need for organisation is not easy to achieve and budding cooperatives might end being 'over-extended' by failing to fully recognise the constraints.

In our approach we will take particular care to avoid this by allowing cooperatives to develop at their own pace, keeping a balance between internal capabilities and external business development vision.

- Influence of different on-going approaches: Being a cyclone and natural disaster prone area, inhabited by a majority of poor people, the area draws often relief mode assistance. Natural disasters disrupt markets, and in the aftermath relief mode assistance donating or distributing commodities, machinery, infrastructure and services have the side effect of distorting markets even more. Relief mode programmes often ignore market forces and actors thereby exacerbating the problems of markets, market infrastructure and market relations.

With a major part of the target population facing food insecurity and a minority being market oriented, our approach will cater for both by diverse end-market developments, while avoiding the distorting nature of relief mode assistance.

- Confusion due to similarity: A multitude of efforts in terms of agriculture production improvements are on-going. All involve producer groups but do so in a variety of approaches, for a variety of purposes and as a result in a variety of associating forms. Besides risking overburdening communities with a quick succession and variety of activities, the approaches can easily be confusing.

In our approach we will place substantial emphasis on coordination and harmonisation of approaches to producer organisations.

3.4.4 Activities

3.4.4.1 Selection of products and value chains

Engage with communities to define broad development options: The participatory approach set out in Component 1 will engage the communities at village and polder level to express their views on their development priorities, along with multidisciplinary data collection. This process makes use of household interviews and of focus group and women group discussions. The requirements with respect to Component 4 are related to:

- Shifts in cropping intensity, new crops and surplus production
- Market access constraints and perceived opportunities.
- Farmer / Household market participation classification
- Status of cooperative development and collective actions
- Access to and use of rural finance
- Business Service Providers and information flows
- Connectivity and market infrastructure
- On-going programmes and resources

Defining a broader Regional Development Framework: The Business Development TA will explore the status of primary production in the polders together with the Agriculturalists, Livestock and Fishery experts of Component 3, along with the market hierarchy and business environment for agricultural production and food processing sub-sectors. The latter will move beyond the geographic boundaries of the selected polders to identify potential actors and service providers, connectivity infrastructure, institutional frameworks and impacting policies and regulations. Information at National, District and Polder level will be structured as a broader Regional Development Framework (RDF).

Select or prioritise value chains for analysis: The selection of value chains will consider their varying importance for respectively deficit and surplus producing households and pay attention to diversification in light of household risk profiles. This activity will benefit of close liaison with the SAFAL VCA work and other past, present and envisaged initiatives in the target region. Value Chain Selection (VCS) requires the identification of specific criteria, to compare and rank them in order to define the priority value chains for further analysis. The criteria and the attached weights will define the nature of poverty reduction pursued by the selection. The Blue Gold programme goal marks the producers as entry point to the value chain development approach. Their present production system and perceived opportunities will form the initial short list. More demanding analyses of end-market opportunities for alternative sub-sectors will follow. Inherent to the selection is a matching process between expressed producer perceptions and end-market opportunities.

Selecting value chains

A preliminary stage to analysis is the selection of the value chains. Specific criteria must be established and, for illustration, can include:

- Unmet demand in the market for the good or service
- Potential for productivity improvement and increase in household incomes
- Number of households or farmers involved in the cultivation
- Risk profile of the value chain for the households
- Number of micro, small, and medium-scale enterprises (MSME) involved in the value chain
- Potential for employment generation
- Geographic density of the production
- Existence of linkages conducive to market based approach
- Accessibility to technologies to improve quality and quantity
- Potential for positive coordination and synergy with other initiatives – Blue Gold and beyond
- Representation of women (see Box 4) and special considerations
- Existence of favourable business policy/ environment

Once criteria are established, potential value chains can be compared and ranked in a grid to identify those that merit more detailed analysis.

Formulating the Polder Development Plan: The Business Development Component will contribute to the formulation of a Polder Development Plan (PDP) along with the inputs of the other components. The aim is to define the territorial development of the polders to harness local economic potentials through partnerships amongst local economic actors and other private sector operators, Local Authorities and civil society. Particular attention will be paid to spatial analysis of all constituting elements in order to identify those polders with readily accessible potential. The PDP planning process follows the IPSWAM six steps approach, making allowance for the complementary components. It will conclude with a development growth scenario for the polder which should be agreed upon and shared with the community as widely as possible. The resulting PDP is a combined effort of all Blue Gold components.

A portfolio selection, could for example include poultry (day-old-chicks, para vets serving also other livestock, role for coop in vaccines provision), a homestead surplus crop (betel leaves, turmeric), a surplus staple crop (rice) focusing on production improvements and a new crop maize or sunflower or soybean or sorghum to access a new market.

A general presentation of the Value Chain Development Process is provided in the graph below.

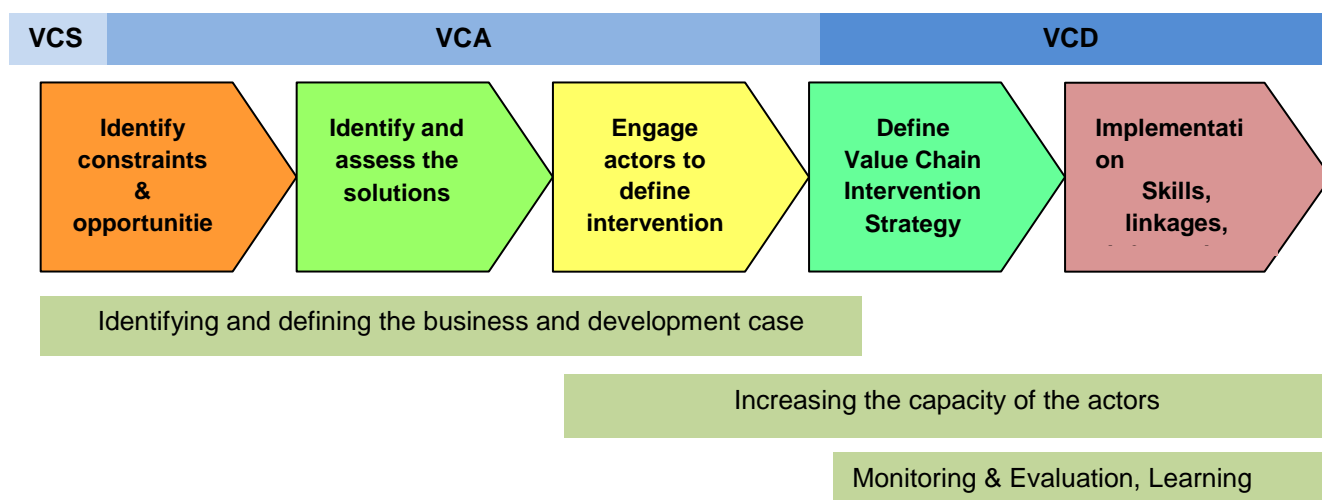


Figure 13: Value Chain Development Process

3.4.4.2 Undertake in-depth Value Chain Analysis,

Coordination with on-going efforts: The Polder Development Plan will result in a shortlist of priority value chains covering both food security and surplus production aims. Besides defining Blue Gold’s FFS programme, it will also identify the presence or intentions of other development actors with a focus on agricultural, horticultural and fishery productivity improvements, e.g. SAFAL, Feed the Future and DANIDA’s FFS. To avoid duplication and make optimal use of other programmes, care will be taken to coordinate and harmonise with these programmes when starting the value chain analyses. It is agreed that Blue Gold will focus its analyses programme on crops. It is not recommended to outsource the value chain assessment completely. In light of future requirements programme staff should be involved in the process to a considerable extent. It will facilitate in-depth understanding of constraints, the identification of and response to opportunities and most importantly the establishment of relationships with market players.

Consult the actors in the field as part of the value chain analysis: As a crucial starting point, the Multidisciplinary Data Collection and Baseline Survey will have provided a profile of the target group households and an understanding of their livelihood context. For those value chains that Blue Gold will undertake itself, a value chain map will be developed. The map will graphically represent all the relevant private sector actors, their functions and their relationships with one another. In addition discussions will be held with market participants and “key informants” knowledgeable about the value chain, and any relevant studies collected and reviewed. Using the map, we will interact with all of the value chain actors, both large and small, to assess their incentives and capacities, to identify constraints and opportunities, and understand the dynamics and causes for underperformance throughout the value chain. A combination of methodologies can be used, including in-depth studies, semi-structured interviews, focus group discussions (FGD) and stakeholder analysis.

With respect to producers we will link up with the FFS and other producer groups operational in the polders. These engagements will initially be incorporated as Farmer Business Modules in the modular FFS approach on agricultural productivity improvements. These modules will create awareness and explore experience with input, as well as market problems.

One should note that the subject of analysis also includes connected markets or supply products (machinery, chemicals) and services (e.g. ICT, credit). The resulting insights can be grouped in the following categories and subsequently prioritised as constraints and/or opportunities:

- input supply,
- market access,
- technology/product development,
- business skills, management and organization,
- policy, rules and regulations
- credit and savings,
- learning and information flow
- other service demand and supply, and
- infrastructure

The results will allow producing a more comprehensive map of the value chain actors, the business enabling environment issues and service providers.

Identifying and assessing solutions: During this step, solutions are selected according to their ability to address the prioritised constraints and opportunities. These solutions will help actors to "upgrade" (overcome constraints and take advantage of opportunities) the value chain's competitiveness performance. Solutions are generally of a capacity development nature but can vary substantially in purpose:

- Enhancing product quality or quantities
- Organising of economic functions, new and existing
- Improving of business development services
- Address governance issues
- Identifying and introducing catalysts
- Arranging linkages

The envisaged role of the Business Development TA is one of facilitator, the idea being that actual solutions will be performed by existing or newly introduced private sector actors who undertake these as part of their business model. As a result, these are at this point "potential solutions or interventions" and subsequently need to be assessed whether they can be implemented in a commercially viable and sustainable manner by a private sector actor. In addition specific functions need to be linked to specific actors, to ascertain who might do what, who could develop the capacity and how this solution might be paid for in a feasible way.

There are two basic approaches in VCD interventions. The first makes use of a lead or anchor firm. This firm largely sets the information flow and production standards and as such defines much of the interventions throughout the chain. The use of a lead firm often involves contract farming. There are opportunities to identify lead firms in the Bangladesh agri-business sector or amongst the Dutch business interest in Bangladesh, e.g. the PSI programme and the agri-business firms participating in the upcoming economic mission (September 2013). The Dutch firms could e.g. lead to market innovations. The second approach envisages a spread of interventions in the value chain at multiple entry-points with a view to upgrade the value chain links in a holistic way, without the singular focus of a lead firm. It involves a less well-defined search for new relationships, facilitating new functions and information flows between a range of actors to increase and maintain value throughout the chain.

Engaging the actors to plan the interventions: During Value Chain Analysis many actors and stakeholders were involved as discussion partners. At this stage specific actors need to be engaged to commit themselves to opportunities, assess the solutions, determine the intervention mechanism and define their role in bringing this solution to realisation. A potentially broad range of actors will be identified, be made aware of the outcome of the VCA and be engaged with. This constitutes a participatory process which aims to facilitate and strengthen relationships and coordination.

With respect to producers we will involve again the FFS and other producer groups operational in the polders. These engagements will expand on the earlier Farmer Business Modules to enhance market orientation, assess business opportunities, support the drafting of a business plan and introduce the required business skills. We will engage with both, the FFS focussing on food security and those on market orientation but the modules will vary in complexity in line with their envisaged involvement in the respective value chains.

In the process, these producer groups are likely to seek economies of scale through collective actions. They will join other producers while striving to maintain cohesion. There are different ways open to them. One way of achieving this would be through involving more members of WMO's after feedback sessions of the FFS and the sub-subsequent formation of sub-sector groups at WMG or WMA level. To support this we will present our findings of constraints, opportunities and potential solutions to the members of the WMO. These interactions focused on the benefits of collective action will form an integral part of the Cooperative Development activities described under Component 1 and will result in an Operations Plan for the WMO. An alternative is that producer groups prefer the cohesion of their commodity interests and join other producer groups from other areas with similar interests. We will support them, just as the WMO, in drafting Business Plans to assess the feasibility of their collective actions.

Along with the engagement of the producer groups, the solutions will be explored with the other private sector actors in the value chain, along with private and public service providers. In turn, these might result in a range of short business profiles or plans. The main purpose is to establish stakeholder engagement and wherever required, different actors will be brought together in focus group discussions or workshops. These might have to address misconceptions, deal with imbalances of power, tackling regulatory uncertainty and coping with physical distances.

Defining the value chain intervention strategy:: The combined outcome of these actor engagements will contribute to the definition of a value chain intervention strategy. This strategy will set out the vision, the market development actions, a SWOT of actors, the intervention mechanism, the envisaged capacity development needs and the envisaged sustainable outcomes and impact. The latter will serve Blue Gold's M&E programme by clarifying also the impacts of the envisaged interventions. Overall this planning and strategizing is a non-linear and rather iterative process. It should also stay ahead of the seasonal agricultural production activities. The investment in the analytical stage will ensure interventions are more strategic and properly targeted. Over time the Value Chain intervention strategy can be transformed in a value chain guidebook for a particular commodity.

3.4.4.3 Facilitate Value Chain Development

Implementation of the Value Chain intervention strategy: The process of value chain development or upgrading typically starts with initial, relatively small interventions or pilots to get the change process going. The extent of innovation involved will be a determining factor of the need for pilots. These initial interventions will be monitored carefully in terms of outcome versus planned and of impact. The intervention strategy will be continuously appraised and adapted where necessary, upon the monitoring outcomes. Adaptations take the form of supplementary interventions which again are monitored as part of

an iterative process. The key to rolling out the interventions is maintaining flexibility and to react upon opportunities. This requires continuous M&E revisions before interventions are rolled-out which itself requires a review of additional transactions and relationships, available actors and required functions, and a determination of the geographic area and target group(s). Designed as a flexible programme, much attention will be given to document lessons learned at interim and adjustments.

Interventions will be concentrated on a number of potential areas, namely improving producer and service provider awareness by better availability of information about market scale and opportunities; linking demand- and supply-sides through facilitated meetings and visits; building the capacity of producers' organisations and representative bodies to secure services collectively in order to reduce transaction costs; and developing service providers' capacities to deliver services by linking them to sources of training. The majority of the interventions will seek to create functional relationships, change incentives by awareness and skills and capabilities by capacity development.

Influencing incentives by awareness:

- Value Chain Development is a rather new concept in Bangladesh with few institutional facilitators beyond some NGO's and on-going projects and programmes. VCD materials will be developed for a variety of channels to enhance awareness and introduce the concept to a wider group of stakeholders in order to support relationship building.
- We will create more in-depth understanding of Value Chain Development amongst Blue Gold staff, community officers and facilitators, and closely related stakeholders (DAE/DLS/DoF/DAM) involved in the implementation of Blue Gold. Use will be made of the VC maps to make people more market literate. Besides being an opportunity to solicit further insights, the aim is to enhance the understanding of interventions and underlying result chains. This will facilitate field staff feedback during implementation as part of the M&E.
- Farm Business Modules will be incorporated in the FFS sessions of Component 3 to engage producer groups. In support of awareness creation, these modules will include value chain study tours. The tours present actual cases elsewhere in the country and enhance insights. Other delivery channels will introduce the value chain concept and disseminate the tour experiences to a wider audience.

Enhancing skills by Capacity Development:

- Many of the engagements with the actors in Value Chain Development are of a coaching nature and will be undertaken by Blue Gold's field staff, consisting of the community organisers, FFS facilitators and business development facilitators. They will be complemented, as and where required, by staff of other organisations, possibly even by private persons developing an advisory micro-enterprise. The latter will contribute to the sustainability of the programme.
- A Training Needs Analysis (TNA) of actors will result preliminary from the PDP and subsequently in more detailed form from the Value Chain Intervention Strategy. The Business Development TA will develop the Curriculum of training modules focusing on i.a. market understanding, assessment of constraints and opportunities, feasibility and business planning, business skills, financing and credit, marketing, negotiation skills and contracting. These Modules will be developed for basic and advanced levels and make use of existing material and on-going programmes wherever available. For some modules general business case studies can be developed. A more detailed view on the required curriculum and its development will follow upon the TNA's.
- The Capacity Development of the producer organisations will be linked to the advanced FFS programmes and Cooperative Development programme. Each will have its appropriately developed

curriculum, respectively aiming at mastering business and operations plans. The general focus will be on the feasibility of undertaking economic activities and/or providing of services by these respective entities as collective actions. As a general outline business plans will cover business opportunities, the organisation's SWOT, how gaps will be overcome, intervention designs and feasibility, management and financing.

- In consideration of the institutional burdens a cooperative registration can bring along, the perceived benefits of collective action have to be the driving force of cooperative development and as such registered membership. By presenting constraints in the value chain, opportunities for collective actions will be assessed and willingness explored. Of special interest is the savings and credit function as a possible source to fund some collective activities. The operations plan of the cooperative should also provide for other non-economic roles the cooperative wants to pursue to assess its overall sustainability.
- Of a particular nature are the design and implementation of a performance-monitoring method required for measuring the actual performance of a value chain and of its actors -rather than of a project - in a private sector development context. For the purpose of implementing value chain improvements, the challenge is providing methodologies that can be used by value chain actors to monitor the implementation of the upgrading they are involved with as principle actor. The Business Development TA will incorporate this in the intervention strategies and implementation processes.
- A major aspect of VCD capacity development is the facilitation of the relationships and linkages between the actors along the chain. Besides soft facilitation, i.e. by creating trust, more formal arrangements in the form of contracting could be required complemented by the fulfilment of training needs in a variety of subjects. Some of these training needs might be covered by Blue Gold directly. In addition embedded services could be considered, along with the involvement of public and private Business Service Providers (BSP), and/or referrals to existing training programmes. As part of this process also the linkages between actors and BSP are considered. The TNA which will include a review of the Strengths and Weaknesses of a variety of BSP will form the basis of efforts to improve their services.
- A less tangible element is to build the capacity to improve the market information flow along the value chain, especially in those chains where no lead firm is involved. The challenge in those chains will be to define a simple but effective market information system, serving several value chains, to be sustainable.

Developing of Market infrastructure: Blue Gold envisages the establishment of 250 office and storage facilities. These should be planned in a bottom-up manner to ensure their design and location is aligned with producer organisation's needs. The experience of other programmes indicates that producers have possibly deviating views of this which would impact on its utilisation and the sustainability of the infrastructure. As an input to this process, their broader physical location, suitability from a DRR perspective (protection of stored products against floods) and linkage to connectivity infrastructure will have been addressed in the Polder Development Plan.

Recommending improvements in the Business Enabling Environment: Throughout the combined planning and value chain development process, the Business Development TA will pick up constraints in the Business Enabling Environment (BEE). Any BEE comprises a complex interplay of policies, laws, regulatory frameworks and administrative practices affecting entrepreneurial activity and requires a multitude of public and private institutions at local, regional, national and even international level for its enactment. The point is to identify the binding constraints and start-up and institute a process of reform. These elements are outside the direct control of the core value chain actors and of the realm of the Blue Gold programme. Besides recommending improvements, the programme might attempt to identify the powers and drivers for change and engage to facilitate public private dialogue for reform. An area of

particular concern to Blue Gold is the BEE of cooperatives and close cooperation will be sought with the envisaged Cell for Water Management Cooperatives. Other areas are food safety, rural finance and business registration.

3.5 COMPONENT 5: Cross Cutting Issues

3.5.1 Good Governance

The Program supports Good Governance at several levels. It is concerned most directly with the Governance of the water sector itself. For this purpose the TA team will make use of the Annotated Water Integrity Scan (AWIS) developed by the Water Integrity Network (WIN). This approach is based on a participatory assessment of working practices in the water sector. In principle the AWIS presents an analysis of the Transparency, Accountability and Participation of the following elements governing the water sector:

- Policy and Legislation;
- Regulations;
- Investment projects and program;
- Service provision;
- Anti-corruption framework.

For application in the context of the Blue Gold Program, the TA team will seek support from WIN expertise to adapt the approach to the specific situation in the Program area and train some of its staff in the implementation of the AWIS. Also, discussions will be held later this year with the Water Governance Centre (WGC) in The Hague.

Box 5 Gender in Good Governance:

- 5.1 Male and female informants will be consulted when identifying governance issues in water management to be addressed; the AWIS approach, which has participation as one of its five pillars, implies the participation of all relevant stakeholder categories, i.e. including female BWDB staff.
- 5.2 When training is imparted on good governance issues in the water sector -in particular on the application of AWIS-, male and female trainees will be identified and participate; and any relevant gender issues addressed.

3.5.2 Gender

3.5.2.1 Introduction

The Blue Gold Program's goal of reducing poverty and hunger for poor people in the polder areas can only be achieved through the meaningful participation of men and women, even more because women are overrepresented among the poor. Therefore the purpose of the gender approach of the Blue Gold Program is enhancing the participation of women and men (i) to enable men and women benefiting more equally from the interventions by the program in terms of increased food security and livelihoods, increased socio-economic status and participation in decision-making and (ii) to improve the program's

performance and increase the likelihood of sustainability. Additionally, Blue Gold aims to contribute to a more effective gender approach in the targeted sectors, promoting sharing and enabling replication.

In recent years Bangladesh made gains in the area of gender equality, including on the legislative front (e.g. on equal pay). Though enforcement of such legislation is still a challenge, gender indicators of UNDP and the World Economic Forum (WEF) demonstrate gradual improvements. For example, WEF's Gender Gap Index for Bangladesh increased from 0.627 in 2006 to 0.668 in 2012¹⁸.

In 2011 the National Women's Development Policy was adopted, which aims to secure women's rights in a wide range of areas, including in areas covered by Blue Gold as already has been summarized in Blue Gold's Project Document. Each line ministry in Bangladesh is required to have its own gender policy. BWDB has its Gender Equality Strategy and Action Plan (GESAP) 2006-2011. Several elements of this Gender Strategy have already been implemented such as inclusion of gender in BWDB's Foundation Training for new BWDB staff and in other training organized by BWDB, and posting of women in some important positions in BWDB Headquarters in Dhaka. Other line ministries relevant to Blue Gold also have gender policies, such as the Ministry of Agriculture and the Ministry of Local Government, Rural Development and Cooperatives (which includes the Department of Cooperatives).

3.5.2.2 Gender mainstreaming experiences from recent projects

The Blue Gold program builds on experiences obtained in various earlier or ongoing projects in Bangladesh, such as IPSWAM, CDSP (both Dutch (co-) funded), and the FFS interventions supported by DANIDA. This section summarizes main lessons learnt from gender approaches in these projects, as well as from two recent studies on gender and agriculture.

IPSWAM (Integrated Planning for Sustainable Water Management Programme, 2004-2010)

A comprehensive gender approach was developed and integrated in the IPSWAM interventions by gender training and mainstreaming gender in community mobilization and water management. Not only did gender awareness increase and men and women participate in WMOs, IPSWAM also contributed to actual women empowerment, both economically and socially (more women in local leadership). IPSWAM also contributed to the adoption and implementation of BWDB's Gender Equality Strategy and Action Plan 2006-2011.

CDSP-IV (Char Development and Settlement Project Phase-IV, 2011-2017)

In CDSP-IV women are significantly involved in all project components, which became possible due to extensive motivational visits, discussions in separate group and mass meeting. In spite of the high levels of social conservatism in the project area (Noakhali and Chittagong) women representation in community groups is encouraging, with women occupying more than 45% leadership positions in EC of WMGs. CDSP actively supports the process of land titling for eligible, landless households. The land title is given in equal shares (50%) to both husband and wife with the wife's name put first in the deed, which has a great impact on empowerment of women.

Farmer Field School Approach (various projects since 2000)

The Farmer Field School (FFS) approach targets men and women of mainly poor, marginal and small farmer households as FFS participants in a 50:50 ratio. Experience shows that men and women usually select different FFS modules, such as field crop modules by men and poultry or homestead production by women. FFS modules on other topics than agricultural production (such as group formation, social issues and nutrition) target both men and women. FFS groups are organised in Farmers' Clubs, with at least 30% women members in their Executive Committees. In 2011 the Danida FFS evaluation found that FFS had become an 'eye opener' for both women and men for what women are capable producing and

¹⁸ WEFs Gender Gap Index reflects economic participation, educational attainment, health and survival and political empowerment. A score of 1 means the absence of any gender gap, i.e. full gender equality.

contributing to household income and food security. Successful “FFS women” and their husbands became role models for others and FFS boosted women’s self-confidence and contributed to increasing gender equality in decision-making, at least on smaller issues. However, women’s incomes still remained relatively low, they did not yet participate equally in important household decisions and the 30% quota not necessarily gave women more decision-making power in the Farmers Clubs. The recommendations of the evaluation report are largely tackled by Danida’s new FFS program starting per 1 July 2013 (the Integrated Farm Management Component, IFMC). Component 3 of Blue Gold will make good use of these lessons learnt.

Women’s Empowerment in Agriculture Index (WEAI), IFPRI, April 2013

The WEAI index is recently developed for USAID and piloted in Bangladesh. Its purpose is to track changes in women’s empowerment levels that occur as a result of the US government’s global hunger and food security initiative, Feed the Future. The WEAI index consists of five dimensions of empowerment related to production, resources, income, leadership and time. The pilot survey in Bangladesh covered rural areas in Khulna, Madaripur, Barguna, Pathuakhali and Jessore districts. The study found that men and women are mostly differently disempowered. Women need more control over resources and income, and lack leadership within their community; for men time poverty (i.e. drudgery in agricultural work) and lack of leadership are the main disempowering factors.

Rapid Assessment of Gender in Agriculture in Bangladesh by ICDDR,B, 2011

This study, which included several coastal villages, concluded that gender norms are more flexible among landless, small and marginal farm households than in medium and larger farm households. The study recommends to make extension services more gender sensitive; to link (also) women to market chains (e.g. by using mobile phones) enabling them access to and control of own income, and to develop financial literacy of women.

3.5.2.3 Challenges to gender mainstreaming

- Proper gender policies, strategies and guidelines are largely in place; however, there is room for improvement in their implementation and/or enforcement. Moreover, guidelines often refer to quota of women’s membership, but not to actual empowerment or decision-making power.
- Though gradually improving, there is still insufficient awareness on the need for gender mainstreaming, gender issues and on evidence on benefits of an effective gender approach.
- Social and cultural barriers are still a main hindrance for achieving more gender equality because women’s mobility is limited by social criticism, even if moving out is needed for the sake of the woman’s family’s welfare. Women bear the main responsibility in taking care of their children, but hardly have any decision-making power. These deep-rooted constraints are hard to change overnight.
- Even though women have often been neglected, deprived and sidelined, the focus of gender mainstreaming cannot be on women alone. Men too have to be carried along to wrought meaningful and long lasting changes. Age-old attitudes, beliefs and even superstitions need to be changed. To ascertain how best to address this issue practically in the project, various strategies need to be adopted. Several means are needed to build confidence, create awareness and promote interest.
- Gender mainstreaming often means no visible or earmarked budget for gender (or only a limited budget); most expenditure for gender mainstreaming is rather part of the budgets of each program component. Though inherent to gender mainstreaming, this also poses some risks regarding the actual implementation; proper monitoring is therefore imperative.

3.5.2.4 Gender Approach for Blue Gold

The Blue Gold Gender Approach was developed during the inception phase in consultation with project staff of all components. The approach builds on experiences in previous and on-going projects as discussed in 3.5.2.2, and takes into account existing GoB guidelines (e.g. of BWDB) and other relevant practices (e.g. ADB Gender Action Plans), also to promote harmonization. The Blue Gold Gender Approach is not a stand-alone sub-component, but mainstreams gender perspectives in the four main Blue Gold components and –to some extent- also in the other cross-cutting issues. The relevant gender

steps and elements for each component are therefore presented in the respective sections of this inception report (see boxes 1-10).

The basic principle underlying the Blue Gold gender approach is the valuation of men's and women's experience and knowledge and the recognition of their roles, responsibilities, needs and potential. Because women are often in more disadvantaged positions than men, special attention to women's participation will be paid to reduce such gaps; this may also apply to other marginalized groups such as the poor and landless. Whenever appropriate, also special efforts will be made to reach out to men, for example to create awareness on the importance of participation of men and women in WMOs, to address "disempowerment" faced by men (or categories of men), and to ensure that men are also reached by messages traditionally targeted on women (e.g. on nutrition).

The Gender Approach can be summarized as follows:

- **Component 1 Community Organization:** male and female field staff will collect gender-disaggregated data, inform men and women and encourage them to become registered WMG members, also taking into account GoB targets of minimum women's participation in e.g. Executive Committees. Meaningful participation of women (and men) in decision-making will be emphasized, e.g. by gender and leaderships training.
- After data collection and the formation of WMOs, a polder development plan will be developed for each polder, involving men and women; the polder development plan will include a Gender Action Plan tailored to the situation of each polder.
- **Component 2 Water Resources Management:** men and women will be involved in planning and monitoring; their needs and options will be taken into account. Landless Contracting Societies (LCS) contracted for earthwork will include women. Contractors will be oriented to provide basic facilities at the construction site and pay equal wages for work of equal value.
- LCS women will be provided with skill training for other income generation options (in cooperation with component 3 and/or 4).
- **Component 3 Agricultural Production:** Men and women will be consulted and their needs and (potential) roles in agricultural production identified, which will be reflected in the FFS modules offered. FFS will be formed within or linked to the WMGs. Men and women FFS participants are targeted in equal numbers, with all FFS sessions open to both women and men, even though certain modules may attract more women and others more men.
- Linkages to markets will be improved for men and women; in the development of services, men and women considered as service providers (in cooperation with component 4).
- **Component 4 Business development:** Male and female key informants will be consulted in preparatory studies to map value chains (VCs); selection of VCs for further analysis ensures inclusion of VCs that have segments in which women play significant roles. Special attention to applying a gender lens during VC analyses e.g. to identify "invisible" women. When improving VCs women and men (especially landless and poor) who are structurally involved in low value segments will be supported to increase the value within their segment or participate in other segments with higher value, also increasing women's decision-making in value chain governance.
- **Component 5 Cross Cutting Issues especially Environment and DRR:** Men and women are often differently affected by environmental degradation and natural disasters, including climate change. Therefore they will also be both involved in consultations, awareness raising, risk assessments, strategy development and implementation of environmental improvements and risk reduction measures.
- **Institutional strengthening:** the BWDB Gender Equality Strategy and Action Plan 2006-2011 will be reviewed and updated in cooperation with all BWDB stakeholders. Support will be given to its implementation at head office level and at Satkhira and Khulna district, upazila and field levels.
- **Networking and sharing lessons learnt:** networking and exchange of information and experiences on gender mainstreaming with similar projects will be promoted, including dissemination of the lessons learnt and best practices of the Blue Gold gender approach, also to enable replication.

3.5.2.5 *Gender in training and capacity building*

Training and capacity building of the involved implementing agencies and beneficiaries are essential for the successful implementation of the Blue Gold components and the sustainability of the intended results. Because gender is mainstreamed in all components, gender perspectives will also be integrated in all relevant training and capacity building activities, whenever relevant. The Box 10 of section 6.2 spells out the gender approach to training and its main principles are:

- Training needs assessments will assess the training needs of male and female stakeholders and includes assessing the need for gender training and for leadership training.
- Staff, beneficiaries and other relevant stakeholders will be targeted by basic and/or refresher gender training to increase their gender sensitivity and practical knowledge on gender mainstreaming. Gender perspectives will be integrated in all other training, whenever relevant.
- Training will be needs based, addressing practical and strategic gender issues; gender stereotyping in modules will be avoided.
- Each training course aims at a mixed group of trainees (males and females). However, training only for women (or men) will be possible, for example, if this is strategically relevant (such as leadership training for women only). Male and female trainers will be employed.
- Exposure visits and experience sharing workshops will be arranged for men and women. Especially for young and less experienced women, mentoring by more experienced women will be piloted.
- Location, timing and duration of training events will be suitable for women.

3.5.2.6 *Monitoring, impact measurement and gender indicators*

The purpose of integrating gender perspectives in monitoring and impact surveys is assessing the progress and success of the gender approach. This includes the monitoring of actual participation of men and women and assessing gender related improvements attributable to the Blue Gold program, such as increased empowerment and decision-making of women. Gender indicators are being identified at output and outcome level. Data will be gender-disaggregated at data-collection, during data analyses and in reporting.

Annex 11.12 presents the gender indicators for Blue Gold's goal and purpose, i.e. outcome level indicators. These indicators will be mainly measured by the baseline and impact surveys and/or by Focus Group Discussions at the end of the Blue Gold interventions. Annex 11.12 further presents gender indicators for each component, which are mainly indicators at output level. Examples are the proportion of registered women members of WMGs (40% by the end of Blue Gold); the number of women earning income from Landless Contracting Societies (target: 7500¹⁹); and the proportion of women who will participate in consultations (at least 30%). These output related gender indicators will be monitored by the relevant Components as part of their regular monitoring. Selected gender indicators are also included in the Blue Gold logical framework.

Blue Gold's gender experts will participate in designing the monitoring system and the baseline survey, to ensure that gender perspectives are appropriately included. At appropriate intervals, separate reporting will take place on the gender indicators of Annex 11.12 to make the achievements of the gender mainstreaming more visible. Though the targets for most gender indicators of Annex 11.12 are quantitative, Blue Gold intends to ensure that women's participation will also be active and meaningful.

¹⁹ The logframe of the Program Document for Blue Gold has the target of 40,000 women earning from LCS. Considering that only in 5 of the 26 polders full rehabilitation works will be conducted (25,000 ha), the amount of earthwork for fine tuning is uncertain and during IPSWAM 7,500 women earned from LCS work in 9 polders and 45,000 ha (representing 36% of the total), using a similar target of 7500 women seems more realistic than 40,000.

3.5.2.7 Implementation of the gender strategy

The Gender Approach of Blue Gold will be further operationalized after the inception period at the following levels:

- (i) Annual plans for the implementation of the gender approach at Program level will be elaborated, implemented and monitored (see Annex 11.13 for the plan for year 1); and
- (ii) Polder level Gender Action Plans (GAPs) will be developed by male and female WMG and WMA members as part of each Polder Development Plan and at the end of gender training imparted to them. These GAPs will follow the principles of the gender approach described in this inception report, but will operationalize this approach reflecting local needs and opportunities.

These annual plans and polder level GAPs will identify responsibilities and timing of the implementation of the concerned interventions and activities. Most of the activities identified in these plans will be part of one of the four Blue Gold components (and/or of training) and will be integrated in these components' regular planning or approach.

The successful implementation of the above described gender approach demands sufficient and adequate staff, both in numbers, in capacity and commitment, and gender balanced. The following is foreseen:

- The Blue Gold core team includes a full time senior national gender specialist; it is proposed to add a junior gender specialist who will benefit from the experience and expertise of the senior expert (mentoring). The international gender specialist will provide short-term inputs.
- In each district a female socio-economist will be based (3 in total), who will contribute to the implementation of gender related activities and reaching out to women next to other work.
- When employing community organizers (COs) a 50:50 ratio males and females is aimed at, but at least 30% of the COs will be female.
- Among existing staff men are over-represented. Therefore, when additional staff needs to be recruited preference for women candidates will be given in case of equal suitability and if available. In case of BWDB the employment of at least 10% women in BWDB offices involved in Blue Gold implementation is encouraged (which is per GoB guidelines), although this is beyond the actual control of Blue Gold.
- For Blue Gold's training programme a balanced ratio between male and female trainers is aimed at; in particular, it is encouraged that also male trainers conduct gender training.
- Based on the outcomes of the training needs analysis all project staff engaged in field level implementation of Blue Gold will receive gender training and/or refresher training; at BWDB Head Office a gender workshop will be organized for staff related to the Blue Gold program.

Component leaders and their staff bear the primary responsibility for mainstreaming gender in their components. They will be supported in several ways: gender training, either as separate training, and/or integrating gender issues in other training; regular consultations between component staff and the Blue Gold's gender experts on progress and constraints; and certain specific actual inputs by the (national) gender expert(s). The inclusion of gender indicators in each component's monitoring (see Annex 11.12) will both serve as a "reminder" to address gender issues and as yardstick for progress. There will be a close cooperation between the M&E experts and the gender experts to ensure the actual and meaningful inclusion of gender indicators in Blue Gold's monitoring and reporting.

Almost all gender related activities will be financed from the respective component budgets. A special gender budget will be made available for gender related activities that are not covered by regular Blue Gold component budgets. This gender budget will be used for activities like campaigning and motivating women to participate, separate women's meetings, experience sharing workshops and mentoring, short-term additional staff and networking.

Coordination with other field level programmes being implemented in the same polders will be pursued to reduce the risk of overlaps and to promote synergy in all aspects, including gender. In particular, this concerns Max Foundation (MF) and SaFaL. MF's drinking water supply activities are highly

complementary to Blue Gold's water management interventions and will be especially in demand by women. It is desirable that the planning of such activities will be done jointly and involving the WMGs to ensure a common and effective approach, also to reduce the risk of overloading women and men with meetings and sessions as well as the risk of confusion. Cooperation with the SaFaL may involve pursuing a similar gender approach for similar interventions. In addition, ways of cooperation will be investigated with one or more of the Dutch funded NICHE projects on capacity development in higher education which are implemented in Bangladesh and also include gender targets.

3.5.2.8 Sustainability and replication: challenges and measures

To sustain the achievements in the Blue Gold polders some level of continued attention to also gender perspectives will remain needed as part of the normal follow-up activities by BWDB after Blue Gold has ended and Community Organizers are not in place anymore to support the WMOs. Attention to gender issues, such as maintaining the minimum of 30% women representation in the Executive Committees of WMOs, should be a matter of course because BWDB's Guidelines for Participatory Water Management (GPWM) include such guidelines. In practice, however, the availability of sufficient BWDB staff with experience on social development and community mobilization (such as extension overseers) for follow-up of the functioning of WMOs (e.g. in case of conflicts) is a challenge, as is sometimes the limited awareness of BWDB staff on these guidelines. Moreover, the challenge is not to just maintain the quota for women's membership, but ensure their meaningful participation in leadership and decision-making.

A second challenge is the replication of a gender approach in other or future BWDB projects. The experience with the Blue Gold gender approach and lessons learned from gender mainstreaming in similar projects aims to lead to a more harmonized, efficient and effective approach. Evidence on the benefits of the gender approach needs to be collected, analysed and documented. Such evidence should convincingly demonstrate that the additional resources (i.e. staff and budget) required for a gender approach are outweighed by benefits in terms of increased (agricultural) production and income, in terms of better functioning WMOs and/or in terms of less tangible improvements such as improved status of women. Such evidence is disseminated to promote further replication of the gender mainstreaming. It is foreseen that towards the end of Blue Gold such evidence will be collected, either as part of the impact study and/or in an independent study.

3.5.3 Environment

3.5.3.1 Introduction

Environment plays a pivotal role in the Blue Gold program, as is aiming at developing water structures, water management and agricultural development, all of which will have potential effects on the existing environment. Construction of water management structures potentially impacts water quality, water availability, and soil quality (i.e. salinity of soils). Agricultural development initiatives have potential impacts on soil and water quality (i.e. effects from the use of pesticides), as well as water availability (i.e. intensifying crop production will require increased demand in fresh water for irrigation).

Any planned development activity with potential environmental impacts in Bangladesh by law is obliged to execute environmental scrutiny. To ensure environmental safety and protection, the Government of Bangladesh has proclaimed various environmental rules and regulations be complied with during implementation of development programs/projects; the Bangladesh Department of Environment (DoE), under the Ministry of Forest and Environment, is responsible for monitoring the environmental compliance.

Various environmental Policies, Acts, Rules, Guidelines have been declared by Government of Bangladesh. Some of the concerned are provided below:

1. Environmental Conservation Acts (ECA), 1995

The ECA is currently the main legislation relating to environmental protection in Bangladesh. The act is promulgated for environmental conservation, environmental standard development and environmental pollution control and abatement

2. Environmental Conservation Rules (ECR, 1997) and Amendments

These are the rules, promulgated under the ECA, 1995 and their amendments. The Environmental Conservation Rules, 1997 provide categorization of industries and projects and identify types of environmental assessment required under respective categories of industries/projects into 4 categories like (1) Green, (2) Orange-A, (3) Orange-B and (4) Red.

The categorization of industries/project determines the procedures of issuance of environmental clearance certificate.

According to ECR, 1997, construction of Flood Control and Drainage project has been categorized as 'Red'. According to ECR, 1997, 'Red' categories of industries /projects require preparation of IEE report followed by EIA report based on ToR approved by DoE along with EMP thereof.

3.5.3.2 Environmental consideration of the Blue Gold Program

In considering environmental aspects within the Blue Gold program, activities of two components in specific need to be taken into account, being the Water Resources Management Component (Component 2) and the Food Security and Agricultural Production Component (Component 3).

Component 2 of the Blue Gold Program will design, construct and fine-tune water management structures as to protect the people in the designated polders from various water related problems such as floods, droughts, drainage-congestions, saline water intrusion.

The program will also address water pollution, scarcity of pure drinking water, arsenic-contamination of drinking water, etc. and thus establishing a sustainable, safe and healthy living environment

Taking into account experiences from IPSWAM as well as the various objectives and issues stipulated in the Blue Gold program document, the following aspects have been identified to be key in determining potential damaging environmental impacts and related corrective actions:

- Water pollution; this is already a major issue in the polder areas, mainly because of improper operation and maintenance of the existing infrastructures and lack of awareness which causes saline water intrusion, leading to crop damage. Water pollution is also caused by improper disposals from sanitary latrines and other malpractices such as pesticide pollution (C-3).
- Scarcity of safe drinking water due to arsenic contamination is already a problem in many polder areas. Also, water scarcity for household and agricultural purposes is major limitation for improved livelihood and sound health which needs to be improved for attaining objectives of the Blue Gold Program.
- The salinity level of soils, which is an increasing problem, is a limiting factor for the crops and livelihoods of the polder population. Sea water level rise due to climatic change (global warming) is a critical factor potentially contributing increased soil salinity. This needs to be addressed during planning and designing of water management infrastructure.

Component 3 of the Blue Gold program will focus on improving agricultural productivity, which may include the introduction of new crops and new technologies. Environmental considerations include:

- Increasing agricultural productivity may have a significant effect on water use (i.e. for irrigation); there might therefore be more competition on the use of the already scarce availability of fresh water in the polders (competition for use by households (drinking water) or irrigation purposes).
- Increase in agricultural productivity potentially triggers increasing the use of fertilizers, and pesticides etc., which might significantly impact soil and water quality in the polders.

Important to notify is that it is critical to specify already existing environmental issues apart from environmental issues enhanced by the program activities. Hence, it is suggested to consider a baseline environmental situation in the polders, with existing environmental issues, as to determine to what level the planned activities play a direct role in enhancing environmental effects. For this matter, an environmental baseline studies/survey is to be integrated with the overall baseline survey (environmental status/trend, problems etc.) as outlined in 2.d of Table 3 (Steps activities and role of TA and BWDB in community Mobilisation and Institutional Strengthening). This is to be coordinated by the support from the environment team of consultants.

3.5.3.3 Formulation of Initial Environmental Examinations and Environmental Impact Assessments

For the planned water infrastructure works under Component 2, IEEs and/or EIAs will be required by law. An initial environmental workplan has been detailed in the following Table with regard to three different types of polders where Blue Gold program will be implemented.

Table 7: Detailed Draft Environmental Work Plan in Different Types of Polders

Type of work	Total area in the program (hectares)	No of Polders	Environmental Work Plan
Rehabilitation	25,000	5	<p>5 polders planned for rehabilitation program will require environmental studies and scrutinies like Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA).</p> <p>The IEE studies of the 5 polders will be carried out by the team of Environmental Expert and BWDB Environmentalist along with relevant Field Assistants. Preparation of Initial Environmental Examination (IEE) will include the following main issues -</p> <ul style="list-style-type: none"> • Description of Physical, Biological and Social environment • Project interventions • Anticipated environmental impact • Hazard/Risk and mitigation measures • Economic impact • Environmental Management plan • Environmental Monitoring Plan • Capacity building and training • Audit and follow up • Public consultation and information disclosure <p>After formation of WMOs, selected members will be trained on various environmental issues for awareness building and capacity building for sustainable environment in the polder areas depending on requirement.</p>

			If EIA is necessary for environmental approval from Department of Environment (DoE) which will be most likely out sourced.
Fine-tuning	90,000	12	<ul style="list-style-type: none"> ▪ These polders are rehabilitated by ECRRP and CEIP projects and needs to be reviewed in terms of environmental perspectives. ▪ No WMO has been formed yet. After formation of WMO's, awareness and capacity building training will also be provided on environmental issues. ▪ Formation of SEMP if not already done by ECRRP/CEIP.
Fine-tuning IPSWAM	45,000	9	<ul style="list-style-type: none"> ▪ Evaluation of current environmental conditions of the polders and status of IPSWAM's SEMP. ▪ Evaluation of the existing status of SEMP. ▪ Identify gap and take necessary action to update the SEMP in WMOs through refreshing training on sustainable environmental condition.
Total	160,000	26	

For the activities planned under Component 3, it is not compulsory to develop IEEs and/or IEAs as is the case for Component 2 activities. However, environmental considerations regarding the Component 3 activities do need to be included in the Sustainable Environmental Management Plans (SEMPs) in polders (discussed in the next section).

3.5.3.4 Formulation of Sustainable Environmental Management Plan (SEMP)

SEMP will be formulated at the third step of the six step approach of Blue Gold which will be followed by Blue Gold.

SEMPs will be formulated at the WMA level taking into consideration the existing environmental hazards (i.e. the baseline scenario) of the area. Steps to attain a sustainable improved environment will be undertaken through project implementation. In case there is no SEMP formulated in ECRRP/CEIP polders by these projects, a new SEMP has to be formulated. Gaps will be identified and necessary steps will be undertaken to mitigate environmental problems in these polders through training and Collective Action Plan (CAP) by which involvement of WMO members can be ensured to address any environmental hazard through a community participation approach.

In the IPSWAM polders, the existing SEMP will be evaluated along with their activities to identify any possible gaps, and to integrate agricultural activities and related environmental issues (as Component 3 activities are new in respect with IPSWAM activities). Relevant of Environmental Collective Action Plans (CAP) will be introduced in FFS level to take proper action whenever there evolves any environmental degradation for attaining sustainable environmental development in the polder areas.

The SEMPs will be established with participation of the WMAs, who are consequently responsible for carrying out most of the proposed activities stated in those SEMPs. Gender issues will be integrated in the SEMPs, both in the process and the identified actions (see Box 6).

Box 6 Gender in Environment:

- 6.1 The impact of environmental degradation is often more felt by the poor and by women as they are usually more dependent on (scarce) natural resources, though they can also be contributing to further degradation. For example, (poor) rural women often depend on locally available wood or other biomass available for cooking or on locally available fodder for their animals.
- 6.2 Men and women will be both targeted for environmental awareness building and for capacity building on how to reduce environmental degradation. As part of the Sustainable Environmental Management Plans (SEMP) environmental friendly improvements will be identified based on the needs and roles of men and women. Examples of options include improved cooking stoves, composting and tree planting.

The SEMP will cover the following:

- Environmental management planning and monitoring of Component 2 activities, based on the drafted IEEs and EIAs for the planned water structures construction/fine-tuning
- Plan of environmental actions, based on 'lessons learnt' from previous projects (i.e. IPSWAM, SWAIWRPMP and CDSP etc.) as well as environmental review studies and activities carried out in ECRRP and CEIP polders.
- Plan of environmental actions regarding Component 3 activities, based on environmental reviews and outcomes of water and soil quality tests, which are either carried out by Blue Gold staff or readily available from other organisations (i.e. World Fish, BRRI, SRDI)
- Plan of other environmental improvements based on needs of WMOs.

Furthermore, SEMP will indicate the need for training within the WMOs to strengthen them in their ability to carry out measures as presented in those SEMP. The type of trainings that will likely be taken into consideration include, amongst others:

- Tree plantation (with more emphasis to indigenous fruit and timber trees)
- Use of balance doses of chemical fertilizers
- Preparation and use of organic fertilizers
- Effects of use and handling of chemical insecticides and use of IPM/ICM
- Effects of drinking Arsenic-contaminated water
- Other training as felt necessary (in the area)

Many of these training activities may be integrated in the planned FFS trainings, under the Component 1 and 3 activities (section 3.1 and 3.3) in order to enhance capacity building of the program beneficiaries related to environmental aspects of the polders, thus establishing sustainability of environmental qualities.

3.5.4 Disaster Risk Reduction (DRR)

Stability in water and food security including crisis prevention and management is a key in achieving Blue Gold's objectives of poverty reduction and sustainable socio-economic development. The DRR approach in Blue Gold aims to contribute to reduce the vulnerability and increase the resilience of Blue Gold's target communities to natural hazards and climate change.

Bangladesh has two major strategies to deal with climate change: the National Adaptation Program of Action (NAPA), 2005 and the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), 2008.

These documents identified climate change as one of the important concerns for water resource management. The Netherlands embassy's Multi-Annual Strategic Plan (2012-2015) also identified climate change as one of the main drivers and underlying themes for their development activities in Bangladesh. Similarly, Alterra report on Preparation for the Bangladesh Delta Plan 2100 also stressed the need to an integrated vision and approach for land and water resource management to address the expected impacts of climate change. As a cross cutting issue climate change has negative impact on almost all the development sectors of Bangladesh. Key vulnerable sectors of the country includes: Agriculture, Water Resources, Human Health, Forest, Fisheries and Livestock, Infrastructure and Settlements. Climate change impacts, vulnerability and linkage with development in Bangladesh are shown in the Figure below (SPCR, 2010).

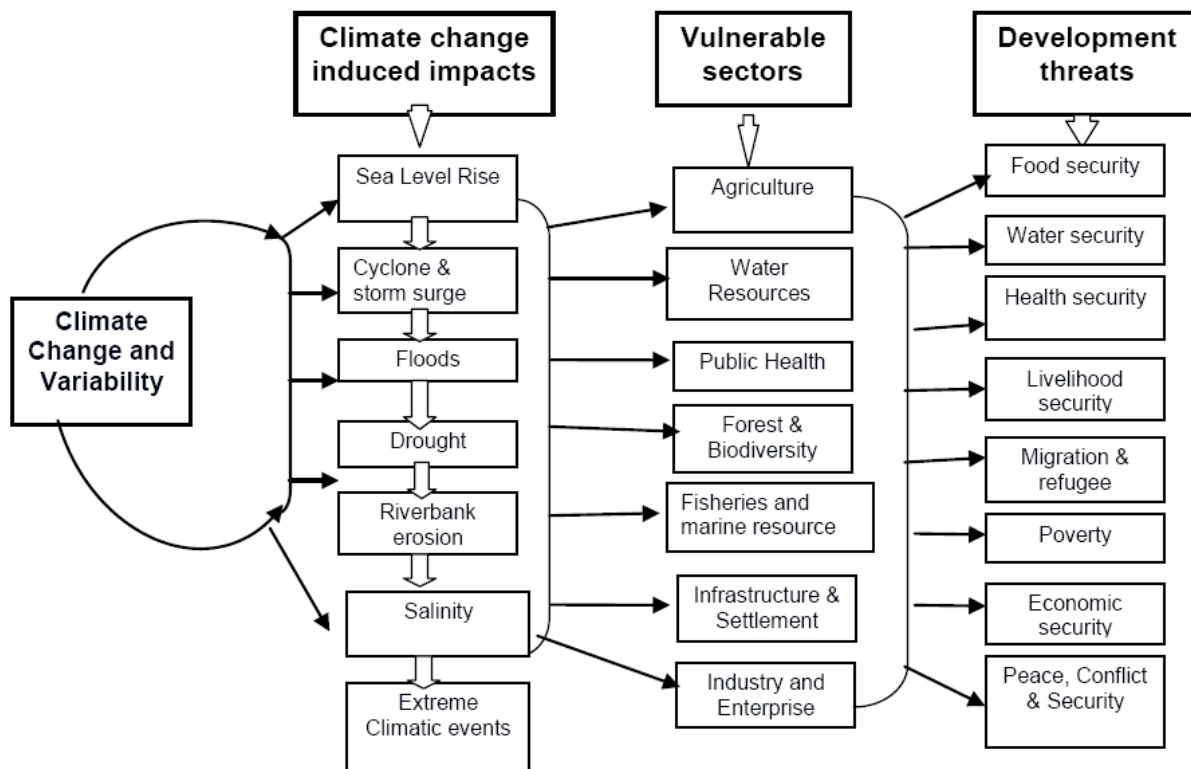


Figure 14: Climate Change Impacts, Vulnerability and Linkage with Development.
 (Source: Bangladesh: Strategic Program for Climate Resilience (SPCR), 2010)

The Blue Gold program will be implemented in the south western coastal districts where natural hazards are considered as recurrent phenomenon. Cyclone, storm surge, salinity intrusion, siltation, drainage congestion are some of the common natural hazards faced in this area. Section 1.4 and 2.3 of the Blue Gold program document clearly states that climate change is one of the main challenges for water resources and productive sector.

National Plan for Disaster Management (2007-2015) of Bangladesh considers climate change as a new dimension added to the existing community risk and vulnerability as they could substantially increase the frequency and intensity of existing climatic events (cyclone, storm surge, flood etc.). Many of the existing embankments built in 1960s and 70s are heavily damaged by recent cyclones. This is also because of the poor maintenance of the embankments. In section 3.2.10.1, it is mentioned that component 2 will address this issue by fine tuning and regular O&M of the embankments and other water infrastructures.

Also, component 2 will consider increased salinity level in river and groundwater which are limiting factors for increasing agricultural productivity.

As a cross cutting issue climate change and Disaster Risk Reduction (DRR) will be mainstreamed into the activities of the four components of Blue Gold.

There are two types of DRR measures: a) Structural Measures (e.g. dams, flood levies, ocean wave barriers, earthquake-resistant construction, and evacuation shelters) and b) Non-structural Measures (e.g. research and assessment, information resources, and public awareness programmes).

- **Structural Measures:** Coastal polders are integral part of disaster risk reduction (DRR) and climate change programs in Bangladesh. The program document states that BWDB will include the long-term consequences of climate change in the design parameters of the water infrastructure. Section 3.2.2 of the program document mentions that the assessment of climate change effects, establishment of required periodic changes in embankment height, and forecasting of periodic increase in polder salinity level will be the responsibility of the Component 2 team. All structural mitigation measures will be coordinated by the component-2 engineers with BWDB Design Cell. As mentioned by section 3.2.10.1, scope to promote disaster resilient structures (e.g. raised house plinth, raised and protected drying and storage sheds for agricultural products), rain water harvesting etc. will be explored in collaboration with component 2 engineers..
- **Non-structural Measures:** Main objective of the Blue Gold Program is to reduce the poverty of polder area by upgrading the socio-economic conditions. In order to increase resilience of the communities to climate related hazards, we need to focus on the non-structural measures like i) participatory disaster/climate change risk identification and assessment, ii) awareness and capacity building of WMOs through training on community-based adaptation (CBA) skill development, iii) explore scope to introduce climate resistant crops; sustainable drinking water sources etc. in collaboration with different components and other partners working in this sector.

CBA is a bottom up approach where community is the main entity to implement local adaptive measure. Blue Gold will provide training to build the knowledge and technical capacity of the community to implement CBA activities. Expertise from Comprehensive Disaster Management Programme (CDMP)²⁰ or other networks can be used for training purposes.

Some NGOs are working on DRR issues in Blue Gold polders. Scope to collaborate with these NGOs will be explored to strengthen the gap and to avoid any kind of duplication.

3.5.4.1 Work Plan for DRR Activities

DRR is a cross cutting and complex development issue. It requires public awareness, scientific knowledge, careful development planning, people-centered early warning systems and effective disaster risk management (DRM) mechanisms. Different policies of Bangladesh government demand that all development activities should mainstream DRR and climate change adaptation. The DRR expert will help provide and mobilize knowledge, skills and resources required for mainstreaming DRR/CC adaptation into the activities of Blue Gold. S(he) will work closely with the five components to mainstream DRR/CC

²⁰ CDMP: Comprehensive Disaster Management Programme of Ministry of Food and Disaster Management. It is a long term national programme funded by UNDP.

adaptation into the existing activities. This will include adequate attention to gender perspectives, keeping in mind that the impacts of climate change and other natural disasters often weigh heaviest on women and children because they lack means to cope (see box 7).

Box 7. Gender in Disaster Risk Reduction, including Climate Change Adaptation

- 7.1 Natural hazards, including climate change effects, often more affect the poor and women as they frequently have less means to cope with disasters. For example, women often are less reached by warning information, their evacuation is more difficult as they may depend on men and/or have to take responsibility for children and animals, and their domestic and child care burdens increase in times of disasters.
- 7.2 Men and women will both be involved in Community Risk Assessments (CRAs), training on disaster preparedness, and the development of Community Based Disaster Management (CBDR) strategies, also explicitly taking into account women's constraints and needs.

The concept of disaster risk reduction in Blue Gold is to minimize vulnerabilities and disaster risks throughout a polder, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of Blue Gold's objectives to reduce poverty and sustainable socio-economic development. The disaster risk reduction framework will be mainly composed of four fields of actions: 1) Risk assessment, 2) Education and awareness raising, 3) Reducing risk in key sectors, and 4) Disaster preparedness and response. Specific activities under these four fields are mentioned in the following table. These options for DRR will be addressed mainly through component 1 (Community Mobilization & Institutional Strengthening) and 2 (Water Resources Management). The DRR expert will work closely with component 1 to identify major natural and climate change related hazards and their impacts in village level using WMO's as information gathering source. District socio-economists and community organizers will provide necessary information and will be present at the WMO meetings during data collection. Cyclone, flood and storm surges are some of the main natural hazards faced in the coastal areas of Bangladesh. Many of the water related problems due to these hazards will be addressed by Component 2. DRR expert will work closely with this component so that the DRR issues are properly addressed. Blue Gold will focus on awareness building of WMOs on measures to be undertaken in pre-disaster, disaster response and post-disaster period to prevent, mitigate and cope with any water related disaster. These trainings will be organized in collaboration with the training team.

Specific activities to be undertaken by the DRR expert are detailed in the following table.

Table 8: Work plan of DRR activities

GOAL								
To reduce disaster losses, in lives and in social, economic and environmental assets of polder communities.								
EXPECTED OUTCOME								
Community people are better equipped to cope with the natural hazards and changing climate.								
Field of Action	Activity	Output	Year					
			1	2	3	4	5	6
Risk assessment: Identify major natural and climate change related risks and their impacts at village level from WMO's in cooperation with component 1 (Community Mobilization & Institutional Strengthening)	<u>Activity 1:</u> Data collection on DRR as part of the participatory, multi-disciplinary data collection) in collaboration with regional sociologist and community organizers. This is the 2 nd step of 6 steps approach of Blue Gold.	<ul style="list-style-type: none"> Checklist of major water related disaster and climate change related problems 	*	*				
Education and awareness raising: Awareness building of WMOs in cooperation with the training team on DRR and climate change issues.	<u>Activity 2:</u> Training of COs on DRR and climate change related issues. <u>Activity 3:</u> Training of WMO members on following topics- -Impacts of natural and climate change disaster -community-based disaster risk reduction (CBDRR) plan -community-based adaptation (CBA) By these trainings members will learn on different climate change adaptation measures and practical measures they can undertake in pre-disaster, disaster response and post-disaster period (see Annex 11.17, Indicative Training	<ul style="list-style-type: none"> Training manual WMO members are aware of practical DRR measures 	*	*		*	*	*

	Plan). Scope to collaborate with IUCN or BBC for building awareness of school student, teacher and WMO members for climate communication will be explored.							
Reducing risk in key sectors: Mainstream DRR elements in component 2 (Water resources management).	<u>Activity 4:</u> WMO members will be given awareness building training on how to take care of disaster reduction elements for efficient performance of water infrastructures. Problems like water logging, drainage, salinity will be addressed by the comp 2. However, suggestion from DRR expert in this regard will be taken into account.	<ul style="list-style-type: none"> • Training manual • WMOs members are better aware about how to address DRR for sustainable use of water infrastructure 		*	*	*	*	
Disaster preparedness and response: Development of community-based disaster risk reduction (CBDRR) plan	<u>Activity 5:</u> Develop CBDRR plan which will be part of the polder development plan (PDP). From CBDRR, relevant DRR issues will be included in the village action plan (VAP). <u>Activity 6:</u> Physical implementation of some DRR measures in collaboration with the innovation team if budget permits.	<ul style="list-style-type: none"> • Community based disaster risk reduction (CBDR) strategy • Physical implementation 			*	*	*	*

3.5.5 Water Management Fund and Production Support Fund

Additional supportive short studies and introducing innovative technologies and approaches to accelerate the development process in the Program area is one of the spearheads of Blue Gold. Two separate Funds are created within Blue Gold: the Water Management Fund with a budget of € 2,4 mln under Component 2 (water resources management) and the Production Support Fund with a budget of € 1,9 mln under Component-3 (agricultural production and food security).

In awarding initiatives under both Funds, we will opt in principle for sub-contracts with a maximum of € 50.000. Initiatives can be submitted during the whole Blue Gold period of 6 years. A bigger number of small sub-contracts give more flexibility than a few big sub-contracts. This way, new insights that emerge later on in the program can also be accommodated.

Additional supportive studies and innovations may emerge from other projects/programs or organisations in Bangladesh, or from Dutch (knowledge) institutions or enterprises. Each project proposal will be submitted to and scrutinised by Blue Gold on the basis of a set of selection criteria. The main selection criteria will be relevance for the objectives of Blue Gold, impact and cost. The set of selection criteria will be further developed jointly by EKN and the Blue Gold TA team in the Coordination Meetings. Qualifying proposals will be discussed in the Coordination Meeting for draft-approval. Official approval on the proposed sub-projects from EKN side will be done on basis of the minutes of the Coordination Meeting and will be sent to the consultant in written form.

After final approval by EKN the Head Office of Euroconsult Mott MacDonald will take care of procurement and contracting of the sub-project. The Blue Gold TA team will be actively involved in planning, guiding and supervising the implementation of the sub-project. This also includes provision of logistic and administrative support. Upon completion of the sub-project, the Blue Gold TA team will inform EKN and advise on approving of the outputs. After approval by EKN the Head Office of Euroconsult Mott MacDonald will proceed with payment of the invoices of the sub-contractor.

Some opportunities in the **Water Management Fund** include:

- Geodata for Agriculture and Water (G4AW)
- research results to maximise the use of available fresh water after the monsoon period (water storage and crop diversification);
- Building with nature in erosion control works
- Dredging technology and systems
- improved drainage by pumping, using renewable energy (solar, wind)
- Managed Aquifer Recharge techniques for small scale irrigation
- Study of siltation in the coastal area (Deltares and IWM)
- Web-based GIS/MIS (Lizard)

Some opportunities in the **Production Support Fund** include:

- cage fishing;
- saline tolerant rice varieties and other crops;
- Improved cropping system and technologies
- Support to strengthen extension services (Wageningen University)
- long term perspectives for cooperatives/WMGs to become sustainable business organisations
- long term perspectives for cooperatives/WMGs to become sustainable local waterboard authorities
- Mobile phones for training (audiovisuals on micro SD cards)
- Agro machinery
- Processing crop and fish
- Pilot study on fresh water pearls (WUR/Imares)

- Cooperative banking
- Crop storage, including cold storage

One example of an innovative approach is given below:

Office cum Storage Blocks for WMA's

The project has a provision to build a total of 250 multipurpose office cum storage blocks for WMA's (60 m²) under Component 1. However, during incidental inundations of the polder area crops or other agricultural products stored in the office/storage block may get damaged or even lost. In the context of Disaster Risk Reduction the possibility will be explored to construct storage facilities with the floor at embankment crest height (or slightly higher). The investigations will include adding a simple transport ladder or lift to facilitate storing of goods at the elevated floor level. If positive, the additional cost of the elevated structure and lifting gear could be covered by the Production Support + Innovation Fund under Component 3. Priority should be given to those polders where so far no or very few cyclone shelters have been built (such as Polder 22 in Khulna District).

Under separate EKN funding FAO has been charged with the design and construction of 6 Training Centres with Threshing Yards in the Blue Gold area. The Blue Gold team suggested FAO to discuss with the concerned WMA's whether these six training centres could be built at an elevated level as an additional DRR measure. Probably such an offer as part of the participatory process would also enhance the chances of land being made available to build the training centres and the drying /threshing yards. The results of and lessons learned from the FAO project will be used in fine tuning the approach for the 250 office/storage blocks for WMA's under Blue Gold.

Box 8 Gender in Innovations:

- 8.1 Selection of ideas, subjects and priorities for innovations will be done involving male and female key informants and/or WMO members.
- 8.2 The needs of men and women will be considered in selection and prioritizing, ensuring that there is a balance in how selected innovation subjects benefit men and women.
- 8.3 When developing new ideas, also potential roles of women (and men) will be considered, to enhance that especially women have also new opportunities beyond their more traditional roles. For example: cage fishing, eco-tourism and opportunities in higher segments of the value chain, such as processing for marketing.

4. PROGRAM MANAGEMENT

4.1 Cooperation with Government Agencies

4.1.1 Bangladesh Water Development Board (BWDB)

Cooperation with BWDB is laid down in the DPP for Blue Gold Program (BWDB Component): Program for Integrated Sustainable Economic Development by Improving the Water and Productive Sectors in Selected Polders, recast May 2013. BWDB will make a total of 38 staff available to the Blue Gold Program, of which 19 in Dhaka, 10 in Khulna/Satkhira and 10 in Barisal/Patuakhali.

BWDB is the executing agency of the Program on behalf of GoB. Within BWDB Blue Gold sits in DP-III. The Director of DP-III is the Program Coordinating Director (PCD) of Blue Gold. The PCD is the chairman of the Project Management Committee (PMC), which will meet at least once every three months. The Team Leader of the Blue Gold TA team will act as Secretary to the PMC. The first meeting of the PMC will be held after signing of the DPP.

Blue Gold endeavours to locate its project offices where possible at the premises of BWDB (in Dhaka, Khulna, Patuakhali and Satkhira) in order to optimise collaboration. As mentioned under 4.2, good progress is made in this respect.

Strong linkages exist between Blue Gold and BWDB zonal offices regarding planning, design, implementation and supervision of civil works in the polders that are executed as part of the Administrative Arrangement (AA) between GoB and GoN. An amount of EURO 15,750,000 of grant financing is allocated for the implementation of civil works through BWDB. Details of the cooperation at field level are given in Chapter 3.2, Component 2 Water Resources Management.

4.1.2 Department of Agriculture Extension (DAE)

Cooperation with DAE is laid down in a separate DPP: Transfer of Technology for Agriculture Production under Blue Gold Program (DAE Component), recast May 2013. The DAE project office in Dhaka will comprise five staff, including the Project Director. It is proposed to have bi-weekly coordination meetings between PCD (BWDB), PD (DAE) and TL/ DTL of Blue Gold.

An amount of EURO 995,000 of grant financing is allocated for the following activities that will be implemented by DAE:

- Organizing Training of Facilitators courses (for DAE staff and Farmer Trainers)
- Organizing Farmer Field Schools (crops and homestead related)
- Field days and demonstrations
- Support to farmer organizations (grants for farmer clubs).

Activities implemented by DAE are designed to be in support of WMGs under Blue Gold. This means that initially Blue Gold can only work in the 9 IPSWAM polders where WMO's have been established. Only gradually more areas with WMO's will become available. Eventually Blue Gold may not work in all the 25 Upazilas mentioned in the DPP of DAE.

Timing, location and topics of the FFS will be planned together with the Blue Gold Component 3 staff and require approval by Blue Gold management. In order to facilitate collaboration between DAE and Blue Gold, DAE has made one office room at DAE headquarters available for DAE/Blue Gold staff.

Detailed budget breakups are included in the DPP appendices. In some cases the budgets include costs and allowances that will have to be adjusted before implementing the FFS, depending on actual need and actual cost. Budgets also need to be harmonized where possible with other projects that implement FFS. DAE and Blue Gold will draft 'rules of the game' to specify how for each activity (i.e. TOF, FFS, field days, demos, workshops, motivational tours, grants to farmer groups, etc.) work plans and budget proposals have to be prepared. DAE staff members are – unlike BWDB staff – not on full-time secondment but on 'additional charges'. Therefore, the budget proposals will include expenses such as travel, mobile phone and internet allowances, which are not reimbursable under the DAE DPP budget, but will instead be borne by Blue Gold directly.

The budgets will be submitted by DAE and Blue Gold jointly to EKN for approval before implementing the activity. The 'rules of the game' will result in a Memorandum of Understanding (MoU) between DAE and Blue Gold, to be endorsed by EKN.

4.1.3 Other Government Agencies

Cooperation with other Government Agencies is not governed by separate DPP's, but is included as part of the DPP for the BWDB component.

- Department of Cooperatives (DoC)

The responsibility of DoC related to Blue Gold comprises registration, auditing, training and monitoring of WMO / cooperatives. These functions will be carried out by the District and Upazila offices of DoC. Close cooperation between DoC and Blue Gold is needed because of previous problems with registration of WMO's under DoC. Field visits during the Inception Phase as well as many comments from participants of the IR Presentation event on 26 June 2013 confirmed the picture that much is left to be desired regarding the continuous support to WMO's/ cooperatives by DoC after the termination of IPSWAM.

In order to try and revive the collaboration with DoC, registration of WMO's under the revised Cooperative Act, 2013 (see Annex 11.19) by DoC's new Water Management Cooperatives Monitoring Cell (the "Water Cell") will be pursued. Moreover, Blue Gold will facilitate the field work of DoC by providing some logistic support (motorbikes and running cost) and training and capacity building to DoC cooperative officers in the three Districts. Also, a budget is available to outsource (part of) the auditing of registered cooperatives, which may remove one of the existing bottlenecks.

- Departments of Fisheries (DoF) and Livestock (DLS)

Unlike DAE, the Departments of Fisheries and Livestock do not employ extension workers and their staff cannot be used as FFS organizers. Therefore, budgets for fish FFS and livestock FFS (200 each) are included in the budget for Component 3 of Blue Gold, as well as a small budget for office equipment to support their Upazila and District level officers. See Chapter 3.3.14

MOU's will be drafted with DOF and DLS, defining the cooperation between Blue Gold and these two Departments.

4.2 Steering Committee and Project Management Committee

Blue Gold needs to establish effective linkages with the Ministries of Water Resources (MoWR), Agriculture (MoA), Fisheries & Livestock (MoFL) and Local Government, Rural Development & Cooperatives (MoLG). Representatives from these Ministries will form an Inter-Ministerial Steering Committee (IMSC) to discuss progress towards achieving the objectives and advise on constraints observed. The main tasks of the IMSC are:

- Ensure coordination of the Program from the national level perspective
- Ensure harmonization of the different sector policies and strategies
- Facilitate actions required by the concerned ministries, departments and agencies
- Facilitate linkage with the Delta Plan – 2100

The Secretary, MoWR is the Chairman of IMSC. The PCD of Blue Gold is Member Secretary and a representative of EKN and the Team Leader of Blue Gold are observers. The IMSC should meet at least once per year. Details of the membership of IMSC are given in the DPP.

For coordination and smooth implementation of the program a Project Management Committee (PMC) is proposed. The PMC would be the central decision making body for implementation of the program. For details see DPP page 117.

4.3 Technical Assistance Team

The TA-team consists of international and national consultants, technical and administrative specialists and field and support staff. In addition to the full-time posts a number of international and national consultants will be deployed on short-term assignments.

Based on the requirements of the project as stipulated in the Terms of Reference of August 2012 and the findings of the Inception Phase, the original TA team has been slightly amended.

Table 9: Technical Assistance Team of Blue Gold

International TA staff (long term) 210 p/m	
Community Mobilisation and institutional strengthening	60 p/m
Water Resources Management / Team Leader	60 p/m
Productive sector development	60 p/m
Business development	30 p/m
International TA (short term inputs) 67 p/m	
Community development	15 p/m
Water Resources Management	14 p/m
Productive sectors	12 p/m
Business development & Institutional Strengthening	14 p/m
Results M&E	6 p/m

Headquarter support	6 p/m
National TA staff (long term)	
Community mobilisation and institutional strengthening component	
Community Organisation expert	1 * 6
Gender expert	1,5 * 6
Sociologist/cooperative expert	1 * 5
Senior Socio-economist	1 * 6
Socio-economist	6 * 6
Water Resources Management component	
Quality Control Engineer / Deputy Component Leader	1 * 6
Irrigation agronomist	1 * 6
Field Mechanical engineer	1 * 6
Civil engineer water infrastructure	3 * 6
Irrigation/drainage engineer	3 * 6
Field Quality Control engineer	4 * 6
Quantity Survey engineer	1 * 6
Reimbursement engineer	1 * 6
Quantity Survey and Reimbursement Assistants	2 * 6
Food Security Component	
Agriculturalist	3 * 6
Livestock specialist	1 * 6
Fisheries expert	1 * 6
Mechanisation/processing expert	3 * 6
Master trainers	4 * 6
Business Development	
Private sector expert	2 * 6
Business Development Coordinator	3 * 6
Marketing expert	1 * 5
Financial Investment specialist	1 * 5
Women Affairs expert	0,5 * 6
Value chain expert	1 * 6

Program management	
National Project Coordinator / Deputy Team Leader	1 * 6
Institutional/legal expert	1 * 5
Training Expert	1 * 6
Environment expert	1 * 5
DRR expert	1 * 5
M&E expert	1 * 6
M&E assistants	2 * 6
Communication expert	1 * 6
ST expert pool	1 * 6

Full details of the TA team of consultants can be found in Annex 11.3, Revised Staffing Schedule.

In addition to the above TA team, budgets are available for hiring of 3355 p/m community organisers and 616 p/m field investigators under Component 1 and 1156 p/m FFS facilitators under Component 3.

Regarding the community organisers it is not yet possible to predict whether the 3355 p/m will match the requirements. On the one hand the numbers seem largely sufficient for the purpose. On the other hand the fee rate level for the CO's – who play a crucial role in the process of community organisation and the establishment of WMO's – will certainly not be sustainable for the full six years. It is therefore proposed to adopt a flexible approach towards the number and remuneration of the CO's while remaining within the budget ceiling for this budget line.

The Inception Phase team also paid attention to the composition of the support staff team in Dhaka and the field offices. It was observed that insufficient provisions were made to cope with the extensive administrative burden related in particular to procurement of goods and tendering of services (for outsourcing of surveys, studies and innovation funds allocations). Also, a provision for an adequate level of IT-support appeared to be lacking.

It was decided to add a) an assistant IT manager and b) a Finance & Admin Officer to the support staff team within the available overall budget.

4.4 Project Offices

The (Deputy) Component Leaders of the TA team are based at the premises of DP-III at Motijheel in Dhaka. The Project Coordinating Director (PCD) and his staff occupy the 7th floor of this building. The 8th floor including all basic furniture and the well-maintained old IPSWAM library was kept available by BWDB for the TA team. Some repair and refurbishing work was carried out, paid from the budget for office cost. Part of the 8th floor however is still in use by an ADB PPTA Team on a temporary basis. It is expected that by the end of July 2013 the whole 8th floor space (except for one room for the BWDB XEN of DP-III) will be handed over to the TA team. However, there are some serious concerns regarding the building's safety (lack of fire exits and poor maintenance of elevators).

In addition, the Project Director of DAE has kindly made one room available at DAE headquarters at Farmgate for Component Leader 3 (Food Security) and some of his staff. Here too, some refurbishment will be carried out paid from the budget for office cost.

Unfortunately, during Hartals it is not possible for the international experts to travel to the office in Motijheel. In order to minimise disruption of the work EKN approved rent of a fully equipped room at the Mott MacDonald office in Gulshan-2 to be used during Hartal days.

Most of the TA team will be field based. In each of the three Districts of the Blue Gold area an office will be set up to coordinate and manage the project interventions. Office space in the Districts will be made available by BWDB, using the existing O&M Divisions of BWDB at Patuakhali, Khulna and Satkhira.

In Khulna the old IPSWAM office consisting of four rooms of about 15 m² each at the first floor of the existing BWDB office has been handed over to Blue Gold. Unfortunately it appeared that major repair works are required to provide safe working space for the project staff. The repair works are provisionally estimated at approx. EURO 15,000 (15 lakhs taka). Similarly, in Patuakhali the old IPSWAM office at the BWDB premises is made available for the Blue Gold team. In this case no major repair works are required, as the building has only a ground floor. In both cases, new furniture including AC's and a small power generator or IPS will be procured shortly. In Satkhira steps to acquire office space for Blue Gold will start at a later stage.

It is anticipated that the Khulna office will become the main hub of Blue Gold. Khulna is centrally located in the project area with Patuakhali at 4 hrs drive distance and Satkhira at 1,5 hrs drive. Travel from Dhaka to any of these places is costly and time consuming. The currently available office space will be insufficient in the long run. Renting of additional office space in Khulna town has proven to be difficult, mainly because of lack of secure storage and parking space for cars and motorbikes. Blue Gold has therefore started technical investigations and discussions with the local BWDB staff to find a solution. One of the options is to knock down an old and obsolete go-down at the BWDB premises and construct a new two storeys building in its stead. The advantage of such a solution is that the building would be made to good use by BWDB after the closure of Blue Gold. At the end of the Inception Phase all options had not yet been evaluated.

4.5 Cooperation with other projects, organizations and programs

A large number of stakeholders are engaged in the coastal areas. Blue Gold will link up with them as much as practicable to join forces and avoid duplication. First and foremost come the programs funded by EKN and active in the Southwest coastal areas:

SAFAL	Implemented by Solidaridad for value chains (Khulna District).
Max Foundation	Max Value for WASH (Patuakhali District)
BRAC	WASH II (Khulna District)
UNICEF and Acacia	Managed Aquifer Recharge - MAR
FAO	Enhancing Food Security through Crop Water Management (Khulna District)
ICCO / iDE	Market-based solutions for improved food and nutrition security (PROOFS)
Southwest Project	(co-financing with ADB) for WMO's and collective action plans

Important for tackling climate change issues (developing new design standards, sharing increased cost of infrastructural works, awareness creation) are projects like:

WMIP	Water Management Improvement Project
CTIIP	Coastal Towns Infrastructure Improvement Project
CCRIP	Coastal Climate Resilient Infrastructure Project
CEIP	Coastal Embankment Improvement Project
MDSP	Multipurpose Disaster Shelter Project

For cooperation in the field of food security, agricultural production and business development Blue Gold will establish working relations with (amongst others):

RED	Rural Enterprise Development (part of MIDPRC)
Nobo Jibon	(Save the Children) – food security in Barisal Division
ASPS	Agricultural Sector Program Support (DANIDA)
AGEP	Agriculture Growth and Employment Program (DANIDA)
CGIAR	Consultative Group on International Agricultural Research (WorldFish, CIMMYT and IRRI) – several projects
FtFAq	Feed the Future Aquaculture (USAID) through WorldFish

4.6 Project Resources

According to the Administrative Arrangement of 20 February 2013 between the Government of the Netherlands and the Government of Bangladesh the following contributions are made available:

Contribution of GoN:	EURO 15,750,000 + EURO 995,000 + EURO 33,100,000 = EURO 49,845,000
Contribution of GoB:	EURO 7,499,000 + EURO 356,080 = EURO 7,855,080

4.7 Reporting, annual reviews and intermediate reviews

After consultation with EKN it was decided to align the technical and financial project reporting schedules of Blue Gold with the calendar year and with the Bangladesh financial year. Consequently, Blue Gold will submit the following reports to EKN and the PMC:

- (Draft) Inception Report in July 2013
- Annual Plans covering the period January – December of each year; the first Annual Plan is covered by the Inception Report. The annual plan for the year 2014 is due by mid-December 2013.
- Six-monthly progress reports (technical and financial), covering the period January – June and July – December respectively. The Inception Report is the first progress report and covers the period 15 March 2013 – June 2013
- Annual Audit Reports, covering each calendar year, the first to be submitted in May 2014
- Project Completion Report (technical and financial), covering the period 15 March 2013 – 14 March 2019 and to be submitted before 15 August 2019.

Moreover, the following specific reports will be prepared:

- Baseline survey for each polder, with repeat surveys every two years
- Village Action Plans
- Polder Development Plan for each polder, including (see Step 4 of the Polder Development Approach):
 - WMO Strengthening Plan
 - Water Resources Management Plan
 - Sustainable Environmental Management Plan (SEMP)
 - Agricultural Production Plan
 - Business Development Plan
 - Gender Action Plan (GAP)
 - Development Growth Scenario

It is important to maintain maximum flexibility in work programs and budget allocation to the different components and activities. In order to facilitate re-allocation of resources if deemed necessary by the Blue Gold TA team it is planned to conduct standard annual reviews at the end of year 1, 3 and 5 and more comprehensive intermediate reviews at the end of year 2 and 4. During the second intermediate review mission it may be decided to introduce the participatory polder development process outside the three Blue Gold Districts.

4.8 Work plans

Detailed work plans for year 1 (2013) and part of year 2 (2014) for each component are included in the chapters of the different components (Chapter 3) and summarized in Annexes 11.7 – 11.11. Based on these component-wise work plans a revised consolidated overall work plan has been drafted and included in Annex 11.2.

In November/December 2013 a work plan for year 2 (2014) will be produced and submitted for approval to EKN. It is the intention to introduce later this year MS Project as overall planning tool.

5. INSTITUTIONAL STRENGTHENING

5.1 The Concept of Institutional Strengthening

Institution is more than organization

Institutional strengthening is about increasing the capacity or ability of institutions to perform their functions in cooperation with their stakeholders. There is mostly a particular focus on improving (good) governance. This regards meaningful and goal oriented steering, effective organizing and managing the relevant processes, transparent accountability and overseeing or controlling the outcomes. One of the important steps towards achieving the goals of the Blue Gold program is to strengthen the capacity of national governments, non-governmental organizations and local communities to promote institutional and human capacity development.

Conceptually speaking an institution refers to the complex interplay of norms and behaviors that have become established and continued to be applied and adhered to over time. Institutions are stable patterns of behavior that are recognized by society. Institutional strengthening or development is the initiation of change in these patterns in society which mostly go beyond the boundaries of a single organization.

This means that abstract concepts such as "the law", "policymaking", "organization" and "cultural norms and behavior", "mindset" all fall within the parameters of institution. A good and common definition of 'institution' is in this respect: *'complexes of norms, behaviors and mindsets that persist over time by serving collectively valued purposes'*.

Using this definition, a distinction can be made between concrete and abstract institutions. Concrete institutions are organizations that have acquired a certain degree of value and stability, so that they may be called durable. They include e.g. government agencies, NGO's, cooperatives. These are entities that are commonly valued and have durability. So concrete institutions are the actors involved in a certain (development) setting. Analysis of their position and (potential) role is of great importance in the design of development interventions.

Abstract institutions are durable and commonly accepted arrangements like the law, budget system, the market system, unwritten social rules, mindset and organization culture. The acceptance may be based on an agreement, common understanding in society, a contract, or even force. The abstract institutions are the factors influencing the setting. They set the boundaries for development activities. In designing interventions they are to be seriously taken into account as their effect on development activities can be of great importance.

A working definition of Institutional Strengthening (IS) is the following: *'The creation or reinforcement of a network of organizations and optimization of the relevant factors which are required or supportive to attain specific objectives on a sustainable basis.'*

So institutional Strengthening is all about the creation or reinforcement of an active and supportive network of organizations with their factors as laws, policies, mandates and tasks, behavior, mindset as well as resources. This regards the institutional environment (network of actors and factors) in which the development intervention takes place. Sustainability of development activities depends to a large extent of the quality of embedding in and making use of the potentialities of such an institutional environment while inertia and obstacles need to be addressed.

5.2 Institutional Context of the Blue Gold Program

Institutional strengthening within the scope of Blue Gold relates to the project team with its strategies and actions in relation to the actors and factors in or connected with the targeted polders. The Blue Gold program, with its participants, plans, tools and activities needs to be embedded in a strong supportive, productive and critical setting. In the methodology with the 6 step process, institutional strengthening is a cross cutting issue and forms a parallel process. This means that every step has to be viewed and analyzed from a point of view of the 4 components for optimization of the network of actors with pattern of behavior and involved factors. Input from the components needs to be included in the institutional strengthening strategy and actions.

Institutional strengthening is during each step to be approached as multi-level government challenge in which the following levels play different roles:

- National level – Ministries
- Division level – Khulna Division (Khulna, Satkhira); Barisal Division (Patuakhali)
- District level – Khulna District, Satkhira District, Patuakhali District
- Local level – Upazilas, Unions, local communities.

Next to that roles will be played by:

- NGO's
- knowledge institutions
- private sector organizations.

Many things can be shared and compared with or learned from other relevant projects as CDSP IV, IPSWAM and SWAIWRPMP experiences, WMIP.

Acts, laws, rules, regulations and guidelines as well as policies and plans form important factors of the institutional framework in the Blue Gold context. A topical but tentative overview is presented below.

Policies and Plans
<p>General Level</p> <ul style="list-style-type: none"> -Outline Perspective Plan (FY2011-FY2021) -Sixth Five Year Plan (FY2011-FY2015) -Country Investment Plan (CIP, 2006) -Second Poverty Reduction Strategy (PRS, 2009) -National Environment Policy -Bangladesh Climate Change Strategy and Action Plan (BCCSAP, 2009) -National Land Use Policy (NLUP, 2001) .. <p>Water Management</p> <ul style="list-style-type: none"> National Water Act (NWA, 2013) BWDB Act 2000 Water Planning Act, (1992) National Water Policy (NWPo, 1999) GPWM, 1999;

IPSWAM, 2008
 National Water Management Plan (NWMP, 2004)
 Integrated Coastal Zone Management Policy and Plan (2005)
 National Plan for Disaster Management (NPDM, 2008-2015)
 Dredging Master Plan
 Bangladesh Inland Water Transport Master Plan
 Coastal Embankment Improvement Plan (CEIP, 2013)
 Flood Action Plan (FAP 4 South West Regional Plan and FAP 7 Coastal Area)

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Productive sectors

-National Food Policy (NFP, 2006)
 -The Masterplan for Agriculture Development in Southern Delta (2012)
 -National Agriculture Policy, NAP, 1999, 2013!
 -National Fisheries Policy (NFP, 1998)
 -National Livestock Development Policy (2007)
 -National Poultry Development Policy (2008)
 -National Extension Policy (2013)
 -National Forest Policy (2008)
 -Social Forestry Rules (2004)
 -National Rural Development Policy (NRDP, 2001)
 -Microcredit Policy
 -Cooperative Society Act (2013)
 -Cooperative Society Rules (2004)
 -Bard Ordinance (1989)
 -RDA Ordinance (1990)
 -Road Transport and Traffic Act (2012)

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5.3 Institutional Strengthening Strategy

Issue Agenda

At this stage of inception, the institutional strengthening strategy can best be formed as an issue agenda. On this agenda meaningful issues will be listed, need to be elaborated on the involved actors (including mandates, roles, responsibilities) and factors and positioned in an action plan. An Issue Agenda normally focuses on issues causing problems or even risks for the project. Attention should also be paid to issues placing Blue Gold in a ‘downwind position’, e.g. by searching for opportunities and synergies, creating a positive image.

Push – Pull Strategy

In connection with this, the institutional strengthening strategy to be followed in the Blue Gold setting will show a push – pull approach. This means that institutional strengthening will be initiated, promoted and supplied by the project team and on the other hand will be asked for by beneficiaries and / or stakeholders. This mix of supply and demand or need based approach is important to directly address the needs for strengthening and capacity building from the people in the field, WMG, WMA and / or involved stakeholders. On certain issues the project team will have to act proactively and ‘push’ (initiate, raise awareness of benefits, promote, troubleshoot, mediate) to streamline a process or to solve institutional problems of involved actors and factors.

Strengthening and capacity building approaches may be characterized as follows:

1. tempting to act: positive narratives, appealing examples, promising resources: the ‘carrot’
2. convincing to act: evidence based argumentation: the facts and figures
3. learning to act: training, building knowledge, insight and understanding
4. forcing to act: enforcement, influencing people, demanding compliance, using power play.

The strengthening and capacity building activities will, depending of the approach (or a mix of approaches) chosen, address issues regarding involved actors and factors in relation to the Blue Gold strategy and will have several forms, like:

- frequent communication and interaction, if needed based on a MoU
- sharing of information / data
- linking Blue Gold where effective / efficient with other programs or initiatives
- coordination of programs and activities,
- supply of dedicated provisions or resources
- various forms of training incl. learning by doing, study trips (use of showcases)
- joint identification of bottlenecks or risks, solving these e.g. by streamlining of procedures
- clarification or elaboration and specification of policies, plans
- taking initiative to modify policies, rules or regulations if required in Blue Gold
- organization and management interventions: structural, cultural, by trainings and support
- making use of or building on existing competencies, groups, networks
- mechanisms for making an appeal, for compliance; mediation, negotiation.

Situational analysis is important to identify the real needs for strengthening and come up with adequate solutions. When a group of people or organizations is strengthened in this way and is capable, they will be able to coordinate, influence and balance the economic, political and social factors that shape their further development. The major assumptions being made for the IS-strategy therefore are:

- Building institutions and competencies is in the long-term interest of the targeted people;
- Blue Gold objectives can only be achieved through collaboration and partnership with the key stakeholders meaning that joint action and coordination will play a key role;
- IS is about combining and optimizing actors and factors, involving technical, methodological and social competencies;
- The relationship with cultural norms and values is complex but essential;
- A long-term perspective and engagement will be required;
- Neither a single approach nor a single agency will achieve the desired objectives;
- A Blue Gold blend of water management and food security approaches is required to integrate the IS strategy, to share insights and understanding and to coordinate actions.

IS itself is a cross cutting issue with ongoing process

Against the background of above mentioned points, institutional strengthening will follow a strategy as ongoing process, in close collaboration with the components 1 – 4, with the following three focus points:

1. Initial institutional analysis and arrangements during step 1 and 2
2. Institutional strengthening during and after community mobilization during step 3 and 4
3. Consolidating commitments, strengthening for sustainable performance during step 5 and 6

These focus points will be explored in the next paragraphs.

5.3.1 Initial institutional analysis and arrangements during step 1 and 2

Initial analysis and arrangements consists of:

1. Exploration of the network of most important actors and the relevant factors. This is required to get a clear view of mandates, roles and positions in relation to Blue Gold;
2. Diagnostic analysis of this exploration indicates which actors and factors are supportive to the Blue Gold objectives and which need attention or even may form risks for progress in certain project components; this will deliver issues on the issue agenda;
3. 'Clearing the way', this means joint (project member and actors) identification of issues and composing an issue agenda to prioritize issues, manage risks or to solve problems and by doing that developing a supportive institutional environment.

Special focus is required on (possible) cooperation issues with BWDB, DAE, DoF, DoL, MoEF (Forest Department), Division of Rural Development and Cooperatives and the other government levels. With these organizations a set of requirements or conditions for durable cooperation and or good governance needs to be defined and agreed upon. From an analysis so far, the next issues give a first impression of what will be on the Issue Agenda:

MoWR – Bangladesh Water Development Board (BWDB).

The BWDB is a large organization focused on integrated water resources management. It is divided in Zones and Circles with zonal and local offices.

In general it should be clarified what importance EKN gives to institutional strengthening of BWDB. With the large Blue Gold investments going through BWDB, further institutional strengthening and capacity building are foreseen (as already discussed together with PD, Chief Training and DG) on:

- implementation of IPSWARM guidelines and related planning methodology will be required;
- training needs of Water Management and other with Blue Gold involved staff have to be assessed in cooperation with Chief Training especially focused on e.g.:
 - o aspects of participatory water management from the point of view of WMOs interests, Blue Gold objectives and practices, in relation with IPSWARM guidelines and the interests of BWDB
 - o development of productive sectors, basic elements of the value chain
 - o orientation on what can be achieved in the targeted polders and what registration and cooperatives will mean in that respect.
- the BWDB Cell for Participatory Water Management is not active due to shortage of man power and resources. This Cell is meant to maintain the IPSWARM guidelines and related planning methodology and to build and strengthen the competencies of participatory water management within BWDB. This issue was discussed with DG BWDB, Chief Planning and PD Blue Gold with the outcome that for the time being the Blue Gold Program, planning staff, could form the Cell and needs to be trained to that. As soon as the need based manpower setup of BWDB has been approved, BWDB takes care of incorporating and developing the Cell in close cooperation with Blue Gold.
- Gender issues as presented in Box 9

Box 9 Gender in Institutional Strengthening of BWDB:

9.1 The BWDB's Gender Equity Strategy and Action Plan 2006-2011 (GESAP) will be reviewed, achievements and gaps discussed and an updated. The BWDB Gender Equity Strategy will be updated through workshops and consultations. An action plan will also be attached for guiding the implementation of the Strategy. Blue Gold will support the dissemination of this strategy, also among other projects, e.g. by putting this on the agenda of network meetings.

9.2 The implementation of BWDB's gender strategy will be supported, such as better integrating a

gender approach in BWDB's work; promoting the employment of more female staff, including in higher positions and providing facilities for also women in BWDB's offices. Together with BWDB Blue Gold will monitor / document evidence of implementation (which is a gender indicator in Annex 11.12).9.3 The Blue Gold gender approach –in particular the lessons learnt and best practices- will be enriched with lessons learnt from other similar projects, ensuring that gender approaches become more harmonized where opportune. Such a “harmonized” gender approach will be further disseminated within BWDB to enable replication in similar projects.

Related issues of BWDB are the following, of which some could be addressed by Blue Gold:

- Proper staff mix in the BWDB

IPSWAM took care to develop a well-integrated multi-disciplinary team which fully understands the 'IPSWAM concept' and could apply it in a carefully coordinated step-by-step implementation program. In this new context BWDB emerges as a multi-disciplinary organization. To cope with the new concept in the permanent setup of BWDB provisions should be made for further inflow of staff for the post of sociologists, environmentalists, community organizers / extension overseers, trainers etc.

- Project Proforma / Development Project Proposal (DPP)

'Participation' is the core of the 'IPSWAM concept'; this means that, in a sub-project, the details of rehabilitation works can only be elaborated after an extensive participatory planning exercise. However, current BWDB-centralized planning practice demands that all details must be specified before project approval. These two practices are incompatible and the solution lies in a program approach in which initial financial budgeting is carried out on a broader scale allowing for flexibility in participatory implementation. This issue needs to be addressed and discussed with the relevant authorities and departments to find an appropriate solution.

- Operation and Maintenance (O&M)

The IPSWAM program drew systematically on the experiences of past projects which had demonstrated that establishment of beneficiary water management organizations on the principles of the GPWM is very well possible when sufficient time, resources and commitment of the institutions involved has been ensured. On the other hand, O&M of the major water management infrastructure often appears to be the main bottleneck in achieving long term sustainability of the schemes. That is why the IPSWAM program specifically focused on addressing this problem.

Hence, in line with the GPWM, IPSWAM developed the O&M agreement which specifies the roles and responsibilities of the WMO and BWDB with regard to O&M and devoted a lot of time in capacity building of the WMOs and BWDB-staff to cope with their changing role in effectively implementing and managing subprojects. This has led to initial successes in places where WMOs take up responsibilities for O&M and carry out related activities by themselves. In case of problems, an appeal procedure or enforcement mechanism could be useful; possibilities for this should be explored.

It is further noted that the more developed WMOs are gradually creating financial resources, which could be used in future maintenance activities. This could be further enhanced if BWDB property is handed over and leased out to the WMOs (as foreseen in the GPWM and National Water Policy) and O&M agreement, and could provide them with additional sources of income (See Chapter on Component 2 as well). So far however, not much headway has been made in this area, amongst others as a consequence of institutional problems regarding ownership of property. This issue needs to be addressed.

- O&M budget and financial framework

The O&M agreement which is signed between the WMA and BWDB before the rehabilitation investments are initiated, stipulates the responsibilities of both partners in the operation and maintenance activities. In

general terms this means that the responsibility for operation and routine maintenance are transferred from the BWDB to the WMO as described above. The BWDB however remains responsible for periodic and emergency maintenance.

Since GoB is striving to come to sustainable water management it is crucial that both partners respect the agreed responsibilities under the O&M agreement. The initial results in the field give a positive impression, in the sense that the WMA are indeed taking their responsibility and are involving themselves in the routine maintenance activities mainly through labour and other contributions in kinds and occasionally through financial contributions.

On the part of the BWDB however there are still several issues related to sustainable O&M, including the budgeting process (from estimation, proposal, approval and issuance of the required funds), which are not properly understood. It is therefore not known whether the BWDB will be in a position to provide the required funds to the handed-over polders on time and at the proper quantity. Until the fund allocation for O&M is streamlined, attention needs to be focused on ensuring that sufficient funds are made available for the completed sub-projects (in line with the O&M plan that was prepared in consultation with BWDB and WMOs). The IPSWAM program made a start with estimating the realistic requirements for operation and maintenance for the various polders; this could be verified, reviewed and worked out in more detail in consultation with BWDB as part of institutional support in Blue Gold.

- Income from trees along the embankments

For roadside plantation the Forest Department (FD) of MoEF forms for every 2 km plantation (1 km road) a Social Forestry Group (SFG), whose members have to reside within 500 m from the road. The only exception is made for destitute women who might have their residence even further away from the road side. The group's membership consists of 25 to a maximum of 30 members. Each group elects or selects a nine member executive committee. Prior to group formation several discussion and awareness raising meetings are held with the community members to inform them on the reasoning for SFG formation and their possible involvement. The SFG receives training by the FD on plantation, maintenance of trees, the rules of sharing benefits, etc. The FD signs an agreement with the SFG, which states, amongst other things, the responsibilities of the SFG to look after the trees and the rules of benefit sharing. The SFG can make use of the produce from pruning and trimming however an important point of the agreement is that the trees will not be sold before the age of 10 years. The latter seems to be the main reason for the community members to be a member of the SFG. After the second year of replanting and gap filling there seems to be little follow-up by FD to these groups.

The FD implements embankment plantation under the same policy as roadside plantation and thus anticipates that a similar agreement and distribution of benefits will take place with the Social Forestry Group (whose members have to reside within 500 m from the road. The only exception is made for destitute women who might have their residence even further away from the road side. The group's membership consists of 25 to a maximum of 30 members.) Each group elects or selects a nine member executive committee as is the case under roadside plantation namely: 55% of the proceeds of the tree harvest goes to the SFG; 10% to the FD; 20% to the owner of the land (which in this case will be the BWDB); 10% to the Tree Farming Fund (to cover part of the replanting costs) and 5% to the Union Parishad. Application of this policy however contradicts with the way BWDB currently perceives embankment plantation activities in line with the National Water Policy, as described in their Guidelines for Participatory Water Management (GPWM) and operationalized through the integrated planning for sustainable water management approach developed by the IPSWAM program. In these guidelines it is stated that the management of schemes over 5000 ha is a joint responsibility of BWDB, LGI and WMOs. As part of the participatory water management planning process the WMG in consultation with the BWDB develops an embankment management plan. The BWDB thereafter leases out the land of the embankment to the WMG so that it can gain some income from the plantation established with the help of the FD and intercropping, as part of its contribution to the regular O&M costs.

As mentioned above the land on both sides of an embankment is acquired by the BWDB and owned by it. All decisions relating to leasing and distribution of benefits should be made by the BWDB. The Forest

Department may only provide technical advice on plantation. However, the Forest Department is leasing out such land to other organizations and not to the WMOs. In CDSP IV, the Forestry Groups are different from the WMOs and they are deprived of a good source of revenue. But they are the people who, single-handedly, have to maintain the water resource infrastructures. The MoWR should negotiate with the MoEF to change the relevant paragraphs of their Forestry Guidelines thereby vesting the BWDB with full control of this land. If this is not agreeable by that Ministry, then the MoWR should bargain that the Forest Department leases such land to the WMOs only and allow them to appropriate their own share of 55% as well as that of the BWDB's share of 20% it gets as owner of land.

MoWR – WARPO

WARPO was as clearing house for macro water planning involved in the clearance of the Blue Gold program in an earlier stage. In line with WARPO's tasks, WARPO is interested to share its data base with Blue Gold and wants to be informed about the progress and outcomes of Blue Gold. WARPO will in its monitoring and evaluation approach process this information and report regularly to Executive Commission of the National Water Resources Council (ECNWRC) to which they form the Secretariat.

MoA – Department of Agriculture Extension

A separate DPP was made for Transfer of Technology for Agriculture Production under Blue Gold program (DAE component). DAE's Project Director is very familiar with the Farmer Field School (FFS) approach and DAE is fully committed to the Blue Gold Program. DAE however may have a preference to make one uniform type of FFS, while Blue Gold is looking for more flexibility, for example by including "advanced FFS". The FFS concept is not new. FFS have already been used in DAE since 1995, and the FFS program has been expanding over the years and is now very large. DAE implements not only the DANIDA FFS program, but has also its own (GOB funded) IPM project, which runs many FFS and which also has Training of Trainers courses to develop DAE staff as FFS facilitators. Reportedly, by now every Upazila has at least a few staff trained to run FFS. Also other projects in DAE (such as DCRMA) have FFSs and work with clubs that were formed from FFSs. Even projects that not use the term "FFS" are using the group approach and work with similar participatory training methods. DANIDA works almost country-wide in this area.

Institutionalisation of FFS has been discussed often, but no formal guidelines have been made so far. Following the Blue Gold concept and strategy, FFS could function as subcommittee of a WMG or grouped along its subsectors focusing on the specific competencies of this FFS within the WMG.

MoFL - Departments of Fisheries and Livestock

The main functions of the Ministry of Fisheries and Livestock are to preserve fisheries resources, fulfill the requirement of animal protein through proper management and planned development, increase socio-economic conditions of fishermen, create employment opportunities for rural unemployed and landless people, expand foreign exchange earnings by exporting fish and fishery products and to innovate new technologies through research for fisheries development and preservation.

MoUs will probably be established with Department of Fisheries and Department of Livestock. It is not clear at the moment whether or not Blue Gold has a role to play in their institutional issues.

MoLG – Division of Rural Development and Cooperatives – Department of Cooperatives (DoC)

Department of Cooperatives is represented at District and Upazila level offices with local infrastructure, procedures, information on registration and cooperatives. During a recent mission to CDSP IV area a large number of the WMGs and WMAs complained about the numerous difficulties faced by them in

registering as cooperatives under the Cooperative Act, revised in 2013²¹. The charges for registration and renewal are quite high and in some cases beyond the capacity of these groups to pay. Moreover, the Cooperative Department in various cases considers the capital accumulation as a result of the purchase of share and savings as income and charges income tax for these funds. This practice by the Department is creating serious bottlenecks in the operation of the WMOs and corrective measures would be needed to remedy the situation. Problems with registration existed also due to a lack of DoC resources and infrastructure for proper communication and auditing.

From their side, DoC indicated, that DoC only was involved in a few stages, while the approach of DoC incorporates much more e.g. training and supporting people in business aspects like growing high value crops, market development and entrepreneurship. Furthermore, involved DoC staff doesn't know much about water management and hardly knew or understood what was going on in the field when water management cooperatives were formed. DoC staff received a little training but they were and still are not familiar with integrated water management and the formation of cooperatives to that. In the view of DoC the request for registration of water management cooperatives to the District Cooperative Officer (DCO) came much too early since the project only could show planning and design documents and nothing was realized 'on the ground'. This stage is too early to register because beneficiaries don't have a clear orientation or real view of what already has been and will be realized in relation to savings and shares. The real challenge is to prepare people on the right time and to train them to cooperate with each other which are basically cultural aspects. Different community barriers separate them, like: landownership (different patterns), trust (lack of transparency, trust building and mentoring), knowing their rights and responsibilities, people hear rumors of failing cooperatives, bureaucratic influences (to many steps, problematic behavior of officials etc.).

Because of too early registration and these barriers, trust is lacking and people are reluctant to register. They are in the opinion of DoC in an early stage not oriented, convinced and united enough for spontaneous registration: "first realize things, orient the people, build trust and perspective and then they'll come for registration". Concerns of DoC in relation to existing cooperatives now regard the step from realization to maintenance. After finalization of the infrastructure and the trainings, the practicing by the people in the field is often problematic. Trainings need to be more object and infrastructure specific.

The Water Management Cooperatives Monitoring Cell is in preparation²² and is going to be added as regular Cell within the organogram of DoC. This is in development but needs approval and will take some time. DoC developed a MIS on monitoring and evaluating cooperatives following a set of criteria²³. The Blue Gold polders can be incorporated in this MIS. A MoU regarding collaboration of DoC with BWDB and LGED exists but needs to be renewed.

Registration of the WMOs via BWDB could also be a solution to above mentioned problems. In fact this is already tried under the SWAIWRPM. The unsuccessful attempt in the past in enabling the BWDB to register the WMOs requires a fresh attempt by removing the causes of failure. The last time registration was sought to be achieved under the BWDB Act, 2000. This was rejected by the Ministry of Law on the argument that BWDB being a statutory body itself cannot create another statutory body that can sue and be sued. Since the BWDB would be handing over project management to the WMOs, the provision to sue and be sued must be there in order to protect the interest of the BWDB. This purpose could be served by enacting a Participatory Management Act by the MoWR. The structure of the proposed Act may be based on the GPWM and the IPSWAM where, among other things, the authority for registering the WMOs would

²¹ New Cooperative Act, 2013 is available at Blue Gold, and translated in English.

²² Proposal for Supporting the Water Cell in DoC, 2012.

²³ See Quarterly WMCA Monitoring Report, DoC, December 2012.

vest with the BWDB. Based on GPWM and IPSWAM, detailed Rules under the proposed Act may be notified.

As far as known now, the procedure regarding this draft Act is pending. The reasons for that and the expectations about follow up need to be clarified.

Conclusion of this analysis is: registration under DoC previously showed problems which can be solved in close cooperation of Blue Gold and DoC. Registration under revised Cooperative Act, 2013 by DoC's new Water Management Cooperative Monitoring Cell should be pursued. In this respect the Blue Gold Program mentions support (motor bikes, resources, out sourcing of auditing) which offers a strong position towards DoC helping to improve the above mentioned issues. Strengthening has to be focused on this cooperation.

Department of LGED

Local Government Engineering Department (LGED) is one of the largest public sector organizations in Bangladesh entrusted for planning and implementation of local level rural urban and small scale water resources infrastructure development programs. LGED normally works closely with the local stakeholders to ensure people's participation and bottom-up planning in all stages of project implementation cycle. IDE experiences indicate that this is not always successful. The broad objectives of LGED's development activities are however to improve the socio-economic condition of the country through supply of infrastructures at local level and capacity building of the stakeholders. LGED promotes labour-based technology to create employment opportunities at the local level and uses local materials in construction and maintenance to optimize the project implementation costs.

The main functions of LGED are local and urban infrastructure development and small scale water resources management. In connection with this, LGED is extensively involved in rural infrastructure maintenance programs throughout the country. The main interventions of LGED for rural infrastructure development programs are to develop rural road transport networks to improve accessibility to Growth Centers (GCs), important social and administrative points and also the development of GCs to expand marketing facilities of farm and non-farm products of the rural areas. GCs are in the view of LGED economically important markets which play a role as economic nucleus of a particular rural area. There are 2100 GCs and 18000 small markets across the country. The rural infrastructure development activities implemented by LGED are listed below.

- Construction of Upazila and Union roads and bridge/culverts on those roads
- Development of Growth Centers (GC)
- Construction of Union Parishad (Council) complexes and Primary Schools
- Construction of Jetty and boat landing
- Constructions of cyclone shelters and Killas (Elevated earthen places for the shelter of livestock during flood)
- Development of technical specifications and manuals for construction of rural infrastructures
- Development and updating of rural road master plans, infrastructure databases and digital maps
- Development of Upazila and Union plan book to facilitate local level planning and participation
- Providing technical support to Zila and Upazila Parishads
- Tree plantation on the slope of roads and embankments.

Coordination of these activities in relation to Blue Gold is needed. The MoU between LGED and BWDB should be utilized in this way in Blue Gold interests. The issues of activating this MoU, collaboration with LGED, use of data and possible needs for strengthening need to be further explored.

DoE - Department of Environment

The DoE policy is aimed at reduction of environmental pollution of the country and on preservation of ecological systems. Beside other issues, DoE is involved in ecological matters like wetland conservation,

electricity generation and manure production from municipal wastes, making rivers pollution free, making ship breaking activities environment friendly, etc. Some of these issues are already in implementation.

The situation of these matters in the targeted polders and the connection with DoE needs to be explored.

5.3.2 Institutional strengthening during and after community mobilization during step 3 and 4

Issue of blending participative water management and development of productive sectors

For community mobilization the “Guidelines for Participatory Water Management” (GPWM) as approved by the Ministry of Water Resources in 2001 will be followed. The Guidelines distinguish three different levels of WMOs: Water Management Group (WMG), Water Management Association (WMA) and Water Management Federation (WMF). Within this framework, BWDB follows the IPSWARM guidelines on dealing with community participation. DAE views the Farmer Field Schools as a well accepted approach for participation and development in the productive sectors.

Both approaches show various forms of organizations and methods regarding water resources management and the productive sectors.

The FFS may function as dedicated subcommittee under a WMG. Important is in this respect to carefully analyze the existing situation in the targeted polders and to find a way to build on that following the Blue Gold concept. This means that development of participatory water management and of the productive sectors have to be blended in a realistic and effective way with support of involved people, without enforcement of a ‘one best way solution’. The intention therefore is to use the 6-step methodology in a flexible manner based on the fundamental principles of integrated water resources management planning and of development of productive sectors with the participation of community members in all stages of the program.

Registration of cooperatives

WMOs will be registered under the Cooperative Rules with the Department of Cooperatives. Previously, registration under DoC showed problems as discussed before because in the vision of DoC registration was requested too early but also due to a lack of DoC resources and infrastructure for proper communication and auditing. A recent developed Cell on Water Management Cooperatives under DoC may change this problematic registration and support. This new Cell is promising and needs to be elaborated and supported by Blue Gold during this stage. Resources are available in the program to support the DoC Cell with motorbikes, fuel, resources to outsource auditing etc.

Local Government

Involvement of local government institutions is important in connection to community mobilization, participation in water management organizations. The chairman of the Union Parishad participates in the WMG-meeting as advisor. Another aspect is the development of a Polder Development Plan which clearly relates to Village Development Plans and LG’s part of the process with workshops, posters, etc.

With the decentralization of power, the Upazila level plays a more important role, more decisions have to be taken and services to be delivered. Besides, many national policies and development projects come up with programs in which local government organizations are involved. They seem to become overloaded. Strengthening and development of local government will be further explored in relation to the possibilities of Blue Gold and will also be linked up with the new local government capacity building project of VNG.

WMO’s and other Field Level Institutions

The WMOs are engaged in organizational - and water management activities, and play an important coordinating role at field level with various linkages with Field Level Institutions. In this respect analysis of other projects is interesting. For example, to ensure the peoples participation in all the stages of the project cycle, various Field Level Institutions (FLIs) were created under CDSP. These are community based organizations, consisting of representatives of the settlers in the chars. The FLIs make it possible

for community members to participate in the planning and implementation of the project activities. The Field Level Institutions ensure that the local needs and interests are taken into consideration, and play an important role in the implementation process through their involvement in planning, execution and maintenance. They stimulate the sense of ownership of the project as such and of the facilities created by the project interventions. The main FLIs created under the CDSP project are: Water Management Organizations (WMO), Farmers Forums (FF) or Clubs, Social Forestry Groups (SFG), Tube well User Groups (TUG), WASH-Groups, Labour Contracting Societies (LCS) and Micro Credit and Saving Groups (MCSG). Question ins to what extent these MCSG are formally registered and where and also how this has impact on their ability to act collectively.

In all nine polders in which IPSWAM has been operating WMGs and WMA were formed. During the WMO formation a lot of attention was given to gender and the inclusion of women in the water management organizations. This has ultimately resulted in a 41% representation of women as general members in the WMGs and more than 30% percent of the members of executive committees of the WMGs being women. Over time the WMGs also got involved in activities other than exclusively water management to strengthen the socioeconomic position of their members. One of the first activities in which almost all WMGs got involved is savings and credit services.

There are two major differences in approach between SWAIWRPMP and IPSWAM relating to the unit of planning for the formation of WMGs and the provision of financial resources by the members. In IPSWAM, a village is the basic unit of planning. In the South West project, the WMGs are generally based on clusters of villages with the exception of a few cases where these are based on a single village. Secondly, the South West Project requires the members of the WMGs to make provision for up-front financial resources whereas in IPSWAM the resources are mobilized as and when these are required. In most cases, the members contribute to their share of fund requirement for O&M in kind, by providing free labour. Apart from the development of Integrated Water Resources Management Plans and Sub-unit Implementation Plans to improve the water management infrastructure in the project area, the project aims at improving the livelihood of the communities. For this, three areas needing improvement have been identified, namely agriculture, fisheries and livelihood enhancement (through income generating activities).²⁴

Leasing out of land to WMOs

Leasing out of unused land, land by the side of the embankments, ponds, khals and other very small water bodies not under the control of the district administration are great sources of revenue. The BWDB is the owner of large land areas, but is in many cases unwilling to lease it out to WMOs. Under the existing Guidelines however, it is incumbent on the part of the BWDB to lease these to the WMOs. The board should address this issue and honour its commitment. An additional problem is that rather than leasing to the WMOs, these areas are leased to other people by BWDB officials. This practice should be prohibited by the Board so that on expiry of the current leases the land becomes available to the WMOs.

Based on the above given analysis, institutional strengthening focuses during this stage in close connection with the components 1 – 4 on:

- strengthening existing and new WMGs and WMAs in close relation to development of productive sectors and relevant FLIs
- formation and strengthening of cooperatives with addressing potential registration problems;
- strengthening government organizations at local, district and national level
- strengthening linkages with NGO's and private sector organizations

²⁴ Field Level Institutions, Mission Report 5, Char Development and Settlement Project Phase IV Bangladesh, 2012. This report compares FLIs related to CDSP, IPWSAM and SWAIWRPMP.

5.3.3 Consolidating commitments, strengthening for sustainable performance during step 5 and 6

In the final stage of the program commitments between involved parties need to be consolidated. Also final requirements or conditions for durable performance and good governance need to be defined and agreed upon for the long run.

5.4 Action Plan

5.4.1 Analysis, facts and figures

The Blue Gold network, especially the key players on national, district and local level, need to be explored by analyzing the mandates, policies, rules and regulations, procedures and resources and the way they perform their tasks and show certain behavior relevant to the Blue Gold program. A fact sheet per key player will be developed based on the analysis below.

Table 10: Action plan for Initial institutional arrangements

STAKEHOLDER ANALYSIS BLUE GOLD NETWORK		
	Analysis of Blue Gold network	Information required
1	Key players national level	<ol style="list-style-type: none"> 1. Mandates, relevant policies, rules, procedures, resources, contact information, facts and figures 2. Tasks and performance and pattern of behavior related to Blue Gold 3. Expected Problems / risks 4. Expected opportunities 5. Needs for strengthening & capacity building 6. Arrangement to be made (like MoU, information sharing, training, provisions, cooperation) 7. Link with component 1- 4
2	Key players division / district level	<ol style="list-style-type: none"> 1. Mandates, relevant policies, rules, procedures, resources, contact information, facts and figures 2. Tasks and performance and pattern of behavior related to Blue Gold 3. Expected Problems / risks 4. Expected opportunities 5. Needs for strengthening & capacity building 6. Arrangement to be made (like MoU, information sharing, training, provisions, cooperation) 7. Link with component 1- 4
3	Key players Upazila / Union / Community level	<ol style="list-style-type: none"> 1. Mandates, relevant policies, rules, procedures, resources, contact information, facts and figures 2. Tasks and performance and pattern of behavior related to Blue Gold 3. Expected Problems / risks 4. Expected opportunities 5. Needs for strengthening & capacity building 6. Arrangement te be made (like MoU, information sharing, training, provisions, cooperation) 7. Link with component 1- 4
4.	Knowledge institutions -CEGIS -CASEED	<ul style="list-style-type: none"> -GIS, data, maps, policy related experience on water management and productive sectors -agri-research, sustainable environment and entrepreneurship development

	-BCAS ...	-centre for advanced studies e.g. climate change -issue is assistance to development of innovative technologies in relation with improvement of productive sectors and access to markets
5	NGOs -BRAC ...	-facilitating -delivering information; processing
6	Private companies	-buying and supplying -credits related -value chain related -one of the issues is compliance with business requirements -providing Blue Gold with information and services
7	Involved Projects:	IPSWAM, CDSP, WMIP, SWAIWRPMP projects are relevant for best practices and lessons learned
	...	

The stakeholder analysis has to be followed by a diagnostic analysis:

- analyzing positions and issues or problems related to stakeholders and factors
- overview of institutional opportunities and challenges
- identification of actions

Clearing the way by acting on the identified issues and actions regarding:

- rules and policies, commitments, MoU's etc.
- organizational aspects like capacity, behavior and mindset, resources to contribute.

5.4.2 Institutional development and strengthening during and after community mobilization

Development and strengthening of Cooperatives

- a. Streamlining and supporting the registration procedure, strengthening cooperation with related institutions
- b. Development and strengthening of linkages with NGO's and private sector organizations

5.4.3 Consolidating stakeholders commitment, strengthening for sustainable performance

Evaluating stakeholders involvement and cooperation

Further institutional strengthening and development to solve issues

Evaluating and adjusting the institutional mechanism for sustainable performance

5.4.4 Requirements for realization of IS actions

- tasks to be carried out (task description)
- capacity to do the job
- approach and needed resources show strong coherence and need for fine tuning with the 6 steps
- timeframe of IS and the 6 steps.

6. TRAINING

6.1 Objectives of the Training

The Blue Gold Training Program capitalizes on the experiences from previous Projects implemented by BWDB on coastal zone development and by DAE on agricultural development using Farmer Field Schools (FFS). Other Government institutions such as DoC, DoF, DLS and NGO's and the private sector will also be involved in conducting training to the Water Management Organizations (WMOs) at the polder level.

The overall objective of training is to develop the capacity of staff from government institutions, non-government organizations and private sector organizations involved in Blue Gold, as well as the members of polder level water management organizations (WMOs). Training and capacity building will focus on the development of knowledge, skills and the right mind-set and attitude. It will concentrate on developing the capacity of the staff of the implementing agencies to put into practice a bottom-up, demand led and participatory approach in Program implementation and will develop the capacity of the WMOs and farmers in the polders to participate actively in the development of their polder.

The training methodology will be highly participatory and based on the non-formal adult experiential learning concepts and principles. The approach will be basically a self-discovery process of learning. Participants will learn through their active involvement in the process of learning.

Training activities will follow the sequence of Training Needs Assessment (TNA), preparation of a Training Plan, review of existing training materials (from various relevant projects), updating these materials for Blue Gold, conducting/assisting in training implementation, training monitoring and evaluation.

6.2 Training in the Project Components

While the training team is part of Component 5, the training in Blue Gold itself is embedded in each of the Components. The training program involves multi-agencies (BWDB, DAE, DoC, DoF, DLS), multi-level implementation (national, zonal, polder level) and multi-target groups of participants including Government and Non-Government Staff, private groups and WMO's. Capacity development and awareness building are important and essential parts of training.

In Component 1 - Community Mobilization and Institutional Strengthening, the aim is to organize and empower the people in the polders. Capacity development will be based on the (updated) training approach and toolkit developed in IPSWAM and institutional strengthening and awareness raising will be the key elements in this component.

Component 2 - Water Resources Management. An important element in Component 2 is the capacity building of BWDB, both at the zonal level (southwest and south central zones) as well as at the national level. Some of the training that will be conducted in this Component will be on Construction Management, Institutional Issues in Water Management, Formulation of the Infrastructure Rehabilitation Plan, O&M Plan and capacity building for the Landless Contracting Societies (LCS).

In Component 3 - Food Security and Agricultural Development, Farmer Field School (FFS) using the tested DANIDA approach will be organized and introduced. Improvements in farming methods, productivity increases, improved quality, and introduction of new technology will require assistance from local government institutions such as DAE, DoF, DLS and NGOs and private sector service providers operating in the locality. An important task will be to train these organizations as well as the farmers using FFS as the training strategy. Blue Gold will put a lot of effort in training new FFS facilitators and where needed provide refresher training for existing facilitators. Quality control of the training of facilitators and the implementation of FFS will be a joint responsibility of DAE and Blue Gold TA Staff.

In Component 4 - Business Development and Private Sector Involvement, training and awareness raising on the different aspects of value chain development and on development of business plans will be conducted.

Component 5 includes amongst others the cross-cutting issue of gender. Box 10 summarizes the main gender issues in training.

Box 10 Gender in Training:

- 10.1 The Training Needs Analysis will also assess the need for gender training among male and female staff, beneficiaries and relevant other stakeholders, which includes assessing current levels of gender knowledge and gender sensitivity..
- 10.2 In all planned overseas study tours, training and capacity building activities for BWDB officials, both male and female BWDB officials will participate.
- 10.3 Existing gender training materials – prepared by the IPSWAM project- will be reviewed and where needed it will be updated and/or expanded in view of adding agricultural production and value chain development components. Stereotyping in the modules will be avoided. A suitable gender hand-out will be made for field level participants.
- 10.4 Basic and refresher training on gender for staff and beneficiaries and other relevant stakeholders (such as members of Union Parishad) will be conducted, which will address basic gender concepts (including stereotyping and mind-set issues), the rationale for paying attention to gender and practical guidelines. Orientation on the formulation of the Polder Development Plan including the Gender Action Plan (GAP) will be organised.
- 10.5 Initially leadership training will be conducted separately for women, later it will be conducted both for men and women together (potential WMO leaders). Skill development training necessary for rural women will be conducted, this includes maintaining simple accounts and related calculations for running small businesses.
- 10.6 Gender issues and perspectives will be integrated in all other training for staff and beneficiaries, whenever relevant.
- 10.7 Besides training, exposure visits, experience sharing workshops and mentoring will be arranged.
- 10.8 Besides training on performing earth work efficiently, skill development training will be provided to the women LCS members. The latter will enable them to become engaged in other more profitable income generating activities and to profitably invest their earnings from working in the LCS in such IGAs.
- 10.9 Training will be need-based, addressing practical and strategic gender issues; When addressing gender stereotyping, a balance will be struck between recognising actual roles of men and women and their labour division and creating equal opportunities for men and women to participate in project activities.
- 10.10 Training participants will be selected on the basis of the nature of training, but training will not be restricted to only males or only females (unless for strategic reasons, such as women's leadership training).
- 10.11 The location, timing and duration of the training will be suitable for women and men; basic child

care facilities may be provided if needed.

6.3 Training Needs Assessment

A Training Needs Assessment (TNA) will be conducted to identify the specific training courses needed for individuals and groups in each Component. The TNA results will be used as input for the development of the Blue Gold Training Plan. The TNA aims at the BWDB, DoC, DoF and DLS staff members who will be involved in the Program implementation as well as at WMOs in selected Polders. Specific objectives of the TNA are:

- To assess the training requirements of each project Component.
- To identify the knowledge and skills gaps of the target groups
- To make an initial selection of the participants of the training courses
- To identify the type, level and number of training sessions or courses
- To generate baseline data for the monitoring and evaluation of training effectiveness and application.

Methodology

The TNA will be conducted through a Questionnaire (see Annex 11.14) for the staff of the implementing agencies and through individual interviews. While at the polder level, focus group discussions (FGD) will be held to WMOs using a Guide Questionnaire (See Annex 11.15).

Data from the Questionnaires will be collated, summarized and analysed. This will become the basis for the Blue Gold Training Plan. The Indicative Training Plan (See Annex 11.17) in this Report will be reviewed and updated based on the result of the TNA.

The process is illustrated in Figure 17. It shows the preparation of TNA Questionnaire, the conduct of TNA through the Questionnaire; Focus Group Discussion (FGD) and interviews. All data from accomplished Questionnaires will be processed, collated, tabulated and analysed. The output of this process is the TNA Report.

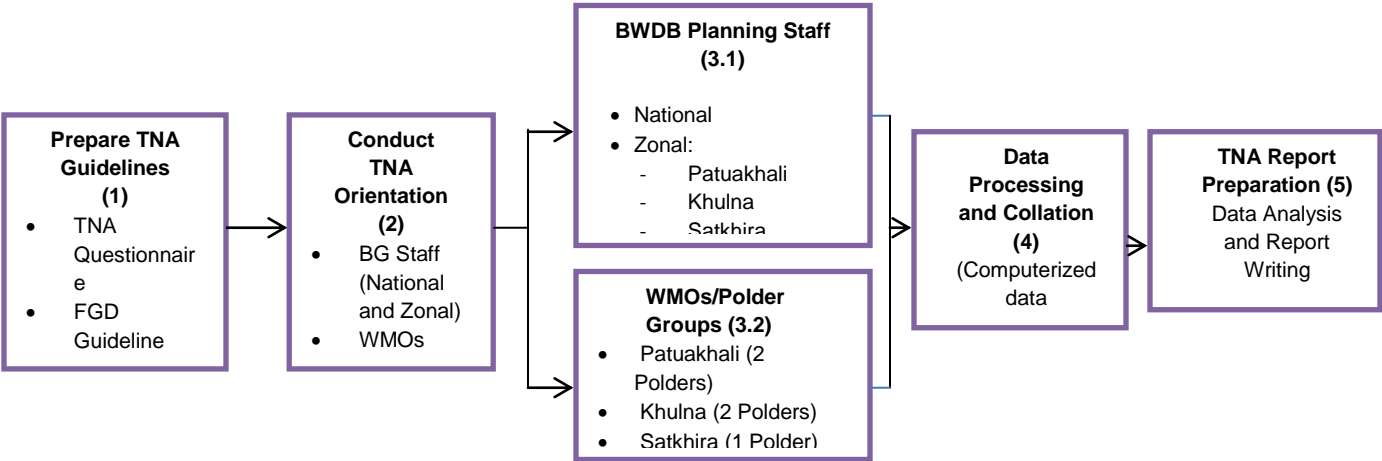


Figure 15: Training Needs Assessment Flowchart

6.4 Training Implementation Strategy

The Blue Gold Training implementation strategy shown in Figure 18 illustrates that training is carried out both top-down and bottom-up. The Training Management Team (TMT) is partly based in Dhaka and partly in the District offices. They will work closely with the Component Teams in delivering the Training of Trainers (TOT) and the Field Teams (Community Organizers, Field Engineers, Field Facilitators and other staff in Component 5) who in turn will conduct the training of the WMOs, of farmers via the Farmer Field Schools (FFS) and of the Landless Contracting Societies (LCS) and Value Chain Actors (VCA) in the polders. In the IPSWAM Polders, Training Resource Groups (TRG) have been formed and trained in the past. These groups can be revitalized. In new polders, new TRG will be formed and trained to assist in conducting training. They will also assist the WMA in identifying additional training needs and in linking up with Government and Non-Government Organizations in delivering the training.

The Training Management Team in Dhaka and in the District offices will play an active role in ensuring the quality design of training courses and the effective implementation of training for staff of LGI's as well as WMOs and LCS at the polder level. The team will carry out the Training Needs Assessment (TNA), formulate the overall Training Plan, prepare the necessary training and awareness raising materials, conduct/assist in training implementation in collaboration with the four Component Teams, and monitor and evaluate the quality of the training courses. Feedback on training implementation from the polder to the District and the Central level will be continuously gathered and adjustments and improvements will be made to the training plan, curriculum and course materials.

For Components 1 and 2, the TMT will hire resource persons from BWDB and DoC, while for Component 3 & 4 resources persons from DAE, DoF and DLS will be hired to conduct the training courses.

Moreover, the TMT will coordinate at District level with Max Foundation, SAFAL and World Fish (and perhaps others), in order to join forces with a view to support each other in an effective implementation of all training programs. The individual components / agencies / organizations however will remain responsible for implementing their specific training activities. The tasks of the Training Team are presented in Figure 17

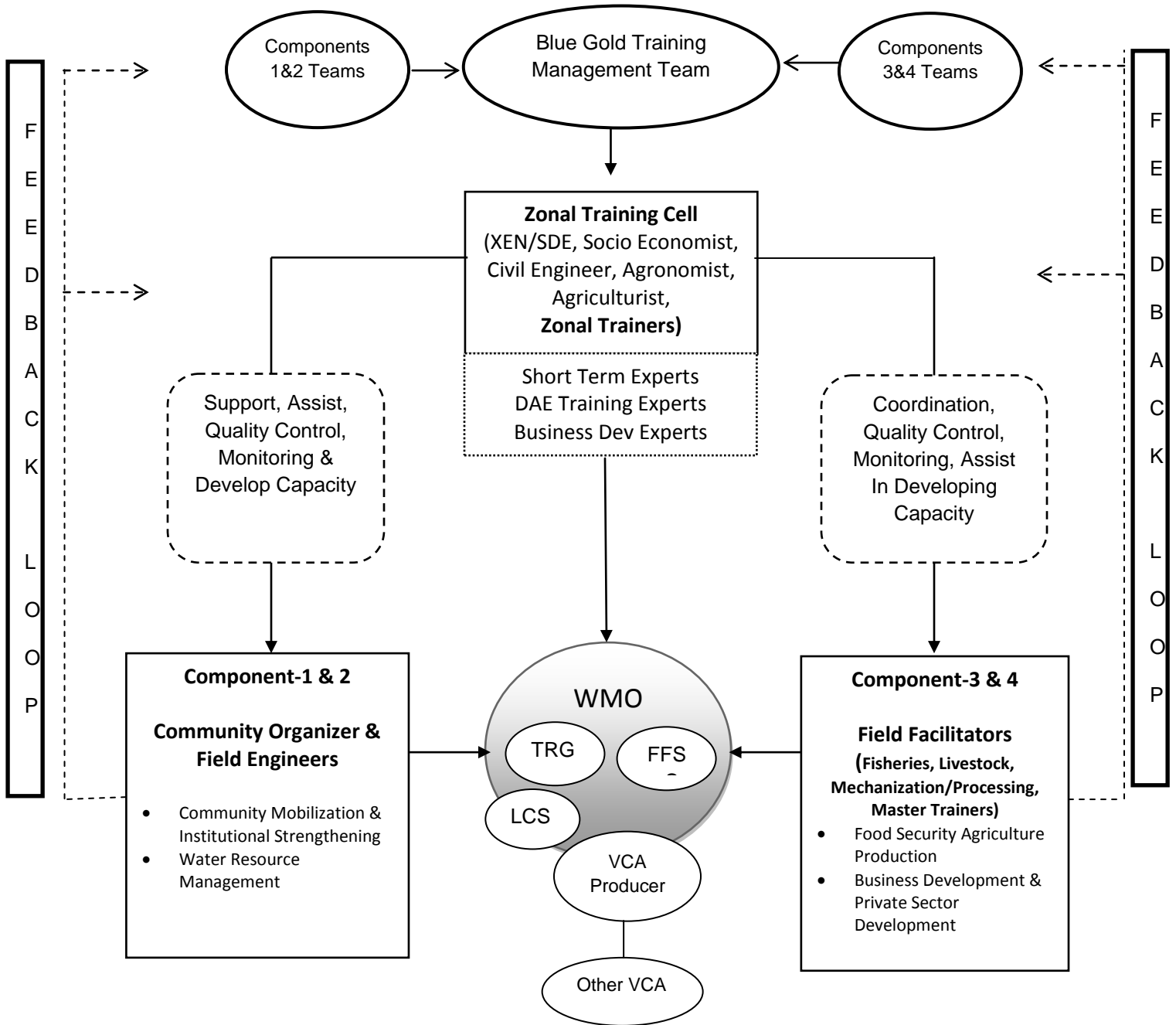


Figure 16: Training Strategy for Implementation

Note: FFS (Farmer Field School), TRG (Training Resource Group), LCS (Landless Contracting Societies) and VCA (Value Chain Actors). Not all LCS members are members of the Water Management Organizations (WMO) and similarly not all Value Chain Actors are part of the WMO.

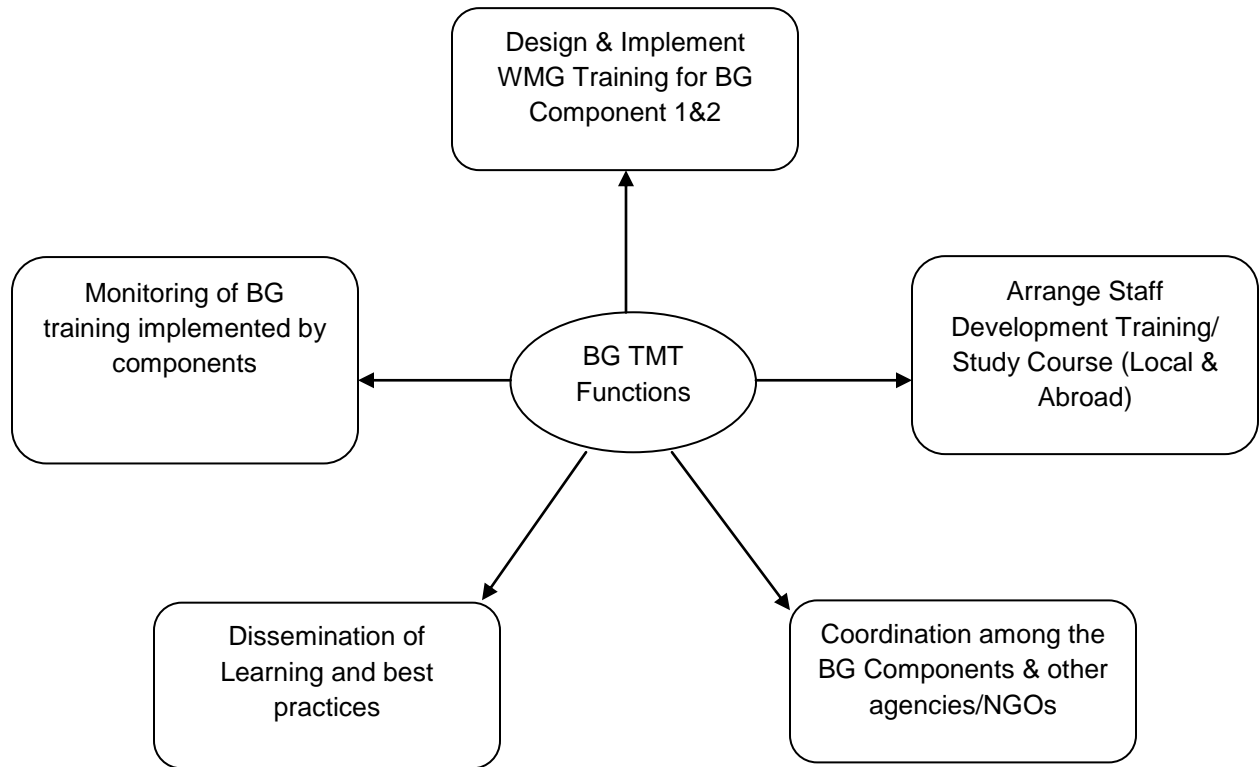


Figure 17: Functions of Training Management Team

6.5 Training Team

The Training Management Team (TMT) consists of:

1. Part-time Training Advisor (International Expert)
2. Training Expert
3. Communication Expert
4. Training Coordinator in Dhaka (new position)
5. One Training Coordinator in each District (new position)
6. Hired resource persons from BWDB (from time to time)
7. Hired resource persons from other Agencies (from time to time)
8. Data Entry Operators (to be hired)

Zonal Training Cell

The Zonal Training Cell (ZTC) consists of a District Training Coordinator plus members of the other Blue Gold District office staff and may include a socio-economist, irrigation and drainage engineer, (irrigation) agronomist, and master trainers, depending on the needs of each particular training program. The District teams will implement the training activities for WMO's in each of the three Districts. They will be responsible for organizing and conducting training activities for Components 1 & 2. They will provide necessary support to other components for effective implementation of the training. The tasks of the ZTC are:

1. Prepare Training Implementation plan at the polder level;
2. Organize and conduct training activities for the WMO's for Comp. 1 & 2;
3. Provide training support to other components;
4. Monitor and evaluate training sessions and take necessary measures for improvement of training;
5. Coordinate with different Blue Gold components and with Max Foundation, SAFAL and World Fish (and others) for effective implementation of training programs;
6. Keep accurate training records and documentation and prepare regular report for submission to TMT.

The District Training Coordinator is the key person, responsible for correct implementation and coordination of the training programs in his or her District. . Other members of the ZTC will only get actively involved when their component training will be implemented.

The Training Management Team will carry out the following tasks:

1. **Training Needs Assessment:** Design and conduct Training Needs Assessment for the WMO Members, TA Staff, Local Government Institutions and the officials of BWDB, DAE and other Government Agencies.
2. **Training Plan:** Review and analyse collected data and prepare training objectives and plans. In this plan the WMO, staff development training courses, overseas training and study courses, workshops, seminars and target participants will be reflected.
3. **Staff Development Training:** Design and organize training courses for field staff of Components 1&2 and BWDB officials. In case of Components 3 & 4, provide TOT (needs based) and provide support and assistance in organizing training courses effectively.
4. **Dissemination:** Share and disseminate the best practices to the Blue Gold Partners and other stakeholders. Develop Information, Education & Communication (IEC) materials, documents, bulletins, website, and organize workshops and seminars. The Communications expert is responsible for these activities. Investigate feasibility of decentralised information centres where community people/farmers can have easy access and get the required information.
5. **Coordination:** Coordination and quality control of different training activities To develop the capacity of WMOs, many training and other initiatives will be conducted. There is always the risk of overburdening the WMO, in over-lapping of training, and in maintaining good quality and consistency in the training implementation.
6. **Monitoring and Quality Control:** Monitor and evaluate the training initiatives undertaken by the different components, department and other projects and provide suggestions for improvement.
7. **Documentation and Record keeping:** Keep records of all training activities accomplished by the different component, agencies, department and projects.
8. **Overseas Program:** Identify the training courses, exposure visits and study tours abroad. Depending on the available budgets, overseas programs will be designed in cooperation with international training institutes and universities.

6.6 Initial Training Courses Identified

Several training courses have been identified. The training courses cover all the Components of the Program and have been divided into Training for Staff and Training for WMO's and Farmers. An Indicative Training Plan has been prepared covering the 6 years of program implementation. (See Annex 11.16) This is an initial list of training courses which will be finalized after the completion of the TNA.

Table 11: Training of staff

Training Courses (Indicative)	Participants
1. Blue Gold Program Orientation	BG Central and Zonal, BWDB, DAE, DoC, DoF, DLS, NGOs
2. Training on Community Organizing and Facilitation	BG Community Organizers Zonal Socio-Economists BWDB Socio-Economists in DP III
3. Orientation on the Formation and Development of WMOs	BG Central and Zonal Team
4. Orientation on the Village Development Plan and Polder Development Plan	BG Central and Zonal Team
5. Orientation on Construction Management and Blue Gold Program Policies for Construction	BWDB Zonal Team
6. Training on Design of Water Management Infrastructure	BWDB Planning and Design Directorate
7. Orientation on Climate Change Adaptation and Disaster Risk Reduction (DRR)	BG Central and Zonal Team
8. Workshop on Institutional Issues in Water Management	BG Central and Zonal, BWDB
9. BWDB Gender Equity Strategy : Review and Update	BWDB Women Officials, BG Central and Zonal women Team members
10. Orientation on Participatory Monitoring and Evaluation (M&E)	BG Central and Zonal Teams
11. Orientation on Value Chain Analysis and Business Plan Development	BG Central and Zonal Teams
12. Good Governance in Water Management	BG Central and Zonal Teams and other BWDB officials
13. Blue Gold Program Experience Sharing	Within BWDB, DAE, DoC, DLS, DoF, partner organizations and NGOs
14. Training on Innovative Irrigation Technology (to be identified)	BG Central and Zonal Teams and other BWDB officials
15. Orientation and Refresher Training for Facilitators in Blue Gold Area on Farmer Field Schools (FFS)	DAE Department Trainers
16. Curriculum Design Workshop (Need Based)	DAE, DoF, DLS, WorldFish, FAO
17. Training on Innovative Agriculture Technologies (to be identified)	DAE,
18. Study Tour (participatory water management, climate change , DRR, value chain development, others)	
19. Overseas Training	
20. Review and Planning Workshops	BG Central and Zonal Teams
21. Staff Development Training (Components)	Zonal and Field Staff

Based on the Indicative Training Plan, there are 26 training courses and activities that will be implemented at the polder level for the WMO's, farmers, Landless Contracting Societies (LCS) and Local Government Institutions (LGIs). This list will be finalized after the completion of the TNA. Presented in the Table below are the indicative training courses:

Table 12: Indicative training courses for WMOs and Farmers

Training Courses (Indicative)	Participants
1. Organizational Management Training	WMGs & WMAs
2. Cooperative Development Training	Selected WMGs
3. Leadership Training	Selected WMGs and WMAs
4. Financial Management Training	Selected WMGs
5. Resource Mobilization Workshop	WMGs and WMAs
6. Planning Workshop on Village Development Plan	WMGs
7. Planning Workshop on Polder Development Plan	WMAs
8. LCS Orientation on Construction Management	LCS
9. Orientation on Monitoring of Quality of Construction Works	WMA Monitoring Committee
10. O&M Training and Plan Preparation	WMA Members and O&M Committee
11. Practical Training for Gate Operators	Gate Operators
12. Orientation on Climate Change Adaptation and Disaster Risk Reduction	WMA Members and Disaster Mgt Committee
13. Field Training on Innovative Irrigation Technology (to be identified)	WMO
14. Training on Agriculture Production	25 Farmers/FFS (1,400 FFS)
14.1. Season long implementation of Farmer Field School (FFS on crops, fish and livestock)	
14.2. Season long TOF for new FFS	Farmer Facilitators
15. Training on Use of Vaccination Kits and Development of Business Plan	Community Animal Health Workers (CAHW)
16. Training on innovative agriculture technology (to be identified)	FFS/WMO
17. Orientation on Value Chain and Identification of Business opportunities and skills	Selected WMGs/Cooperatives
18. Workshop on Formulation of Business Plan	WMGs/Cooperatives
19. Gender Orientation and Awareness Raising	WMGs/WMAs/Women members of Union Parishad (UP)
20. Gender Leadership Training	Women Leaders of WMGs and WMAs
21. Savings and Effective Investment/IGAs/Livelihood Training	LCS Women members
22. Preparation of Gender Action Plan (part of the Village Development Plan and Polder Development Plan)	WMGs
23. Skills training (business development, simple accounting and record keeping)	WMG women members
24. Exchange Visit to other Polders and Successful Organizations or Projects	WMA women Leaders
25. Orientation and application of Participatory Monitoring and Evaluation (M&E)	WMAs
26. Exchange visit to successful Cooperatives	Selected WMAs

6.7 Training Monitoring and Evaluation

A Training Monitoring and Evaluation system will be developed to systematically track-down training implementation at all levels from the central and 3 zonal offices and at the Polders. The monitoring should focus on the following: training courses conducted, number and type of participants (male and female), date and place conducted, budget and expenses and program component. The Training Plan will be used as a basis in determining whether the target number of training has been achieved for a particular period

of time. The training monitoring system will be developed and should be integrated into the database of the Blue Gold Program

The training evaluation system will focus on the quality of training courses. In each training course, a pre and post training knowledge inventory will be made and this will be evaluated in terms of knowledge gained by the participants for the particular course attended, skills that they have gained as well as the performance level as back-home application at the field/work place. Evaluation will also focus on the feedback on relevance of training courses, quality of training facilities, effectiveness of speakers and trainers, appropriateness of training methodology and usefulness of the training materials.

A training program assessment is planned roughly half-way through the Program implementation. An overall training evaluation will be conducted towards the end of Program implementation to assess training impacts and lessons learned.

7. COMMUNICATION AND KNOWLEDGE MANAGEMENT

7.1 Introduction

Communication and knowledge management is one of the service providing wings of Blue Gold. The objective is to support all the components of Blue Gold with information and communication materials required for implementing the program. This will include producing appropriate communication and information materials for awareness building and diffusion of development knowledge by identifying and using the most pragmatic medium or communication channel. In addition, communication and knowledge management is also responsible for general public relation and visibility activities.

7.2 Challenges

Drawing on the development experience in Bangladesh, the following problems can be identified in the implementation of the communication and knowledge management work:

1. A majority of the people to whom the project interventions are addressed in the project area are illiterate, which obstructs them from getting exposed to newer ideas and from change in behavior and life-style. Development workers need to find an effective way to get across to their beneficiaries by using appropriate communication channels and properly articulated messages.
2. The project area suffers from inadequate roads and transportation systems. Remoteness slows mobility and as well blocks information flow.
3. Electricity is also a problem; most households do not have power-supply.
4. Use of mass media is limited. Besides, inadequate power-supply discourages people to use TV and other mass media appliances.
5. People in the project area have limited or no access to the internet. However, mobile phone is intensely used and coverage by different providers is excellent.

7.3 Opportunities

High mobile phone penetration rates and progressive reduction on the price of smart phones are the greatest opportunities for communication activities in the area. It will be explored – perhaps using the budget for innovation – whether and how mobile phones can be used to disseminate information to the target groups. One idea is to develop audio-visual content and store this on micro SD memory cards for use in mobile phones. Subsequently, all community organisers could be equipped with a low-end smart phone featuring a dual SIM-card. Together with a battery-run amplifier and possibly a hand-held micro projector, an excellent state-of-the-art medium for disseminating information could thus be established. The use of micro-SD cards to distribute audio-visual materials to target audiences has proven a great success in the on-going DFID-funded English in Action project in Bangladesh.

South-West Bangladesh has an age old tradition of using traditional media- Pot song, Gajir Gan etc, - for information dissemination packed in an entertaining tone. Blue Gold finds such traditional enter-

educational media as an area to explore and use in its communication and knowledge management support. Therefore, there is scope for combining traditional, conventional and modern media in Blue Gold's communication activities and knowledge management.

7.4 Activities

On the basis of the challenges and opportunities discussed above, we identify and propose the following communication and knowledge management activities for Blue Gold. Activities are framed grouped under three broader frames - developmental, public relations, and knowledge production and documentation.

7.4.1 Developmental

1. Conventional media:
 - a. The program will review and use more effectively traditional leaflets, brochures, posters and similar print materials. Use of postcards highlighting program's and beneficiaries' success is likely to create a good effect.
 - b. Audio-visual materials will be developed.
2. Traditional media:
 - a. Popular theatre will be used especially in awareness building.
 - b. Message bearing songs will be composed and recorded in the local traditional tune and performed.
3. Modern media:
 - a. Mobile phone, its different applications—SMS, MMS etc.—will be used for two-way information dissemination. For this an exploratory research will be carried out to review the existing use of mobile phone for development in Bangladesh (like M-health, E-krishok etc.) and other developing countries in order to identify the most appropriate application for the Blue Gold beneficiaries. Use will be made of the results of a recent EKN-funded study into the use of mobile phones for dissemination of information to farmers in Bangladesh.
 - b. Three community radios—*Radio Nalta*, *Radio Sundarban*, *Lokobetar* and *Krishi Radio*— are operating in the project area. Blue Gold may use these radio stations to broadcast water management for development related programs.
 - c. Instructional videos will be projected in courtyard meetings and other assemblies. There is a need to identify and arrange a power-supplying system, like solar energy, for such projection. These videos can further be distributed via micro SD memory cards on low-end mobile smart phones of the beneficiaries.

7.4.2 Public Relations

1. Development, launch and regular update of Blue Gold website.
2. Develop guidelines for use of Blue Gold house-style
3. Coordinate preparation of all component's requests for print materials
4. Produce publicity videos.
5. Publish annual report.
6. Develop effective relations with press and media by arranging field visits and similar activities.
7. Produce and distribute Blue Gold calendar, diary and other PR-materials.

7.4.3 Knowledge production and documentation

1. Documentation and publication of organizational knowledge and best practices
 - a. Video documentation
 - b. Photo archive
 - c. Publishing technical and study reports
2. Training
 - a. Reviewing training materials (content and pedagogy)
 - b. Formulating tools required for retaining knowledge received from training
3. Communication research
 - a. Audience analysis
 - b. Cognition mapping
 - c. Usability research
4. Library management
 - a. Systematize library collection (including existing IPSWAM library)
5. Zonal Knowledge and Information Centers
 - a. Explore demand for establishing info centers in Satkhira, Khulna and/or Patuakhali
 - b. If feasible and sustainable establish and maintain zonal Knowledge and Information Centers

7.4.4 Communications and Training Equipment

Detail of communications and training equipment that may be purchased by Blue Gold is given in the following table.

Table 13: Communication and Training Equipment

Item	Location	Qty
DSLR with all accessories	Dhaka - Component 5	1
Semi DSLR with kit lens	Dhaka - Component 5	1
Digital Compact Camera	Field offices	3
Video camera	Dhaka - Component 5	1
Boom	Dhaka - Component 5	1
Video light	Dhaka - Component 5	1
Tripod	Dhaka - Component 5	1
Scanner	Field offices	3
Projector with screen	Dhaka - Component 5	1
Communication and multimedia Software	Dhaka - Component 5	1
Black and White printer	Field offices	3
Color Printer	Dhaka - Component 5	1
Hard drive	Field offices	3
Memory card, tape, DVD etc.	General office supplies	0
Digital Audio Recorder	Field offices	3
Multimedia Desktop Computer	Dhaka - Component 5	1
Server Outlook and data	Dhaka - Component 5	2
Internet Modem	Field offices	3
Intercom for Dhaka office	Dhaka - Component 5	1

8. MONITORING AND EVALUATION

8.1 OVERVIEW

The M&E team is part of Component 5 and as such reports directly to the Team Leader. The team consists of one full-time national M&E expert and two M&E assistants.

The M&E team will develop a participatory monitoring system for all Program components, together with the component leaders and the Team leader. They will organise the collection of information required for the proper operation of the monitoring system, impact assessments and evaluations. They will also analyse data and report on progress per component and report on constraints experienced during implementation. The M&E team plays a coordinating role in assisting the component leaders and the Team Leader with the compilation of Program Progress Reports.

The M&E team will be involved in data collection and compilation for the result frameworks for water management, food security and SRHR/gender which EKN will monitor up to 2015 under the present MASP. Many of the EKN results indicators are linked to the outputs of the Blue Gold Program. Benchmark surveys and subsequent result monitoring of the relevant indicators will be included in the Blue Gold logical framework and M&E framework for use in EKN's annual reports.

Recently, Blue Gold and SAFAL have been selected by the evaluation unit of the Dutch Ministry of Foreign Affairs, IOB, to become part of the external evaluation of the Dutch food security policy 2012 - 2015 in Bangladesh. The M&E team of Blue Gold will be involved in this evaluation, which will comprise a baseline study by the end of 2013 and an impact study at the end of 2015. The main research questions formulated by IOB are:

1. What is the food security context, and how will food insecure people benefit from Blue Gold?
2. What effects can reasonably be expected between (end) 2013 and (end) 2015?
3. Can a 'control area' be selected without project support, but with similar households as in the 'project area', that allows for a fair comparison and assessment of the project effect?

Moreover, the M&E team will conduct internal reviews and evaluations as and when required and assist the Team Leader to prepare the ToR for the final evaluation and for the two intermediate program reviews. The team will also assist and support M&E activities of the individual implementing government agencies (BWDB, DAE, DoC, DoF, DLS) as well as supervise M&E work of outsourced service delivering organisations. Finally, the team is responsible for the preparation of the ToR for any impact assessment study to be conducted by external experts and the compilation and consolidation of the information collected.

In addition, the M&E team will play an important coordinating role in the design and implementation of the Blue Gold comprehensive base-line survey of which the first part is planned to be carried out between September and December 2013.

Within M&E proper attention to gender considerations is essential, including enabling assessing whether male and female target groups benefit from Blue Gold. Main gender issues are summarized in Box 11.

Box 11 Gender in Monitoring and Evaluation:

- 11.1 All data whenever relevant will be gender disaggregated: at collection, data analysis and reporting
- 11.2 Specific gender indicators at output and outcome level have been identified and targets (ambition levels) set (see Annex 11.12), with selected indicators integrated in Blue Gold's logical framework. Most of these indicators are part of the component indicators and data on these indicators will be collected by the concerned component staff.
- 11.3 At appropriate intervals, separate reporting on the progress on achieving the gender indicators will take place.
- 11.4 Baseline and impact surveys will address selected gender issues, and include relevant gender related questions. Men and women will be interviewed, with special attention to include a realistic share of respondents from female headed households.
- 11.5 Blue Gold will ensure the collection of evidence on the benefits of the gender approach, which is likely through selected baseline / impacts survey issues, by case studies and/or by a separate study. Such evidence will be analysed, documented and disseminated.

In the light of the multitude of responsibilities that are bestowed upon the M&E team it is proposed to field a senior international M&E expert from the unallocated ST expert pool for a mission of about three weeks in August / September 2013. For proper follow-up of the baseline survey design and implementation, and for training and capacity building a junior international M&E expert will be added to Blue Gold's national M&E team for a period of three months (September – December 2013). This input will be charged to the baseline and household surveys budget under Component 5.

8.2 Scope of the Baseline Survey

It is proposed to carry out an in-depth baseline survey but with smaller samples meaning that the baseline survey will not be done in each polder. First reason is that the last batch of polders (5 polders) will only be implemented in 2017 hence impact will not be fully measurable at end of project. Secondly, some polders will have the same conditions and characteristics and therefore it is logical and practical to just get a sample from each group. Based on initial analysis of the conditions and characteristics of the polders to be implemented and schedule of implementation, the baseline survey is proposed to be conducted in 10-11 polders. The sample polders to be included in the survey will be selected from each zone excluding the last batch of polders that are to be implemented in 2017. The following presents a suggested sampling frame for the number of polders to be selected for the baseline study. This is based on the polder implementation schedule:

- 5 polders will not be included in the baseline study because these will be completed only in 2018;
- The 9 IPSWAM polders have undergone in-depth study previously and these will only undergo fine tuning, it is proposed that we only get one (1) sample from Khulna and two (2) in Patuakhali;
- 4 Rehabilitated polders for implementation in 2015 and 2016 (specifically select 1 from Satkhira);
- 2 New Polders scheduled in 2015 and 2016 (also select 1 in Satkhira);
- Total number of polders proposed for the study is 10 or 11 which is 50% of the total polders excluding the 5 polders to be implemented in 2017.

8.3 DATA COLLECTION FOR BASELINE SURVEY

The baseline survey team will visit the polder areas to collect information. Multidisciplinary participatory approaches will be adopted in the preparation of the survey. A combination of qualitative and quantitative methods to be used and the purpose of each component of the report will determine the specific methodology to be adopted.

Primary and secondary data have to be collected and used to reflect the socio-economic conditions in the project area. Primary data will be collected through administration of questionnaire & Focus Group Discussions (FGDs) with the local stakeholders at the para and village level. Secondary data will be obtained from publications of the Bangladesh Bureau of Statistics (BBS) and from the records of concerned Union Parishad (UP) or Upazila offices. At the beginning of the fieldwork, the study team will pay a quick visit to the total polder area to familiarize itself with the overall situation of different villages within the polder and to get an r idea of the water management situation in different parts of the polder.

Three to ten sample villages depending on the size of the polder will be selected based on the information collected through the initial visit. The sample villages are selected carefully so that they represent the villages of the polder facing different water management problems. Care will be taken to include villages that are close to the water management infrastructure as well as villages that are far away from the structures.

A series of consultation meetings and FGDs will be organized at para level with local stakeholders to collect information on social as well as water management issues in the area. Formats and checklists will be used for collecting the information.

8.4 Methodology of the Baseline Survey

The design of the baseline survey will be completed during the mission of the two international M&E experts in August/September 2013.

Stratified random sampling will be utilized for selecting the households. The following formula will be used in determining the number of Households (sample size) for the baseline per polder:

- Average size of sample village = 700 ha.
- Average number of HHs per village = 50 HHs
- Number of sample villages ranges from 3-10 villages depending on area of Polder
- Sample HH size per polder will range from 150-500 sample households to be taken from 3-10 villages per polder depending on the area of the polder.

It is proposed that the baseline survey will be done in the 4 polders and 2 new projects during the 1st year (from September 2013 onwards). The schedule for the other 4 will depend on when selection is done. The last baseline survey will be done towards the end of project implementation. However, progress monitoring will be done in between.

The survey questionnaire should not be more than 10 pages and interview time should be within 2 hours. In addition to the survey questionnaire through interviews, also focus group discussions (FGDs) for gender and other social aspects will be held.

The baseline surveys will not be outsourced in order to ensure good quality as well as achieve the objectives of the study successfully. It will also allow an efficient and timely use of the baseline data in project monitoring and evaluation. However, field staff, data entry operators and additional support staff will be hired on a temporary basis as and when required, using the budgets available for baseline and household surveys under Component 5.

8.5 GIS/MIS

With the assistance of the M&E experts, a MIS/DSS – Management Information and Decision Support System will be established to collect, classify, store and distribute information to support decision making, coordination and control.

Socio-economic surveys will be undertaken by the project and the statistical data collected from surveys is being maintained in the respective databases of the project.

SPSS Software will be used to enable the generation of statistical reports and indicators from the MIS database. Data entry operators and a statistician will be hired by the project (on short term basis) for the management of the MIS/DSS.

Blue Gold is a complex project working in different sectors and with a multitude of different stakeholders during a number of years. It is therefore proposed to develop a comprehensive GIS/MIS for Blue Gold, which will enhance proper management and planning greatly.

It is proposed to investigate whether the state-of-the-art web based MIS platform Lizard® could be introduced under the Water Management Fund. Lizard® provides web based GIS functionalities that would be perfect for presentation of the Key Performance Indicators of Blue Gold. Moreover Lizard® provides the option to present tables and graphs, which can be downloaded by the user.

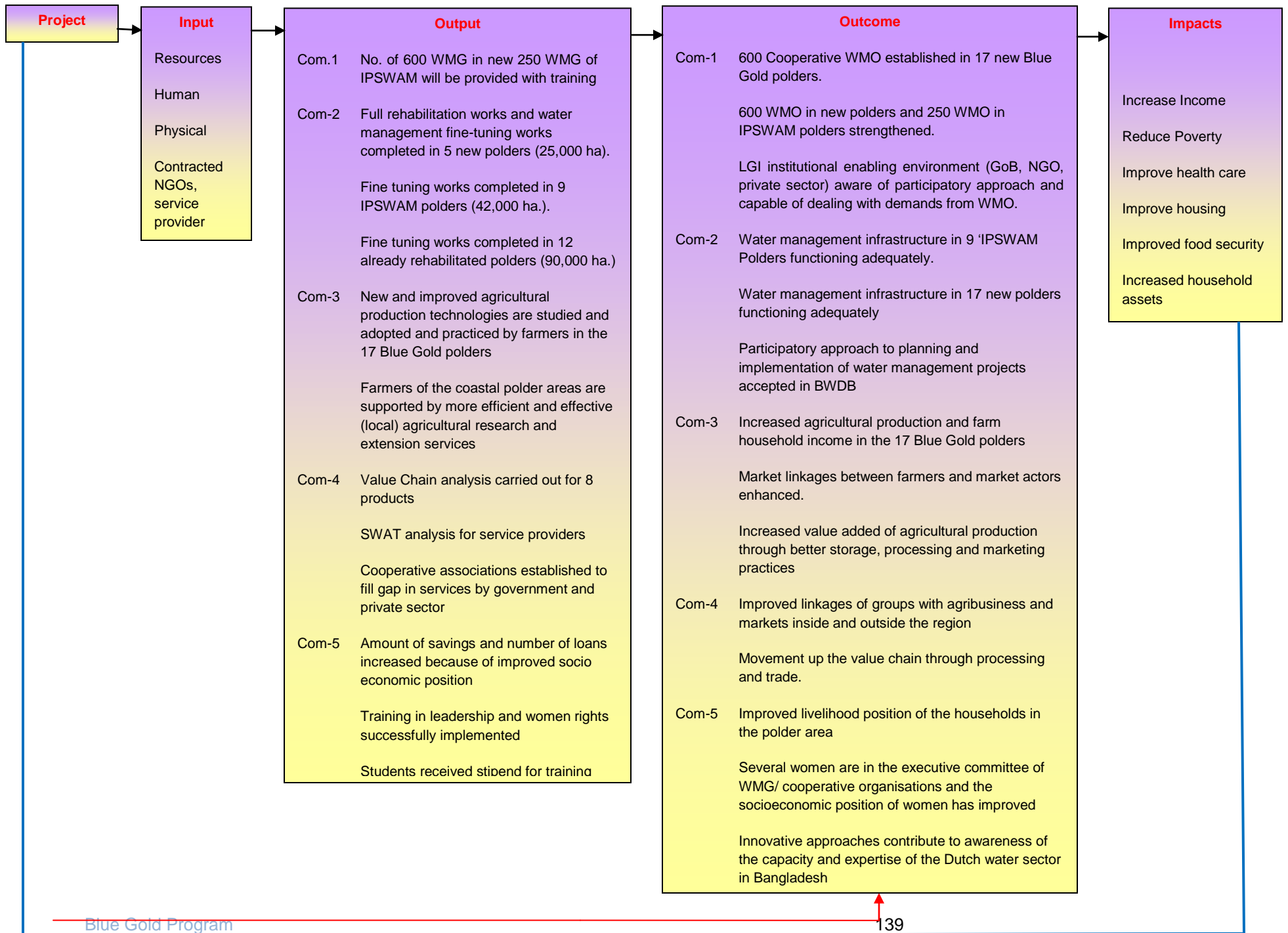


Figure 18: Logframe for M&E

9. MAIN RISKS AND MITIGATING MEASURES

Progress of program activities and the achievement of program objectives is subject to a number of risks and uncertainties, both internal to the program as well as external. The most obvious internal risks are the assignment to program activities of **motivated and capable staff** by all organisations that participate in program implementation, including public institutions, NGOs, private sector enterprises and consultancy firms (both Dutch and Bangladeshi).

- *The Technical Assistance team will continuously monitor the availability and capability of the staff that is assigned to the program by the participating organisations. Any constraints observed will be raised bilaterally with the organisations concerned or through the appropriate channels.*

Another important risk factor concerns the **progress and quality of construction of water management infrastructures**. Factors that play a role are the timely availability of construction materials, collusion between contractors and delays because of lack of funds and/or land acquisition procedures.

- *Experiences with quality control of infrastructural works in several Dutch funded project have shown that close supervision by community members and TA quality control engineers contributes to the quality of water management infrastructure. Adoption of block allocations by BWDB will reduce the delays due to lack of funds.*

The substantial number of institutions and organisations contributing to the implementation of the program requires effective and strong coordination mechanisms at different levels. For overall program management this concerns mainly the Program Management Committee for operational coordination and the Inter Ministerial Steering Committee for overall strategic coordination. At the field level coordination must be assured by the existing coordination mechanisms, the District Development Coordination Committee and the Upazila Development Coordination Committee. **Inadequate functioning of one these coordination mechanisms** poses a risk for program performance.

- *Coordination of the contributions of the variety of stakeholders involved in program implementation is a primary task of the TA team. Senior members of the TA team will make considerable effort to liaise with all stakeholders at national and field level throughout the duration of program implementation.*

Another risk factor is the **interference by political forces** at field level. Adequate political support at the field level and overall political stability will greatly contribute to program performance.

- *The TA team will undertake a communication campaign to local community leaders and politicians to inform them about the program and create awareness of the potential benefits of the program for the people in the coastal zones. Community organisation will contribute to channel the voice of the people themselves, to counter any inappropriate political*

manoeuvres. Moreover, expertise from the Water Integrity Network will be sought to assess and where possible remedy issues around transparency, participation and accountability.

Natural disasters (cyclones, extreme floods or droughts) are realistic risk factors for the coastal zones.

- *Natural hazards are beyond the control of the program's TA team. Well designed and well maintained water management infrastructures, however, will mitigate to a certain extent the effects of natural disasters and climate change.*

The existence of **conflicting interests**, notably between shrimp cultivators and farmers in some areas is at the same time a major challenge for the Program and a risk for the achievement of program objectives.

- *The TA team, together with staff of the implementing agencies and representatives of LGI will make a special effort to meet the challenge of reconciling these apparently conflicting interests in the context of program implementation. If, however, even with focused effort it appears not to be possible to bring about the necessary reconciliation of these interests, alternative courses of action must be explored to achieve program objectives. The progress in the areas where such conflicting interests are observed will be closely monitored and any necessary action will be signalled to the Program Management Committee and EKN in a timely manner.*

From the recent polder studies it appears that the costs for rehabilitation of the water management infrastructure are higher than the € 300 envisaged in the Program budget. Costs of fine tuning may also be higher than the € 100 included in the budget because of the inclusion of climate change effects. The envisaged budget for rehabilitation and fine tuning may therefore be insufficient to achieve the objectives of the Blue Gold program in terms of area covered.

- *During implementation the TA team water resources component will monitor the actual costs of rehabilitation and fine tuning. When substantial deviations from the planned budgets for rehabilitation and fine tuning appear, alternative options will be elaborated that could include:*
 - *reduce the area for full rehabilitation and increase the area for the cheaper fine tuning;*
 - *obtain additional budget from EKN and BWDB;*
 - *arrange that substantial river embankment improvement works are implemented by CEIP or other current infrastructure projects while Blue Gold concentrates on water infrastructure within the polders.*

The WMGs and WMAs play a vital role in the implementation of the Program. Achievement of the Program targets depends to a considerable extent on their absorptive capacity. As is mentioned in the Program document, Program implementation should not exceed the absorptive capacity of these organisations. When the absorptive capacity of the WMGs and WMAs does not allow implementation of Program activities according to the schedules described in the Program document, the Program risks to miss its targets.

- *The TA team will closely monitor the progress of the establishment, capacity strengthening and performance of the WMGs and WMAs. If the progress by these organisations shows that targets will not be achieved, an alternative scheduling of activities will be prepared, with more time for the WMGs and WMA,s but simultaneous work with a higher number of*

WMGs/WMAs. This could have consequences for the staffing of the TA team that will be discussed during annual reviews with the implementing organisations (BWDB, DAE and possibly DoC) and EKN.

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11. ANNEX

11.1 LOGICAL FRAMEWORK

Blue Gold Program Description	Indicators and targets (March 2019)	Means of Verification	Assumptions
<p>Program Goal</p> <p>Reduce poverty by creating a healthy living environment and a sustainable socio-economic development for 150,000 households living in 160,000 ha polder area</p>	<ol style="list-style-type: none"> 1. Households with 5 months or more of food shortage reduced to less than 10% 2. 30% increase in households assets 3. Average household expenditure on housing and education increased by at least 20% <p><i>(These targets apply to male and to female headed households)</i></p>	<ol style="list-style-type: none"> 1. Baseline and impact surveys 2. Baseline and impact surveys 3. Baseline and impact surveys 	
<p>Program Purpose</p> <ol style="list-style-type: none"> 1. 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. 2. To organize 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. 3. To increase the household income derived from the productive sectors 4. To strengthen the institutional framework for sustained water resources development and related development services in the SW/SC zones. 	<ol style="list-style-type: none"> 1. 160,000 ha has increased protection against floods, including by fine-tuning works, contributing to stability for food security 2. 846 WMGs (existing and new) of which 30% (250) perform production and economic activities 3. (a) Average annual household incomes in Blue Gold polders have increased with Tk15,000; (b) At least 2250 LCS women (30% of 7500 LCS women) are engaged in production / income earning 4. Increased institutional capacity of BWDB, DAE and DoC at Zonal levels to provide effective development services 	<ol style="list-style-type: none"> 1. Records on polders with Blue Gold water management interventions 2. DoC register / monitoring data / functionality assessments 3. (a) Baseline and impact surveys; (b) survey among LCS women 4. Institutional capacity study (to be programmed) / Training evaluation forms 	

Component 1: Community mobilisation and institutional strengthening			
Component objective:			
Form/strengthen WMGs and WMAs to participate in water management aspects effectively and perform production and business functions, establish effective partnerships between WMOs and government institutions and other service providers and stimulate professionalization of WMOs.			
Component Results	Indicators	Means of verification	Assumptions
<ol style="list-style-type: none"> 1. New WMGs and WMAs are formed and registered 2. WMGs and WMAs in IPSWAM polders are strengthened 3. Women are represented in WMG and WMA executive committees 4. WMGs and WMAs perform routine O&M activities efficiently based on O&M agreement with BWDB 5. WMGs and WMAs are performing production and business functions 6. WMOs coordinate on their own with government institutions and other service providers 	<ol style="list-style-type: none"> 1. 600 new WMGs are established and operational with WMG members representing at least 50% of all households by the end of the project 2. At least 40% of all WMG members are female (IPSWAM and new) 3. At least 30% of the executive committees' membership of WMGs and WMAs are women 4. 80% of WMGs and WMAs perform O&M activities satisfactorily based on functionality assessment 5. 30% of WMGs perform production and economic activities 6. 70% of WMAs independently communicate with government institutions and other service providers 	<ol style="list-style-type: none"> 1. DoC register / Monitoring data / functionality assessments 2. Functionality assessments 3. Functionality Assessments 4. Agreement between WMA and BWDB on O&M arrangement and Functionality Assessments 5. Functionality Assessments 6. Functionality Assessments 	<ol style="list-style-type: none"> 1. Experience from other projects and successful cooperatives can be applied 2. Political support for a cooperative movement 3. A supportive enabling environment in particular on (good) governance 4. Periodic assessment integrated in the project M&E system 5. Relevant government departments/ institutions/NGOs /private organizations are supportive
Component 2: Water Resources Management			
Component objective:			
Protect the communities and their land located in polders against water logging and floods from river and sea and to optimize the use of water resources for their productive sectors			
Component Results	Indicators	Means of verification	Assumptions
<ol style="list-style-type: none"> 1. Water management in 9 IPSWAM polders and 12 other already rehabilitated polders fine tuned 2. Adequate flood protection and improved water management in 5 polders rehabilitated. 3. Landless people earn income from construction activities 4. Proper O&M of water management infrastructure assured 5. BWDB applies participatory approach in the South West and South Central zonal offices, including BWDB national level staff trained and aware of participatory approach 	<ol style="list-style-type: none"> 1. In 135,000 ha of polders the water management infrastructure fine-tuned for optimal use 2. 25,000 ha of polders rehabilitated 3. At least 50% of all earthwork is by LCS, of which at least 40% are female; at least 7500 women earning from LCS) 4. (a) MoU for O&M signed between all WMAs and BWDB; (b) Water logging in Blue Gold polders reduced by at least 50% 5. 75% of BWDB staff of relevant zonal offices and concerned national staff trained in participatory approach, including in gender aspects, and knowledge increased. 	<ol style="list-style-type: none"> 1. Records on polders with fine-tuning interventions 2. Records on rehabilitated polders 3. Monitoring by component 2 4. (a) List of WMAs established and MoUs signed (b) Inspection reports by TA and BWDB staff 5. Training records, including training evaluation forms 	<ol style="list-style-type: none"> 1. ADP has sufficient provisions for the proposed works 2. No major calamities occur 3. BWDB disburses fund to it's district offices in time 4. Mechanical Engineering (ME) supplies and installs gates for water structures in time

Component 3 Food Security and Agricultural Production			
Component Objective:			
Productive sectors (crops, aquaculture and livestock) performance will be higher for the benefit of male and female producers, contributing to increased income and food security			
Component Result	Indicators	Means of verification	Assumptions
<p>1. New and improved agricultural production technologies are studied and adopted by male and female farmers</p> <p>2. Increased and more diversified agricultural production and farm household income</p> <p>3. Male and female farmers are supported by more efficient and effective agricultural research and extension services</p>	<p>1. FFS implemented and improved agricultural practices technologies adopted:</p> <p>1.1 (a) 1400 FFS implemented and effectively completed; male : female FFS participant ratio is 50:50</p> <p>1.2 New and improved FFS curricula developed and used, including on nutrition modules</p> <p>1.3 80% of FFS trained female and male farmers adopted at least 3 FFS-promoted farm practices</p> <p>1.4 Innovative technology introduced and applied for land preparation, irrigation, harvesting, storage and /or processing, also in view of adaptations to climate change</p> <p>2. Productivity of FFS participants increased:</p> <p>2.1. Rice 8% (in ton/ha)</p> <p>2.2. High value crops 15% (ton/ha)</p> <p>2.3. Eggs 50% (per household)</p> <p>2.4. Fish 10% (in kg/ha)</p> <p>2.5. Homestead vegetables and fruits 15% (in kg/household)</p> <p>2.6 At 2 years after rehabilitation the production intensity in new Blue Gold polders is increased by 20%</p> <p>2.7 Male and female famers are more market oriented by selling a larger proportion of their production</p> <p>3.1 50 Departmental trainers and 150 Farmer Trainers trained to conduct FFS</p> <p>3.2 Advanced FFS perform Participatory Action Research</p>	<p>1.1 Records on FFS implemented</p> <p>1.2 List of training modules newly developed or improved</p> <p>1.3 Participatory monitoring</p> <p>1.4 Records on innovative technologies successfully introduced / Technical reports</p> <p>2.1 – 2.6 Baseline and impact surveys, and other monitoring (by gender), technical reports and/or production statistics</p> <p>2.7 Baseline and impact surveys, FGDs</p> <p>3.1 Training records</p> <p>3.2 Monitoring / Technical Reports</p>	<p>1. Producers will be able to settle their difference on water use</p> <p>2. Timely availability of quality inputs (including credit)</p> <p>3. DAE is supportive of Blue Gold objectives and flexible in implementing TOTs and FFSs</p> <p>4. DLS and DOF provide support to training courses</p> <p>5. Financial consequences for innovations can be catered for</p> <p>6. No major natural calamities occurred</p>

Component 4 Business Development:			
Component objective:			
Contribute to farm household income from agricultural production by expanding business activities and employment through market orientation and private sector development			
Component results	Indicators	Means of verification	Assumptions
	<i>Note: most targets are preliminary and will be reviewed and possibly reformulated per Value Chain after VC selection/analysis and baseline data collection.</i>		
<ol style="list-style-type: none"> 1. Value chains for selected commodities are strengthened 2. Private Sector actors are facilitated to improve value chain linkages 3. WMO cooperatives expanded their economic activities 4. Effective supporting services are available for value chain actors 5. Private sector generated non-farm employment 	<ol style="list-style-type: none"> 1.1 8 value chains analysed, including at least 4 in which women actors are significantly involved 1.2 Participating businesses in selected value chains increased income levels by 20% 1.3 Value of new investments in post-harvest equipment and infrastructure in value chains 2. 1 Number of businesses in the polders has increased with 10% 2.2 Producers groups established and operational, which includes female groups or female members 2.3 20% Income increase of producer group participants attributable to value adding and sales volumes. 3.1 30% of WMGs perform production and economic activities 3.2 Curriculum for Farmer Business Schools (FBS) developed 3.3 At least 60 FBS implemented and effectively completed 4. Increase in service customer satisfaction amongst the producer actors 5. Employment by household members 	<ol style="list-style-type: none"> 1.1 Reports / Lists of analysed value chains 1.2 Surveys among business before and after interventions 1.3 Monitoring 2.1 Statistics and/or data collection at start and end of program 2.2 Monitoring 2.3 Surveys among producer group members 3.1 Functionality Assessments 3.2 New curriculum documented 3.3 Records on FBS implemented 4. Surveys on service customer satisfaction 	<ol style="list-style-type: none"> 1. Component 3 assumptions are underlying component 4 2. Rural finance supportive of productive sector development 3. Cohesion remains amongst WMO members to avoid capturing. 4. Dept. of Agricultural Extension and Dept. of cooperatives is supportive 5. Private sector actors will allow insight in their business management information 6. Selected VCs offer opportunities / employment opportunities for women; cultural barriers for women to take up employment outside homestead or community can be lifted

	increased by 10% following implementation of value chains (Target: 30% of them are female)	5. Baseline and impact surveys	
Component 5: Cross-cutting Issues			
Component objectives:			
<ol style="list-style-type: none"> 1. Good governance: Promote integrity in the water sector 2. Gender: enable men and women to benefit more equally from Blue Gold interventions; increase socio-economic status of women in the polders; and improve Blue Gold's performance and the likelihood of sustainability. 3. Environment: To avoid or mitigate any damaging environmental impact of Blue Gold interventions and promote environmental improvements 4. Disaster Risk Reduction (including Climate Change Adaptations): reduce vulnerability and increase resilience of community to natural hazards including climate change, thereby creating a more stable environment for increasing food security, agricultural production and business development. 5. Innovations: Acceleration of the development process by application of innovative solutions in (1) water management and (2) productive sectors, i.e. agricultural production and business development. 			
Component Result	Indicators	Means of verification	Assumptions
<ol style="list-style-type: none"> 1. The Annotated Water Integrity Scan (AWIS) adopted and disseminated 2. Increased decision-making of female WMO members 3. Increased women's leadership 4. Women's mobility improved 5. Increase in no of women earning own cash income 6. Environmental conditions in Blue Gold polders improved 7. Community people and local institutions (LGI and WMOs) are better equipped to cope with natural hazards and the effects of climate change. 8. Innovative technologies / solutions piloted in water management 9. Innovative solutions introduced and applied in agricultural production and selected value chains 	<ol style="list-style-type: none"> 1. Staff of BG and BWDB trained in adopted AWIS approach by WIN trainer 2. Participation of women in decision making increased (target: ≥40% of female WMG / WMA members actively participate in discussions and decision-making within WMG) 3. Women leadership increased (40% of EC members in important positions are women) 4. Mobility of women increased (target: ≥25% of women moving outside their own village on their own) 5. ≥30% of the able and adult women derive own cash income from the sales of surplus production, other IGA and/or employment. 6. 26 Sustainable Environmental Management Plans updated (in IPSWAM polders) or formulated by male and female WMO members, and evidence of their (partial) implementation 7. Community Risk Assessments for all polders (by Blue Gold, unless already done by CDMP); Community Based Disaster Risk management (CBDR) strategies for each polder developed; and evidence of their (partial) implementation. 8. 2 pilots executed on innovative solutions (e.g. building with nature) for polder protection and land reclamation 9. Number of improved technologies or other innovative solutions introduced in agricultural production and in value chain development (no target) 	<ol style="list-style-type: none"> 1. Training report / Adopted AWIS approach 2. Functionality assessments of WMOs 3. Functionality assessments of WMOs 4. Baseline and impact surveys 5. Impact survey 6. Monitoring and functionality assessment 7. Monitoring and functionality assessment 8. Record keeping on innovations in WM / Technical reports 9. Record keeping on innovations in component 3 and 4 / Technical Reports 	

11.2 WORK SCHEDULE

Polders	Situation at start of the Program	Key Activities	2013-14 Year 1												2014-15 Year 2												2015-16 Year 3												2016-17 Year 4												2017-18 Year 5												2018-19 Year 6											
			4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Inception Period																																																																										
		Establish project and field offices	■																								■																																															
		Establishment of Project Management Committee	■																																																																							
		Confirm establishment of the Ministerial Steering Committee	■																																																																							
		Mobilisation of consultants and support staff	■																																																																							
		Prepare/Confirm Workplan	■																																																																							
		Initial Identification/Selection of Polders	■																																																																							
		Review of Logframe and agree on OVI	■																																																																							
		Prepare Inception Report	■																																																																							
		Organise Inception Workshop	■																																																																							
Component 1 Community Organisation and institutional strengthening																																																																										
4 IPSWAM polders	WMG/WMA operational	Monitoring of WMG/WMA performance	■												■												■												■												■																							
		Refresher Training	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
5 IPSWAM polders	WMG/WMA operational	Monitoring of WMG/WMA performance	■												■												■												■												■																							
		Refresher Training	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
4 Rehabilitated polders	Status of WMG/WMA unknown	Participatory multidisciplinary data collection	■												■												■												■												■																							
		WMG/WMA formation and registration	■												■												■												■												■																							
		Extensive Training program	■												■												■												■												■																							
		Institutional Strengthening	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
		Monitoring of WMG/WMA performance	■												■												■												■												■																							
4 Rehabilitated polders	Status of WMG/WMA unknown	Participatory multidisciplinary data collection	■												■												■												■												■																							
		WMG/WMA formation and registration	■												■												■												■												■																							
		Extensive Training program	■												■												■												■												■																							
		Institutional Strengthening	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
		Monitoring of WMG/WMA performance	■												■												■												■												■																							
4 Rehabilitated polders	Status of WMG/WMA unknown	Participatory multidisciplinary data collection	■												■												■												■												■																							
		WMG/WMA formation and registration	■												■												■												■												■																							
		Extensive Training program	■												■												■												■												■																							
		Institutional Strengthening	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
		Monitoring of WMG/WMA performance	■												■												■												■												■																							
3 polders to be rehabilitated	Initial assessment of 3 polder completed	Additional Participatory multidisciplinary data collection	■												■												■												■												■																							
		WMG/WMA formation and registration	■												■												■												■												■																							
		Extensive Training program	■												■												■												■												■																							
		Institutional Strengthening	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
		Monitoring of WMG/WMA performance	■												■												■												■												■																							
2 polders to be rehabilitated		Participatory multidisciplinary data collection	■												■												■												■												■																							
		WMG/WMA formation and registration	■												■												■												■												■																							
		Extensive Training program	■												■												■												■												■																							
		Institutional Strengthening	■												■												■												■												■																							
		Linking with LGI and other service providers	■												■												■												■												■																							
		Monitoring of WMG/WMA performance	■												■												■												■												■																							

Polders	Situation at start of the Program	Key Activities	2013-14 Year 1												2014-15 Year 2												2015-16 Year 3												2016-17 Year 4												2017-18 Year 5												2018-19 Year 6											
			4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
Component 2 Water Resources Management																																																																										
4 IPSWAM polders	Main rehabilitation completed	Prepare Water Resources Management Plan as part of the Polder Development Plan, including fine tuning works Design and implementation of fine tuning works Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
5 IPSWAM polders	Main rehabilitation completed	Prepare Water Resources Management Plan as part of the Polder Development Plan, including fine tuning works Design and implementation of fine tuning works Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders	Main rehabilitation completed	Prepare Water Resources Management Plan as part of the Polder Development Plan, including fine tuning works Prepare O&M agreement Design and implementation of fine tuning works Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders	Main rehabilitation complete	Prepare Water Resources Management Plan as part of the Polder Development Plan, including fine tuning works Prepare O&M agreement Design and implementation of fine tuning works Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders	Main rehabilitation complete	Prepare Water Resources Management Plan as part of the Polder Development Plan, including fine tuning works Prepare O&M agreement Design and implementation of fine tuning works Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
3 polders to be rehabilitated	Initial assessment of 3 polder completed	Carry out Environmental Impact Assessment Prepare and agree on Infrastructure rehabilitation plan Prepare SBMP Prepare O&M agreement Rehabilitation Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
2 polders to be rehabilitated		Carry out Environmental Impact Assessment Prepare and agree on Infrastructure rehabilitation plan Prepare SBMP Prepare O&M agreement Rehabilitation Improve and ensure long term O&M	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
Component 3 Food Security																																																																										
4 IPSWAM polders		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS Follow-up by FFS facilitators	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
5 IPSWAM polders		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS Follow-up by FFS facilitators	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS Follow-up by FFS facilitators	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS Follow-up by FFS facilitators	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
4 Rehabilitated polders		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS Follow-up by FFS facilitators	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
3 polders to be rehabilitated		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											
2 polders to be rehabilitated		Preparation of Community/cooperative Action Plans Preparation of Polder Development Plans Establishment and implementation of FFS	[Gantt bars for Year 1]												[Gantt bars for Year 2]												[Gantt bars for Year 3]												[Gantt bars for Year 4]												[Gantt bars for Year 5]												[Gantt bars for Year 6]											

Polders	Situation at start of the Program	Key Activities	2013-14 Year 1												2014-15 Year 2												2015-16 Year 3												2016-17 Year 4												2017-18 Year 5												2018-19 Year 6											
			4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
Component 4 Business Development																																																																										
4 IPSWAM polders		Preparation of Folder Business Plans	■												■																																																											
		Development of Cooperative Enterprises													■																																																											
5 IPSWAM polders		Preparation of Folder Business Plans																									■												■																																			
		Development of Cooperative Enterprises																									■												■																																			
4 Rehabilitated polders		Preparation of Folder Business Plans																									■												■																																			
		Development of Cooperative Enterprises																									■												■																																			
4 Rehabilitated polders		Preparation of Folder Business Plans																																					■												■																							
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4 Rehabilitated polders		Preparation of Folder Business Plans																																					■												■																							
		Development of Cooperative Enterprises																																					■												■																							
3 polders to be rehabilitated		Preparation of Folder Business Plans																																					■												■																							
		Development of Cooperative Enterprises																																					■												■																							
2 polders to be rehabilitated		Preparation of Folder Business Plans																																																	■												■											
		Development of Cooperative Enterprises																																																	■												■											
Cross Cutting Issues																																																																										
Good Governance		Introduce activities and tools for integrity and governance	■												■												■												■												■												■											
Gender		Support, promote and recognise the importance of gender in all project activities	■												■												■												■												■												■											
Climate Change		Identify the need for more in-depth studies	■												■												■												■												■																							
		Develop Disaster Risk Reduction (DRR) interventions	■												■												■												■												■																							
Innovations		Inventory of potentially interesting innovations	■												■												■												■												■																							
		Appraisal of relevance	■												■												■												■												■																							
		Testing	■												■												■												■												■																							
Vocational Training		Provide stipends for education and vocational training	■												■												■												■												■																							
		Scaling up	■												■												■												■												■																							
M&E		Set up M&E / MS system	■												■												■												■												■																							
		Carry out baseline surveys and repeat studies	■												■												■												■												■																							
		Continuous progress monitoring	■												■												■												■												■																							
Reports																																																																										
		Annual Plan (AWPB)	♦												♦												♦												♦												♦												♦											
		Inception Report	♦												♦												♦												♦												♦												♦											
		Progress Report (half yearly)	♦												♦												♦												♦												♦												♦											
		Fin. Statement (half yearly)	♦												♦												♦												♦												♦												♦											
		Final Narrative Financial Statement	♦												♦												♦												♦												♦												♦											
		Project Completion Report	♦												♦												♦												♦												♦												♦											
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Legend																																																																										
Ongoing activity	■																																																																									
Report	♦																																																																									

11.3 STAFFING SCHEDULE

Sl. No.	Name	Position	Comp	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Component 1: Community organisation										
1	Alamgir Chowdhury	Development Planner / DTL	1	11	11	11	11	11	11	66
2	John Marandy	Sr Socio-Economist	1	11	11	11	11	11	11	66
3	Ms Showkat Ara	Gender Expert	1	11	11	11	11	11	11	66
4	F.M. Shorab Hossain	Community Organisation Expert	1	11	11	11	11	11	11	66
5	Benaul Islam	Sr Sociologist/Cooperative Expert	1	11	11	11	11	11	0	55
6	M. Jashim Uddin	Socio-Economist, Khulna	1	11	11	11	11	11	11	66
7	Matiur Rahman	Socio-Economist, Patuakhali	1	11	11	11	11	11	11	66
8	AK.M. Jashim Uddin	Socio-Economist, Satkhira	1	-	-	11	11	11	11	44
9	Ms Farida	Socio-Economist, Patuakhali	1	7	11	11	11	11	11	62
10	vacancy	Socio-economist, Khulna	1	7	11	11	11	11	11	62
11	vacancy	Socio-economist, Satkhira	1	0	-	11	11	11	11	44
	Total			91	99	121	121	121	110	663
Component 2: Water Resource Management										
12	Mofazzal Ahmed	QC Engineer/ Deputy Component Leader	2	9	11	11	11	11	11	64
13	Vacancy	Hydrologist/Climate Specialist	2	2	2	2	2	0	0	8
14	Vacancy	Civil Engineer, Patuakhali	2	4	11	11	11	11	11	59
15	Mainul Islam	Civil Engineer, Khulna	2	6	11	11	11	11	11	61
16	Vacancy	Civil Engineer, Satkhira	2	4	11	11	11	11	11	59
17	Vacancy	Irr. & Dr. Engineer, Patuakhali	2	4	11	11	11	11	11	59
18	Mustafizur Rahman	Irr. & Dr. Engineer, Khulna*	2	9	11	11	11	11	0	53
19	Vacancy	Irr. & Dr. Engineer, Satkhira*	2	0	0	11	11	11	11	44
20	Md. Shahidullah	Field QC Engineer-1, Patuakhali	2	9	11	11	11	11	6	59
21	Vacancy	Field QC Engineer-2, Patuakhali	2	0	11	11	11	11	11	55
22	Md. Azizur Rahman	Sr. Field QC Engineer, Khulna	2	9	11	11	11	11	11	64
23	Vacancy	Field QC Engineer, Satkhira	2	4	11	11	11	11	11	59
24	Ahsan Ahmed Bapi	Field Mech. Engineer, Khulna (for 3 dists.)	2	4	11	11	11	11	11	59
25	Shahar Uddin	Irr. Agronomist, Khulna (for 3 districts)	2	9	11	11	11	11	11	64
26	Vacancy	Quantity Survey Engineer	2	4	11	11	11	11	11	59
27	Vacancy	Reimbursement Engineer	2	0	11	11	11	11	11	55
28	Vacancy	Quantity Survey Assistant	2	4	11	11	11	11	11	59
29	Vacancy	Reimbursement Assistant	2	0	11	11	11	11	11	55
				81	178	189	189	187	171	995
* Irr. & Dr. Engineer from Khulna will look after Satkhira for the first 3 years and the one in Satkhira will look after Khulna in the last year. Field mechanical engineer will be required till the end as gate supply will continue till the last moment.										

Sl. No.	Name	Position	Comp	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Component 3: Food Security										
30	Ashrafal Islam (replacement)	Agriculturalist / Dept Comp Leader	3	8	11	11	11	11	11	63
31	Anayet Hossain	Mechanisation/Processing Expert	3	6	11	11	11	5	0	44
32	Vacancy	Mechanisation/Processing Expert	3	6	11	11	11	11	10	60
33	Vacancy	On-farm mechanization Expert	3	6	11	11	11	11	10	60
34	Maksudur Rahman	Master Trainer (Rice Agronomist)	3	6	11	11	11	11	11	61
35	Dr. Shamsul Huda	Fish Expert	3	11	11	11	11	11	5	60
36	Ms Sumona Rani Das	Agriculturalist (3)	3	5	11	11	11	11	11	60
37	Munir Ahmed (replacement)	Livestock Expert, Khulna	3	9	11	11	11	11	11	64
38	Abdullah Sani	TC/Master Trainer (OFWM Specialist)	3	6	11	11	11	11	11	61
39	Shameem Ahmed	Master Tr. (Int Homestead Gardening)	3	6	11	11	11	11	11	61
40	Siddiqur Rahman	TC/Master Tr. (High Value Cash Crops)	3	6	11	11	11	11	11	61
41	Vacancy	Agriculturalist K. or P.	3	6	11	11	11	11	11	61
42	TBN	FFS Facilitators	3	190	200	196	190	190	190	1,156
Total				271	332	328	322	316	303	1872
Component 4: Business Developmen										
43	vacancy	Private Sector Expert	4	0	11	11	11	11	11	55
44	Serajul Islam (replacement)	Private Sector Expert	4	9	11	11	11	11	11	64
45	vacancy	Business Dev. Coordinator, Khulna	4	5	11	11	11	11	11	60
46	vacancy	Business Dev. Coordinator, Satkhira	4	0	6	11	11	11	11	50
47	Md. Asaduzzaman	Business Dev. Coordinator, Patuakhali	4	7	11	11	11	11	4	55
48	Muhammad Lokman Hossain	Investment Specialist, Khulna	4	6	11	11	11	11	5	55
49	Zahidul Islam Chowdhury	Marketing expert	4	0	11	11	11	11	11	55
50	Samsad Najnin	Gender / Women Affairs Expert, Khulna	4	6	11	11	11	11	11	61
51	Tanvir Islam (replacement)	Value Chain Expert / acting Comp Leader	4	10	11	11	11	11	6	60
52	Dr. AKM Saifullah	Good Governance	4	3	6	6	6	6	0	27
Total				46	100	105	105	105	81	542

Sl. No.	Name	Position	Comp	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Component 5: Program Management										
53	Aowlad Hossain	Institutional/Legal Advisor	5	8	11	11	11	11	11	63
54	Shahjahan Miah (replacement)	M&E Expert	5	9	11	11	11	11	11	64
55	Shahriar Morshed (replacement)	M&E Assistant	5	8	11	11	11	11	11	63
56	Nurur Rahman	M&E Assistant	5	0	11	11	11	11	11	55
57	Ms Syeda Sajeda Haider	Disaster Risk Reduction (DRR) Expert	5	11	11	11	11	11	0	55
58	vacancy	National Project Coordinator	5	8	11	11	11	11	11	63
59	Abul Kashem	Training Expert	5	11	11	11	11	11	11	66
60	vacancy	Training Coordinator	5	8	11	11	11	11	11	63
61	TBN	Field Training Organisers (SMS)	5	11	22	33	33	33	22	154
62	Abu Bakr Siddique	Environment Expert	5	10	11	11	11	6	0	49
63	Anis Pervez	Communication Expert	5	11	11	11	11	11	11	66
64	TBN	Subject Matter Specialists (SMS)	5	77	77	77	77	77	77	462
Total				172	209	220	220	215	187	1223

Community Organisers (under Component 1)										
1	Ms Marjana Sultana	Community Organiser Khulna	1	9	11	11	11	11	11	64
2	Basudev Roy	Community Organiser Khulna	1	9	11	11	11	11	11	64
3	Rabita Mondol	Community Organiser Khulna	1	9	11	11	11	11	11	64
4	Md Azizur Rahman (Bbul)	Community Organiser Khulna	1	9	11	11	11	11	11	64
5	Ms Yesmin Akter Fatema	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
6	Md. Anisur Rahman	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
7	Md. Nazrul Islam (Jewel)	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
8	Goshta Bihari Mondal	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
9	Milon Rani Datta	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
10	Ms Ruksana Parvin	Community Organiser Khulna	1	9	11	11	11	11	11	64
11	Kumaresh Chandra Dam	Community Organiser Khulna	1	9	11	11	11	11	11	64
12	Md Humayun Kabir	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
13	Md. Alamin	Community Organiser Patuakhali	1	9	11	11	11	11	11	64
14	Ms Jhorna Begum	Community Organiser	1	6	11	11	11	11	11	61
15	Md. Abu Jafor	Community Organiser	1	6	11	11	11	11	11	61
16	Md. Azizur Rahman	Community Organiser	1	6	11	11	11	11	11	61
17	Jannat Ara Ferdouz	Community Organiser	1	6	11	11	11	11	11	61
18	Chandan Sarkar	Community Organiser	1	6	11	11	11	11	11	61
19	Md. Ariful Islam	Community Organiser	1	6	11	11	11	11	11	61
20	Md. Akidul Islam	Community Organiser	1	6	11	11	11	11	11	61
21	TBN	Community Organisers	1	346	350	350	350	350	350	2096
Total				505	570	570	570	570	570	3355

Sl. No.	Name	Position	Comp	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Support Staff										
1	A.F.M. Hedayet-Ul-Al-Arif	Finance Manager		10	11	11	11	11	11	65
2	Shahabuzzaman (Shahin)	Assistant IT Manager		9	11	11	11	11	11	64
3	TBN	Finance & Admin Officer		8	11	11	11	11	11	63
4	Abu Zahir	Office Manager		10	11	11	11	0	0	43
5	Ms Yasmin Ara (Rekha)	Secretary		11	11	11	11	11	11	66
6	Ms Yesmin Akther	Receptionist		11	11	11	11	11	11	66
7	Abu Isa Md Mustafa	Office Assistant		11	11	11	11	11	11	66
8	Ms Maszeda Begum	Cleaner		11	11	11	11	11	11	66
9	Sulaiman	Driver		11	11	11	11	11	11	66
	TBN	Drivers (11 x)		110	121	121	121	121	121	715
10	Uttam Kumar Nath	Office Assistant / Driver, Khulna		10	11	11	11	11	11	65
11	Rabiul Alam	Office Manager, Khulna		10	11	11	11	11	11	65
12	Pabitra Chandra Mali	Messenger, Patuakhali		10	11	11	11	11	11	65
13	Munir Uz Zaman	Office Manager, Patuakhali		8	11	11	11	11	11	63
14	TBN	Office assistant, Patuakhali		6	11	11	11	11	11	61
14	TBN	Messenger Satkhira, Khulna		11	22	22	22	22	22	121
15	TBN	admin assistant Comp 4		6	11	11	11	11	11	61
16	TBN	Data Entry Operators Comp 1		26	30	30	30	30	30	176
	Total			289	338	338	338	327	327	1957

11.4 MEETING NOTES INCEPTION PHASE

	Name	Organisation	Date/Time	Contact Details	Key points discussed/Issues
1	a) Md. Masud Ahmed b) Kamruzzaman Khan	a) Director Planning-III, Bangladesh Water Development Board b) SDE, BWDB	25/03/13	a) Hasan Court (7 th Floor), 23/1 Motijee C/A Dhaka. Phone: 02-7126211. Mobile: 01715018038, 01673916090. E-mail: masud.bwdb@yahoo.com b) Mobile: 01911907973. Email: bwdb05.khan@gmail.com	Blue Gold TA Team paid courtesy call to the Project Director and introduced team members. Discussed status of the DPP and field offices for Blue Gold. IPSWAM zonal offices in Khulna and Patuakhali are available but none in Sathkira.
2.	a) Dr. Craig A Meisner b) Kevin T. Kamp c) Engr. A.H.M Kausher d) Manoranjan K Mondal e) Marie Charlotte Buisson	a) WorldFish Director, South Asia b) WorldFish Deputy Regional Director, South Asia c) IWM Senior Water Resources Planning Specialist d) IRRI Collaborative Research Scientist-CPWF Project e) Post-Doctoral Fellow-Quantitative Impact Evaluation, IWMI	11/04/13	a) WorldFish Bangladesh and South Asia office, House 22B, Road 7, Block F, Banani Dhaka. Phone: 02-8813250, 02-8814624. Mobile: 01755637676. Email: c.meisner@cgjar.org b) Mobile: 01755550201. Email: K.Kamp@cgjar.org c) House 496, Road 32, New DOHS, Mohakhali, Dhaka. Phone: 02-8827902, 02-8822105-6. Mobile: 01714404293. Email: ksr@iwmbd.org d) IRRI Bangladesh Office, House 9, Road 2/2 Chairmanbari, Banani Dhaka. Phone: 02-9898011, 02-9886608. Mobile: 01711430203. Email: m.mondal@irri.org e) Email: m.buisson@cgjar.org	Participated in the WorldFish Reflection Workshop on Ganges Basin Development. Joined working group on Social Sciences. Discussions focused on: Messages, Facts and Evidence relative to social issues. Relevant issues raised for Blue Gold: lack of women involvement in sluice level O&M; financial capability of WMOs needs to be improved; strengthen institutional capacity of government agencies.
4.	a) Salim Reza Hasan and Project Officer	Country Manager Solidaridad-Bangladesh	18/04/13		Mr. Hasan and colleague briefly discussed SaFaL objectives, components and approach/methodology. SaFaL will cover Khulna, Sathkira, Bagerhat and Narail Districts covering several Polders of Blue Gold. SaFaL will observe "need based" principle and participatory strategies which Blue Gold espouses. SaFaL will be implementing similar initiatives specifically on Components 3&4 of Blue Gold. Hence, close coordination and possibly collaboration on field activities must be initiated. WMG will serve as community platform for SaFaL program. Mr. Hasan proposed a joint workshop of SaFaL and Blue Gold during the Inception Phase to discuss key areas for collaboration.
5	a) Tahmina Begum b) M. Shamsul Alam	a) Project Director for DAE, Blue Gold	21/04/13	a) DAE, 3 rd Floor (middle building), Khamarbari	Update on DPP, PD said she will be attending a meeting on April 23 where DPP will be discussed and hopefully approved. She

	Name	Organisation	Date/Time	Contact Details	Key points discussed/Issues
	c) Met briefly with other DAE Officials e.g. Director General, Research and Training Staff	b) Assistant Senior Adviser, Agricultural Sector Program Support (ASPS II)		Farmgate, Dhaka. Phone: 02-8121152. Mobile: 01716481517. Email: kbdtahmina@gmail.com b) DAE office, Room C-751, 6 th Floor Rear Building. Phone: 02-8115697-8. Mobile: 01718533770. Email: dmsalam@accessstel.net	described briefly salient features of DPP (e.g. Blue Gold staffing and logistics/equipments). Hein raised need for his office space. Met with Director General and other officials and discussed office space for Hein. The response was positive and quick. The DG instructed relevant staff to check possible room/s for Hein. PD assured that this will be ready the following week.
6	Jan W.K. van der Wal	Team leader, CDSP-IV	23/04/13	Noakhali Project Office: BWDB Compound, Sonapur, Noakhali. Phone: 0321-61428Dhaka Project Office: House 12, (1 st Floor) Road 1, Block F, Banani, Dhaka. Phone: 02-8811525. Mobile: 01755503643. Email: jan.wal@mottmac.nl ; cdsp.noa@gmail.com	Discussed project background, agencies involved, and WMO formation and mobilization. WMGs formed are based on hydrological boundaries. Under the umbrella of WMG organization, subgroups were formed e.g. social forestry group, creditand savings group, Farmer forum, tubewell group and women group. Jan suggested that we meet with his deputy who is more knowledgeable on social aspects and training.
7	a) Director General, BWDB b) Engr. Md.Abdul Mannan c) Md. Shamiul Islam Khan d) Chief Engineer, Planning, BWDB e) PD Masud	a) b) Additional Director General (Planning) c) Deputy Secretary (Planning), BWDB d) Formerly PD of Southwest Project	25/04/13	a) - b) BWDB Office of Additional Director General (Planning) WAPDA Bhaban, Motijeel Dhaka. Phone: 02-9562293. Mobile: 0173303133. Email: adqp.bwdb@gmail.com , mannan7000@gmail.com c) Room 236, BWDB. Phone: 02-9511293. Mobile: 01711586237. Email: msik64@yahoo.com , msik64@gmail.com	Courtesy call and introduction of TA Team. DG emphasized that duplication of polders should be avoided. Discussed with ADG Planning the need to make available project site offices. Chief Engineer Planning cited importance of Agricultural component and value chain in project. Made appointment to discuss Southwest project experience.
8	a) Md. Asaduzzaman b) Nityananda Chakravorty and 2 other staff	a) Additional Registrar (Ext. Promotion & Planning) DoC, Ministry of LGRD & Cooperatives b) Deputy Team Leader Water Cell (PSSWRSP), DoC, Ministry of LGRD & Cooperatives	25/04/13	a) Samabaya Bhavan, Block F-10, Agargaon Civic Sector, She-E-Bangla Nagar, Dhaka. Phone: 02-9140877. Mobile: 01714216837. Email: asad1961@hotmail.com b) Mobile: 01727291421. Email: chakravorty.nityananda@gmail.com	They discussed salient features of the Cooperative Act and their experience with WMG registration problems in general: inadequate registration fees savings and shares sometimes paid by interested persons; WMGs not fully aware about cooperative objectives and benefits because DoC staff not adequately involved in group mobilization and formation process. They proposed the following to enable them to assist effectively Blue Gold program which they already discussed during project formulation: Logistic support to DoC Upazilla and District offices; enhancing their capacity to perform the mandatory annual audits; Strengthening of the Water

	Name	Organisation	Date/Time	Contact Details	Key points discussed/Issues
					Cell.
10	Riad Imam Mahmud and Kazal Ahidul	Country Director, Max Foundation (MF) and Programme Manager respectively	29/04/13	Max Foundation Bangladesh country office Dom inno Luvia, Flat B-1 (1st floor) House No 23/16, Khilji road, (Near ASA tower, Opposite to Shisu Mela) Shamoly, Mohammadpur- Block B, Dhaka. Mobile: 01711232093. Email: riad@maxfoundation.nl .	<ul style="list-style-type: none"> • Riad mentioned that there are many changes in the inception report as compared to the proposal, (for example, Narail District is no longer included). We received a soft copy of the inception report. • In the Khulna and Patuakhali districts MF and BRAC WASH II will work side by side, but MF will work in all 9 IPSWAM polders • Phase 2 will start in 2013 and will include Patuakhali. Khulna and Barguna. Phase 1 started Sept. 2012 covering Barisal Division, Sathkira and New Patuakhali • MF and its partners have experience in WASH topics, but not so much in SRHR, gender and stunting. MF is not yet sure how they will include SFHR issues in their baseline study as they can be sensitive (and female field staff needed). Regarding stunting: MF does not have an explicit objective (outcome or indicator) to reduce stunting (not possible to measure in a 3-4 year project), but the purpose of their stunting related activities is just to make people aware on stunting and how to prevent it. • Throughout the meeting the need to coordinate and cooperate emerged and MF intends to work through the WMGs, with several (WASH) subcommittees per WMG, especially in the larger villages. MF works at union level dividing the area into clusters. Coordination is needed to reduce the risk that we are overloading the beneficiaries with requests to participate in meetings, sessions, etc.
11.	Zahirul Islam	Chief Planning	13/05/13	BWDB office	<p>Briefed on SWAIWRPMP experience as follows:</p> <ul style="list-style-type: none"> • Recruitment and deployment of Facilitators cum enumerators done through NGOs failed earlier. The PD directly hired 10 Facilitators to set an example that this system is more effective. • Some of the facilitators have research background; some have agriculture and fishery background. • Ad hoc committee formed to initiate data collection, project awareness campaign and cooperative formation process (capital build up activities, membership recruitment, etc.) • Training programs and orientation sessions were conducted with the ad hoc committee. Other training courses were conducted to gradually develop capacity of WMGs specifically on cooperative management, agriculture development and fishery, etc. • Project established demonstration plots to show how to improve farm and fish production. DAE and Fishery department (DOF) were involved fully • Do not avoid LGI Chairpersons/officials but do not depend on them. Just inform them and invite them in key activities/workshops
12.	a) Shahidul Haque b) Moshir Rahman	a) Project Director, PSSWRSP (Small	20/05/13	a) LGED Bhaban, RDEC Bldg. (level 5), Agargaon, Dhaka.	<ul style="list-style-type: none"> • Quarterly coordination meeting is conducted with Dept. Of Cooperatives representatives specifically those directly involved

	Name	Organisation	Date/Time	Contact Details	Key points discussed/Issues
	c) Sirajum Monir	Scale) ADB Funded b) Project Director, PSSWRSP (Small Scale) JICA Funded c) Sr. Institution Development Specialist, PSSWRSP d) Sr. Socio-Economist, PSSWRSP		Phone: +8802-9127411; Mobile: 017173066071; email: shaque_58@yahoo.com b) LGED Bhaban, RDEC Bldg. (level 6), Agargaon, Dhaka. Phone: +8802-9126524 Mobile: 01713018689 c) LGED Bhaban, RDEC Bldg. (level 6), Agargaon, Dhaka. Mobile: 01715407825; Email: munir_s14@yahoo.com d) LGED Bhaban, RDEC Bldg. (level 5), Agargaon, Dhaka. Phone: +8802-9127411	in the Water Cell <ul style="list-style-type: none"> As also mentioned during the meeting with the Add'l Registrar, logistic support had been given to DoC in the form of computers and motorcycles for the district and upazila level offices by PSSWRSP including setting-up MIS They still encounter difficulties and constraints in the registration of WMCA and audit performance is still lagging. PD Haque thinks that it will be best to establish a Water Resource Commission that will also handle registration and auditing responsibilities. DoC is giving priority to business cooperatives and less to water management cooperatives. PD Moshir mentioned that DoC offices at the district and upazila are still weak in terms of logistics and manpower in performing their tasks. The WMCA representatives in several cases have to go to their office to file their registration application and carry their books of accounts for auditing. The Institutional Specialist had proposed for 2 project staff at the zonal level to specifically guide the WMCAs in preparing registration and audit requirements because they could not rely on DoC staff to do this. He added that registration process takes about 1-3 months depending on the fulfilment of requirements.
13.	a) Engr. Kamalur Rahman Talukder b) Md. Fakhru Abedin	a) Project Director, SWAIWRPMP b). XEN, SWAIWRPMP		a) 149, Motijeeel C/A, Answer Building (7 th Floor), Dhaka. Phone: 02-7121511. Mobile: 01911525933. Email: bwdb.pd.sw@gmail.com b) Mobile: 01711330641. Email: mfa_abedin@yahoo.com	<ul style="list-style-type: none"> Total area of project is 57,000 (40,000 by BWDB and 17,000 by LGED under PSSWRSP) Total 102 WMGs formed and registered with DoC and 15 WMAs not yet registered (DoC requirements under review and at the same time pursuing proposed WMO Rules 2012 giving authority to BWDB to register WMOs) WMG formation based on SIP (sub unit implementation plan) which is defined by area elevation Also implementing 'mother and child' program, drinking water supply through installation of tube wells, distribution managed by all women group and IGAs for destitute/landless women Project calculated O&M requirements and came-up with Taka 150 O&M rate per hectare now being paid by WMG members for O&M fund.

11.5 STAKEHOLDER HOUSEHOLD SURVEY UNDER BLUE GOLD PROGRAM

Stakeholder Household Survey

HH Id No.:

Name of Polder:

Name of WMG (Village):

Union :

Upazila:

District :

Name of Bari/Para :

Name of HH Head: Gender (M/F):

Age : Education (code) : Residency Status (code):

Father's/Husband's Name :

Primary Occupation (code): Secondary Occupation (code) :

If the respondent mentions 'Agriculture Labour' as occupation:

Daily wage rate: Tk.....

If the respondent mentions 'Non-agriculture Labour' as occupation:

Daily wage rate: Tk.....

Do you migrate to sell your labour? If yes, when (months)?

Family Size (18+ years): Male:..... Female:

Members registered with Cooperative: Male:..... Female:

Present savings with Cooperative: Tk.:.....

Outstanding loan of the HH:

Sources of loans: 1.Tk.

2.Tk.

3.Tk.

What major crops/products do you sell? Mention 3 (code):

Food Security Status (code):

Membership with which NGO/CBO:

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Crops

	Homestead vegetables & fruit orchard in decimal	Cultivable land area (rice and other field crops) in decimal		
Available land area		Own	Lease	Share crop

If no cultivable land then stop here and go to Fisheries

Which crops? Write major rice variety or crop name	Rice			Other field crops		
	Boro	Aus	T.Aman	Rabi	Karif-1	Karif-2
	Yes - No	Yes - No	Yes - No	Yes - No	Yes - No	Yes - No

Fisheries

Available pond & ditch for fish production	decimal
--	---------

If zero, then can stop here and go to livestock

Tilapia	Carp	Shrimp	Other	
Yes - No	Yes - No	Yes - No	Yes - No	
Do you use supplementary feed?		Who is involved in aquaculture		
Yes - No	If yes, from where you collect?		Male – Female – Both	
	Home made	Bought		
		Inside polder		Outside polder

Livestock

	Total large ruminants (cow, ox, buffalo)	Used for beef fattening	Used for milk production	Other use
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<i>Number large ruminants</i>				
	Sheep	Goats	Pigs	
<i>Number of animals</i>				
	Chickens	Ducks	Pigeons	Geese
<i>Number of birds</i>				
	Chicken eggs	Duck eggs		

Training received

	Received training in crops	Received training in fisheries	Received training in livestock
<i>Circle</i>	<i>Male – Female - Both -None</i>	<i>Male – Female - Both –None</i>	<i>Male – Female - Both -None</i>

Education code for classes passed : 19 =Class One to Class Nine; **10**=SSC/Dakhil; **11**= Eleven Class; **12**=HSC/Alim; **13**= Class thirteen; **14**=BA/BSC/Bcom/Diploma/Fazil; **15**=Fifteen class/Three years honors course; **16**=MA/MSc/Mcom/Kamil; **17**=M.Phil.; **19**=P.hd.; **97**=Religious education (Kowmi/mosque/hafezi/temple based); **98**=Adult program lead by Govt./NGO; **99**=Illiterate

Residency Status code: **1**=Full time; **2**= Seasonal; **3**=Absentee

Occupation Code: **1**=House work; **2**=Farmer (crop agriculture); **3**=Dairy/Poultry farm work; **4**=Fish cultivator/fisherman; **5**=Livestock rearing; **6**=Agriculture labor; **7**=Non farm labor; **8**=Business; **9**=Service; **10**=Washerman/barbar/coblar etc.; **11**=Cottage industry; **12**=Rickshaw/van/push cart/boat driver; **13**=Auto Driver (Bus/Tempo/car/micro); **14**=Skilled laborer; **15**=Construction worker; **16**=Brick field labor; **17**=Begging; **18**=Other Specify).....

Food Security code: **1**=Surplus; **2**=No deficit; **3**=occasionally deficit; **4**=Often deficit

Crops/products code: **1**=Rice/paddy; **2**=Pulses; **3**=Oil seeds; **4**=Fruits; **5**=Vegetables; **6**=Timber; **7**=Fish; **8**=Cow; **9**=Goat/Lamb; **10**=Poultry birds; **11**=Eggs; **12**=Others (specify)

11.6 FORMAT FOR WMO FUNCTIONALITY ASSESSMENT

Sl. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
A.	ORGANIZATIONAL MANAGEMENT				
1.	Water Management Group (WMG)				
a.	WMG Executive Committee members were elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
b.	WMG Chairperson was elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
c.	WMG Vice-Chairperson was elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
d.	WMG Secretary was elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
e.	WMG Joint Secretary was elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
f.	WMG Treasurer was elected/selected by the general members of the village Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
g.	Number of female members (FM) selected or elected in the WMG Executive Committee Code: 4 FM including any 2 from Chairperson, Vice-Chairperson, Secretary, Joint Secretary and Treasurer =Good, 4FM = Fair, 3 FM = Poor				
h.	WMG regularly conducted Annual General Meetings during last 2 years Code: 2 meetings = Good; only 1 meeting =Fair; No meeting = Poor				
i.	WMG general members attended in the Annual General Meeting last year Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
j.	Majority of the WMG general members participated actively in the Annual General Meeting for key planning and decision making process last year Code: more than 50% = Good; less than 50%= Fair, only few= Poor				
k.	Average attendance of female members in WMG Annual General Meeting last year Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				

Sl. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
l.	Majority of the female members in attendance participated actively in the WMG Annual General Meeting in key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
m.	WMG regularly conducted Monthly Executive Committee (EC) Meetings last year Code: More than 9 meetings = Good; less than 9 =Fair; less than 6 = Poor				
n.	WMG EC members attended in the Monthly Executive Committee (EC) Meetings last year Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
o.	Majority of the EC members participated actively in the Monthly Executive Committee (EC) Meetings for key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
p.	Average attendance of female members in WMG EC Monthly meetings last year Code: more than 70% = Good; 50%= Fair, less than 50%= Poor				
q.	Majority of the female members in attendance participated actively in the WMG EC monthly Meeting in key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
r.	Minutes of WMG Annual General Meetings are kept Code: Minutes of all meetings = Good; only 60% of meetings held =Fair; Only few or no minutes=Poor)				
s.	Minutes of WMG EC monthly meetings are kept Code: Minutes of all meetings = Good; only 60% of meetings held =Fair; Only few or no minutes=Poor)				
t.	WMG Executive Committee members are satisfied with the performance of the WMA Executive Committee members Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
u.	WMG Executive Committee members are satisfied with the cooperative activities of the WMG Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
v.	The general members are satisfied with the cooperative activities of the WMG Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
w.	WMG general members are satisfied with the performance of the WMG Executive Committee members Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
x.	Income Generating Joint Activities of the WMG Code: There are joint IGAs= Good; Joint IGAs planned = Fair, No joint IGAs/No such plan= Poor				
y.	Percent of the total plans/resolutions/decisions made by the WMG was implemented Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
z.	Suggestions to strengthen the WMG: i. ii. iii.				
2.	WATER MANAGEMENT ASSOCIATION (WMA)				

Sl. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
a.	WMA Executive Committee members were elected/selected by the WMG representative members (WMA general members) Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
b.	WMA Chairperson was elected/selected by the WMG representative members Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
c.	WMA Vice-Chairperson was elected/selected by the WMG representative members Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
d.	WMA Secretary was elected/selected by the WMG representative members Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
e.	WMA Joint Secretary was elected/selected by the WMG representative members Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
f.	WMA Treasurer was elected/selected by the WMG representative members Code: Unanimous/ Elected/selected by more than 50% =Good; selected by less than 50% = Fair; no election/selection done, members appointed or designated by influential people = Poor				
g.	Number of female members selected or elected in the WMA Executive Committee Code: 4 FM including any 2 from Pres, Vice-Pres, Sec and Treasurer = Good, 4FM = Fair, 3 FM = Poor				
h.	WMA regularly conducts Executive Committee Meetings (monthly/bi-monthly) last year Code: 5-9 meetings = Good; 4-8 meetings =Fair; less than 3 or No meeting = Poor				
i.	WMA EC members attended in the Executive Committee Meetings (monthly/bi-monthly) last year Code: more than 70% = Good; 50%= Fair, less than 50%= Poor				
j.	WMA female EC members attended in Executive Committee Meetings (monthly/bi-monthly) last year Code: more than 70% = Good; 50%= Fair, less than 50%= Poor				
k.	Majority of the EC members participated actively in the Executive Committee Meetings for key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
l.	Female EC members participated actively in the Executive Committee Meetings for key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
m.	WMA regularly conducted Annual General Meetings during last 2 years Code: 2 meetings = Good; only 1 meeting =Fair; No meeting = Poor				

Sl. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
n.	WMA general male members attended in the Annual General Meetings last year Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
o.	WMA general female members attended in the Annual General Meetings last year Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
p.	Majority of the general members participated actively in the Annual General Meetings for key planning and decision making process last year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
q.	Majority of the female members in attendance participated actively in the Annual General Meeting in key planning and decision making process during last one year Code: More than 50% = Good; less than 50%= Fair, only few= Poor				
r.	Percent of the total plans/resolutions/decisions made by the WMA was implemented Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
s.	Minutes of WMA Executive Committee Meetings (monthly/bi-monthly) are kept Code: Minutes of all meetings = Good; 60% of meetings =Fair; less than 50% or no minutes=Poor				
t.	Minutes of WMA Annual General Meetings are kept Code: Minutes of all meetings = Good; 60% of meetings =Fair; less than 50% or no minutes=Poor				
u.	WMA general members are satisfied with the performance of the Executive Committee members Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
v.	Suggestions to strengthen the WMA: i. ii. iii.				
WMA Rating on Organizational Aspects					
WMA Rating on Organizational Aspects					
B.	WMA Cooperative Aspect				
1.	Percent of total HHs represented as Registered Members in the Cooperative Code: More than 50% HHs = Good; about 50% = Fair, Less than 30% = Poor				
2.	Percentage of registered members are female (RFM) Code: More than 50% = Good, about 50 % =Fair %; Less than 30% = Poor)				
3.	WMA passes satisfactorily annual audit of Department of Cooperatives (DoC) Code: Yes, yearly= Good; given warning = Fair; Registration suspended/cancelled = Poor				
4.	WMA timely maintains its books of accounts and records. Code: Updates within 1 month of due date = Good; Updates within 2 months of transaction = Fair; Updates records after 3 months or not at all= Poor				

Sl. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
6.	WMG is engaging in cooperative activities e.g shares and savings, microfinance, IGAs. Code: IGAs and shares & savings and loans= Good; Only savings and loans= Fair; Only shares and savings= Poor				
7.	Timely repayment of loan by female members Code: 100% = Good; 80%= Fair; Less than 80%= Poor				
8.	Timely repayment of loan by male members Code: 100% = Good; 80%= Fair; Less than 80%= Poor				
Overall Rating on Cooperative Aspects					
C.	Management of Operation and Maintenance based on O&M Agreement with BWDB				
1.	WMA operates and maintains the sluice gates following the O&M agreement Code: All gates = Good; 60% =Fair; less than 60% gates = Poor				
2.	Routine maintenance is carried out on embankment by WMA Code: Maintains where and when required= Good; Maintains only sometimes= Fair; Does not maintain=Poor				
3.	Cleaning of water hyacinth & obstacles carried out in canals by WMA Code: All canals (primary, secondary & tertiary) = Good, Some canals (primary & secondary)= Fair; Only tertiary canals or not all= Poor				
4.	WMG operates and maintains the infrastructures Code: Does regularly = Good; Does sometimes=Fair; Does not do= Poor				
5.	WMG general male members participate in O&M activities Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
6.	WMG general female members participate in O&M activities Code: More than 70% = Good; 50%= Fair, less than 50%= Poor				
7.	WMA has sufficient resources/funds for routine O&M works Code: Sufficient = Good; barely enough funds = Fair; insufficient or none = Poor				
8.	WMG has sufficient resources/funds for routine O&M works Code: Sufficient = Good; barely enough funds = Fair; insufficient or none = Poor				
9.	WMA has sufficient resources/ funds for major maintenance works caused by natural disasters Code: Sufficient = Good; barely enough funds = Fair; insufficient or none = Poor				
10.	WMG has sufficient resources/ funds for major maintenance works caused by natural disasters Code: Sufficient = Good; barely enough funds = Fair; insufficient or none = Poor				
Overall Rating on O&M Aspects					
D.	Conflict Management				
1.	Factions in the village/WMG over water management issues Code: Different Interest groups exist but they come to agreement on most issues = Good; Different Interest groups exist but difficult to come to				

SI. No.	KEY PARAMETERS & INDICATORS	Rating			Remarks
		Good	Fair	Poor	
	agreement on some issues =Fair, Many factions exist and they do not come to agreement on most issues =Poor				
2.	Conflicts in the village/WMG during the last year over water management issues Code: Some conflicts occurred but were resolved effectively = Good; Conflicts occurred but not all resolved effectively=Fair, Serious/major unresolved conflicts exist =Poor				
3.	WMG Conflict resolution Code: All conflicts are resolved within the village/WMG= Good; A number of conflicts are resolved by the WMG itself = Fair; Most village/WMG conflicts are resolved only at Union Parishad or by court =Poor				
Overall rating for Conflict Management					
Overall Rating for WMG					
Overall Rating for WMA					

11.7 WORK SCHEDULE FOR FY 1

WORK SCHEDULE FOR FY 1 (MAY 2013 - JUNE 2014)																																		
Polder	Key Activities	2013										2014																						
		May	June	July	August	September	October	November	December	January	February	March	April	May	June																			
4 IPSWAM Polders ⁹	1. Screening, Hiring and orientation of Community Organizers (COs)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■							
	2. Community mobilization for Water Management Planning (Fine tuning intervention/works)	■																																
1st batch of Polders ¹⁰	3. In-depth information dissemination/campaigns on Blue Gold Program:Goals, Objectives, Components (UP and Village wise/WMG meetings) and Initial discussions with WMGs and data collection/updating on productivity aspect and food security and FFS data, relevant data for business planning/local value chain analysis (for IPSWAM polders and selected 2 new polders). Baseline study will be conducted in the other polders.		■																															
9 IPSWAM Polders	4. Assessment of WMO Functionality		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
IPSWAM Polders and Polders 26 and 45	5. Strengthening/capacity building of WMO based on outcome of Assessment (may entail re-organization/re-election of leaders, renewal of registration, improving bookkeeping, membership enrolment,organizational/ leadership and other relevant training and others) for IPSWAM Polders. Formation of WMOs in 2 new polders.							■																										
IPSWAM Polders and Polders 26 and 45	6. Community Mobilization for Village Development Plan (VDP) and Polder Development Plan (PDP) for IPSWAM polders • Firm-up water management development options • Firm-up Sustainable Environmental Management Plan (SEMP) • Formulation of FFS Plan • Local Value Chain Analysis and business planning • Gender Action Plan																																	
9 IPSWAM Polders	7. Strengthening/expansion of cooperative and business activities of WMGs and implementation of FFS activities																																	
4 IPSWAM polders	8. Implementation of Water Management fine tuning works with active participation of the WMGs/WMA through the Quality Control/ Block Committee																																	

⁹ In order to ensure inclusion of construction budget for the 4 IPSWAM Polders in the BWDP-ADP for 2014, preliminary identification and prioritization of water management interventions with the WMGs and WMA have to be carried-out immediately. Since COs have not been hired yet, the Central office based Component 1 Team members initiated the community mobilization activities.

¹⁰ This will include 9 IPSWAM polders and 2 new polders already selected. Based on DPP, 4 other rehabilitated polders will be included in the first batch. Once these are selected, COs will be deployed to these as well.

11.8 Implementation Plan - Water Resources Management (Based on Initial Polder Selection)

SL	Description	Implementation Year																											
		2013				2014				2015				2016				2017				2018							
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
1.0	Patuakhali District																												
1.1	IPSWAM Fine Tuning																												
	2 Polders (2 years)	2P																											
	3 Polders (2 years)				3P																								
	1 Polder (43/2A- 3 years)				1P																								
1.2	Other Fine Tuning																												
	1 Polders (2 years)				1P																								
	1 Polders (2 years)								1P																				
	4 Polders (2 years)												4P																
1.3	New Rehabilitation																												
	1 Polder (3 years)				1P																								
	1 Polder (3 years)								1P																				
1.4	Number of Polders in any year under Patuakhali District		2	2	2	5	8	8	8	10	10	9	8	12	12	9	8	8	8	5	5	5	5	1	1				
2.0	Khulna District																												
2.1	IPSWAM Fine Tuning																												
	2 Polders (2 years)	2P																											
	1 Polder (Polder 29, 3 years)		1P																										
2.2	Other Fine Tuning																												
	1 Polders (2 years)		1P																										
	1 Polders (2 years)						1P																						
	2 Polders (2 years)										2P																		
2.3	New Rehabilitation																												
	1 Polder (3 years)		1P																										
	1 Polder (3 years)								1P																				
2.4	Number of Polders in any year under Khulna District		1	1	5	5	5	5	7	7	7	5	7	7	7	6	6	6	6	3	2	2	2	1	1				
3.0	Satkhira District																												
3.1	Other Fine Tuning																												
	2 Polders (3 years)		2P																										
3.2	New Rehabilitation																												
	1 Polder (Big Polder-3.5 years)								1P																				
3.3	Number of Polders in any year under Satkhira District				2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	1		
4.0	Total Number of Polders in any quarter under overall program		3	3	9	12	15	15	18	20	20	17	18	22	22	18	17	17	17	9	8	8	8	3	3				
	IPSWAM Fine Tuning																												
	Other Polder Fine Tuning																												
	New Polder Rehabilitation																												
	Rainy Season																												
	NP																												
	Number of Polders																												
	Assessment and Rehabilitation Planning																												
	Note:	Assessment and rehabilitation planning will be done in the year before the implementation year																											

11.8.1 Polders available for the Program in Satkhira district

Polder No./ Polder Name	Location Name of Thana	Gross Protected Area (HA)	Cultivable Land				Main Project Feature				Remarks	Blue Gold Program	
			Total (HA)	Crop (HA)	Shrimp (HA)	Salt (HA)	Embkt. (Km)	Regulator (No)	Flushing Inlet (No)	Drain Channel (Km)		fine tuning	rehabilitation needed
1	Assasuni, Debhata & Satkhira	28,381	21,143	21,143	6,500	0	97	25	3	0	complete	28381	
2	Assasuni, Satkhira	11,290	11,000	6,547	4,495	0	64	20	0	21			11290
6-8	Assasuni, Satkhira, Tala	18,450	14,700	11,760	2,940	0	53	23	0	145			18450
6-8 Ext.	Satkhira, Kalarua	8,330	6,640	5,312	1,328	0	9	2	0	0	complete	8330	
15	Shymnagar	3,441	2,925	900	2,025	0	27	5	0	0	CEIP	3441	
	TOTAL	69,892	56,408	45,662	17,288	0	249	75	3	166		40,152	29,740

11.8.2: Polders available for the Program in Khulna district

Polder No./ Polder Name	Location Name of Thana	Gross Protected Area (HA)	Cultivable Land			Main Project Feature				Remarks	Blue Gold Program		
			Total (HA)	Crop (HA)	Shrimp (HA)	Embk. (Km)	Regulator (No)	Flushing Inlet (No)	Drain Channel (Km)		fine tuning	IPSWAM	rehabilitation needed
9	Paikgacha	1,255	1,247	680	567	8	3	0	11				1,255
14/1	Koyara	2,933	2,350	1,880	470	25	4	0	0	CEIP	2,933		
16	Paikgacha, Tala	10,445	8,102	3,050	5,052	45	12	0	11	CEIP	10,445		
17/1	Dumuria	5,020	4,000	4,000	0	46	11	0	44	CEIP	5,020		
17/2	Dumuria	3,400	2,700	2,700	0	11	5	0	21	CEIP	3,400		
18-19	Paikgacha	3,380	3,300	2,200	2,800	32	4	0	3				3,380
20	Paikgacha	1,248	1,200	1,170	1,000	18	8	4	2				1,248
20/1	Paikgacha	352	300	300	250	5	2	0	0				352
21	Paikgacha	1,417	1,215	1,215	880	17	3	0	7				1,417
22	Paikgacha	1,630	1,417	1,417	0	20	4	48	0	IPSWAM		1,630	
23	Paikgacha	5,910	4,872	1,048	3,824	37	11	36	36	CEIP	5,910		
26	Dumuria	2,696	2,100	2,100	0	29	4	0	18				2,696
27/1	Dumuria	3,765	3,000	3,000	0	30	6	0	12				3,765
27/2	Dumuria	495	400	400	0	15	3	0	15	completed	495		
28/1	Dumuria	5,600	4,500	4,500	0	23	9	0	12				5,600
28/2	Batiaghata	2,590	2,000	2,000	0	20	4	0	5				2,590
29	Batiaghata, Dumuria	8,218	6,570	6,570	0	49	11	81	39	IPSWAM		8,218	
30	Batiaghata	6,396	4,048	4,048	0	40	21	3	37	IPSWAM		6,396	
31 Part	Batiaghata	4,848	4,048	4,048	0	30	9	2	29				4,848
32	Dacope	8,097	6,500	6,497	5,328	51	10	51	45	CEIP	8,097		
33	Dacope	8,100	6,400	5,120	1,280	53	13	11	20	CEIP	8,100		
	TOTAL	87,795	70,269	57,943	21,451	603	157	236	366		44,400	16,244	27,151

11.8.3: Polders available for the Program in Patuakhali district

Polder No./ Polder Name	Location Name of Thana	Gross Protected Area (HA)	Cultivable Land			Main Project Feature				Remarks	Blue Gold options		
			Total (HA)	Crop (HA)	Sbrimp (HA)	Embkt. (Km)	Regulator (No)	Flushing Inlet (No)	Drain Channel (Km)		fine tuning	IPSWAM	rehabilitation needed
43/1	Amtali	10,600	8,500	8,500	0	65	39	0	55	Compleat	10,600		
43/1A	Amtali	2,675	2,200	2,200	0	27	6	0	59	IPSWAM		2,675	
43/2A **	Patuakhali	5,182	3,887	3,887	0	40	5	3	44	IPSWAM		5,182	
43/2B	Galachipa, Amtali, Patuakhali	5,460	4,000	4,000	0	42	6	24	40	IPSWAM		5,460	
43/2C **	Galachipa	2,753	2,000	2,000	0	26	6	40	26	CEIP	2,753		
43/2D	Patuakhali	6,500	4,875	4,875	0	43	16	58	110	IPSWAM		6,500	
43/2E	Patuakhali	1,650	1,300	1,300	0	20	7	40	42	IPSWAM		1,650	
43/2F	Amtali	4,453	3,500	3,500	0	35	13	55	33	IPSWAM		4,453	
44	Amtali, Kalapara	17,530	12,500	12,500	0	82	16	16	43	Compleat	17,530		
45	Amtali	4,089	3,200	3,200	0	27	10	8	24	ECRRP	4,089		
46	Kalapara	4,697	3,757	3,757	0	40	12	4	37	ECRRP	4,697		
47/1	Kalapara	2,478	2,065	2,065	0	22	7	5	25	ECRRP	2,478		
47/3	Kalapara	2,025	1,660	1,660	0	20	5	10	25				2035
47/4	Kalapara	6,600	5,600	5,600	0	59	26	1	65	ECRRP	6,600		
47/5	Kalapara	7,500	6,000	6,000	0	33	14	0	76	ECRRP	7,500		
48 **	Kalapara	5,400	3,715	3,715	0	38	10	0	16	ECRRP	5,400		
54	Kalapara, Amtoli, Galachipa	13,954	10,256	10,256	0	59	10	0	30				10325
55/1	Galachipa	10,325	7,230	7,230	0	46	11	24	14	ECRRP	10,325		
55/2A	Patuakhali, Galachipa, Amtoli	7,166	5,000	5,000	0	41	11	6	35				7166
55/2B	Galachipa	2,600	2,080	2,080	0	30	6	8	46				2600
55/2C	Galachipa	6,275	5,020	5,020	0	48	6	29	38				6275
	TOTAL	129,912	98,345	98,345	0	842	242	331	881		71,972	25,920	28,401

11.9 Present and Alternative Staffing for Component-2 (WRM)

Table-1: Present Staff Provision

SL	Staff Position	No. of Staffs	Work Stations			
			Dhaka	Patuakhali	Khulna	Satkhira
1.	DCL/QCE	1	1			
2.	Hydrologist/CS	1	1			
3.	Civil Engineer (WI)	3		1	1	1
4.	Irrigation & Drainage Engineer	3		1	1	1
5.	Irrigation Agronomist	3		1	1	1
6.	Field QC Engineer	4		2	1	1
7.	Field Mechanical Engineer	1		←————— 1 —————→		
8.	Quantity Surveyor (Estimate handling; checking; comparing with ADP & DPP; and Vetting - for 3 districts)	None				
9.	Reimbursement Engineer (Bill handling, checking with vetted estimate, ADP, DPP, contract amount and progress; and reimbursement processing - for 3 districts)	None				
10.	Quantity Survey Assistant (Incoming/outgoing estimate registering, archiving, movement controlling, tracking and re-archiving, preparing for final handing over/ storage-for 3 districts)	None				
11.	Reimbursement Assistant (Incoming/ returned bill registering, archiving, movement controlling, tracking and re-archiving, preparing for final handing over of bills to DP-III – for 3 districts)	None				
	Total	16	2	4	6	4

The Blue Gold Dhaka Office will have to handle hundreds of field estimates for checking and vetting for ADP, and innumerable progressive and final bills for reimbursement processing and recommendation. Probable number of polders may vary from 4 to 22 in any implementation year. Staffing provision for these huge tasks has not been foreseen in the project document. Therefore, an alternative staffing arrangement is proposed in Table-2 below.

The alternative arrangement will be budget neutral, though it needs two extra staff. The Quantity Survey Engineer and Reimbursement Engineers will be junior level graduate civil engineers having 2 to 4 years experience in estimating, bill checking and quality control, and computer software and map preparation.

The assistants will be simple graduates with some previous experience in estimate and bill handling/ accounting/office management.

Table-2: Alternative Staffing Arrangement

SL	Staff Position	No. of Staff	Proposed Stations			
			Dhaka	Patuakhali	Khulna	Satkhira
1.	DCL/QCE	1	1			
2.	Hydrologist/CS	1	1			
3.	Civil Engineer (WI)	3		1	1	1
4.	Irrigation & Dr. Engineer	3		1	1	1
5.	Irrigation Agronomist	1 (less 2)		←	1	→
6.	Field QC Engineer	4		2	1	1
7.	Field Mechanical Engineer	1		←	1	→
8.	Quantity Survey Engineer (Estimate handling; checking; comparing with ADP & DPP; and Vetting - for 3 districts)	1	1			
9.	Reimbursement Engineer (Bill handling, checking with vetted estimate, ADP, DPP, contract amount and progress; and reimbursement processing - for 3 districts)	1	1			
10.	Quantity Survey Assistant (Incoming/outgoing estimate registering, archiving, movement controlling, tracking and re-archiving, preparing for final handing over/ storage-for 3 districts)	1	1			
11.	Reimbursement Assistant (Incoming/ returned bill registering, archiving, movement controlling, tracking and re-archiving, preparing for final handing over of bills to DP-III – for 3 districts)	1	1			
	Total	18	6	4	5	3

As seen from the revised implementation plan in Annex 11.8, the work load is maximum in Patuakhali (up to 12 polders in any year) and then in Khulna (up to 7 polders in any year) with the least in Satkhira (up to 3 polders in any year). The Quantity Surveyor and the Reimbursement Engineer will have maximum work load in Dhaka during the 3rd and 4th quarters of any year and somewhat lighter work load during the 1st and 2nd quarters of the year, which is the implementation season in the field. So, these two engineers can easily be deputed to Patuakhali/Khulna to assist in quality control and progress monitoring of the implementation works. The entire re-arrangement will be planned and coordinated by the respective DCL/CL. The basic task of the Irrigation agronomist will be collecting information on existing and future land types, cropping patterns and crop calendars and calculation of polder water requirements in different crop seasons. So, instead of three, one Irrigation Agronomist will be enough for an anticipated 26 polders over a period of 6 years. He will be posted in Khulna and from there, will cover Patuakhali and Satkhira districts as well.

11.10 WORK PLAN COMPONENT 3

Detailed plan for first year of Blue Gold project period

	2013												2014											
	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12					
Overview of possible timing for seasonal FFS																								
Boro rice																								
T.Aman rice																								
Rabi crops, winter vegetables, potato, etc.																								
Aquaculture																								
Other modules (not seasonal), homestead, poultry, livestock, etc.																								
Baseline study																								
Prepare questionnaires for baseline study (production related parts)	x	x																						
Prepare checklists for FGDs (production related part)	x	x																						
Implement baseline study (will be for all components together)		x	x																					
Recruiting FFS organizers																								
Define criteria for selection FFS Organizers (Blue Gold staff)		x																						
Identify potential FOs		x																						
Interviews FOs		x	x																					
Recruit FFSOs		x	x																					
Data collection WMGs related to resources, problems, potential activities																								
This activity coordinated with component 1 (in 4 polders)		x	x	x	x																			
Coordination with DAE - UAOs and AEOs orientation meetings																								
Orientation meeting for 25 UAOs (25 Upazilas) on Blue Gold activities			x																					
Orientation meeting for 25 AEOs (25 Upazilas) on Blue Gold activities			x																					

Coordination with DOF/DLS - UFO and ULO orientation meetings																			
Discuss and prepare MOUs for DOF and DLS		x	x																
Orientation meeting for 25 UFOs Blue Gold activities				x															
Orientation meeting for 25 ULOs Blue Gold activities				x															
Curriculum development for FFS																			
Curriculum design workshops, crops, fish, livestock			x	x															
Finalize curriculum for FFS modules				x															
Update session guides when needed				x															
Prepare technical report FFS curricula and session guides					x														
Getting information about existing training capacity																			
Make list of available DTs/FTs in first 9 polders (IPSWAM)		x	x																
Prepare available facilitators (DTs/FTs) for first cycle FFSs																			
Preparation training for FFS organizers				x	x														
Briefings/training DTs/FTs on FFS curricula in Blue gold					x														
Detailed FFS planning for first cycle					x														
FFS implementation first cycle																			
Purchasing materials					x														
Distribute materials					x														
Prepare FFS budgets					x														
Advance money for crops FFS via UAOs					x														
Advance money for fish/livestock FFS via Blue Gold zonal offices					x														
FFS implementation (exact timing depends on FFS type)						x	x	x	x	x	x	x	x						
FFS monitoring							x	x	x	x	x	x	x						
Field days (exact timing depends on topics)														x	x				
FFS reports / Complete FFS register														x	x				

Implement TOT							x	x	x	x	x	x														
Planning meeting for FFS (T.Aman)												x														
TOT report												x														
Prepare budgets, materials, etc. for FFS												x	x													
First FFSs for new DTs													x	x	x	x	x	x	x							
Field days																				x	x					
Review and planning workshops																				x	x					
FFS reports/ Complete FFS registers																				x	x					
TOT for new FTs (crop, fish, livestock)																										
<i>This only if sufficient candidates available. Else it will be postponed until the new DTs have completed their first FFS cycle</i>																										
Prepare lists of farmers who could be trained as FTs							x																			
Interview FT candidates							x	x																		
Curriculum design for FT-TOT								x																		
Prepare venue for FT-TOT								x																		
Implement FT-TOT crops									x	x	x	x	x													
Implement FT-TOT fish (season-long learning)												x		x		x										
Implement FT-TOT livestock									x		x		x		x											
Other																										
Planning motivational tours									x																	
Motivational tours										x	x															
Demonstrations new crops/technologies/homestead (linked to FFSs)										?	?	?	?	?												x
Support to farmer organizations													?	?												
Farmer congress												?														

11.11 WORK PLAN COMPONENT 4

ID	WBS	Task Name	2014																	
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1	Component 4 Business Development	[Gantt bar from Apr to Sep]																	
2	1.1	Contribute to Baseline study (programme)	[Gantt bar from Apr to Jun]																	
3	1.1.1	Define information needs (business development)	[Task bar from Apr to May]																	
4	1.1.2	Prepare questionnaire and test	[Task bar from May to Jun]																	
5	1.1.3	Prepare checklists for FGDs	[Task bar from Jun to Jul]																	
6	1.1.4	Implement baseline study (all components together)	[Task bar from Jul to Aug]																	
7	1.2	Selection of sub-sectors/products and value chains (district/polder basis)	[Gantt bar from Apr to Sep]																	
8	1.2.1	Engage with communities to define broad development options	[Gantt bar from Apr to Jun]																	
9	1.2.1.1	Define market/business data/views to be gathered in multidisciplinary survey	[Task bar from Apr to May]																	
10	1.2.1.2	Support Multidisciplinary survey (component 1 - fast track polders 22 and 43/2F)	[Task bar from May to Jun]																	
11	1.2.1.3	Analyse data and WMO functionality assessment	[Task bar from Jun to Jul]																	
12	1.2.2	Defining Regional Development Framework	[Gantt bar from Apr to Sep]																	
13	1.2.2.1	Define information requirements at National, District and Polder level	[Task bar from Apr to May]																	
14	1.2.2.2	Collect, record and process information	[Task bar from May to Jun]																	
15	1.2.2.3	Liaise with other programme analyses (SAFAL)	[Task bar from Jun to Jul]																	
16	1.2.2.4	Draft RDF, including individual polder information sheets	[Task bar from Jul to Aug]																	
17	1.2.2.5	Iterative refinement of RDF and including new batch of polder selection	[Task bar from Aug to Sep]																	
18	1.2.3	Select or prioritise value chains for analysis	[Gantt bar from Apr to Jun]																	
19	1.2.3.1	Define criteria and weight, reach consensus	[Task bar from Apr to May]																	
20	1.2.3.2	Organise data collection in line with criteria and polder info outcome	[Task bar from May to Jun]																	
21	1.2.3.3	Analyse sub-sector data and competitiveness	[Task bar from Jun to Jul]																	
22	1.2.3.4	Complete matrix and rank value chains	[Task bar from Jul to Aug]																	
23	1.2.3.5	Liaise with other programme chain selections (SAFAL)	[Task bar from Aug to Sep]																	
24	1.2.3.6	Define selection on the basis of portfolio approach	[Task bar from Sep to Oct]																	
25	1.2.4	Formulating the Polder Development Plan	[Gantt bar from Apr to Jun]																	
26	1.2.4.1	Assess Polder information for local economic potential	[Task bar from Apr to May]																	
27	1.2.4.2	Coordinate plan input with other components and programmes	[Task bar from May to Jun]																	
28	1.2.4.3	Develop growth scenario for polder	[Task bar from Jun to Jul]																	
29	1.2.4.4	First Polder Development Plan finalised (22-43/2f)	[Task bar from Jul to Aug]																	
30	1.2.4.5	Contribute to PDP ownership and awareness process	[Task bar from Aug to Sep]																	
31	1.3	Undertake in-depth Value Chain Analysis (specific to be defined VC)	[Gantt bar from Apr to Sep]																	
32	1.3.1	Coordination with on-going efforts on VCA	[Task bar from Apr to May]																	
33	1.3.2	Consult the actors as part of VCA	[Gantt bar from Apr to Jun]																	
34	1.3.2.1	Develop value chain maps	[Task bar from Apr to May]																	
35	1.3.2.2	Establish form of baseline data on actors	[Task bar from May to Jun]																	

ID	WBS	Task Name	2014																		
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
36	1.3.2.3	Assess actor capacities																			
37	1.3.2.4	Identify constraints and opportunities for improved competitiveness																			
38	1.3.2.5	Finalise map of actors, service providers and BEE																			
39	1.3.3	Identifying and assessing solutions																			
40	1.3.3.1	Assess potential solutions and interventions on viability																			
41	1.3.3.2	Consider opportunities for collective action by WMO or producer groups																			
42	1.3.3.3	Define basic approach to VC development (lead firm led vs multiple link)																			
43	1.3.4	Engaging the actors to plan interventions																			
44	1.3.4.1	Facilitate solutions with actors, including business planning training																			
45	1.3.4.2	Pursue benefits of collective actions with producer groups/WMO																			
46	1.3.4.3	Assess form of association with producer groups																			
47	1.3.4.4	Workshop with subsequent links in VC																			
48	1.3.4.5	Assist in drafting Business (PG & other actors) and Operations (WMO) plans																			
49	1.3.5	Defining the value chain intervention strategy																			
50	1.3.5.1	Draft value chain intervention strategy																			
51	1.3.5.2	Value chain interventions strategy completed (specific to be defined VC)																			
52	1.4	Facilitate Value Chain Development (specific VC)																			
53	1.4.1	Implement the Value Chain Intervention Strategy (next period)																			
54	1.4.1.1	implement pilot services and interventions																			
55	1.4.1.2	Rolling-out of successful interventions																			
56	1.4.1.3	prepare and implement exit strategy																			
57	1.4.2	Influencing incentives by awareness																			
58	1.4.2.1	Define target groups, messages and delivery ways																			
59	1.4.2.2	Prepare awareness messages																			
60	1.4.2.3	Arrange awareness training of BG staff																			
61	1.4.2.4	Organise other awareness dissemination																			
62	1.4.3	Enhancing skills by Capacity Development (next period)																			
63	1.4.4	Developing Market Infrastructure																			
64	1.4.4.1	Explore needs for Market infrastructure																			
65	1.4.4.2	Assess spatial planning for Market infrastructure																			
66	1.4.4.3	Explore opportunity for collective action																			
67	1.4.5	Recommending improvements in the Business Enabling Environment																			
68	1.5	Monitor and evaluate Business Development programme																			
69	1.5.1	Define impact and outcome indicators of specific value chain																			
70	1.5.2	Arrange data MoF with private sector actors																			

11.12 OVERVIEW OF GENDER INDICATORS APPLIED IN BLUE GOLD

Note: Means of verification is indicative and will be further elaborated when developing the monitoring system. Some targets may be reviewed after baseline results are available. Most gender indicators at output level concern gender-disaggregated information which will be collected by regular monitoring.

Goal and purpose	Indicator and Targets (March 2019)	Means of verification
<u>Blue Gold Goal:</u> reduced poverty	<ol style="list-style-type: none"> Also among (<i>de facto</i>) female headed households the number of households with 5 months or more of food shortage is reduced to less than 10% Also (<i>de facto</i>) female headed households realize a 30% increase in household assets Also (<i>de facto</i>) female headed households increase expenditure on housing and education by 20% 	1, 2 and 3: Baseline and impact surveys
<u>Blue Gold purpose:</u> protection against floods; organization in WMGs; Increase of hh incomes; strengthened institutional framework	<ol style="list-style-type: none"> Average household incomes increased by Tk 15,000 also for female headed households 30% of the LCS women (2250) are engaged in new and regular income earning other than LCS work Gender Equality Strategy and Action Plan of BWDB updated and approved and evidence of its implementation 	<ol style="list-style-type: none"> Baseline and impact surveys WMG functionality assessments / FGD New GESAP approved; (Anecdotal) evidence of GESAP implementation
<u>Objective of the gender cross-cutting issue:</u> Improved socio-economic position and status for women in the polder areas	<ol style="list-style-type: none"> Participation of women in decision making increased (target: $\geq 40\%$ of female WMG / WMA members actively participate in discussions and decision-making within WMG) Women leadership increased (40% of EC members in important positions are women) Mobility of women increased (target: $\geq 25\%$ of women moving outside their own village on their own) $\geq 30\%$ of the able and adult women derive own cash income from the sales of surplus production, other IGA and/or employment. 	<ol style="list-style-type: none"> 1 – 2: Functionality assessments of WMO/WMA 3 – 4: By Baseline and impact surveys (targets may be refined after baseline data have been analysed)
Components	Indicator and Targets (by end of project)	Means of verification
Component 1 – Community Mobilization	<ol style="list-style-type: none"> On average at least 30% women participants in all consultation and data collection meetings at community level At least 30% of the community organizers will be female (but aiming for 50% male and 50% female wherever possible) At least one separate meeting for women and one for men held in the formation process for each WMG Meetings for formation of WMGs with at least 30% female participants By the end of Blue Gold at least 40% of the WMG members are women WMA membership will consist of 50% males and 50% females (one male and one female representative from each WMG) At least 30% of the Executive Committee members of WMA and WMG will be women, as per GPWM Two one of the five key positions (40%) in each EC (WMG & WMA) is held by women At least 30% of the participants in training for EC members will be women In particular: in training on Accounts and Bookkeeping 2 female (EC) members per WMG / WMA participate. Two male and two female EC members of each WMG participate in gender training (hence: 50% male and 50% female participation in gender training for WMGs) 26 Gender Action Plans (GAPs) will be prepared as part of the Polder Development Plans, one for each polder Evidence that a number of important issues of the GAPs have been implemented. 	<ol style="list-style-type: none"> Monitoring data Staff records of Blue Gold Monitoring data Monitoring data Monitoring/Functionality Assessments Monitoring/Functionality Assessments Monitoring/Functionality Assessments Monitoring/Functionality Assessments

		<p>9. Monitoring (training data)</p> <p>10. Monitoring (training data)</p> <p>11. Monitoring (training data)</p> <p>12. Monitoring</p> <p>13. Functionality Assessment / Case studies / FGD</p>
Component 2: Water management	<ol style="list-style-type: none"> 1. At least 30% women's participation in all validation meetings 2. At least 50% of all earth work will be carried out by LCSs 3. At least 40% of the all LCS members are female (either by mixed or only women LCS) 4. 7500 women earn from LCS work 5. At least 60% of all female LCS members participate in skill/FFS training (≥4500 women), in cooperation with other components. 6. At least 30% of the committees for construction supervision and/or O&M of water management infrastructure (at WMG, Block and/or WMA level) are female. 7. At construction sites (for major works) basic facilities for (female) labourers are in place 	<ol style="list-style-type: none"> 1. Monitoring 2. Monitoring 3. Monitoring data 4. Monitoring data 5. Monitoring / training data 6. Monitoring / Functionality Assessment 7. Inspection Reports TA staff
Component 3 Food Security and Agricultural Production	<ol style="list-style-type: none"> 1. At least 30% women's participation in consultations on problems and potential activities (in coordination with Component 1) 2. At least 30% of FFS facilitators female 3. Women and men are participating in FFS in equal numbers (50% men and 50% women) 4. Also female headed households / women farmers will report increased agricultural production in line with targets of component 3 as per Blue Gold Logical Framework 5. Number of men (FFS participants) reached by nutrition, food safety and/or hygiene messages (EKN FS Ind8 of Result Area 2; target cannot be set as approach not yet fully developed) 6. Number of women (FFS participants) reached by nutrition, food safety and/or hygiene messages (EKN FS Ind 9 of Result Area 2; target cannot be set as approach not yet fully developed) 7. Productivity increase by female FFS participants is approx equal to increase by male farmers (for same products) 8. 80% of male and female farmers adopt at least 3 FFS-promoted farm practices 9. At least 50% of the innovative technology introduced and applied is (also) suitable for female famers and actually applied by female farmers 10. 50% of the 52 persons trained as Community Animal Health Workers (CAHW) are women. 11. Of the participants in exposure visits / motivational tours at least 30% are women 	<ol style="list-style-type: none"> 1. Monitoring 2. Monitoring 3. Monitoring 4. Gender disaggregated data collected by component 3 5 and 6. FFS data on imparting nutrition modules 7. Baseline and impact survey (by gender) 8 and 9. Technical report 10. Monitoring / training data 11. Monitoring / training data

Component 4: Business Development / Value Chain Development	<ol style="list-style-type: none"> 1. At least 30% of the persons consulted for business development data collection and value chain selection are women (in coordination with component 1) 2. At least 50% of the selected VCs have one or more segments in which women play a significant role 3. 25% of the participants of the FFS Module on Farm Business are female 4. Evidence (at least anecdotic) that women in value chain substantially increase value in their segment and/or become involved in higher value segments 5. Of the new employment created by value chain development, at least 30% are female employees 6. Men and women benefit from WMG economic and productive activities <p>Note: gender indicators for component 4 may be expanded or refined after the concrete activities of this component have been more elaborated.</p>	<ol style="list-style-type: none"> 1. Data on participants in relevant meetings 2. List of selected VCs 3. Monitoring / training data 4. Case studies 5. Impact and/or other surveys 6. WMG Functionality assessments / inventory on WMGs' economic and productive activities
Component 5 Cross Cutting Issues	<ol style="list-style-type: none"> 1. <u>Good governance</u>: male and female BWDB participants in AWIS workshop 2. <u>Environment</u>: at least 30% women participate in SEMP preparation 3. Proposed environmental improvements address the needs of women 4. <u>DRR / CCA</u>: at least 40% women participants in community risk assessments (CRA) 5. Community Based Disaster Risk Management (CBDR) strategies take also women's constraints and needs into account 6. <u>Innovations</u>: Anecdotal evidence that innovations introduced by Blue Gold also benefit women 	<ol style="list-style-type: none"> 1. List of participants 2. Monitoring data 3. Review of (selected) SEMPs 4. Monitoring data 5. Review of (selected) CBDR strategies 6. Review of innovations introduced
Training	<ol style="list-style-type: none"> 1. 75% of relevant professional BWDB staff at Zonal level (relevant to Blue Gold polders) have received gender training 2. Gender knowledge increased of training participants as measured by end-of-training evaluations 3. Of all training imparted (other than FFS), at least 30% of the trainees are female 4. Overseas study tours have male and female participants (target: ≥ 25% female staff) 	<ol style="list-style-type: none"> 1. Monitoring / training records 2. Training evaluation forms 3. Training statistics 4. List of participants
Institutional Strengthening of BWDB	<ol style="list-style-type: none"> 1. Updated BWDB Gender Equity Strategy and Action Plan (GESAP) approved within BWDB by mid 2015. 2. 10% of BWDB staff across all levels is female by the end of the Blue Gold Programme in line with GoB minimum quotas. 	<ol style="list-style-type: none"> 1. Approved updated GESAP in place 2. Staff records of BWDB
Other gender indicators	<ol style="list-style-type: none"> 1. At least one network meeting per year held with gender staff of other similar projects 2. Evidence in place on the benefits of the gender approach 3. Two workshops held within BWDB on lessons learnt of Blue Gold's gender approach (mid-term and end) 4. Anecdotal evidence that in liaison with other projects in same polders (such as Max WASH and SAFAL) also coordination / cooperation on gender approaches is addressed. 	<ol style="list-style-type: none"> 1. Minutes of the meetings 2. Blue Gold staffing records 3. Baseline and impact surveys; case

	5. Document on lessons learnt (success and failures), best practices and other evidence documented on gender approach (draft at mid-term; final by the end of the project)	<p>studies; FGDs etc.</p> <p>4. Minutes / report on workshop</p> <p>5. Anecdotic evidence / minutes etc</p>
Blue Gold Staffing (apart from component specific targets already mentioned above)	<ol style="list-style-type: none"> 1. In every district one male and one female socio-economist will be base (full time positions) 2. Junior Gender Expert appointed 3. Increase in proportion of female (technical) national staff in Blue Gold (Dhaka and field offices, excluding COs). Baseline July 2013: 2 female staff of 23 total technical staff (8.7%). Target 30%. 	1, 2 and 3: Blue Gold staffing records

11.13 WORK PLAN FOR IMPLEMENTATION OF GENDER APPROACH

(NB Planning also depends on planning of other components' activities)

Polder / subject	Key Activities	2013									2014						Remarks / Comments
		M	J	J	A	S	O	N	D	J	F	M	A	M	J		
9 IPSWAM polders	Inclusion of gender related issues in Functionality Assessment checklist, including participation of women WMO members	x	x													With component 1	
	Inclusion of gender issues in orientation of Community Organizers			x	x											With component 1 and Training team	
	Ensure gender issues / meaningful women's participation in Functionality Assessments of WMOs		x		x		x		x		x		x		x	Assessments by COs; gender expert reviews e.g. reporting	
1 st and 2 nd batch of polders	Gender perspectives in dissemination campaigns (e.g. initial women / men only group meetings); and in data collection / updating for food security, business development / value chain analysis			x	x	x	x	x	x	x	x	x	x	x	x	With component 1 (and other components, where relevant)	
	Encourage women to participate actively in WMOs / WMO activities, be candidate for (important) EC positions						x	x	x	x	x	x	x	x	x	Support to Socio-economists / COs	
	Basic gender training for field level staff					x		x		x		x		x		With training team	
4 IPSWAM polders	Fine tuning works: collaborate to ensure women also participate in validation meetings; 40% of LCS members are female; basic facilities in place; skill training LCS members							x	x	x	x	x	x	x	x	Mainly with component 2 (and Training Team and Component 3 for skill / FFS training)	
Baseline and M&E	Support inclusion of gender indicators in baseline questionnaire and in M&E, including in analyses and reporting				x	x	x	x	x		x		x		x	With Blue Gold's M&E experts	
Training	Gender in Training Needs Assessment; Integration of gender issues in relevant training				x		x		x		x		x		x	Support to training unit (review modules and make recommendations by gender expert)	
	Gender (refresher) training to field institutions							x		x		x			x	With Training team	
BWDB	Update BWDB's Gender Equality Strategy and Action Plan,						x	x				x	x			Gender expert, with BWDB and support	

	with preparatory meetings and Review workshop																of training team
General	Support to all components and other cross-cutting issues for gender mainstreaming			x		x		x			x						Upon request and regular discussions
	Network meeting of gender experts in similar programs on water management, food security etc, and of relevant GoB organizations																By gender experts

11.14 TRAINING NEEDS ASSESSMENT (TNA) QUESTIONNAIRE FOR STAFF

(For BWDB/DAE/DoF, DLS, DoC Officials)

Name: _____

Designation: _____

Place of Posting: _____

1. Academic Qualification: _____

2. Length of working experience (Total years): _____

3. Work Experience (last 5 positions occupied)- write first the most recent:

SL #	Position	Length	Major Job Responsibilities
1.			
2.			
3.			
4.			
5.			

4. List of major training courses you have attended:

SL #	Title of the training course	Duration	Major content of the training course
1.			
2.			
3.			
4.			
5.			

5. Based on your work experience & the training you have attended specify your major area of expertise in terms of knowledge & skills:

6. What will be your major job responsibilities in the Blue Gold Program?

7. To perform the above job, what difficulties will you face?

8. List down the knowledge and skills that you need to help you perform your job more effectively?

9. Overall comments and recommendations:

Signature/Date

11.15 TNA QUESTIONNAIRE

(For Water Management Organizations)

A. Basic Information

1. Name of WMG/WMA : _____
2. Location/Address : _____
3. Name of Polder : _____
4. Date Formed/Registered : _____
5. Number of Members : _____ Male + _____ Female = _____ Total
6. Area Covered : _____ (Ha)

B. Organizational Management Assessment

1. Is your WMO facing any organizational management problem? _____ (Yes) ; _____ (No)
2. If yes, what organizational management problems is your WMO encountering?

Key Organizational Areas	Specify/Describe
1. Communication	
2. Conflict Management	
3. Effective Meetings	
4. Record Keeping	
5. Problem Solving and Decision Making	
6. Planning	
7. Financial Management	
8. Savings and capital formation	
9. Regular Audit of Books of Accounts	
10. Others (specify)	
10.1. Membership	
10.2. Leadership	
10.3. Gender Sensitivity and participation of Women	
10.3. No transparency	
10.4. Lack of accountability	
10.5. Lack of Motivation	

3. What is your assessment of the level of participation of your WMG/WMA in the various activities being implemented?

Activities	Assessment		Explanation (Why)
	Active	Not Active	
3.1. Holding of regular meetings			
3.2. Record keeping			
3.3. Financial Management			
3.4. Savings and Resource Mobilization			
3.5. Regular Auditing of Books of Accounts			
3.6. O&M activities			
3.6.1. Embankment			
3.6.2. Canals			
3.6.3. Gates			
3.6.4. Office/meeting/training room			
3.6.5. Others			
3.7. Coordination:			
3.7.1. With other WMGs			
3.7.2. With the WMA			
3.7.3. With the LGI			
3.7.4. With other groups in the Polder			
3.8. Agriculture Production:	Existing Problems		Suggested Solutions
3.8.1. Crops			
3.8.2. Livestock			
3.8.3. Fisheries			
3.8.4. Others			
3.9. Business Development	YES	NO	Nature of Business?
1.9.1 Is the WMG involved in any business? If Yes, What type of business?			
1.9.2 Do you have any problems with the management of the Business?	YES	NO	What Problems? Specify
1.9.3 Do you need any training to help you with Business Management?	YES	NO	WHAT TRAINING? Specify
3.10. What kind of skills development	Vocational Training Useful in the Polder		

Activities	Assessment		Explanation (Why)
	Active	Not Active	
training can help you or your children?			
3.11. Water and Sanitation			
3.11.1. What are the water and sanitation problems in your community?			
3.11.2. How are you handling these problems?			
3.11.3. Suggestions to overcome the problems?			

4. What kind of Income Generating Activities (IGAs) are you interested to implement?

5. What is your future plans/vision for your WMG/WMA?

C. Expectations

1. What training they have received from IPSWAM/other?

Type of Training Received/Attended	Who Conducted? (IPSWAM, other Projects)	Usefulness	
		Useful	Not
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

2. Recommendation for future training:

3. What other support do they need aside from training which can help them make their WMG active?
Specify

Attachment: Attendance Sheet of Participants

11.16 TNA QUESTIONNAIRE

(For Training Resource Group)

1. How many TRG members are there in this Polder?
2. What are the activities of the TRG?
3. Overall impression about IPSWAM training?
4. What other training, aside from IPSWAM, have you received? Enumerate
5. Has the TRG Conducted any training course/session?
6. Are there any difficulties being encountered in conducting the training for WMO?
7. What training/support do you need to perform the training responsibilities?
8. Other recommendations

11.17 INDICATIVE TRAINING PLAN

Blue Gold Program (2013 – 2018)

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
1. Community Mobilization & Institutional Strengthening	1.1. Training on Community Organizing and Facilitation	Community Organizers Zonal Socio-Economists 1 st Batch 2 nd Batch 3 rd Batch	All Polders	*	*	*				
	1.2. Information Campaign and Awareness Raising	WMOs, LGIs Polder level Community People	All Polders	*	*	*	*	*	*	*
	1.3. Development of WMOs ²⁵	Central and Zonal Team (BWDB, DAE, DoC, DLS and DoF)	--0--	*	*	*				
	1.3.1. Orientation on Formation and Development of WMOs			*	*	*				
	1.3.2. Organizational Management	WMG & WMA	RT for IPSWAM Polders & Full course for other Polders	*	*	*	*	*	*	
	1.3.3. Cooperative Development	WMG	RT for IPSWAM Polders & Full course for other Polders	*	*	*	*	*	*	
	1.3.4. Leadership Training	WMG & WMA	RT for IPSWAM Polders & Full course for other Polders	*	*	*	*	*	*	
	1.3.5. Financial Management	WMG	RT for IPSWAM Polders & Full course for other Polders	*	*	*	*	*	*	
	1.3.6. Resource Mobilization	WMG & WMA	RT for IPSWAM Polders & Full course for other Polders	*	*	*	*	*	*	

²⁵ GPWM in relation to inclusion of women will be emphasized and gender related issues will be integrated in all training courses for WMOs

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
	1.4. Polder Development Planning 1.4.1. Orientation on Village Development Plan and Polder Development Plan	Central and Zonal Teams from BWDB, DAE, DoF, DoL	---0---	*						
	1.4.2. Planning Workshops at Village/WMG Level	WMGs	All Polders	*	*	*	*	*		
	1.4.3. Planning Workshop at WMA/Polder Level to Develop the Polder Development Plan ²⁶	WMA	All Polders	*	*	*	*	*		
2. Water Resources Management	2.1. Orientation on Construction Management and Blue Gold Program Policies	Zonal Teams	All Zones	*	*	*	*	*		
	2.2. Orientation on Construction Management and Blue Gold Program Policies	LCS (around 60, 000) ²⁷	All Polders	*	*	*	*	*		
	2.3. Construction Management and Quality Control ²⁸	Contractors	All Zones	*	*	*	*	*		

²⁶ Polder Development Plan includes: 1) Fine-tuning/Infra Rehab Plan; 2) O&M Plan; 3) SEMP and Disaster Risk Reduction Plan; 4) Agriculture/FFS Plan; 5) Business Plan; and 6) Gender Action Plan.

²⁷ This is based on present DPP provision of 50% earth work for LCS. However the WMAs demanded that 100% earthwork should be given to LCS as they have bad experiences with contractors. In that case no of LCS members may be up to 120, 000.

²⁸ Review existing Quality Control and Construction Management Training Manual and if needed to develop new materials tapping the resource person from the BUET or any other recognised University.

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
	2.4. Training on Design of Water Management Infrastructure (Note: Through BUET or any other Engineering University)	BWDB Planning and Design Directorate	--0--		*	*	*			
	2.5. Monitoring of Quality Control and Construction Works	WMA Monitoring Committee	All Polders	*	*	*	*	*		
	2.6. Operation and Maintenance 2.6.1. O&M Training and O&M Plan Preparation	WMA Members & O&M Committee	Review and Refresher for IPSWAM Polders and full training for other Polders	*	*	*	*	*	*	
	2.6.2. Practical Training for Gate Operators	Gate Operators	Training for Rehab and New Polders	*	*	*	*	*	*	
	2.7. Training on Innovative Irrigation Technology (to be identified) 2.7.1. Training/Orientation on Innovative Technology	BG Central and Zonal Team	---0---		*	*	*	*		
	2.7.2. Field training on innovation technology	WMOs	All Polders		*	*	*	*		
3. Food Security and Agricultural Production	3.1. Orientation and Refresher Training on Blue Gold	District and U/Z Officers of DAE, DOF, DLS,	--0--	*	*					
	3.2. Refresher Training (In collaboration with DAE, DoF and DLS)	DTs, FTs and FFS	--0--	*						

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
	3.3. Curriculum Design Workshop to prepare courses for TOF, Refresher Course, short specialised courses (in close coordination with DAE, DANIDA, WorldFish, FAO, etc.)	TA Master Trainers, DAE Officials at UZ level, DTs, FTs	--0--	*	*	*				
	3.4. Training on Agriculture Production <ul style="list-style-type: none"> Season long implementation of FFS (Note: Training will be conducted by DAE using FFS) 	1,400 FFS (All WMGs) (Note: 1000 will be funded from DAE budget while 400 will be funded under TA budget)	All Polders	*	*	*	*	*		
	<ul style="list-style-type: none"> Season long TOF (first season long TOF can probably be conducted by DAE component during Boro 2014 season) TOF Course 	New FFS Organizers and DTs of DAE Additional Farmer Facilitators	Zonal Team and DAE Staff Farmers Trainers	*	*	*	*			
	3.5. Training on Use of Vaccination Kits and Development of a Business Plan	52 Community Animal Health Workers (CAHW)	All Polder	*	*	*	*	*	*	*
	3.6. Training on Innovative Agriculture Technologies (to be identified) Note: Tie-up with Research Institutions and Agricultural Universities (national and international)	BG Central and Zonal Team FFS/WMOs (to be Selected)	---0--- All Polders		*	*	*	*	*	
4. Business Development and Private Sector Involvement	4.1. Awareness Raising on Value Chain and Business Development	WMGs/Cooperatives	All Polders	*	*	*	*	*	*	*
	4.2. Orientation on Value Chain Analysis and Identification of business opportunities and business skills	BG Central and Zonal Team	---0---	*						
	4.3. Orientation on Value Chain Analysis and identification of business opportunities and business skills	WMGs/Cooperatives	All Polders	*	*	*	*	*	*	*

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
	4.4. Workshop on the Formulation of Business Plan - SWOT Analysis - Development of Individual or Group Business Plan	WMGs/Cooperatives	All Polders		*	*	*	*	*	*
	4.5. Others: to be identified based on needs	?	?							
5. Cross Cutting Issues:	5.1. Gender and Development 5.1.1. Gender Orientation and Awareness Raising	WMO Members of Union Parishad	Refresher Training for IPSWAM and Full Training for all other Polders	*	*	*	*	*		
	5.1.2. Leadership Training	Women Leaders of WMO	All Polders	*	*	*	*	*		
	5.1.3. Savings and Effective Investment/ IGAs/Livelihood Training for LCS Members	Women LCS Members	All Polders	*	*	*	*	*		
	5.1.4. Gender Action Plan (part of the Polder/Village Development)	WMGs	--0--	*	*	*	*	*		
	5.1.5. BWDB Gender Equity Strategy • Review of Gender Equity Strategy 2006-2011 • Update Gender Equity Strategy	BWDB Selected Women Officials	--0--		*			*		
	5.1.6. Skills training (business development, simple accounting and record keeping and others)	WMG women members	All Polders		*	*	*	*		
	5.1.7. Exchange visit to other Polders and Projects/organizations	WMA women leaders	All Polders		*	*	*	*		
5.2. Disaster Risk Reduction (DRR) and Climate Change Adaptation 5.2.1. Orientation on Climate Change, Natural Hazards and their impacts and Risk mapping and assessment	BG Central and Zonal Teams	---0---		*						

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year					
				1	2	3	4	5	6
	5.2.2. Orientation on Climate Change Adaptation and Disaster Risk Reduction (DRR) tools and techniques	WMA Members And Disaster Mgt. Committee	All Polders	*	*	*	*	*	
	5.2.3. Risk preparedness planning (family and community level)	WMG/Community People	All Polders	*	*	*	*	*	
6. Project Management	6.1. Blue Gold Program Orientation	BWDB, DAE, DoC, DoF, DoL, Other Groups and Program Support Staff	---0---	*					
	6.2. Workshop on Partnership Development	BWDB, DAE, DoC, DoF, DoL, Other Groups and Program Support Staff	---0---	*		*			
	6.3. Training on Baseline Survey ²⁹	Field Supervisors Enumerators	Selected Polders	*	*				
	6.4. Review and Planning Workshops	BG Components at Zonal and Central Levels	--0--	*	*	*	*	*	*

²⁹ Can be done internally or outsource.

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year						
				1	2	3	4	5	6	
	6.5. Participatory Monitoring:									
	6.5.1. Orientation on Participatory Monitoring	BG Central and Zonal Team	--0—	*						
	6.5.2. Orientation and Application of Participatory Monitoring	WMAs	All Polders		*	*	*	*		
	6.6. Good Governance in Water Management	BWDB DP-III, DAE, DoC (selected officials)	--0--		*					
	6.7. Workshop on Institutional Issues in Water Management	BWDB Central and Zonal officials		*		*				
	6.8. Vocational Training (Tie-up with UCEP and Friends in Village Development Bangladesh)	500 Primary and Secondary School Drop-outs	All Polders		*	*	*	*	*	*
	6.9. Exchange visit to successful Cooperatives	WMAs	Selected Polders			*	*	*		
	6.10. Staff Development Training			*	*	*	*	*	*	*
	6.10.1. Component 1	Zonal and Field Staff	--0--	*	*	*	*	*	*	*
	6.10.2. Component 2	Zonal and Field Staff	--0--	*	*	*	*	*	*	*
	6.10.3. Component 3	Zonal and Field Staff	--0--	*	*	*	*	*	*	*
	6.10.4. Component 4	Zonal and Field Staff	--0--	*	*	*	*	*	*	*
	6.10.5. Gender in Water Management	Zonal and Field Staff	--0--	*	*	*	*	*	*	*
	i. Office Management	Central and Zonal Support Staff	--0—		*		*			

Program Components	Training Course	Target Participants (Specify Position, Agency, Level – Central & Zonal, Polder)	Polder (IPSWAM, Rehabilitated, New)	Year					
				1	2	3	4	5	6
	1.11. Overseas Training - 3 Post Graduate Degrees: (1) Water Management (1) Agriculture and Rural Development (1) Climate and Environment - 2 MSc Degree: (1) Agriculture and Fisheries (1) Climate and Environment 1.12. Study Tours to countries with participatory water management, climate change adaptation, climate proofing, value chain development Note: From Innovation Fund and TA Budget (DPP p.35)	BWDB/MoWR and Planning Commission/Irrigation Wing BG Central and Zonal Team Members from BWDB, DAE, DoC, DoF and DoL	--0--		*	*	*	*	
Total				45	50	49	46	40	14

11.18 MEETING NOTES INCEPTION PHASE (Training Team)

	Name	Organisation	Blue Gold Personnel	Date/ Time	Contact Details	Comments/Issues
1.	Jan W.K. van der Wal	Team leader, CDSP-IV	Victoria Pineda and Grace Ignacio	23/04/13	Noakhali Project Office: BWDB Compound, Sonapur, Noakhali. Phone: 0321-61428 Dhaka Project Office: House 12, (1 st Floor) Road 1, Block F, Banani, Dhaka. Phone: 02-8811525. Mobile: 01755503643. Email: jan.wal@mottmac.nl ; cdsp.noa@gmail.com	Discussed project background, agencies involved, and WMO formation and mobilization. Programs of CDSP are implemented by BWDB, LGED, Ministry of Land, DAE, Forest Department, DPHE and 4 NGOs. Training of WMOs are on: homestead gardening, credit, value chain, health, legal and human rights and disaster preparedness. WMGs formed are based on hydrological boundaries. Under the umbrella of WMG organization, subgroups were formed e.g. social forestry group, credit and savings group, Farmer forum, tube-well group and women group. Jan suggested that we meet with his deputy (Mr. Zaenal Abedin) who is more knowledgeable on social aspects and training.
2.	c) Md. Masud Ahmed	c) Director Planning-III, Bangladesh Water Development Board	Grace Ignacio and Abul Kashem	May 22 2.30 PM	c) Hasan Court (7 th Floor), 23/1 Motijeel C/A Dhaka. Phone: 02-7126211. Mobile: 01715018038, 01673916090. E-mail: masud.bwdb@yahoo.com d) Mobile: 01911907973. Email: bwdb05.khan@gmail.com	Blue Gold Training Team paid courtesy call to the Project Director. Discussed previous training program of IPSWAM. Informed the Project Director (PD) that Project is at Inception Phase and the team will plan the training for Blue Gold. Also discussed the plan to visit the Districts and the Polders.
3	c) Md. Asaduzzaman d) Nityananda Chakravorty and 2 other staff	c) Additional Registrar (Ext. Promotion & Planning) DoC, Ministry of LGRD & Cooperatives d) Deputy Team Leader WATER CELL (PSSWRSP), DeoC, Ministry of LGRD & Cooperatives	Hein Bijlmakers, Karel T'Jonck, Victoria Pineda and Grace Ignacio	25/04/13	c) Samabaya Bhavan, Block F-10, Agargaon Civic Sector, She-E-Bangla Nagar, Dhaka. Phone: 02-9140877. Mobile: 01714216837. Email: asad1961@hotmail.com d) Mobile: 01727291421. Email: chakravorty.nityananda@gmail.com	The Department of Cooperative (DoC) discussed the features of the Cooperative Act and gave the BG Team materials on Cooperative Act. They shared their experience on WMG registration and problems in audit. Based on their assessment, the WMGs are not fully aware about cooperative objectives and benefits because DoC staff not adequately involved in group mobilization and formation process. They request for the following support from Blue Gold: Logistic support to DoC Upazilla and District offices; enhancing capacity to perform the mandatory annual audits; Strengthening of the Water Cell.
4	a) Md. Salim Bhuiyan	a) Chief Training and Staff Development	Grace Ignacio and Abul Kashem	May 2	a) BWDB Office, Dhaka Phone: 01724661616	Paid courtesy call to the Chief Training. Discussed training activities during Inception Phase. Chief Training emphasized the need to have a common approach and strategy for training among involved agencies to minimize

	Name	Organisation	Blue Gold Personnel	Date/ Time	Contact Details	Comments/Issues
						problem in training implementation. There is a need to discuss with other involved agencies the Training Plan of Blue Gold since implementation involved several agencies such as BWDB, DAE, DoC, DoF, DoL and other groups.
5	a) Delowar Hossein b) Mr. Motaleb	a) Executive Engineer, O&M Division BWDB, Patuakhali b) Sub-Divisional Engineer, BWDB, Patuakhali	Grace Ignacio, Victoria Pineda Abul Kashem, Shorab Hossain, Anis Pervez	May 15	BWDB, Patuakhali Phone: 01712614024	BG Team paid courtesy call to the Executive Engineer (XEN) and briefly discussed the Blue Gold Program. The XEN emphasized the importance of community mobilization and forming WMGs. He emphasized the need for an Orientation on Blue Gold attended by representatives of agencies involved in the implementation. Mr. Motaleb asked where the overseas training will be conducted.
6	f) Mr. Abu Hena	f) UAO, DAE	Grace Ignacio, Abul Kashem, Vicki Pineda, Shorab Hossain, and Anis Pervez	May 15 11. 45 AM	Upazila Agriculture Officer, DAE, Patuakhali Phone: 01716980466	BG Team briefly presented the Blue Gold program – it's objectives, coverage and components. Mr. Abu Hena, presented the DAE program in his jurisdiction and explained about the Farmer Field Schools (FFS). He mentioned that FFS are conducted by the Department Trainers. During the FFS implementation, Farmer Facilitators are selected. They are given training and they become Farmer Trainers. The Integrated Farm Management (IFM) consists of 54 sessions. There is 1 session/week with duration of 3-4 hours. The participants of the FFS receive Tk. 20 Tk only for refreshment plus transport cost. The selection of farmers for the FFS is done by the Sub-Assistant Agriculture Officer (SAAO). The farmer must be interested and active, not more than 45 years old, can read and write, must be a real farmer, can be male or female. In Blue Gold, the selection of farmers will be done by the WMG with participation from SAAO and Union Parishad

	Name	Organisation	Blue Gold Personnel	Date/ Time	Contact Details	Comments/Issues
7	a) Md. Nurul Islam	Senior Inspector, Department of Cooperative (DoC), Upazila Level	Grace Ignacio, Abul Kashem, Vicki Pineda, Shorab Hossain, and Anis Pervez	May 15 10.30 AM	DOC Office, Upazila Level	<p>The BG Team gave a short briefing on the Blue Gold program. Mr. Nurul Islam mentioned that the tasks of the DoC are Water Management Cooperatives (WMC) registration, audit of WMCs accounts, monitor Cooperatives, and provide assistance and training to WMCs and other Cooperatives.</p> <p>He stated the following problems:</p> <p>Problem in auditing books of WMC. When the scheduled time comes, the WMC person responsible for the Books is not there.</p> <p>DoC lacks personnel to cover the auditing of 3,500 Cooperatives in their jurisdiction.</p> <p>Based on their assessment, out of 62 WMCs in the Upazila, only 5 are active. Not active means – no office, no funds, and if there's an office, it should be owned by the WMC.</p>
8	a) Md. Shahidul Haque b) M. Momtaz Haider	a) Project Director, Participatory Small Scale Water Resources Sector Project b) Senior Socio- Economist	Grace Ignacio Vicki Pineda Shorab Hossain		a) LGED Bhaban, RDEC Bldg. (Level 5), Sher-e Bangla Nagar, Agargaon, Dhaka 1207, Bangladesh Phone: +88-01713066071 Phone: 01556324632	<p>Discussed briefly about Blue Gold, its coverage and components. The Project Director gave short background about PSSWRSP, that it covers 61 Districts. The Project is the 3rd phase which started in 2010 and will end 2017. The Project has an MOU with DoC which was provided with 2 motorcycles and 1 computer per District. In the Project, LGED is responsible for infrastructure development, while DoC is responsible for Cooperative formation. NGOs are contracted to do the community organization. LGED and DoC hold quarterly meetings to discuss Project activities. Training implemented by the Project to the WMCA are: Orientation Training, Management Training and Accounts Training which are conducted by DoC. DAE conducts the Agriculture Training, DoF conducts the Fisheries Training, Gender Training conducted by Gender Expert from project, LCS training conducted by the District LGED by the XEN, CO, Upazila Engineer and Union Parishad, O&M Training conducted by TA Team + District and Upazila level LGED. TOTs are conducted by the specific agencies involved.</p>

	Name	Organisation	Blue Gold Personnel	Date/ Time	Contact Details	Comments/Issues
						<p>Training allowance paid to participants is Tk250/day + transport cost while Resource Persons are paid Tk850/hour. No Resource Person should handle more than 1.30 hrs.</p> <p>For Training conducted by the various agencies, the training budget is prepared by the agencies and submitted to the Project.</p>
9	<p>a) Brig Gen Aftab Uddin Ahmad</p> <p>b) Md Omar Faruk</p> <p>c) Noor Mohammad</p>	<p>a) Executive Director</p> <p>b) Deputy Program Officer, Technical Education</p> <p>c) Director Program</p>	<p>Grace Ignacio</p> <p>Abul Kashem</p>	<p>May 21, 10 AM</p>	<p>Underprivileged Children's Educational Program (UCEP)</p> <p>Head Office, Plot No. 2 and 3, Mirpur 2</p> <p>Dhaka 1216</p> <p>Phone: 880-2-8011014-6</p> <p>Email: aftab@ucep.org</p>	<p>Briefly introduced Blue Gold Program. The UCEP Executive Director explained about UCEP's vocational program where they offer (1) Integrated General Vocational Program to 11-12 years old working children. The total curriculum is for 4 years at 3 hours/day. The selection of students is from the slum area. S/he must live within walking distance of the Training School. Students pay Tk50/6 months. (2) Technical Training – for 1 year. Conducted at technical school. Students have to pay Tk80/6 months and they receive Tk400/month for their transport cost</p>
10	<p>d) Tahmina Begum</p>	<p>c) Project Director for DAE, Blue Gold</p> <p>d) Assistant Senior Adviser, Agricultural Sector Program Support (ASPS II)</p>	<p>Hein Bijlmakers, Alamgir Chowdhury, Abul Kashem and Grace Ignacio</p>	<p>May 21, 1 PM</p>	<p>c) DAE, 3rd Floor (middle building), Khamarbari Farmgate, Dhaka. Phone: 02-8121152. Mobile: 01716481517. Email: kbtahmina@gmail.com</p> <p>d) DAE office, Room C-751, 6th Floor Rear Building. Phone: 02-8115697-8. Mobile: 01718533770. Email: dmsalam@accesstel.net</p>	<p>The PD discussed the Development Project Proposal (DPP) and the changes she made on the targets. She lowered the target number of FFS to be implemented from 1,500 to 1,000 in order to increase the training cost to Tk.60, 000/FFS. Target on women farmer's participation is 30% because crop farmers are usually male. This % participation of women can be increased depending on the situation in the field.</p>

11.19 REVISED COOPERATIVE ACT, 2013

Co-operative Society Act, 2001

Co-operative Society (Amendment) Act, 2002

Co-operative Society (Amendment) Act, 2013

Co-operative Society Act, 2001 was published in the additional edition of Bangladesh Gazette on 15/07/2001 AD

Co-operative Society (Amendment) Act, 2002 was published in the additional edition of Bangladesh Gazette on 01/12/2002 AD

Co-operative Society (Amendment) Act, 2001 was published in the additional edition of Bangladesh Gazette on 17/02/2013 AD

Collected by

Published By

BCS (Co-operative) Association

Bangladesh Jatiya Sangshad (Bangladesh National Parliament)

Dhaka, 15th July, 2001/ 31st Ashar, 1408

The following law enacted by the National Parliament has been approved by the President of Bangladesh on 15 July 2001 (31 Ashar 1408) and hereby this law is being published officially for everyone's knowledge and information.

Act No. 47 of 2001

The Co-operative Societies Ordinance, 1984

This act has been re-enacted after its abolishment with some amendments.

Since The Co-operative Societies Ordinance, 1984 (Ordinance No. 1 of 1985) has been repealed in order to reform and update the law in relation to the Co-operative Societies since it was of paramount importance to do so:

Hence, the said Act has been enacted which provides as follows:

Part – I

Preamble

1. **Short Title:** This Act shall be called the Co-operative Societies Act, 2001.
2. **Definition:** In this Act, unless there is anything repugnant in the subject or context,-
 - 1) “Department” means the Department of Cooperatives as mentioned in Section 5;
 - 2) “Liquidator” means any person who has been appointed under section 54 for the purposes of winding up a cooperative society;
 - 3) “Financing Organization” means any Co-operative Society which finances any other co-operative society notwithstanding irrespective of the latter cooperative society being a member of the financing co-operative society or not; including any financing organization which has been recognized as such by the Government of Bangladesh by way of official Gazette Notification;
 - 4) “Appellate Authority” means the appellate authority as provided under section 50(4) alternatively, in the event where a Managing Committee has been dissolved or when a member has been expelled by a decision made by an authority, the immediate superior authority shall be the appellate authority;
 - 5) “By-laws” mean the registered by-laws and the subsequent amendments of the co-operative society;
 - 6) “Central/Principal Property Mortgagee Bank” means the Central/Principal Co-operative Society as has been stated in section 8(1)(b);
 - 7) “Central/Principal Co-operative Society” means any Co-operative Society as defined in section 8(1)(b);
 - 8) “Property Mortgagee Bank” means the primary Co-operative Society as stated in section 8(1)(a);
 - 9) “National Co-operative Union” means any Co-operative Society as defined in section 8(1)(d);
 - 10) “National Co-operative Society” means any Co-operative Society as defined in section 8(1)(c);
 - 11) “Registrar” means the Head of the Department; and for the purposes of this Act and the Rules formulated under this Act, it also includes any person(s) who has been appointed by the Head of the Department by any general or special order in order to execute his functions;
 - 12) “Registration Certificate” means the registration certificate issued to any Co-operative Society under section 10;
 - 13) “Auditor” means any person who has been appointed or empowered under section 43 for the purposes of auditing the accounts of a particular Co-operative Society;
 - 14) “Governed” means governed by the Rules and Regulations of this Act;
 - 15) “Primary Co-operative Society” means any Co-operative Society which falls under section 8(1)(a);
 - 16) “Management Committee” means any management committee of a Co-operative Society which has been constituted under section 18;
 - 17) “Salesman” means a person who has been appointed under section 63;
 - 18) “Receiver” means a receiver appointed under section 73;
 - 19) “Co-operative Year” means the tenure in the English Calendar starting from the 1st of July of a particular year and ending on the 30th of June of the subsequent year;
 - 20) “Co-operative Society” means any co-operative society which has been registered or has been deemed to be registered;
 - 21) “Mediator/Arbitrator called in Bengali Salishkari” means a mediator/arbitrator appointed under section 50(3).
3. **Exclusion of the application of Companies Act to a Co-operative Society –** The Companies Act 1994 (Act No. 18 of 1994) shall not apply in case of any Co-operative Society.
4. **Exclusionary Power of the Government –** The Government, by way of Gazette Notification, for the public interest –

- a) may exclude any Co-operative Society or a particular department of the concerned Co-operative Society from the purview of this Act or any Rules or Regulations formulated under this Act, either conditionally or unconditionally by way of a notification;
- b) may issue an order, stating that any provision of this Act or any Rules under this Act shall apply on the concerned Co-operative Society (ies) subject to the terms and conditions as provided in the notification.

Part – II

Department of Co-operatives

5. Department of Co-operatives –

- (1) For the purposes of this Act, a Department of Co-operatives shall be constituted.
- (2) The Head Office of the Department of Co-operatives shall be in Dhaka.
- (3) The Government may construct branches of the Department of Co-operatives at other place(s) within the country, if it feels that the construction of such is necessary.

6. The Registrar, Officers and other Workers –

- (1) The Department of Co-operatives shall have a Registrar, who shall be called the Registrar, Department of Co-operatives.
- (2) For the purposes of assisting the Registrar in carrying out his functions, there shall be adequate number of officers and other workers.
- (3) The terms of service of the Registrar, other Officers and Workers shall be governed by the government service rules and regulations.

7. Delegation by the Registrar – Save for the powers and the duties as stated in this Part, the Registrar may delegate to any Officer or Worker any of the powers and duties vested in him under this Act or the relevant Rules formulated under this Act.

Part – III

Registration

8. Classification of Co-operative Societies – (1) Subject to sub-section (2) below, any registered Co-operative Society under this Act, may be classified as follows:

- a) Primary Co-operative Society, means a co-operative society which has a minimum of 20 members who are individuals, with an objective of legally carrying out socio-economic and financial development of its members:

However, if such a co-operative society provides financial assistance subject to securing mortgage on the property(ies) of the particular member(s), it shall also be called a Property Mortgagee Bank;

- b) Central/Principal Cooperative Society, means any co-operative society whose members constitute a minimum of 10 (ten) similar Primary Co-operative Societies as mentioned in sub-section (a) above, the Central/Principal Co-operative Society shall co-ordinate between the members, with an objective to ensure the smooth and effective functioning of its member co-operative societies and to provide assistance for the smooth and effective functioning of its members:

However, if the members of the Central/Principal Co-operative Society are Property Mortgagee Banks, the Central/Principal Co-operative Society shall be called the Central/Principal Property Mortgagee Bank;

- c) National Co-operative Society means any co-operative society whose members constitute a minimum of 10 (ten) similar Central/Principal Co-operative Societies as mentioned in sub-section (b) above, the National Co-

operative Society shall coordinate the Central/Principal Co-operative Societies nationwide, with an objective to ensure the smooth and effective functioning of its member co-operative societies and to provide assistance for the smooth and effective functioning of its members.

Explanation: A National Co-operative Society may be registered for the whole of Bangladesh, for a common purpose;

d) National Co-operative Union, means a Co-operative Society the members of which are the Central/Principal Co-operative Society and National Co-operative Society.

(2) Prior to the enactment of this Act, if a member has been registered under any Co-operative Society, but fails to satisfy the criteria and classification as stated in subsection (1)(a)-(d) of section 8 above, the membership of such a co-operative society shall not be affected, however, after the coming into force of this Act, a co-operative society must be registered as per the classification and criteria set out in sub-section 1(a)-(d) of section 8 above.

9. Prohibition on the use of the word “Co-operative” without prior Registration – (1) No individual or society is entitled to use the term “Samabay” or “Cooperative” as part of its name, without prior registration or permission from the Registrar under this Act.

(2) If any individual or society is in violation of sub-section (1) above, he shall be subject to a maximum imprisonment of 1 (one) year or a maximum fine of Tk. 5,000/- (taka five thousand) only or both.

10. Registration of Co-operative Society – (1) For the purposes of registration of a co-operative society, the following has to be submitted to the Registrar: the filled out prescribed form, the relevant procedure has to be followed, the prescribed fee has to be paid, 3 copies of the by-laws of the proposed co-operative society has to be submitted along with all other relevant documents.

(2) If the Registrar is satisfied by the application filed by the proposed co-operative society under sub-section (1) above, that the applicant may be registered as a co-operative society under the Act and the relevant Rules, the Registrar shall issue a Registration Certificate within 60 (sixty) days from the date of filing of the registration application, alternatively if the Registrar is not satisfied with the said application for registration, he shall notify the applicant in writing stating the grounds of rejection of the registration:

However, if the Registration Certificate is not issued within the aforementioned stipulate period, or if no decision whatsoever is intimated to the applicant within that time, the said applicant shall be deemed to be a Registered Co-operative Society.

(3) For the purposes of ascertaining as to whether Registration Certificate ought to be issued under sub-section (2) above, the Registrar may ask the applicant for providing further information or documents and may also conduct a local investigation within 60 days from the date of filing of the application for registration by the applicant.

(4) Under sub-section (2) if an application for registration is refused by an officer of the Department of Co-operatives, the aggrieved applicant may appeal to the immediate superior authority of the concerned officer within 30 (thirty) days from the date of issuance of the order of rejection, alternatively, if the order of rejection has been issued by the Registrar himself, the aggrieved applicant may place the application for re-consideration before the Registrar himself within the aforesaid period.

(5) The appeal or re-consideration application shall be disposed of and communicated to the applicant and the Registration Authority within 30 (thirty) days from the date of filing of such appeal/reconsideration application by the applicant. The decision on the appeal or application for reconsideration shall be final.

11. Registration Certificate – Under section 10, if any application, appeal or application for reconsideration is granted, the Registrar shall issue a Registration Certificate in the prescribed form in favour of the applicant, and the said Registration Certificate shall be treated as conclusive evidence in relation to the registration of the co-operative society.

12. Conditions for Registration – (1) The Registrar reserves the right to direct the applicant to amend its draft by-laws which it submitted along with its application for registration, so that it complies with the Act and the relevant Rules.

(2) Under section 10, when an application for registration has been granted by the Registrar, the Registrar along with the Registration Certificate shall return to the applicant 2 (two) copies of the by-laws, or amended by-laws where appropriate, of the registered co-operative society to the applicant, every page of which has to be signed and his seal placed upon it.

(3) For the purposes of registration of a class of co-operative society, the Government may formulate Rules setting out the terms and conditions for such a class.

13. Amendment of By-laws, etc – (1) A registered co-operative society by following the appropriate procedure may amend or abolish its existing by-laws and formulate new by-laws, such an application for amendment or formulation of new by-laws upon abolishing the old by-laws shall be approved by the Registrar within 60 (sixty) days from the date of making such an application:

However, if the application for amendment of the by-laws or abolishing and formulation of new by-laws have not been approved within the said stipulated period, the amendment or new by-laws, where applicable, shall be deemed to have been approved.

(2) Every co-operative society shall make copies of the by-laws, and subsequent amendments, where appropriate, and shall ensure that every member of that co-operative society receives a copy of the same at a price ascertained by the co-operative society.

Part – IV

Legal Status of Co-operative Society, Management, etc

14. Corporate Personality of Co-operative Society – (1) Every Co-operative Society registered under this Act shall be considered to be a separate legal entity in particular shall be a body corporate, such a co-operative society shall be eligible to purchase property, hold and transfer property, shall have right to enter in to contract with other party or parties; the co-operative society shall have a common seal and such a co-operative society can sue and can be sued at a court of law.

(2) The by-laws of the concerned co-operative society shall expressly state, inter alia, as to who shall be in possession of the common seal of the co-operative society, a list of the deeds and documents where such seal could be placed and the presence of the concerned authorities only before whom such a seal may be placed.

15. Share Capital of the Co-operative Society & the Duties and Responsibilities of the Members towards such Shares –

(1) Any co-operative society registered under this Act shall have share capital which shall be reflected in the share valuation of a share and the number of shares as set-out in the by-laws of the concerned co-operative society.

(2) Every member of a co-operative society shall purchase at least 1 (one) share and he shall pay the Face Value of the share(s), failure of which shall result in the disqualification of his membership with the concerned co-operative society:

However,

- (a) No person shall purchase more than one-fifth of the total share capital of a co-operative society;
- (b) If the Government is a member of a co-operative society sub-section (a) above shall not be applicable.

(3) Shares of Co-operative Society shall not be returnable to the Co-operative Society, alternatively the Co-operative Society shall be prohibited from purchasing its own shares or its monetary equivalent or cannot transfer its own property to one of its members;

with the exception that, where the membership of a co-operative society is restricted to - any government or local authority, or any business or commercial institution, or to workers only, the restriction in relation to share purchase of shares of a co-operative society as stated in this sub-section shall not apply.

(4) A member of a co-operative society may transfer his share after taking prior permission from the Management Committee of the Co-operative Society in accordance with the by-laws of such Society.

(5) At the time of winding up of a co-operative society, if there is insufficiency of funds to pay off the creditors, the members of the co-operative society shall be liable proportionate to their respective shares in the co-operative society.

16. Final Authority of a Co-operative Society –

(1) Subject to the provisions of this Act and the relevant Rules, the final authority of a Co-operative Society shall lie with the General Meeting.

(2) The holding of the General Meeting and its overall workings, powers and functions shall be governed by the provisions of this Act, the relevant Rules and the by-laws.

17. Annual General Meeting and Extraordinary General Meeting –

(1) A Co-operative Society may hold two types of meetings with its members, being, the Annual General Meeting and Extra-Ordinary General Meeting.

(2) The Management Committee shall arrange to hold the Annual General Meeting once every Co-operative Year; any other General Meeting shall be called Extra-Ordinary General Meeting, both Annual General Meeting and Extra-Ordinary General Meeting shall be governed by this Act the relevant Rules, however, furthermore there may be particular provisions in the by-laws of the particular co-operative society, in relation to the holding of such General Meetings.

(3) The Annual General Meeting of every primary co-operative society shall be held within the time as stated in the relevant Rules; in the case of all other co-operative societies the Annual General Meeting shall be held within 60 (sixty) days from the end of the Co-operative Year.

(4) The functions of the General Meeting shall be as follows:

(a) Approval of the Agenda(s) and Decisions taken in the previous Annual General Meeting and the Extra-Ordinary General Meeting;

(b) Discussion on the Annual Report of the Management Committee;

(c) Assessment and approval of the Annual Account Statement;

(d) Assessment and discussion on the Audit Report and Financial Statement;

In addition, a copy of the audited Financial Statement is to be attached with the Notice of the General Meeting to every member;

(e) Analysis, discussion and approval of the proposed budget for the next fiscal year;

- (f) Setting maximum limit of loan facility;
 - (g) If any notice is issued at least 30 days prior to the holding of a General Meeting, in relation to matters relating to any complaint brought by any officer or worker of the co-operative society, or any issues in relation to membership of the co-operative society, the General Meeting is to hear the matter in the form of a hearing, and reach a decision in this regard;
 - (h) Any matter relating to appoint of workers, fixing of salary for such workers and the approval of service rules;
 - (i) approval of forwarding letter to the Registrar which states the subject matter of the Audit Report or Inquiry Report;
 - (j) holding of Management Committee elections, dealing with the expulsion of all or some of the members of the Management Committee or the expulsion of any other member;
 - (k) amendment or re-enactment of the by-laws;
- (5) If the total number of members of a co-operative society is one hundred or less, such co-operative societies shall have a quorum constituting one-third of the total number of members; if the total number of members amount to more than one hundred but less than one thousand the quorum of such a co-operative society shall be one-fourth the total number of members; if the total number of members of the co-operative society exceed one thousand, the quorum shall constitute one-fifth the total number of members.
- (6) If the General Meeting of a co-operative society is not held within the stipulated time period, the individuals of the Management Committee responsible for the delay may be declared disqualified from participating in the Management Committee Elections for the next 3 (three) years by the Registrar.
- (7) If for 3 (three) consecutive years no General Meeting is held of a Co-operative Society, the Registrar may declare the Co-operative Society may be wound up and may take necessary action accordingly, however, the Registrar should warn the concerned Co-operative Society of such consequences if the Co-operative Society fails to form the quorum in 2 consecutive years.
- (8) Extra-Ordinary General Meeting of a Co-operative Society may be held, if:
- (a) such a Meeting is required under this Act;
 - (b) the Management Committee decides to hold such a Meeting for a particular reason;
 - (c) one-third of the members of a co-operative society with less than 500 members, or in other any other case if one-fifth of the total members of a co-operative society make a written application to the Management Committee to hold such a Meeting;
 - (d) the Registrar passes an order to hold such a meeting.
- (9) The Registrar or any person authorized by him in writing may call for holding Extra-Ordinary General Meeting if the Management Committee fails to hold General Meeting upon the direction of the Registrar or upon the application of its members..
- (10) In a General Meeting or Extra-Ordinary General Meeting a decision is may be reached in relation to the expulsion of any or all members of the Management Committee, however such a General Meeting has to be called for this purpose, however in order to reach such a decision, two-third of the members present in such a Meeting must approve the decision.
- (11) If, in a General Meeting a member of the Management Committee has been expelled, the same Meeting must elect the new individual to replace the expelled member, and such member(s) shall be elected for the remainder of the tenure of the Management Committee.
- (12) An Extra-Ordinary General Meeting may be held for any issue that falls under sub-section (4) above.

18. Management Committee – (1) All powers, duties and responsibilities of a co-operative society shall be vested in a Management Committee constituted under this Act, relevant Rules and the by-laws of the Co-operative Society and such a Management Committee shall execute all the functions of the Co-operative Society save for the executive works of the General Meeting.

(2) The Management Committee shall constitute the total number of members as set-out in the by-law, such members shall be elected according to the rules set out in the by-laws:

However,

- (a) The Registrar shall approve the first Management Committee of a Co-operative Society which has been constituted under the approved by-laws by the Registrar;
- (b) (Amended, 2002) Where more than 50% of the paid-up share capital of a co-operative society is owned by the Government or where the Government has paid more than 50% of the loan or advance of a co-operative society or where the Government is a Guarantor of the aforesaid loan, in all such cases the Registrar shall nominate one-third of the members of the Management Committee of the Primary Co-operative Society, the Central Co-operative Society and the National Co-operative Society.

(3) The tenure of the Management Committee of a Co-operative Society appointed by the Registrar at the time of Registration shall be 1 (one) year. During this tenure the appointed Management Committee shall arrange to hold General Meeting for the purposes of electing a Management Committee.

(4) (Amended, 2002) The elected Management Committee, from the date of holding its first General Meeting shall hold office for a period of 3 (years) and such a Committee shall complete the election process of the subsequent Management Committee prior to the end of its 3 year tenure.

(5) (Amended, 2002) If the Management Committee election is not held within the period stipulated time mentioned in sub-sections (3) and (4) above, the existing Management Committee shall be dissolved automatically upon the elapse of its tenure and the Registrar shall appoint an Ad-hoc Management Committee for a period of 90 (ninety) days for the holding of elections for the subsequent Management Committee of the concerned Co-operative Society:

However, none of the members of the dissolved Management Committee shall qualify to be a member of the Ad-hoc Management Committee.

(6) (Amended, 2002) The Ad-hoc Committee shall hold an Extra-Ordinary General Meeting and shall hold the Management Committee elections within the period mentioned in sub-section (5) above and shall transfer all its duties and responsibilities to the newly elected Management Committee with immediate effect.

(7) (Amended, 2002) If the Ad-hoc Management Committee fails to hold Management Committee elections within the stipulated time mentioned in sub-section (6) above, the Ad-hoc Committee shall dissolve with immediate effect and the Registrar shall appoint a new Ad-hoc Committee for the purposes of sub-sections (5) and (6) above:

However, no member of the dissolved Management Committee shall qualify to be a member of any of the subsequent Ad-hoc Committees.

(8) (Amended, 2002) A member of Management Committee who has been elected on two consecutive occasions, shall not be qualified to stand for elections on the third occasion.

19. Qualifications required for an Individual to be a Member of the Management Committee – (1) A member of a Primary Co-operative Society shall not be considered fit to be a candidate of the Management Committee or shall not be fit to be a member of the Co-operative Society, if he/she falls under any one of the following provisions:

- (a) If the individual is below the age of 21;
- (b) (Amended, 2002) repealed;
- (c) if he is not a member of the co-operative society for a continuous period of 12 (twelve) months upto the date of the election;
- (d) if he was found guilty of a criminal offence and received imprisonment of 2 years or more, after serving such imprisonment, five years have not yet elapsed;
- (e) if he is a defaulter of any loan, or advance, etc of a Co-operative Society, or bank or financial institution;
- (f) if he is a paid employee of the Co-operative Society or an employee of the Management Committee or subordinate to any member of the Management Committee or he is holding a profitable position within the Co-operative Society;

However, this condition shall not apply to Co-operative Society whose members exclusively constitute of workers or labourers or a Co-operative Society exclusively for drivers, helpers and conductors;

- (g) if he is a contractor or a supplier of products for profit to the Co-operative Society;
- (h) if he has been declared bankrupt or insolvent by the concerned Court of law.

(2) An individual shall be disqualified from participating in the Management Committee elections of the Central or National Co-operative Society or National Co-operative Union, if:

- (a) if he falls within one of the conditions mentioned in sub-section (1) above;
- (b) if he is not a member of the primary co-operative society for 3 continuous years upto the date of the elections in question, and he has not been present in any of the Annual General Meetings for the last 3 (three) years; or
- (c) if he has been declared a defaulter of loan(s) that he took from the relevant primary co-operative society, or where appropriate the Central or National Co-operative Society; or
- (d) if he is not authorized in writing by the Management Committee for participating the elections.

(3) Sub-sections (1) and (2) above shall not be applicable where the concerned individual has been appointed by the Government to be a member of Management Committee of the concerned Co-operative Society, in particular where the Government owns share in a particular Co-operative Society.

20. Filling up of Vacant Position – (1) For any reason if a position in the Management Committee becomes vacant, the Management Committee shall appoint any individual who is a member of the concerned Co-operative Society as a Co-opt member and shall fill up that position till the tenure of the Management Committee..

(2) if the quorum is not filled up in the Management Committee elections, the existing Management Committee or where its tenure expires, the Ad-Hoc Committee appointed by the Registrar shall hold an election to fill up the vacant positions within 30 days from the date of the first election by calling an Extra-Ordinary General Meeting.

21. (Amended, 2002) - Power of the Government to appoint Government employee on deputation to a Co-operative Society for the purposes of execution of its functions – The Government, if thinks fit, may appoint a Government employee on deputation to the concerned Co-operative Society for the purposes of executing the functions of the Co-operative Society.

22. Dissolve of Management Committee, expulsion of guilty members, etc – (1) Upon the Audit Report or the Investigation under Part VIII, the Registrar is satisfied that the management of a co-operative society is or has been carried out in violation of this Act, or relevant Rules or the by-laws, and due to such violation the interests of the ordinary members are being or have been affected or due to the violation there is a possibility of the co-operative society to become bankrupt, in such a case the Registrar shall summarise the facts and circumstances of the concerned occurrence along with his findings and shall identify the person(s) responsible for such occurrences and shall accordingly shall recommend to the Management the expulsion of the concerned member(s) by holding an Extra-Ordinary General Meeting, and the Management Committee shall be bound to hold such Extra-Ordinary General Meeting.

However, if in the concerned co-operative society the Government has one-third share or more, or if the co-operative society has taken loan from the Government or if the Government is the guarantor of the co-operative society for a loan which it took, in such instances, instead a calling for an Extra-Ordinary General Meeting, the Registrar may straight away show cause the concerned person(s) and may expel the concerned person(s) or may even dissolve the entire Management Committee of the co-operative society.

(2) Under sub-section (1) above, if the Management Committee fails to call an Extra-Ordinary General Meeting according to the directions of the Registrar, he may show cause the concerned person(s) responsible for the occurrences and may expel the concerned person(s) or may even dissolve the entire Management Committee.

(3) In the co-operative society where the Government has one-third or more share or the concerned co-operative society has taken loan from the Government, or the Government is a Guarantor of the concerned co-operative society, the Government reserves the right to carry out investigation against such a co-operative society at any given time, and if the outcome of the investigation is that the management of the co-operative society has been or is being carried out in a way which is in violation of this Act, relevant Rules and the by-laws and such violation may affect the loan repayment of the co-operative society to the Government or the Guarantor where the Government is the Guarantor, or goes against the interest of the common members, the Government may issues a show-cause notice on those concerned and give a reasonable time to reply to such show-cause, and if the Government is dissatisfied with the reply to the show-cause, it shall expel those concerned from the Management Committee or may dissolve the entire Management Committee.

(4) (Amended, 2002) Under this Part, where those concerned are expelled from the Management Committee or where the entire Management Committee is dissolved under sub-sections (1), (2) or (3) above, the Registrar reserves the right to disqualify those expelled or the members of the dissolved Management Committee from participating in any other Management Committee for the next 3 (three) years.

(5) Under this Part, if member(s) of the Management Committee are expelled or those members who are part of the dissolved Management Committee, may appeal to the immediate superior authority of the original decision maker within 30 (days) from the date of the impugned order, where the Government is the decision maker, the aggrieved individual(s) may appeal within the said period of time to the Government for reconsideration of its earlier decision.

(6) Under sub-section (5) any decision reached by the appellate authority or any decision taken upon an application for reconsideration shall be final and there can be no application to the District Judge under section 58 or in any other Court for that matter.

(7) If the Management Committee has been dissolved under this Part, the Registrar, for the purposes of execution of the functions of the Co-operative Society and for the purposes of holding the next election for the Management Committee may appoint an Ad-hoc Management Committee comprising of common members of the co-operative society for a period of 90 (ninety days) or may appoint an Ad-hoc Management Committee comprising Government employees for a period of (four) months.

(8) The Ad-hoc Committee shall call an Extra-Ordinary General Meeting within 90 (days) of its appointment and shall arrange to hold the Management Committee election and shall transfer all its powers and duties to the newly elected Management Committee with immediate effect.

(9) If the Ad-hoc Management Committee fail to carry out its objectives under sub-section (8) above within the stipulated time, the Registrar shall dissolve the Ad-Hoc Management Committee and shall constitute a new Ad-Hoc Management Committee.

23. Address of the Co-operative Society – The full contact details of the head office of the co-operative society has to be stated in the by-laws, the contact details shall be used to serve all kinds of notices and all other communications, if there is a change in the contact details of the co-operative society, the by-laws must be amended accordingly.

24. Preservation of the Register of the Co-operative Society – Every Co-operative Society shall preserve the following registers and books and shall keep them upto date:

(a) Member Register;

(b) Share Register;

(c) Deposit Register;

(d) Loan Register, if applicable;

(e) Minutes Register of the Management Committee Meetings and General Meetings Register;

(f) Cash Book / Register;

(g) All other Books and Registers as stipulated in the relevant Rules and as directed by the Registrar.

25. Publication of Annual Financial Statement – Every Co-operative Society shall publish the audited Financial Statement by following the requisite procedure.

26. Receiving Deposit and Loan & Restriction on Providing Loan – (1) The Co-operative Society may receive Deposit or Assets from any person or entity who is not a member of the co-operative society, however maximum limit of loan or deposit that can be received in this method has to be approved in General Meeting.

(2) Subject to subsection

(3) below, any Co-operative Society which intends to provide loans, the following conditions shall apply:

(a) No loan can be provided to a person who is not a member of the co-operative society;

(b) When loan is provided to its members the limits and procedures set-out in the relevant Rules and the by-laws have to be complied with;

(3) If a Central Co-operative Society or a National Co-operative Society has been established to provide loans and receive deposits to its members, such a Co-operative Society may also receive deposit from an individual who is not a member and provide loan to him not exceeding 75% of the deposit made by him.

(4) Notwithstanding anything contained in this part:

(a) A member of the Management Committee shall be entitled to take only as much loan as would be permitted to an ordinary member and no more;

(b) No member appointed by the Government under section 19 sub-section (3) above shall be entitled to take any loan;

26A. (Amended, 2002 - New) **Financial Assistance provided by the Government, etc** - Notwithstanding anything contained in any other Act, the Government may:

- (a) Purchase the shares of any Co-operative Society, and
- (b) Provide Financial Assistance or Loan to any Co-operative Society.

27. Power of the Registrar to Issue Bond – A co-operative society may, for the purposes of increasing its funds issue bonds, subject to the approval of the Registrar and the following of the relevant procedure set-out in the relevant Rules.

Part – V

Special Powers of Co-operative Societies

28. Name Change and its effect – Any name change of any co-operative society shall not affect the rights and obligations of the co-operative society or of any of its members, both existing and previous or deceased members and if there is any pending litigation which involves the concerned co-operative society, the litigation shall continue in the new name of the co-operative society.

29. Limited Application of Act IX of 1908 – Notwithstanding anything contained to the contrary in the Limitation Act, 1908 (Act IX of 1908), if any member owes any money as loan to the co-operative society and has defaulted, the co-operative society reserves the right to initiate legal proceedings against the defaulter at any point during his lifetime and in case of death of the defaulter or where he has been expelled, time running under the Limitation Act, shall start on the date of his death or on the date on which he was expelled.

30. Charge and Surcharge – If a co-operative society, within its local jurisdiction, provides any kind of service or facility to the public, the co-operative society reserves the right to impose a charge or surcharge on the person(s) who has taken the service or the facility.

31. Lien over Members' Shares and Interest – If any outstanding loan which has not been repaid by any member, past or present or deceased, the co-operative society reserves the right to seize his shares' monetary value, his deposits and other funds, and also his interest that was payable to him, in order to settle his outstanding dues.

32. Power to realize various fees - (1) Notwithstanding anything contained in any other Act in force, for the realization of fees under section 43(2) and under sections 51 and 81 for the realisation of money, a certificate case may be filed under the Public Demands Recovery Act, 1913 (Ben. Act III of 1913) and no Court Fee shall be required.

(2) For the purposes of realization of the aforementioned fees or other outstanding money or for execution of order and judgment in a civil court, Tk.100/- court fee may be paid and the suit may be filed.

Chapter 6

33. Investing in the Cooperative Society Fund – The co-operative society can invest and deposit their funds in the ways mentioned below:

- (a) as a deposit at a scheduled bank and or a designated co-operative bank; or as a government sanchaya patra or as a security;
- (b) If the money is not needed for managing the work of the co-operative society, then based on the permission of the general assembly, 10% of that extra amount can be invested in other company shares or debenture or other security;

(c) If that society is a member of another co-operative society, then they can keep it with that one as a security;

34. Investing the profit and sharing –

(1) The co-operative society shall save and resolve a certain amount mentioned below from their net profit every year:-

(a) reserved funds, at least 15 %;

(b) In case of fund providing co-operative society or the Land development Bank, they shall keep 10 % of the fund for bad debt or doubtful debt

(c) Contribution to development fund is 3%:

But 2% out of this 3% will be designated for the co-operative training academy for training related to motivating for the co-operative society.

(d) A maximum of 10 %for other thing mentioned in the by-laws.

(e) Remaining profit to be distributed among the members as profit

(2) At the most of 50% of the preserved funds can be invested for business related issues of the co-operative society.

(3) The preserved funds, bad debt and doubtful debt fund needs to be invested or kept as mentioned below:

(a) government issued sanchayapatra or similar secured;

(b) any scheduled bank or designated bank as a deposit.

(4) As mentioned in by law 1 (e) about profit sharing, before profit sharing 50% of the profit needs to be used to adjust for the previous loss, if any

35. Rules and regulations about change of ownership of properties of the co-operative society – Any property of the co-operative society (machines, property, transport etc.) cannot be sold or transferred ownership or leased for over five years by the managing committee without the consent of the general assembly:

But the condition is that if the co-operative society is granted any government loan, investment of advance or other facilities, or if there is any government guarantee then any sale by that co-operative society needs a prior approved written permission of the registrar.

If any property transfers possession without the rules and regulations mentioned in sub-clause 2 (1), then the responsible people will be punished for at least 6 months or a maximum of 5 years jail and fine.

Chapter 7

Benefits and Responsibilities of the Members of the Co-Operative Society

36. Vote of the Members:

(1) Every member of the Co-operative Society, irrespective of the class of the member, will be able to give one vote during any activity of the Co-operative society; people have to be present to give this vote, no one can give 'proxy' for them.

(2) If there is a tie, then the chairman will have the power to give a second or deciding vote.

(3) Apart from the Primary Co-operative societies, all the other co-operative societies can assign a representative for one of the members to vote on their behalf.

(4) It will be mentioned in detail in the sub – law(*Upa Ain*) how a member of the society will represent the upper level or activities of the upper level of the society.

37. Members cannot implement their rights until they clear their dues:

A member cannot implement their rights if they owe the co-operative society any money related to contribution, shares or, membership.

38. Shares or profit cannot be confiscated:

Whatever other laws say, according to act 31, the court cannot confiscate any share or profit from the member which is part of the co-operative society in order to recover any dues that the member has. Also, the court cannot order that the part that the member is supposed to get, that can be confiscated to recover any dues whatsoever.

39. Responsibilities of a former or deceased member:

If anyone's membership is resolved or anyone dies, and if there are any dues when his membership is resolved or the member dies, then it will be taken from the property that he has within three years after that date, if according to the co-operative society act 55 the order is given.

40. Receiver selection: The members of the co-operative society need to select a person each who is not related to them and who will take all responsibilities of the co-operative society after he is deceased, he will have all right and liabilities about his shares; in this case the inheritance law will not count.

41. Paying off share, profit etc. after removing membership: If some member loses his membership, then he will get the value of his shares.

42. Rules and regulations about the property acquired by co-operative society: whatever is mentioned in this act, -

(a) the society which has the aim of acquiring abandoned land and make it livable, or which acquires land and leases it to their members, those lands cannot be transferred ownership or hand it over to anyone according to the bylaws without getting the permission of the co-operative society.

(b) If the membership becomes void of the above mentioned member in (a), and if the selected other responsible person is not willing or competent, then the leased land will be returned to the co-operative society, but the person will get back the value of the property or the lease amount whichever is more – but the condition is (a) to fix the market value, the managing committee will fix the price according to the rules and regulations, and inform the registrar; and if any question arises about the market value fixed by the managing committee – then the registrar will solve it and the value fixed by him will be the final one. (b) If the co-operative society is supposed to get any money from the member, the money will be taken from the market value.

Chapter 8

43. Authority of the registrar about audit: (1) He can appoint an auditor to audit the accounts of the co-operative society – anyone from the department – an employee or someone else, or someone from the funding organization; also that auditor can go through all accounts and registrars of the co-operative society.

(2) All co-operative societies will provide the fees for the auditor according the rules and regulations

44. Authority of the registrar about documenting accounts- If the accounts are not up-to-date during an audit, then the auditor can get it updated but the co-operative society has to pay.

45. Nature of the audit- Audit conducted under clause 43 needs to have the following –

- (a) Examining cash fund and safe deposit;
- (b) The stability of depositors and people who have lend money, and whether they are getting the amount from the co-operative society.
- (c) If there is any loan that crossed the repayment period;
- (d) Evaluation of the assets and debts;
- (e) Examining the designated form for accounts by the committee'
- (f) Stating the profit earned;
- (g) Examining updated member list;
- (h) Other issues mentioned in the rules and regulations.

46. Audit Report- The auditor will submit the co-operative accounts details and include the following audit report to the registrar and the society-

- (a) Any transaction that seems against the law, bylaws or rules and regulations;
- (b) Any transaction that should have been part of the calculations, but hasn't been included;
- (c) Any lack or loss which happened due to negligence or inappropriate behaviour and has been proved or needs more investigation;
- (d) Any property which is owned by the co-operative society and is taken over by someone unlawfully or grabbed;
- (e) any property which is bad debt or doubtful debt;
- (f) Any other things which were determined;

47. Correcting mistakes: - (1) after getting the audit report, primary co-operative society in 60 days and other co-operative societies in 120 days need to correct all mistakes mentioned n the report; and need to inform the registrar about the changes. (2) as mentioned in the clause (1) above, if they do not make necessary changes, then they can be punished according to clause 22.

48. Registrar and Funding organization's society visit- (1) If any co-operative society is a funding agent, then any of the employees or anyone given the authority can go and visit the fund receiving society. (2) The registrar can visit any co-operative society maintaining rules and regulations.

(3) Any visit conducted by this clause needs to send a copy of the report to the concerned society and registrar.

49. Investigation by registrar – (1) The registrar himself or a committee for investigating can be formed or someone can be given the power to investigate the following:

- (a) If there is a fund providing and receiving society, and if the fund provider requests an investigation;
- (b) If the managing committee's one third members request an investigation;
- (c) If 10% of the members request any investigation;
- (d) After getting the audit report, if there is any necessity for any investigation;

- (e) If any field level employee who reports to the registrar provides a report mentioning the necessity of the investigation;
- (2) According to above sub clause (1) if the registrar gets a request for investigation, then
 - (a) In case of the above mentioned sub clause (d) and (e), the investigation can be requested for the last 10 years.
 - (b) In the remaining cases, they can mention the date or the relevant investigation request;
- (3) Whatever is mentioned in this clause, apart from that the government can order an investigation whenever it deems it necessary on their own effort, or they can ask to do it based on a person – member or not; and based on the report they can ask the registrar to take action based on clause 84.

Chapter 9

50. Resolution of conflict by the registrar- While administering an election of the society, or while managing any other activities or while dissolving it – if there is any conflict and if any of the people mentioned below are involved, then it will be counted as a conflict, such as –

- (a) The co-operative society, any member of the managing committee, or agent or member to dissolve the society
- (b) Any member of the society or old member or deceased member or anyone's right which is linked to the deceased member;
- (c) Any guarantor of a present, previous or deceased member of the society – whether he is a member or not - or anyone involved in any transaction;
- (d) any other co-operative society
- (e) Any irritated member before the election about cancellation of candidacy and any irritated member after the election about the result
- (f) Any member who is irritated about any decision by the co-operative society
- (2) Conflicts mentioned in (1) need to be presented before the salish board as mentioned below:
 - (a) in case of election results, within 30 days of the election
 - (b) In other cases, 180 days within the conflict date
- (3) To solve conflicts mentioned in the above (1), the registrar will appoint the assistant registrar or someone high position
- (4) If a decision is given, within 30 days an appeal needs to be filed
- (5) All of the conflicts need to be solved according to the rules and regulations mentioned in this clause

4. Under this section if the proposed legal question is taken by district judge for hearing, he can send it to any additional district judge or sub-judge under him for disposal or withdrawing it he can send to any other judge or he can dispose it on his own.

5. Under this section for submitted application or sent conflict or disposal of appeal district judge or as the case may be additional district judge or sub-judge.

- a. Don't give decision only to legal questions, give decision to facts as well, but for giving decision to legal questions can consider the related facts.

b. Related party can present their say personally or by any appropriate representative or any tactful and in proposed legal question if any party doesn't present their say then information from file will act for the judgment.

c. Follow the way which is determined by rules and if there is no rule then consider an appropriate way.

6. Under this section no appeal against the decision of district judge or as this case may be additional district judge or sub-judge will take place or no application for review.

7. Mentioned topic in subsection (1) or under this act no question can proposed over the validity or truth of the activities taken under this act to district judge or any other civil court except specific authorization, and specially: the matters which have no jurisdiction of court are below:

a) The activities or decision taken by registrar for registration of co-operative society or sub-act composition or correction.

b) Cancellation of any management committee and management activities after cancelling the committee.

c) According to section 50 any conflict sent to mediator

d) The decision or activities of registrar for liquidation of any co-operative society

or the cancellation of its registration.

8) Under the liquidation process any business matter of the co-operative society or any case or legal activities or to file any case against the liquidator or any member the permission of the registrar is needed and without permission court will not accept any case.

Chapter 10

Liquidation and Extinction of Co-operative Society

Section 53: Ordering liquidation of co-operative society. - For liquidation of the activities of any co-operative society mentioning proper reason according to the way determined by registrar rules written instructions can be given under the facts below, ifa.

Inspection under section 43 or investigation under section 49, if he thinks that, the committee needs liquidation.

b. In the special general meeting of the committee according to the decision of the third fourth members application is given

c. If no quorum happens in consecutive three general meetings.

d. If the committee is registered but the activities are not started in the definite time.

e. If the activities of the committee is closed during last 1(one) year.

f. Paid share capital or taken deposit is less than 3000/- (three thousand) taka

g. Any condition is broken under the act or the rules or the sub-act.

But the condition is, for clause (e) and (f) if the registrar thinks it appropriate he can cancel the registration without appointing liquidator.

Section 54: Appointing liquidator and ineffective management committee. – (1) under section 53

if any co-operative society is been ordered to liquidate then registrar can appoint any liquidator and remove that person and appoint another person in that place and while liquidation activities

are on process he can ask for internal report to the liquidator.

(2) Under subsection (1) if liquidator is appointed then management committee can't apply any power.

55. Power of Liquidator. – (1) From the date of appointment of liquidator he should take all wealth of the committee, any things in rights of the committee and other business documents of the committee under his rights and possession and take the proposed demand against the committee.

2. According to rules, liquidator can do any work and give essential orders described below:-

- a. File any case and manage for or against and take other legal measures.
- b. Compromise or solution any conflict with other people or committee.
- c. Determine the owing and collect them from the past, present members or elected person, heiress or legal representative.
- d. Determine the cost of liquidation and if wealth of committee is not enough then assign member responsibilities to bear the cost.
- e. Determine the chargeable collection including the demands of clause (c) and (d) from members, ex-members or dead members estates, elected persons, heiress and legal representative.
- f. Investigate the proposed demands against committee and according to the rules under the act; determine the priority of the claimant.
- g. Repay the proposed demands against committee as far as possible including interest till the date of liquidation.
- h. Give necessary orders considering the collection, accumulation and distribution of the wealth of committee; and
- i) After paying the debt of the committee if there is surplus, then having permission of the members distribute among them or dispose it any other way.

3. Members of the management committee, members of the committee and all employees will be bound to help by any means to the liquidator.

Section 56: Payment of owing priority determined by liquidator. – Bankrupt related law, 1997(No. 10 law of 1997) whatever different is there, if there is any owing of the committee under liquidation process from a bankrupt then the owing will come in the next order of the government or local authority owing.

57: Deposit the records and submit final report by the liquidator. – When the liquidation process ends of a co-operative society the liquidator deposits the record of the committee and submits final report to the registrar in a determined way.

58: The power of registrar to cancel registration after liquidation. – After getting the final report from liquidator registrar can order the cancellation of the registration of the committee and before having the report he can stop the liquidation process and keep the existence of the committee any time mentioning reasons.

Chapter XI

Special Provisions for [Co-operative Land Development Bank, Central Land Development Bank] and National Co-operative Society

The power of Co-operative Land Development Bank to repay the mortgage loan of members

59: (1) If any land or immovable property is mortgaged to a person by any member of [any Co-operative Land Development Bank or Central Development Bank] to repay his loan, such bank can take actions to repay the loan or its part of such member.

(2) To fulfill the aim of the Sub-Section (1), such bank can issue notice to the debtor of such member that, he should accept the money mentioned in such notice as per the loan within the time limit mentioned in it.

Section 83 or 84 of the Transfer of Property Act, 1882 (Act IV of 1883) shall not be applicable on such notice issued by such bank or on the directions given by it.

(3) A person to whom such notice is served, shall be bound to accept the money proposed by the bank, but in case where there is a disagreement on the amount of loan between the mortgagor and such person or in case where an amount lesser than the amount owed is suggested to repay the loan, in such case the person can take other legal actions to realize the dues demanded even after taking the money suggested by the bank.

(4) If any debtor fails to take the money according to the notice, then no interest shall be payable on the money mentioned in the later notice after the served notice.

Restriction on the transfer of mortgaged land by the mortgagor

60: (1) Notwithstanding anything mentioned in any other implemented Act, the mortgagor, after executing the mortgage documents in support of the [Co-operative Land Development Bank or Central Co-operative Land Development Bank], without the consent of such bank-

(a) cannot transfer or mortgage the mortgage property or share elsewhere to repay his mortgage dues; or

(b) cannot bring any charge over the mortgage property or his share in the bank in the next five years.

[(2) As per to the Sub-Section (1) if any Co-operative Land Development Bank is interested to give consent, such bank shall take permission from the Central Co-operative Bank which it is a member of, or from the money providing institution which the prior bank is indebted to.

Mortgage is secured even if the mortgagor is bankrupt

61: Notwithstanding anything mentioned in the Bankrupts Act 1997 (Act X of 1997), if any property is mortgaged to the [Co-operative Land Development Bank or Central Co-operative Land Development Bank], no such question can be raised even after the mortgagor is declared bankrupt under such Act that, the mortgage is kept to give priority to such bank over other debtors or without proper bond or such mortgage is not kept on good faith.

Power to sale the mortgage property without engagement of the court

Section 62: Notwithstanding anything mentioned in any other Act in enforcement, in the case power to sale and transfer the possession of any property is vested specifically on any [Cooperative Land Development Bank, Central Co-operative Land Development Bank] or National Co-operative Society by any mortgage documents, in such case if the installment payable under such mortgage is not paid in full, in cases such bank or management committee of the society shall have the power to take possession of the mortgaged property, to sale it and to transfer the possession of the sold property to the buyer without the engagement of the court; and no other legal remedy of such bank or society shall be barred due to this power.

Appointment of sales officer

63: The Registrar, by the application from the bank or society, can appoint a sales officer to execute any sale, to ease the execution of the provisions of Section 62, and such officer shall execute the sale as per the provisions and the directions of the Registrar and report to the Registrar, time to time, about his activities.

Serving notice to the associated people

Section 64: According to the power vested by Section 62 [Co-operative Land Development Bank or Central Co-operative Land Development Bank] or National Co-operative Society shall serve notice to the following people to get the deserved due money, e.g.-

(a) mortgagor;

(b) such a person who has benefit on mortgaged property or has any right over it, or has title to recover such property and who has informed such bank or society beforehand about such benefit or right;

(c) the guarantor to repay such money or part of such money, and

(d) any debtor of the mortgagor, who has a decree for selling the mortgaged property

Application for sale or sale method

65: (1) If the due amount in mortgage is not paid within three months of the issuing of notice under Section 64, then such bank or society can, within the given period, raise demand to the sales officer appointed by the person mentioned in such notice under Section 63 and apply to sale the mortgaged property or its part.

(2) The sales officer shall complete the sale within 90 (ninety) days of being appointed under Section 63, but the Registrar can extend such periods for further 90 (ninety) days by the application of the associated bank or society or such officer.

Application to make the sale void by submission

66: (1) The sales officer can issue a notice to the persons mentioned in Section 64 about such sales and sale value if any property mortgaged to the (Co-operative Land Development Bank, Central Co-operative Bank) or National Co-operative Society under this chapter is sold, shall notice shall contain-

(a) the time limit to submit the money under the provision (b), (c) and (d) and to apply for voiding the sale of such property;

(b) sale value of the property;

(c) the money spent by such bank or society for the sale of the property, if any, including the money specified in the sale declaration by the bank or the society and the deserved [profit];

(d) the buyer shall be given five percent damages over the sale value of such property, if the buyer submits such sale value.

(2) Such sale shall be voidable under Section 67, if the person mentioned in the Sub-Section makes an application by submitting the due money stated in the notice under Sub-Section (1).

Void and validation of sale

Section 67: (1) If the prescribed period under Section 66 to apply for voiding sale is lapsed, the sales officer shall submit a report to the Registrar containing the proceedings, sales result and details of such application, if made.

(2) The Registrar, after getting such report shall-

(a) give an order voiding the sale if no application is submitted under Section 66 and the money specified in such section is not submitted and in cases, shall direct the sales officer to return the money submitted to such bank or society under Section 66 (b) to the buyer; and

(b) give an order validating the sale, if no such application is submitted, or the applicant does not submit the money specified by such section even after submission of the application.

(3) The sale shall be validated if an order is given to validate the sale under Sub-Section (2).

Bar to the distribution of sales money other demands

Section 68: The Registrar shall give direction, while confirming any sale under by order under Section 67; that the sales money shall be distributed as follows:

Firstly, in cases the sales officer, [Co-operative Land Development Bank], shall pay all the deserved costs and charges to the central or national co-operative society, which the officer, bank or society has spent due to the sale or registration or deserves the payment by any other means.

Secondly, the remains, if any, should be given to the mortgagee;

Thirdly, further remains, if any, should be given to the original owner of the sold property.

Issuing certificate to the buyer and entry by the Sub-Registrar

Section 69: (1) After any sale is confirmed under this chapter, the Registrar shall, in a prescribed form, issue a certificate describing the sales property and the name of the person declared as buyer while the sale; and such certificate should contain the day and date when the sale was confirmed.

(2) The Registrar shall send an original copy of the certificate issued under Sub-Section (1) to the Sub-Registrar under whose territory the property or its part mentioned in such certificate is situated, and notwithstanding anything contained in the Registration Act, 1908 (Act XVI of 1908) such Sub-Registrar shall enter the summary of such copy in his registry and return the original copy to the Registrar.

Transferring property to the buyer

Section 70: After issuing the certificate under Section 69, the Registrar shall transfer the possession of the property as per the application of the buyer, and also issue a certificate in the prescribed form, manner and period after the transfer of possession is complete.

Right of the co-operative [Co-operative Land Development Bank] central society etc on buying mortgaged land

Section 71: The [Co-operative Land Development Bank], central co-operative society and national co-operative society can buy the mortgaged property sold under this chapter, but such

bank or society shall sell such bought property within the prescribed period

Question cannot be raised about the title of the buyer

Section 72: If any property is sold under Section 62 and such sell is confirmed under Section 67(2)(b), the mortgagor or any of his heirs or anyone with the right to claim benefit from him, cannot raise question in the court about the title of the buyer.

Appointment of the receiver

Section 73: (1) To exercise the power to sell under Section 62, the Registrar according to the provision of Sub-Section (2)-

(a) as per the fact, due to the application of the [Co-operative Land Development Bank], can appoint a receiver to cultivate and generate income from the mortgaged property

(b) as per the application of the mortgagor, if considered fit, can remove such receiver; and

(c) can fill the vacant post of the receiver.

(2) The Registrar cannot appoint a receiver, if the mortgaged property is in the possession of a receiver already appointed by the court.

Cost, Remuneration and Responsibilities of the receiver

Section 74: (1) Such receiver, as per the provision, shall be entitled to get the management cost and remuneration prescribed by the Registrar after consulting with the [Co-operative Land Development Bank], or in case, Central Co-operative Society or National Co-operative Society

(2) The provisions of Section 69A(8) of the Transfer of Property Act, 1882 (Act IV of 1882) shall be applicable to such receiver

Power of the (Co-operative Land Development Bank) in case of destruction of the mortgaged property or insufficient security money

Section 75: In case the security provided to the [Co-operative Land Development Bank] or the Central or National Co-operative Society is insufficient, and if the mortgagor fails even after being given proper opportunity by such bank or society to provide additional security to make it sufficient; in that case the full loan shall be considered as due immediately and such bank or society shall be entitled to take actions to settle such loan against the mortgagor under the provisions of this chapter.

Illustration: As per this Section any security shall be considered insufficient, if the current value of the mortgaged property is not higher than the amount due, and the relevant provision and sub legislation shall be applicable to ascertain the value.

Participation of the officers of the (Co-operative Land Development Bank), the Central and

National Society in the auction is forbidden

Section 76: According to this Chapter sale of any moveable or immoveable property, any [Cooperative Land Development Bank], Central or National society's management committee, any member or employee and sales officer or such person related to the job of sale, cannot take any action directly or indirectly, personally to buy the auction or to get any benefit derived from such property or attempt to get such benefit.

Discharge from personal appearance for registration of certain documents

Section 77: Notwithstanding anything contained in the Registration Act, 1908 (Act XVI of 1908), to register in the registration office on behalf of such bank or society appointed to write any document, no personal appearance is require of any [Co-operative Land Development Bank] or Primary or National Co-operative Society's management committee member or employee.

Power [of Co-operative Land Development Bank] to accept money etc after the appointing title or transfer

Section 78: Though the appointment of owner or transfer of the mortgage by any [Co-operative Land Development Bank] to any Central or Co-operative Society or National Society, shall take any action if necessary according to this Chapter to collect the dues, to appoint title or transfer by the bank or mortgage of the Society by the agreement of that Central or National Co-operative Society.

Chapter XII

Enforcing the Responsibilities and Collecting Due Money

Enforcing witness attendance with presentation of documents

Section 79: (1) To fulfill the aim of this Act, the Registrar and as per the provision, an inspecting officer, arbitrator, liquidator or any person conducting investigation under chapter eight-

(a) can direct the parties and any other person, as per his consideration, to attend by issuing summon and can interrogate;

(b) such person shall be bound to provide true information as per his knowledge in reply to the interrogation;

(c) can inspect any account book, cash and other documents and property of the society;

(d) all the employees including the members of the management committee of the society shall be bound to provide required assistance.

(2) According to the issued summon or the direction given under Sub-Section (1), if the respective person does not perform his responsibilities or does not attend, or if the inspection

cannot be conducted due to the lack of assistance of any person under such Sub-Section, the Registrar can apply to the magistrate to issue arrest or in some case search warrant against the accused person.

(3) The dir, after considering the application under Sub-Section (2), can issue arrest or search warrant.

Power to direct seizer conditionally

Section 80: (1) If it appears to the Registrar that, any person or Co-operative Society is intentionally performing under chapter Nine, Ten, Eleven or Twelve, any direction as per the summons, inoperative or intend to delay, transfer his or their whole property or other part, or handover outside of the local area of involve Registrar, then the Registrar can direct to seize that property or part of that property and can direct to pay sufficient security as per his consideration, and withdraw the order of seizer after paying that security.

(2) The direction of seizer under Sub-Section (1) shall have similar legal status and effect to the seizer order of the civil court.

Power to give direction to clear dues

Section 81: Notwithstanding anything contained in Chapter Nine, to clear the due loan from any Co-operative Society or money providing organization, the Registrar or as per rules other officer may direct the associated defaulter society or their member or guarantee to clear as per the written application.

Punishment for presenting false information for due loan

Section 82: If the Co-operative Society or the member of that management committee takes loan by presenting any false security or bond or declaration, then the Registrar can impose a fine of twice the amount of that loan on the responsible person, such fine is recoverable as the monetary penalty imposed by the criminal court.

Rights of the creditor shall not be hampered for such fine imposed on that person for criminal and civil remedy.

Punishment of defalcation of fund

Section 83: (1) Based on the inspection report under Section 46, or on the investigation report under Section 49, or on any report by the liquidator; if the Registrar is satisfied that any member of the management committee of the co-operative society or any member or employee of the society-

(a) intentionally gave money or approved the power to give money by violating this Act or

provision or sub legislation

- (b) intentionally gave any order which harmed to the society;
- (c) intentionally did not record any money belonging to the society in the account book;
- (d) defalcated money belonging to the society or fraudulently kept back money belonging to the society;

Then the Registrar shall exclusively investigate the matters.

(2) During the investigation under Sub-Section (1) shall give the associated member or employee the right of a hearing regarding the complain made against him, and in cases if considered proper can direct him to rectify the fault, or return the defalcated money or property to the society or pay damages for the damage derived from the order or activity of the member [within 120 (one hundred twenty) days].

(3) The associated member or the employee shall be bound to comply with the direction given under the Sub-Section (2), and failure to do so shall be considered as an offence and therefore shall be punishable with imprisonment of no more than [7 (seven) years], or with fine equivalent to the defalcated money, or double the value of the damaged property or both.

Power of the Registrar of performing his duties

Section 84: Notwithstanding anything contained in this Act, if any co-operative society does not take any action on any matter, even after being required to do so by this Act, Rules and Sub legislation-

- (a) within the period prescribed by this Act, Rules or Sub legislation; or
- (b) if no such period is prescribed, then within the period mentioned in the notice issued by the Registrar considering the nature and ambit of the matter;

The Registrar can give required direction after providing the management committee of the society or the associated person the right of a hearing for taking such actions; such committee, or in cases the member or the person shall be bound to follow the such direction.

(2) In addition to the fine, the Registrar can direct the violator to give no more than 500 (five hundred) taka per day to the society's fund for violating the direction given under the Sub-Section (1); if such fine is not given it shall be recoverable as public demand under the Public Demand Recovery Act, 1913 (Ben. Act III of 1913).

The society etc's activities shall not be void due to certain faults

Section 85: (1) Any work done in good faith by the co-operative society or management committee or any officer or liquidator shall not be void for a later fault due to the constitution of

the society or construction of the management committee or conducting the procedure or disqualification in appointment or election of any officer or liquidator.

(2) Any work executed in good faith by any person appointed under this Act shall not become void later only for the cancellation of his appointment or made ineffective by an order served under this Act.

(3) To fulfill the aim of this Act, the Registrar can decide whether any work of the society is executed with good faith or not.

Cognizance of offence, etc

Section 86: (1) Notwithstanding anything contained in the Code of Criminal Procedure, 1898 (Act V of 1898), the offences punishable under this Act shall be non-cognizable.

(2) The court shall not try any offence under this Act without the written complaint from the Registrar or any other person empowered by him.

Notes/Books as evidence the Registration of Society

Section 87: (1) Any subject entry in any Register or book of the Co-operative Society, entry in the regular schedule of the Society and attested with proper rules, the attested photocopy of that subject shall consider as the elementary evidence in case of suit or legal action.

(2) If any Co-operative Society liquidated, the officer to whom the records of such Society shall reserved, unless he is former member of the Management committee of such Society or any former employee or party of former liquidator of any Suit or unless he is accused he is not bound to present any documents of such Society or shall not be summon to be witness of any matter, then the summon can be issued with clear direction by the Court.

Chapter XII

Miscellaneous

Rule making power

Section 88: (1) Government, may pass rules by issuing gazette to fulfill the purpose of this Act.

(2) Such rules may have such provision that, whoever breaching such rules shall be punishable up to 6 (Six) months imprisonment or a fine of 5000/- (five thousand taka) or both.

Discharge

Section 89: Under this Act, if any person sustains damage or likely to sustain damage due to an act done on good faith by the Registrar or any of his subordinate officer or employee or any person who is appointed by him, for that no suit or legal proceedings can be taken unless under this Act.

Vesting power

[Section 89a: Government, by Government Gazette may impose such duty and power to the Registrar which is not provided under this Act.]

Void and valid

Section 90: (1) The Co-operative Societies Ordinance, 1984 (Ordinance I of 1985), hereinafter, is Repealed.

(2) Repealed as such:-

(a) rules prescribed under Ordinance, is consider as prescribed under in this Act to the extend it is relevant to this Act,.

(b) registration given, power of attorney deposited, summon noticed, appointment given, order direction, liquidation schedule decided under such Ordinance are consider as given, deposited, issued or liquidated under this Act.

(c) any dispute, or appeal or any case filed in District Judge or any other court under such Ordinance shall continue as if this Act has not been executed.

11.20 TERMS OF REFERENCE (TOR)

11.20.1 COMPONENT 1: Community Mobilization and Institutional Strengthening

1. Job Description of Community Mobilization/Institutional Strengthening Expert

Reporting to:

Team Leader

Activities:

- Preparation of necessary procedures and formats to guide implementation of community mobilization process and activities in the polders
- Provide support to the preparation of Village Development/Action Plans and Polder Development Plans following participatory, multi-disciplinary and gender-specific planning approach
- Ensure effective mobilisation of the communities towards participation in the development of the water resources and the productive sectors. Special attention has to be given to women and the hard-core poor.
- Ensure effective participation of communities in the preparation of the WMG/Village Action Plans and Polder Development Plans in relation to water resources management and the productive sectors.
- Provide support to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Ensure that specific attention is given to women and hard-core poor of the communities and to the good governance aspects.
- Contribute in the coordination of activities of various components of Blue Gold project at polder and zonal levels
- Provide support to cross-cutting activities (training, gender, governance, environment and DRR)
- Strengthen capacity of the department of cooperatives so that these can play an effective role in support of the cooperative movement.
- Participate in training concerned TA and BWDB staff on the community mobilization activities, including modules to be used and methods to be followed
- Support community participation in planning, designing and supervision of infrastructural works for improved water management in the polders
- Make regular field visits and assist the field team in carrying out the tasks in the Community Mobilization Component

Expected Outputs:

- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's.
- Contribute to the implementation of earthworks for embankments by LCS, providing jobs to a minimum of 5000-7000 women in collaboration with Component 2 TA team
- Achieve 100% registration of WMG's at DoC
- Achieve 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.

- Contribute to effective linkages with activities of partner organizations on livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.

2. Job Description of Development Planner

Reporting to:

Leader, Component 1

Activities:

- Assist the field team in identifying different socio-economic and interest groups at village level
- Assist in identification of issues related to water management, rural infrastructure, agriculture, health & sanitation and livelihoods
- Participate in the preparation of polder development planning studies following participatory, multi-disciplinary and gender-specific planning approach
- Assist the field team in making liaison and develop network with different local government institutions and public & private sector service providing agencies with special focus on water management planning
- Contribute to the review and revision of the LCS Guidelines followed in IPSWAM
- Assist in developing cooperation & working relationship with BWDB, DAE and other government departments and development projects relevant to the objectives of Blue Gold project
- Contribute in and coordinate the activities of various components of Blue Gold project at polder and zonal levels
- Provide support to cross-cutting activities (training, gender, governance, environment and DRR)
- Strengthen capacity of the Department of Cooperatives so that these can play an effective role in support of the cooperative movement
- Make field visits in close collaboration with other Central Team members in order to collect and analyze data and to assess the relevance of the interventions in the polders
- Train field staff on the different activities, development of modules and methods to be used in different field activities
- Make regular field visits and assist the field team in carrying out the tasks of the Community Mobilization Component as defined in the Project Documents
- Consolidate field level information on the progress of community mobilization activities in polder areas and prepare reports

Expected Outputs:

- Contribution in polder development planning study reports
- Reports on progress of community mobilization activities, in particular the status of WMO formation activities, monitoring of the progress of polder activities and WMO, participation of WMOs in O&M activities, progress of LCS activities
- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's.
- Contribute to the implementation of earthworks for embankments by LCS, providing jobs to a minimum of 5000-7000 women in collaboration with Component 2 TA team
- Achieve 100% registration of WMG's at DoC
- Achieve 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective coordination of activities at the polder level relative to agricultural production, livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.

3. Job Description of Senior Socio-Economist/Deputy Component Leader

Reporting to:

Leader, Component 1

Activities:

- Assist in the preparation of necessary procedures and formats to guide implementation of community mobilization process and activities in the polders
- Assist the Zonal team in identifying different needs and problems in the polder areas and in prioritizing these
- Provide support to the preparation of Village Action Plans and Polder Development Plans following participatory, multi-disciplinary and gender-specific planning approach
- Provide guidance and support to Zonal Staff and Community Organizers in strengthening established WMG's / cooperatives and assisting them to meet the mandatory criteria during auditing by DoC
- Assist in preparing the contract agreement between the WMA and BWDB defining the O&M responsibilities of each party
- Participate in training field staff on the different activities, including modules to be used and methods to be followed in performing activities
- Support community participation in planning, designing and supervision of infrastructural works for improved water management in the polders
- Make regular field visits and assist the field team in carrying out the tasks of the Community Mobilization Component as defined in the Project Documents
- Conduct regular field visits in close collaboration with other Central Team members in order to collect and analyze data and to assess the relevance of the interventions in the polders
- Consolidate field level information on the progress of community mobilization activities in polder areas and prepare reports
- Maintain liaison with Zonal Team for coordination of Zonal activities.
- Provide support to cross-cutting activities (training, gender, governance, environment and DRR)
- Contribute to effective mobilisation of the communities towards participation in the development of the water resources and the productive sectors. Special attention has to be given to women and the hard-core poor.
- Ensure effective participation of communities in the preparation of the Village and Polder Development Plans and determination of WMG Action Plans in relation to water resources management and the productive sectors.
- Provide support to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages of activities at polder and zonal levels on agricultural production, livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Strengthen capacity of the department of cooperatives so that these can play an effective role in support of the cooperative movement.
- Review reports from Zonal Socio-Economists and submit reports on progress of community organization activities, in particular the status of WMO formation activities, participatory monitoring of the progress of polder activities and WMO, progress of LCS activities, participation of WMOs in O&M activities, status WMG/Cooperatives

Expected Outputs:

- Contribution in polder development planning study reports

- Reports on progress of community organization activities, in particular the status of WMO formation activities, monitoring of the progress of polder activities and WMO, participation of WMOs in O&M activities, progress of LCS activities
- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's.
- Contribute to the implementation of earthworks for embankments by LCS, providing jobs to a minimum of 5000-7000 women in collaboration with Component 2 TA team
- Achieve 100% registration of WMG's at DoC
- Achieve 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages of activities at polder and zonal levels on agricultural production, livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Contribute to the establishment of effective coordination mechanisms with relevant government departments, LGIs, other development projects, NGOs, and partner organizations.

4. Job Description of Community Organization Expert

Reporting to:

Leader, Component 1

Activities:

- Assist the Zonal team in identifying different needs and problems in the polder areas and in prioritizing these
- Provide guidance and support to Zonal Staff and Community Organizers in WMG formation, drafting by-laws of WMOs, strengthening established WMG's / cooperatives and assisting them to meet the mandatory criteria during auditing by DoC
- Assist in preparing the contract agreement between the WMA and BWDB defining the O&M responsibilities of each party
- Participate in training field staff on the different activities, including modules to be used and methods to be followed in performing activities
- Make regular field visits and assist the field team in carrying out the tasks of the Community Mobilization Component as defined in the Project Documents
- Conduct regular field visits in close collaboration with other Central Team members in order to collect and analyze data and to assess the relevance of the interventions in the polders
- Consolidate field level information on the progress of community mobilization activities in polder areas and prepare reports
- Contribute to effective mobilisation of the communities towards participation in the development of the water resources and the productive sectors. Special attention has to be given to women and the hard-core poor.
- Ensure effective participation of communities in the preparation of the Village Action Plans and Polder Development Plans in relation to water resources management and the productive sectors.
- Provide support to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages of activities at polder and zonal levels on agricultural production, livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Maintain liaison with Zonal Team for coordination of Zonal activities.

- Maintain close liaison with BWDB, DAE, DoC, DoF, DoL, NGOs and partner organizations in Blue Gold Program area
- Provide support to cross-cutting activities (training, gender, governance, environment and DRR)
- Submit reports on progress of community organization activities, in particular the status of WMO formation activities, progress of LCS activities, status WMG/Cooperatives

Expected Outputs:

- Reports on progress of community organization activities, in particular the status of WMO formation activities, progress of LCS activities
- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's
- Contribute to the implementation of earthworks by LCS, providing jobs to a minimum of 5000-7000 women in collaboration with Component 2 TA team
- Contribute to achieving 100% registration of WMG's at DoC
- Contribute to achieving 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages with activities of partner organizations on livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Contribute to the establishment of effective coordination mechanisms with relevant government departments, LGIs, other development projects, NGOs, and partner organizations.

5. Job Description of Zonal Socio-Economist (ZSE)

Reporting to:

Senior Socio-Economist

Activities:

- Plan field activities together with other zonal level staff, including those from other components, based on the annual plan prepared by Blue Gold Central Team
- Coordinate and ensure implementation of field activity plan
- Ensure effective participation of communities in the preparation of the Village Action Plans and Polder Development Plans in relation to water resources management and the productive sectors.
- Provide support to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities (Component 4).
- Contribute to effective linkages of activities at polder and zonal levels on agricultural production, livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Participate as well as closely guide Community Organizers in community mobilization activities, which include in-depth information dissemination campaign on Blue Gold Program, WMO formation, WMO capacity building activities, community mobilization for village development plan and polder development plan, participatory monitoring of the progress of polder activities and WMO, community mobilization for participation in O&M activities
- Closely assist in the registration of WMGs with the Department of Cooperatives (DoC)
- Provide guidance to WMG's / cooperatives after establishment and assist them to meet the mandatory criteria during auditing by DoC

- Assist in organizing and training Landless Contracting Societies (LCSs) in polder areas as well as in managing their work. In addition, assist LCS to open bank account, prepare records and maintain these. Also, in preparing bills in coordination with BWDB XEN
- Assist in preparing the contract agreement WMO and BWDB defining the O&M responsibilities of each party
- Support and strengthen community participation in planning, designing and supervision of infrastructural works for improved water management in the polders
- Provide support to the Community Organizers in organizing and planning their field work
- Report to Senior Socio-Economist and Community Organization Specialist on regular basis on the progress and constraints in implementing community organization activities
- Maintain close liaison with BWDB, DAE, DoC, DoF, DoL, NGOs and partner organizations in Blue Gold Program area
- Organize monthly Zonal Coordination Meeting with all zonal level staff to discuss about progress in field activities and submit meeting minutes
- Submit monthly progress reports and work plan to Senior Socio-Economist copy to Component Leader, Community Organization Specialist, Training Specialist and Gender Specialist
- Conduct case study/investigation in project area, as and when asked by the Component Leader

Expected Outputs:

- Information compiled on progress of community organization activities, in particular the status of WMO formation activities, participatory monitoring of the progress of polder activities and WMO, participation of WMOs in O&M activities, progress of LCS activities
- Monthly accomplishment report and plan of field activities
- Minutes of Zonal Coordination Meetings
- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's.
- Contribute to the implementation of earthworks for embankments by LCS, providing jobs to a minimum of 5000-7000 women in collaboration with Component 2 TA team
- Achieve 100% registration of WMG's at DoC
- Achieve 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities
- Contribute to effective linkages with activities of partner organizations on livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.

6. Job Description of Community Organizer (CO)

Reporting to:

Zonal Socio-Economist

Activities:

- Disseminate Blue Gold objectives and the range of activities under the program
- Collect information from primary stakeholders, as and when required
- Assist local people to identify problems and issues to be addressed under Blue Gold Program (All Components)
- Facilitate formation of Water Management Groups (WMGs) and Water Management Associations (WMAs) [in polders where there are no WMOs]

- Assess functionality of WMOs [where there are such organizations]
- Attend in the meetings of WMOs (monthly meeting, special meeting, annual general meeting) and assist them to make the meetings effective and ensure that the secretary records/maintains minutes of meeting
- Encourage women to participate actively in meetings and other activities of WMOs/society
- Advise and assist WMOs to keep all records in proper order, including accounts
- Encourage membership in WMGs (both of men and women)
- Advise and assist WMOs to formulate village development plans and polder development plans
- Facilitate the conduct of participatory monitoring of the progress of WMO plans and activities
- Advise and assist WMOs to develop good linkages with service providers (BWDB, Union Parishad, government departments at Upazila, local NGOs and partner organizations of the Blue Gold)
- Ensure effective participation of communities in the preparation of the Village and Polder Development Plans and determination of WMG Action Plans in relation to water resources management and the productive sectors.
- Provide support to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages with activities of partner organizations on livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.
- Assist WMGs in the process of getting Cooperative registration and in preparing for annual audits
- Assist in training sessions organized for WMO members
- Encourage/motivate people to participate in O&M activities
- Encourage WMOs to mobilize resources for organizational and O&M activities
- Assist in formation, training and implementation of allocated earthworks of Landless Contracting Society (LCS)
- Monitor the progress of work done by LCS
- Assist LCS to open bank account, prepare records and maintain these. Also, in preparing bills in coordination with BWDB officials
- Coordinate closely with FFS Facilitators and with Zonal Planning Team
- Submit monthly accomplishment report and work plan
- Do any other work of professional nature that the Zonal Socio-economist may ask him/her to do

Expected Outputs:

- Monthly accomplishment report and plan of field activities
- Contribute to the aim of Component 1 of establishing a total of 850 WMO's, registered under DoC
- Achieve the goal of at least 30 % women participation in WMG's and in WMA's and in female membership in the WMG and WMA executive committees.
- Contribute to the implementation of earthworks for embankments by LCS, providing jobs to a minimum of 5000-7000 women.
- Achieve 100% registration of WMG's at DoC
- Achieve 100% signing of O&M agreements with BWDB
- Contribute to the development of WMOs/cooperatives and their associations towards professionalization of their organisation with well-defined roles and responsibilities.
- Contribute to effective linkages with activities of partner organizations on livelihood improvement programmes, WASH, sexual reproductive health and rights and vocational training.

11.20.2 COMPONENT 2: Water Resources Management

1. Deputy Component Leader –Water Resources Management

The Deputy Component Leader (DCL) -Water Resources Management will be a national expert of component-2, based in Dhaka. He will report to the Team Leader/ Component-2 Leader. His activities include:

- Guide and supervise other component-2 experts/ staff in Dhaka and the district offices.
- Liaise and coordinate all activities in component-2 in consultation with the Component-2 Leader.
- Participate in preparation of the Inception Report. Progress Reports, Technical Reports and Project Completion Report.
- Advise and assist in polder selection, assessment of rehabilitation works, estimate checking and vetting, implementation planning, overall quality and progress monitoring of implementation works, reimbursement processing and recommendation, coordination of designs by respective BWDB design circles, coordination with BWDB Dhaka and field offices and ME offices, other component experts, LGIs and WMOs; and climate change adaptation awareness building and development of mitigation measures.
- Undertake field visits as and when needed in connection with component-2 activities and in consultation with WMOs and LGIs.
- Advise and assist in organizing research/study on development of innovative irrigation, drainage, salinity/flood management, river training and bank protection works, and renewable energy generation systems (if any).

Outputs:

- Inception Report and Program Completion Report.
- Field Trip Reports.
- Polder Selection Report.
- Rehabilitation Assessment Reports, Implementation Plans and Budgets.
- Progress and Quality Monitoring Formats for Field Experts and WMO Monitoring Committees.
- Quarterly and Annual Reports on Progress and Quality of Implementation Works
- Research/Study Reports on Innovative Technology Development (if any).
- Estimate Vetting Documents and Reimbursement Processing Documents.

2. Hydrologist/ Climate Specialist (Short Term)

The Hydrologist/ Climate Specialist will be a national expert of component-2. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL/Component-2 Leader.
- He will analyze the short and long term climate change effects in Bangladesh.
- He will analyze the Bangladesh government policy and strategy regarding response to climate change effects and suggest reasonable increase in embankment height. He will also prepare a summary report on the national, regional and local Mean Sea level Bench Marks in Bangladesh and any anomalies among them.
- He will make a list of the rivers in the program districts with their sources, outfalls and morphological status.
- He will establish monthly low – high water levels of different RI around the Blue Gold polders for better irrigation, drainage and flood management planning.

- He will establish present and anticipated future monthly salinity levels in the rivers around the BG polders for better crop planning and innovative irrigation design.
- He will undertake any other works as advised by the DCL/ Component-2 Leader.

His outputs will include but not be limited to the following:

- Report on present and anticipated future climate change effects in Bangladesh and MSL Bench Marks.
- Report on government policy and strategy on climate change adaptation and mitigation.
- Report on monthly high-low water levels and salinity concentrations in the rivers around BG polders.

3. Civil Engineer (Water Management Infrastructure)

The Civil Engineer will be a field level national expert of component-2, based in one of the District offices. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will be involved mostly with embankment and hydraulic structures like drainage/flushing sluices, regulators, drainage outlets, irrigation inlets, gates and hoists.
- He will assist in polder selection, assessment of rehabilitation works, monitoring of engineering survey and estimate preparation, implementation planning, quality and progress monitoring of implementation works, coordination of design data collection, organizing satisfactory completion certification of all works in WMA general meeting, maintaining liaison with BWDB field office, other component experts, WMOs and LGIs.
- He will periodically check the status of the embankment and the structures, prepare status reports and discuss findings with WMOs and BWDB.
- He will prepare O&M plan for embankment and structures.
- He will participate in local training programs for WMOs, LCSs and contractors.
- He will submit fortnightly and monthly reports to the DCL on quality and progress of works with copies to the XEN at District level. He will monitor submission of reimbursement claims by field RAC offices and furnish updated information on progress and quality of work. He will ensure that each reimbursement claim is accompanied with WMA general meeting resolution on satisfactory completion of the implementation contractors and LCSs.
- He will undertake any other works as advised by the DCL.

Outputs:

- Polder selection and rehabilitation assessment report.
- Implementation plan
- Fortnightly and monthly progress reports.
- Infrastructure status report and O&M plan.
- Report on assistance to local technical training programs.
- High quality rehabilitation of infrastructure.

4. Irrigation and Drainage Engineer

The Irrigation and Drainage Engineer will be a field level national expert of component-2, based in one of the District offices. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will be involved mostly with irrigation and drainage canals, check structures, on-farm works and compartmental dikes (if any).

- He will assist in polder selection, assessment of rehabilitation works, monitoring engineering survey and estimate preparation, implementation planning, quality and progress monitoring of implementation works, coordination of design data collection, organizing satisfactory completion certification of all works in WMA general meeting, maintaining liaison with BWDB field office, other component experts, WMOs and LGIs.
- He will periodically check the status of the canals, check structures and compartmental dikes (if any), and other irrigation infrastructure, discuss with WMOs and BWDB, prepare status reports and send to DCL.
- He will identify the sources of irrigation water and gaps for development of efficient surface water irrigation systems, and suggest measures to address them.
- He will prepare O&M plan for the above infrastructures and operational plan for gates.
- He will assist in development of innovative irrigation and drainage systems.
- He will participate in local training programs for WMOs, LCSs and contractors.
- He will submit fortnightly and monthly reports to the DCL on quality and progress of works with copies to the XEN at District level.
- He will monitor submission of reimbursement claims by field RAC offices and furnish updated information on progress and quality of work. He will ensure that each reimbursement claim is accompanied with WMA general meeting resolution on satisfactory completion of the implementation contractors and LCSs.
- He will undertake any other works as advised by the DCL.

Outputs:

- Polder selection and rehabilitation assessment report.
- Implementation plan
- Fortnightly and monthly progress reports.
- Infrastructure status report, O&M plan and gate operation plan.
- Report on development of innovative irrigation and drainage systems.
- Report on assistance to local technical training programs.
- High quality rehabilitation of infrastructure.

5. Irrigation Agronomist

The Irrigation Agronomist will be a field level national expert of component-2, based in Khulna. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will identify present and future cropping patterns and area covered under each pattern in the Blue Gold Polders.
- He will establish daily/monthly/seasonal water requirement for each crop/cropping pattern and estimate total polder water requirement.
- He will identify different sources of irrigation water, their suitability and limitations.
- He will maintain liaison with DAE, BWDB, BADC, WMOs, LGIs and other component experts.
- He will facilitate introduction of new crop varieties to increase cropping intensity as well as overall crop production.
- He will assist in development of innovative irrigation and drainage systems, including hydroponics (soilless agriculture) for coastal saline areas.
- He will participate in local training programs for WMOs, LCSs and contractors.
- He will submit fortnightly and monthly progress reports to the DCL with copies to the field XEN at District level.
- He will undertake any other works as advised by the DCL.

Outputs:

- Report on daily, monthly and seasonal water requirement for different crops practiced in the coastal areas.
- Report on present and future cropping patterns in BG polders, area coverage and polder water requirement.
- Report on introduction of new variety of crops, risks and mitigation measures.
- Fortnightly and monthly progress reports.
- Report on development of innovative irrigation and drainage systems and prospects for introduction of hydroponics in saline areas.
- Report on assistance to local technical training programs.

6. Field Quality Control Engineer (Civil)

The Field Quality Control Engineer will be a field level national expert of component-2. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will be involved in direct supervision and quality control of all water management infrastructure rehabilitation works including structures and canals.
- He will assist in polder selection, assessment of rehabilitation works, monitoring of engineering survey and estimate preparation, quality and progress monitoring of implementation works, organizing satisfactory completion certification of all works in WMA general meeting, maintaining liaison with BWDB field office, WMOs, LGIs and other component experts.
- He will assist in pre and post work measurement of implementation works.
- He will participate in local training programs for WMOs, LCSs and contractors.
- He will submit fortnightly and monthly reports jointly with the Civil and or Irr. & Dr. Engineer to the DCL on quality and progress of works with copies to the field XEN.
- He will undertake any other works as advised by the DCL.

His outputs will include but not be limited to the following:

- Polder selection and rehabilitation assessment report.
- Implementation plan
- Fortnightly and monthly progress reports.
- Report on assistance to local technical training programs.
- High quality rehabilitation of infrastructure.

7. Field Quality Control Engineer (Mechanical)

The Field Quality Control Engineer (Mechanical) will be a field level national expert of component-2. He will report to the DCL. His activities will include but not be limited to the following:

- He will work under the overall guidance and advice of the DCL.
- He will be involved in direct supervision and quality control of fabrication and installation of gates and hoists for all water management structures.
- He will assist in assessment of rehabilitation of all gates and hoists, prepare estimates, and fabrication and installation plans.
- He will organize satisfactory completion certification of all gate related works in WMA general meeting.
- He will maintain liaison with BWDB field O&M office, ME office and WMOs.
- He will participate in local training programs for WMOs, LCSs and contractors.
- He will submit fortnightly and monthly progress and quality reports on fabrication of gates and hoists to the DCL with copies to the field XEN.
- He will undertake any other works as advised by the DCL.

His outputs will include but not be limited to the following:

- Assessment report on rehabilitation requirement of gates and hoists.
- Plan for fabrication and installation of gates.
- Fortnightly and monthly progress reports on fabrication and installation of gates.
- Report on assistance to local technical training programs.
- High quality rehabilitation of infrastructure.

8. Quantity Survey Engineer

The Quantity Surveyor will be a junior level national expert of component-2. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will process, check and evaluate all estimates coming from 3 field districts for vetting.
- He will compare the final estimate with ADP and DPP and recommend for vetting/rejection.
- He will prepare letters and documents for vetting by DCL.
- He will maintain spreadsheet records all estimates vetted and the estimates rejected.
- He will assist DCL in preparation of assessment reports for all non-IPSWAM polders.
- He will also assist the field engineers as and when needed in quality control and progress monitoring of implementation works in Patuakhali and Khulna districts where anticipated work load during peak work season will be higher.
- He will undertake any other works as advised by the DCL.

Outputs:

- Archive of vetted and rejected estimates.
- Excel summary sheet of vetted/rejected estimates.
- Polder assessment reports
- High quality rehabilitation of infrastructure.

9. Reimbursement Engineer

The Reimbursement Engineer will be a junior level national expert of component-2. He will report to the DCL. His activities include:

- He will work under the overall guidance and advice of the DCL.
- He will process, check and evaluate all bills/reimbursement claims coming from 3 field districts.
- He will compare the bills with vetted estimate, ADP, DPP, contract value and the accepted progress of works.
- He will calculate Tax, VAT and GOB & RPA components of reimbursement claims.
- He will prepare reimbursement documents and letters for recommendation by TL.
- He will also assist DCL in preparation of assessment reports for non-IPSWAM polders.
- He will maintain spreadsheet records all reimbursements recommended and those rejected
- He will also assist the field engineers as and when needed in quality control and progress monitoring of implementation works in Patuakhali and Khulna districts where anticipated work load during peak work season would be higher).
- He will undertake any other works as advised by the DCL.

Outputs:

- Archive of recommended and rejected reimbursement claims.
- Excel summary sheet of recommended/rejected reimbursements.
- Polder assessment reports

- High quality rehabilitation of infrastructure.

10. Quantity Survey Assistant

The Quantity Survey Assistant will be a support staff of component-2. He/she will report to the DCL. His/her activities will include but not be limited to the following:

- He/she will work under the overall guidance and advice of the DCL.
- He/she will receive, register/ record and tag all estimates coming from 3 districts.
- He/she will register/record all vetted estimates, keep track and record their inter office movement and re-archive them for final handover to BWDB.
- He/she will make occasional field visits to sort out anomalies in estimates submitted and estimates received and also to get an idea of how these are done and processed in the field.
- He/she will undertake any other works as advised by the DCL.

His/her outputs will include but not be limited to the following:

- Estimate register book.
- Vetted/non-vetted estimate archive.

11. Reimbursement Assistant

The Reimbursement Assistant will be a support staff of component-2. He/she will report to the DCL. His/her activities will include but not be limited to the following:

- He/she will work under the overall guidance and advice of the DCL.
- He/she will receive, register/ record and tag all bills/ reimbursement claims coming from 3 districts.
- He/she will register/record all recommended / rejected reimbursement claims, keep track and record their inter office movement and re-archive them for final handover to BWDB.
- He/she will make occasional field visits to sort out anomalies in bills submitted and bills received and also to get an idea of how these are done and processed in the field.
- He/she will undertake any other works as advised by the DCL.

His/her outputs will include but not be limited to the following:

- Reimbursement register book.
- Reimbursed/non-reimbursed bill archives.

11.20.3 COMPONENT 3: Food Security and Agricultural Production

1. Position in the Project: Component Leader Food Security and Agricultural Production

Reporting to: Team Leader

Activities:

- Assist the Team Leader in planning, budgeting, monitoring and implementation of Blue Gold activities, especially in relation to Food Security and Agricultural Production.
- Provide advice and assist the producers resulting in increased farm productivity, increased production intensity and diversification and overall in higher farming income.
- Organize the initial survey to define the baseline situation of the productive sectors: agriculture, fisheries, livestock and horticulture, in particular.
- Analyze the capacity and quality of the Governmental services' providers for the main productive sectors.
- Provide advice and assist producers in planning agricultural development in the project area, including identification of major issues, prioritization of development opportunities, formation of Farmer Field Schools (FFS) and Farmers' Forums (FF) and creating linkages with information providers for each specific product (research institutions, NGOs, private sector, government extension services).
- Define the role the primary societies could play in the process towards increased farming income of their members thereby taking into account the effectiveness of other services' providers with particular attention for women and the hard-core poor.
- Identify relevant innovations and design programs to pilot and monitor these innovations and scale-up their application if relevant.
- Assist DAE in capacity building for staff. Advise on the content of training courses.
- Assist DAE in learning lessons from the implementation of the Program and in translating these lessons into wider policies
- Guide and supervise the work of the national consultants in Component 3.
- Contribute to sections for project reports on the progress of agricultural development.
- Produce material on agricultural issues and lessons for other project publications and workshops.
- Any other activities that may be required from time to time and that are in line with the overall purpose of the TA and the specialist's role in the TA

Output:

- Training curricula developed, tested and documented
- Targeted number of FFS implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- Production of FFS participants increased and diversified
- FFS knowledge has spread and benefits the entire WMG
- Production related innovations tested and implemented

2. Position in the Project: Agriculturist / Deputy Component Leader

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Assist the Component Leader in all planning, budgeting, monitoring and implementation of other activities in Component 3.

- Represent the Component leader in his absence.
- Provide technical advice, monitor and supervise the work FFS Organizers
- Participate in the initial baseline study to define the baseline situation for crop production and assist in assessing crops related resources of WMGs in Blue Gold polders
- Take the lead in crops related aspects of all Blue Gold training activities (i.e. rice, field crops, vegetables, homestead gardens)
- Assist in curriculum design, planning and implementation of Training of Trainers courses (crops, fish, livestock, etc.)
- Assist in curriculum design for farmer training through FFS modules or specialized courses (crops, fish, livestock, business development, etc.)
- Assist in the seasonal planning of FFSs and other training courses (review and planning workshops)
- Prepare training materials, manuals, monitoring format, etc.
- Provide advice on diversification and intensification of the crops sector.
- Provide advice on innovations in the crops sector.
- Provide linkages and stimulate collaboration and exchange of experiences with DAE, national crop research institutes (BARI, BIRRI, SRDI, etc.), agricultural projects (IFMC, AAS, NATP, etc) and organizations (IRRI, CIMMYT, FAO, etc.) in relation to crop production in the Blue Gold area.
- Develop linkages between farmer groups (FFS) and DAE/DOF/DLS and research.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of agricultural production
- Provide advice to FFS groups and facilitate their expansion to form production groups
- Assist in formation of Farmers' Forums
- Assist in planning and implementation of demonstrations, which must be designed for experiential learning
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula developed, tested and documented
- Targeted number of FFS implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- Production of FFS participants increased and diversified
- FFS knowledge has spread and benefits the entire WMG
- Production related innovations tested and implemented

3. Position in the Project: Fisheries Expert

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers in relation to aquaculture
- Participate in the initial baseline study to define the baseline situation for aquaculture and assist in assessing aquaculture related resources of WMGs in Blue Gold polders
- Take the lead in all aquaculture related aspects of all Blue Gold training activities (i.e. pond aquaculture, fish, shrimps, cage culture, rice-fish, fish feed, etc.)
- Provide advice on diversification and intensification of the aquaculture sector.
- Provide advice on innovations in the aquaculture sector.

- Provide linkages and stimulate collaboration and exchange of experiences with DOF, WorldFish, FtF-Aqua and other organizations/projects working in the aquaculture sector, in relation to fish/shrimp production in the Blue Gold area.
- Design, plan and assist in the implementation of special aquaculture related training courses or FFS modules
- Provide linkages between the aquaculture sector and other production related sectors (crops, livestock), including rice-fish production.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of fish and shrimp production
- Assist in planning and implementation of aquaculture related demonstrations, which must be designed for experiential learning
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to aquaculture in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Aquaculture training curricula developed, tested and documented
- Targeted number of aquaculture FFS implemented and documented
- Targeted number of FFS facilitators trained for aquaculture
- Quality of aquaculture training monitored and results documented
- Aquaculture production of FFS participants increased and diversified
- Aquaculture knowledge of FFS has spread and benefits the entire WMG
- Aquaculture related innovations tested and implemented

4. Position in the Project: Livestock Expert

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work of FFS Organizers in relation to livestock
- Participate in the initial baseline study to define the baseline situation for livestock and assist in assessing livestock related resources of WMGs in Blue Gold polders
- Take the lead in all livestock related aspects of all Blue Gold training activities (i.e. poultry, small ruminants, large ruminants, dairy production, fodder, animal health services, etc.)
- Provide advice on diversification and intensification of the livestock sector.
- Provide advice on innovations in the livestock sector.
- Provide linkages and stimulate collaboration and exchange of experiences with DLS, FAO and other organizations working in the livestock sector, in relation to livestock production in the Blue Gold area.
- Designing, planning and organizing of special livestock related training courses, livestock related modules for FFS, and training for Community Animal Health Workers (CAHW)
- Provide advice on a support system for efficient operation of CAHWs in the Blue Gold polders
- Provide linkages between the livestock sector and other production related sectors (crops, aquaculture)
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of livestock production
- Assist in planning and implementation of livestock related demonstrations, which must be designed for experiential learning

- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to livestock in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Livestock training curricula developed, tested and documented
- Targeted number of livestock FFS implemented and documented
- Targeted number of FFS facilitators trained for livestock
- Quality of livestock training monitored and results documented
- Livestock production of FFS participants increased and diversified
- Livestock knowledge of FFS has spread and benefits the entire WMG
- Livestock related innovations tested and implemented

5. Position in the Project: Agriculturist

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers
- Participate in the initial baseline study to define the baseline situation for crop production and assist in assessing crops related resources of WMGs in Blue Gold polders
- Take the lead in crops related aspects of all Blue Gold training activities (i.e. rice, field crops, vegetables, homestead gardens)
- Assist in curriculum design, planning and implementation of Training of Trainers courses (crops, fish, livestock, etc.)
- Assist in curriculum design for farmer training through FFS modules or specialized courses (crops, fish, livestock, business development, etc.)
- Assist in the seasonal planning of FFSs and other training courses (review and planning workshops)
- Prepare training materials, manuals, monitoring format, etc.
- Provide advice on diversification and intensification of the crops sector.
- Provide advice on innovations in the crops sector.
- Provide linkages and stimulate collaboration and exchange of experiences with DAE, national crop research institutes (BARI, BRRI, SRDI, etc.), agricultural projects (IFMC, AAS, NATP, etc) and organizations (IRRI, CIMMYT, FAO, etc.) in relation to crop production in the Blue Gold area.
- Develop linkages between farmer groups (FFS) and DAE/DOF/DLS and research.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of agricultural production
- Provide advice to FFS groups and facilitate their expansion to form production groups
- Assist in formation of Farmers' Forums
- Assist in planning and implementation of demonstrations, which must be designed for experiential learning
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula developed, tested and documented
- Targeted number of FFS implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- Production of FFS participants increased and diversified
- FFS knowledge has spread and benefits the entire WMG
- Production related innovations tested and implemented

6. Position in the Project: Mechanization Expert

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work of FFS Organizers in relation to mechanization
- Assist in assessing resources related to mechanization of WMGs in Blue Gold polders
- Take the lead in all Blue Gold activities related to farm mechanization (i.e. power tillers, mechanized weeders, pumps, irrigation equipment, harvest and post harvest equipment, etc.)
- Provide advice on mechanization in the productive sectors in the Blue gold area, including cost-benefit analysis.
- Provide advice on possible innovations in farm mechanization.
- Provide linkages and stimulate collaboration and exchange of experiences with CIMMYT, IRRI, BARI, BIRRI and other organizations/projects, in relation to mechanization in the Blue Gold area.
- Design, plan and assist in the implementation of training courses, demonstrations and field tests related to farm mechanization in Blue Gold area.
- Assist in planning and implementation of demonstrations related to farm mechanization
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to mechanization in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives.
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula related to mechanization developed, tested and documented
- Training related to mechanization implemented and documented
- Quality of training on mechanization monitored and results documented
- Crop production of WMG increased
- Impact of farm mechanization documented
- Mechanization knowledge of trained farmers has spread and benefits the entire WMG
- Mechanization related innovations tested and implemented

7. Position in the Project: Farmer Field School Organizer (FO)

Reporting to: Directly to Zonal Agriculturists/Fisheries Expert/Livestock Expert and through him/her to the Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Disseminate Blue Gold objectives of FFS in crops, fisheries and livestock

- Collect information from primary stakeholders related to resources and production
- Assist farmers to identify production related problems and opportunities for new production related activities
- Assist WMOs with topic selection for Farmer Field Schools
- Assist WMOs with participants selection for FFSs
- Attend training courses to become familiar with FFS curriculum and various training modules related to crops, fish, livestock, nutrition, value chain issues, etc.
- Assist in planning and preparation for FFS
- Assist FFS facilitators (Departmental Trainers and Farmer Trainers) with logistics of their FFSs (e.g. training materials, record keeping, managing FFS budget, etc.)
- Facilitate FFS sessions according to the planning
- Identify farmer groups (e.g. existing FFSs or clubs) that have potential for advanced training activities, participatory action research or business development
- Identify farmers who could be candidates to be trained as Farmer Trainer
- Assist FFS groups and facilitate their expansion to form production groups
- Attend in WMO meetings (monthly meeting, special meeting, annual general meeting) and assist and advice them in relation to production activities and FFS activities
- Encourage women to participate actively in Farmer Field Schools and other production related activities
- Coordinate and collaborate with Community organizers and Blue Gold experts
- Advise and assist WMOs to include production related activities in the Village Development Plans and Polder Development Plan
- Advise and assist WMOs to develop good linkages with service providers (BWDB, Union Parishad, government departments at Upazila, local NGOs and partner organizations of the Blue Gold)
- Promote and assist in sharing of information between FFS participants and other WMG members
- Assist in M&E activities
- Do any other work of professional nature that the Zonal Agriculturist/Fisheries expert/Livestock expert may ask him/her to do

Output:

- Targeted number of FFS implemented
- Production of FFS participants increased and diversified
- FFS knowledge spreads and benefits the entire WMG
- Villagers participate in FFS and other production related activities initiated by Blue Gold

8. Position in the Project: Master Trainer (High Value Cash Crops)

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers in relation to high value cash crops
- Assist in assessing crops related resources of WMGs in Blue Gold polders in relation to high value cash crops
- Take the lead in Blue Gold training activities related to high value cash crops (i.e. crop and variety selection, production planning, seed health, fertilizer management, water management/irrigation, pest management, etc.)
- Provide advice on high value cash crops production methods, crop and variety selection, production planning, etc.
- Provide advice on innovations in high value cash crops.
- Provide linkages and stimulate collaboration and exchange of experiences with DAE, BARI, CIMMYT, FAO, and other organizations/projects involved with high value cash crops.

- Design, plan and assist in the implementation of high value cash crops demonstrations.
- Design, plan and assist in the implementation of special training courses or FFS modules/session, related to high value cash crop production.
- Assist in monitoring and evaluation of training programs and in seasonal monitoring of agricultural production
- Assist in formation of Farmers' Forums
- Assist in planning and implementation of demonstrations of high value cash crops
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to high value cash crops in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula related to high value cash crops developed, tested and documented
- Targeted number of FFS in high value cash crops implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- High value cash crops production of FFS participants increased and diversified
- FFS knowledge on high value cash crops has spread and benefits the entire WMG
- High value cash crops related innovations tested and implemented

9. Position in the Project: Master Trainer (Homestead Gardening)

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers in relation to homestead gardening
- Assist in assessing crops related resources of WMGs in Blue Gold polders in relation to homestead gardening
- Take the lead in homestead gardening related aspects of Blue Gold training activities (i.e.crop and variety selection, year round vegetable production, space planning, seed health, fertilizer management, water management/irrigation, organic manure, farm yard manure, compost, pest management, etc.)
- Provide advice on homestead vegetable production methods, crop and variety selection, space planning, year round vegetable production, intensification, etc.
- Provide advice on innovations in homestead vegetable gardening.
- Provide linkages and stimulate collaboration and exchange of experiences with DAE, BARI, IFMC, SAA, FAO, and other organizations/projects involved in homestead vegetable production.
- Design, plan and assist in the implementation of homestead vegetable demonstrations.
- Design, plan and assist in the implementation of special training courses or FFS modules/session, related to homestead vegetable production.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of agricultural production
- Assist in planning and implementation of homestead garden demonstrations
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to homestead gardening in Blue Gold.

- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula related to homestead gardening developed, tested and documented
- Targeted number of FFS in homestead gardening implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- Homestead garden production of FFS participants increased and diversified
- FFS knowledge on homestead gardening has spread and benefits the entire WMG
- Homestead gardening related innovations tested and implemented

10. Position in the Project: Master Trainer (On-Farm Water Management)

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers in relation to on-farm water management
- Assist in assessing crops related resources of WMGs in Blue Gold polders, especially in relation to on-farm water management and irrigation
- Take the lead in Blue Gold training activities that relate to on-farm water management (i.e. crop water requirement, water availability, water quality, water storage, irrigation techniques, etc.)
- Provide advice on on-farm water management related to crops (field crops, vegetables, homestead), aquaculture and livestock.
- Provide advice on innovations in on-farm water management.
- Provide linkages and stimulate collaboration and exchange of experiences related to on-farm water management with other projects and organizations (e.g. CIMMYT, AAS, IRR).
- Assist in the design and implementation of field testing of System of Rice Intensification (SRI).
- Design, plan and assist in the implementation of Participatory Action Research on the efficient use of scarce irrigation water (e.g. drip or sprinkler irrigation) in production of high value crops such as vegetables.
- Design, plan and assist in the implementation of special training courses or FFS modules/sessions, related to on-farm water management
- Develop linkages between farmer groups (FFS) and DAE/DOF/DLS and research.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of agricultural production
- Assist in planning and implementation of demonstrations related to on-farm water management
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to on-farm water management in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula related to rice production developed, tested and documented
- Targeted number of FFS implemented and documented
- Targeted number of FFS facilitators trained

- Quality of training monitored and results documented
- Rice production of FFS participants increased and diversified
- FFS knowledge has spread and benefits the entire WMG
- Rice production related innovations tested and implemented

11. Position in the Project: Master Trainer (Rice agronomist)

Reporting to: Component Leader Food Security and Agricultural Production (Component 3)

Activities:

- Provide technical advice, monitor and supervise the work FFS Organizers in relation to rice production
- Assist in assessing crops related resources of WMGs in Blue Gold polders, especially in relation to rice production
- Take the lead in rice crops related aspects of Blue Gold training activities (i.e. variety selection, seed health, fertilizer management, pest management, etc.)
- Provide advice on rice production methods, variety selection and rice intensification.
- Provide advice on innovations in rice production.
- Provide linkages and stimulate collaboration and exchange of experiences with DAE, BRRRI, IRRI, FAO, and other organizations/projects involved in rice production.
- Design, plan and assist in the implementation of field testing of System of Rice Intensification (SRI) using Participatory Action Research and facilitate linkages between researchers and farmers.
- Design, plan and assist in the implementation of special crops related training courses or FFS modules, especially in relation to rice
- Provide linkages between the crops sector and other production related sectors (aquaculture, livestock), especially in relation to rice-fish production.
- Develop linkages between farmer groups (FFS) and DAE/DOF/DLS and research.
- Assist in monitoring and evaluation of training programs (including participation by women), and in seasonal monitoring of agricultural production
- Assist in formation of Farmers' Forums
- Assist in planning and implementation of demonstrations
- Assist in planning and implementation of adaptive research trials (Participatory Action Research) with advanced FFS groups.
- Control the quality, report and document all activities related to rice production in Blue Gold.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Output:

- Training curricula related to rice production developed, tested and documented
- Targeted number of FFS implemented and documented
- Targeted number of FFS facilitators trained
- Quality of training monitored and results documented
- Rice production of FFS participants increased and diversified
- FFS knowledge has spread and benefits the entire WMG
- Rice production related innovations tested and implemented

11.20.4 COMPONENT 4: Business Development and Private Sector Involvement

1. Position in the Project: Component Leader 4 Business Development

Reporting to: Team Leader

Activities:

- Assist the Team Leader in planning, budgeting, monitoring and implementation of Blue Gold activities, especially in relation to Business Development.
- Define, detail and guide the WMO strengthening approach wrt business development, and the value chain development approach.
- Define national staff requirements and select experts.
- Guide and supervise the work of the national consultants in Component 4 and maintain close contact with field operations.
- Liaise intensively with Component 1 on WMO strengthening inputs and the integration/linkage of value chain development with the FFS programme of Component 3.
- Guard implementation of the Gender Action Plan
- Prepare detailed work plan for interim periods and undertake distance management.
- Liaise with stakeholders, to ensure cooperation and coordination (other components 1,2,and 3; EKN, SAFAL, ICCO/IDE)
- Attend programme meetings, report and provide feedback on progress, and create awareness for inter component issues, impacts and linkages.
- Analyse the capacity and quality of public and private business service providers for the selected value chains.
- Determine ToR for outsourcing of services and studies.
- Identify and assess relevant innovations and design programs to pilot and monitor these innovations and scale-up their application if relevant.
- Contribute to sections for project reports on the progress of business development.
- Contribute to programme representative events and workshops wrt business development.
- Contribute to programme baseline establishment and M&E programme
- Any other activities that may be required from time to time and that are in line with the overall purpose of the TA and the specialist's role in the TA.

Output:

- VC awareness communications implemented amongst stakeholders
- Value chain selection based growth scenarios in 26 Polder Development Plans
- Value Chain Analyses are carried out for the selected commodities (8).
- SWOT and TNA of relevant actors, respectively at polder and VC level
- Value Chain linkages facilitated with the respective actors for identified opportunities
- Farm Business Modules developed and utilized in FFS programme
- Value chain intervention strategies formulated for selected VC
- PO and WMO Business Modules implemented
- Producer Organisations and WMO associations strengthened on the basis of business plan
- Access to business services improved
- 250 Market infrastructure established
- Increased Savings and loans in WMO
- Business Enabling Environment improvements identified and engaged in.
- Established product, process and/or market innovations.

2. Position in the Project: Value Chain Expert (Acting Deputy Component Leader)

Reporting to: Leader Component 4

Activities:

- Assist the Component Leader in all planning, budgeting, monitoring and implementation of other activities in Component 4.
- Represent the Component leader in his absence.
- Provide technical advice, monitor and supervise the work all business development staff in the field and in Dhaka.
- Participate in the initial baseline study and multi-disciplinary study with a focus on business development related to WMOs in Blue Gold polders
- Take the lead in primary and secondary information gathering for economic development services, including the assessment of on-going programmes, and contribute to the formulation of a Polder Development Plan.
- Liaise with selected stakeholders and actors in the agri-business sector at National and District level.
- Plan and supervise value chain development activities in the Blue Gold area (Patuakhali, Khulna, Satkhira), related to selection, analysis and development, in close consultation with implementation partners.
- Liaise closely with Component 1 on WMO strengthening programme and with Component 3 on integrating farm business modules in the FSS programme.
- Provide linkages and stimulate collaboration and exchange of experiences with public and private business service providers, other projects and programmes implemented by NGO's and Donors in the Blue Gold area.
- Define training needs assessments, outsource training and/or assist in curriculum design, planning and implementation of training programmes (business development), and prepare training materials, manuals, monitoring format, etc.
- Assist with the assessment of innovations on the basis of their value chain conditions and stage of development.
- Control the quality, report and document all value chain development activities, and assist in monitoring and evaluation of activities.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives
- Any other activities that may be required from time to time related to the Blue Gold activities.

Outputs:

- VC awareness creation programme
- Regional Development Framework information report
- Contribution to polder development planning study reports.
- Business Development Plan is developed for each polder.
- Value chain selection methodology, format and report
- Value chain analysis mapping, value chain interventions strategies and reports
- Capacity development programmes for FFS, WMO and other actors
- Establishment of market infrastructure

3. Position in the Project: Business Development Coordinator (Value Chain District Staff – 3 positions)

Reporting to: Deputy Component Leader Business Development

Activities:

- Overall responsibility for the successful implementation of VC related work in the Polder to achieve the component goals;
- Contribute in planning and implementation of Community Mobilisation programme as defined ;
- Identify and collect relevant information to prepare Regional Development Framework at District and Polder level.
- Identify potential implementing partners, and resources of other stakeholders of use to Blue Gold.
- Organise rapid market assessment study, map value chain actors and identify potential interventions to minimize market gaps with appropriate implementation strategies for selected value chains.
- Ensure regular liaison and thorough communication with Community Organizers, other District project staff and cooperating partners, government agencies, NGOs, Producer group, private sector organizations.
- Responsible for quality implementation of Business Development Component activities planned and implemented in the District, in close collaboration with implementation partners, field staffs. Ensure the implementation of the gender action plan.
- Review, analyse and assess existing value chain related activities and documents and identify opportunities for strengthening the value chain.
- Assist and facilitate value chain implementation with producer group, producer organisations, WMGs, WMAs and other private sector actors in the District and polders.
- Contribute to the Training Needs Assessment of value chain actors, and assist with the organisation of the capacity development plan.
- Support Producer group/WMGs to create links with micro credit providing agencies/ banks for credit.
- Organise field visit as requested by business development staff.
- Provide regular feedback, control the quality, report and document all value chain development activities, and assist in monitoring and evaluation of activities.
- Collaborate intensively with all Blue Gold staff in all components towards accomplishing Blue Gold objectives.
- Any other activities that may be required from time to time related to the Blue Gold activities.

Outputs:

- Provide feedback and contribute to progress reports on value chain development and PO and WMO strengthening.
- Gather VC actor baseline data and monitoring records
- Complete M&E records
- Capacity development implementation records

11.20.5 COMPONENT 5: Cross Cutting Issues

1. Position in the Project: Institutional/Legal Expert

Reporting to: Team Leader

Overall responsibilities:

Assist the Team Leader in planning, budgeting, monitoring and implementation of Blue Gold activities, especially in relation to Institutional capacity building activities and cooperative frame work under component community mobilization and institutional strengthening and assist mainstreaming cross cutting issues.

Key Activities:

1. Facilitate preliminary Initial Institutional Analysis for developing strategies for community mobilization, capacity building and registration of cooperatives
2. Facilitate Stakeholders Analysis Blue Gold Network and preparation of Stakeholders wise Fact Sheets to identify their certain task and behavior relevant to the Blue Gold Program.
3. Assist in developing MOU to establish linkage of project activities with Stakeholders for better coordination and cooperation
4. Assist in implementing Institutional strengthening strategy for WMOs/UPs/Upazillas and establish linkage with LGIs.
5. Assist in developing framework for registering WMCs under the Department of Cooperatives.
6. Facilitate institutional capacity building of key stakeholders:
7. Facilitate to activate the BWDB Cell for Participatory Water Management and harmonization with other projects.
8. Coordinate with other component leaders for mainstreaming the institutional strengthening and capacity building process and legal support

Expected Outputs:

- Annual Work Plan
- Initial Institutional Analysis Report
- Fact sheet on key stakeholders
- Draft strategy for Institutional Strengthening
- Draft plan for stakeholders' capacity building
- Draft Manuals for stakeholders capacity building
- Draft report on legal framework for cooperatives
- Draft MOU for different stakeholders for harmonization, cooperation and coordination

2. Position in the Project: M&E Expert

Reporting to: S/he reports to the Team Leader / Deputy Team Leader

The M&E Expert is responsible for designing and implementing the performance monitoring plan (PMP) with input and assistance from project staff, the client and stakeholders.

The M&E expert is based in Dhaka, with frequent field visits.

Activities:

- Review the project plans as well as other background documentation such as program and other relevant documents to understand how the project is designed to achieve the client's goals. Prepare draft performance monitoring plan including a description of the project results framework, how the project will approach monitoring and evaluation, and detailed indicator reference sheets.
- Establish systems for monitoring of project inputs and activities, with reports from various components or respective experts or other service providers. Draw up formats for such reporting that meet the needs of reporting against the project log-frame.
- Establish systems of process and outcome monitoring, based on that described in the Blue Gold program document.
- Regular monitoring of project activities in the light of project goal and log-frame and take corrective measures as and when required.
- Visit project sites for proper monitoring and evaluation as per work plan through spending 20%-30% time in the field in a routine manner and provide written feedback on all field visits.
- Improve and enhance the current monitoring systems establishing data base and review the MIS for proper data input.
- Develop effective data management systems for efficient project monitoring and evaluation to provide feedback for further improvement.
- Oversee the implementation of and compliance/delivery of different program teams to the M&E system.
- Coordinate and liaise with other component experts to establish M& E system & work with project team to implement frameworks for responsive monitoring and research of project activities at field level. Prepare monthly, quarterly and annual workplans for M&E activities. Draw-up schedules for data collection, timing, identify data sources, propose collection methods and determine reporting requirements.
- Participate in developing key indicators and designing and conducting baseline study and evaluation process and outcome assessment.
- Draw-up terms of reference for studies to be contracted to consulting companies, advise on selection of consulting companies for this work, and supervise their work to ensure quality of outputs.
- Coordinate any project evaluation team (external/internal) while conducting evaluation.
- Assist in preparation of project progress reports notably in relation to M&E aspects.
- Take lead in preparation of reports on results of process and outcome monitoring, and in preparing project brochures and publicity materials, in cooperation with the Communications expert.

Outputs:

- Design and implement Monthly, quarterly and annual work plans for M&E activities Development of Key indicators for project performance in accordance with M & E system approved
- Design and implementation of baseline study
- M&E aspects highlighted in Blue Gold progress reports

3. Position in the Project: Disaster Risk Reduction (DRR) Expert

Reporting to: S/he reports to the senior Environmental Specialist of Blue Gold in all aspects of program development and implementation.

In all matters specifically relating to the Component 1: Community Development and Institutional Strengthening on community related matters, such as awareness raising and capacity building the DRR Expert will collaborate with the Component Leader for Component 1. For Component 2 on Water Resources and Infrastructure, he/she will closely collaborate with the Hydrology / Climate Specialist and for agriculture related adaptation options he/she will collaborate with the Component Leader for Component 3: Food Security and Agricultural production.

Activities:

The DRR Expert is responsible for the overall set-up and integration of DRR elements into the Blue Gold program Components. He/She keeps track of the lessons learned and the best practices applicable in the coastal areas of Bangladesh and maintains contact with the stakeholders in this sector. He/She develops the DRR elements of the Blue Gold program and is proactively taking initiatives and integrates innovative ideas into the relevant Components' activities. The DRR Expert will focus on institutional aspects of disaster risk reduction in the overall Blue Gold Program, as well as on developing options for Community Based Disaster Risk Management (CBDR) and awareness creation in cooperation with the training team and communication specialist.

Governmental level:

- Develop and maintain a constructive dialogue with stakeholders in the region and beyond in the field of DRR, and in doing so foster partnerships with regional stakeholders for strategic collaboration in DRR.
- Carry out research and knowledge development and compilation in the field of DRR keeping in view recipients who are policy- and decision makers to bridge the gap between research and policy.
- Coordinate technical support to enhance regional government's capacity for emergencies and disasters; and risk management policies and programmes;

Community level:

- Undertake Community Risk Assessment (CRA) or Risk Analysis for the designated Blue Gold polders, in coordination with the Hydrology/Climate Specialist under Component 2.
- Assess good practices and options for disaster mitigation in designated Blue Gold polders.
- Assess current state of disaster preparedness in designated Blue Gold polders and develop improvements/ innovation.
- Develop a community based disaster risk reduction strategy for the polders, including awareness raising and capacity building for WMO's.
- Implement the established community based disaster risk management strategy, in alignment with Component 1 , 2 and 3 activities

Outputs:

- Assessment of past 1) flood and water-related hazards and extreme weather events in Bangladesh, and their social and economic effects; and 2) Flood and water-related risk management practices in the country (institutional arrangements) 3) overview of current thinking in Bangladesh Water Development Board (BWDB) and Comprehensive Disaster Management Programme (CDMP) of Ministry of Food and Disaster Management regarding DRR and climate change issues (f.i. design of crest height of polder dykes and dimensions of inlet and outlet sluices)
- Risk Assessment and options for DRR in designated Blue Gold polders
- Community Based Disaster Risk Reduction Strategy for Blue Gold polders
- Implementation of DRR strategy at polder level through WMO's.

- Cooperation between Dutch knowledge institutes, private enterprises and Bangladeshi institutes will be facilitated to conduct such studies. Because this affects not only the three Districts where Blue Gold is operating, but the entire coastal belt of Bangladesh, the possibility to cooperate with other projects in this area will be explored.

11.21 SUMMARY OF EKN COMMENT AND RESPONSE ON INCEPTION REPORT

From Embassy of Kingdom of the Netherlands (EKN)

Version: 24-10-2013

SL	Comment	Response	Location of response In red text: response of EKN
Martin Bos			
From email			
1	I miss a connection with the Master Plan for Agricultural Development in South Bdes (2.4.1)	I don't think we have any concrete information about this Master Plan. I know Khaled once talked about the FAO-funded "Southern Agriculture Master Plan", which was supposed to be discussed in the LCG meeting of 07 July 2013.	Page 4 OK
2	WMIP is not co-financed anymore by EKN (we withdrew from the project earlier in 2013) (2.4.1)	Changed	Page 4 OK
3	2.4.2. shows unbalance: much text on IPSWARM, Gender and Poverty Reduction, etc. and marginal text on Water Policy, Water Plan and Participatory Water Management	Indeed. We have added the main objectives of NWPo.	Page 7 OK
4	3.4: component 4: is not always to the point, which is understandable because it is depending on component 3. Anyway sometimes the connection between a Water Cooperative and a Business Cooperative is not very clear.	See the last question / remark made by Wijay.	
5	Figure 12 is not very clear to understand.	Figure 12 shows the correlation between specific value chain development and the overall Blue Gold planning process and more specifically the Polder Development Plans (PDP) and the Business Development Plans (BDP).	Page 71 This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired.

SL	Comment	Response	Location of response In red text: response of EKN
6	In the text under figure 13: CARE should be removed as the project from now is only done through SOLIDARIDAD	Changed	Page 71 OK
7	Changes in staff means also changes in the finances of the project. I miss the connection and impacts.	Changes in staff did not result in changes in the finances of the project. The budget remains unchanged, We have submitted to EKN the details of the cost-neutral budget revision in a separate (contractual) document, with a request for approval.	OK
8	On Water Governance: beside WIN could there be a role for the Water Governance Centre (WGC) in The Hague (Corne Nijburg)? My suggestion- have a discussion with them.	Yes, WGC could be involved, for instance through the Water Management Fund. We added the following text: <i>"Also, discussions will be held later this year with the Water Governance Centre (WGC) in The Hague".</i>	Page 83 OK
9	Climate Change Adaptation: is described very general: could be more elaborated on possible measures in order to mitigate the impacts.	Climate Based Adaptation (CBA) is added as an adaptation strategy. CBA is a bottom up approach where community is the main entity to implement local adaptive measure. Blue Gold will provide training to build the knowledge and technical capacity of the community to implement CBA activities. Expertise from the Comprehensive Disaster Management Programme (CDMP) or other networks can be used for training purposes. Concrete measures will be developed as we go and gain better insight in what others are doing in this respect.	Page 96 OK
10	Recommendation for new LCG: I doubt if this is really effective	But we could try...	Page 9

SL	Comment	Response	Location of response In red text: response of EKN
	(always a lot of talking and a lack of action ...)		
From IR version October 10			
1	<p><i>Crops related FFS will be organized. Existing FFS curricula will be used to train groups on production of rice, other field crops and homestead vegetables and fruits.</i></p> <p>What about training of the WMG members who are fishermen?</p>	<p>This is addressed for instance on page 52: Based on special requirements in the Blue Gold area, the modules will be adapted or additional modules may be developed (for example a choice of fish related modules, or modules on new field crops, instead of rice).</p> <p>While different FFS within a WMG concentrate on different topics (e.g. crops FFS, livestock FFS) a big challenge will be to consider each topic/module in the context of the entire farm. FFS Organizers have to make sure that the FFS does not focus entirely on one sector; they should facilitate discussions with participants on how to develop Integrated Farm Management strategies for the WMG. WMG level interaction and planning can help to make more efficient use of available resources (water, manure, machineries, etc.)</p>	<p>See page 52 of Chapter 3.3.5 and Chapter 3.3.7.2</p> <p>OK</p>
2	<p><i>Text:</i></p> <p><i>The MoU that has been signed between BWDB and DoC in February, 2009 will be reviewed to determine if this is sufficient in addressing Blue Gold requirements.</i></p>	<p>Good question. The sentence has been rephrased as follows: <i>"The MoU that has been signed between BWDB and DoC in February, 2009 will be reviewed".</i></p>	<p>Page 26 and page 119,120</p> <p>OK</p>

SL	Comment	Response	Location of response In red text: response of EKN
	MB: And what will you do if not sufficient?	The 'DoC issue' is discussed in full detail in Chapter 5.3: Institutional Strengthening.	
3	<p><i>Text:</i></p> <p>Landless farmers. Groups of landless farmers (such as LCS women) can also receive training through FFS. Modules on homestead gardens, livestock and poultry will be most suitable and provide opportunities to earn a small income or to improve the nutrition and food security in their families.</p> <p>MB: I stated earlier that in my view it is strange that on this particular target groups the focus stays on just the simple around house farming. Why not engage them also in the real agricultural practices. If you want to develop something significant through Blue Gold set your bench marks to a higher level. Leave the homestead things for a local NGO.</p>	<p>I don't understand this remark: landless (ultra-poor) women/farmers do not have land, so how can we engage them in real agricultural practices?</p> <p>See also Figure 10 on page 61, showing the three distinct "levels" of FFS.</p>	<p>Page 57 and 61</p> <p>They are called "farmers" assuming that they are practising agriculture and their knowledge should be extended. This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired</p>
4	Steps 4, 5 and 6 are the correct numbers?	The numbers 4, 5 and 6 refer to the numbers of the 6 step approach (Figure 1: Blue Gold Polder Development Approach, page 10)	Page 61 OK
5	This paragraph needs to be rewritten based on the email conversation between Dirk and Martin on the 9 and 10 of October 2013. Innovation is part of the funds, but not the only thing. Now too much stress is put on the innovative funds and that was not the original idea. It was broader (see emails).	Done	<p>Pages 102 and 103</p> <p>Martin Bos added text in IR version 29 Oct. : decisions will be made in Coordination Meetings</p>
6	<p><i>Text:</i></p> <p><i>It is anticipated that the Khulna office will become the main hub of Blue Gold. Khulna is centrally located in the project area with Patuakhali at 4 hrs drive distance and Satkhira at 1,5 hrs drive.</i></p> <p>MB: Needs to be readdressed.</p>	Chapter 4.4 reflects the situation at the end of the Inception Phase at the end of June 2013. The situation will continue to change over time.	Page 108 OK

SL	Comment	Response	Location of response In red text: response of EKN
7	<p><i>In page 110 it is mentioned that the detailed work plans for year 1 (2013) for each component are included in the chapters of the different components (Chapter 3).</i></p> <p>MB: Is that the case or did I miss?</p>	<p>Work plans are actually in Annexes 11.7 – 11.11. Text has been revised as follows:</p> <p><i>Detailed work plans for year 1 (2013) and part of year 2 (2014) for each component are included in the chapters of the different components (Chapter 3) and summarized in Annexes 11.7 – 11.11. Based on these component-wise work plans a revised consolidated overall work plan has been drafted and included in Annex 11.2.</i></p> <p><i>In November 2013 a work plan for the whole of year 2 (2014) will be produced and submitted for approval to EKN. It is the intention to introduce later this year MS Project as overall planning tool</i></p>	<p>Pages 177-186</p> <p>OK</p>
A.T.M. Khaleduzzaman			
General:			
1	<p>It is observed that the successful experiences of Southwest Area project have not been properly picked up and incorporated into Blue Gold design. The experiences of WMO formation steps, number of Community organizers (CO) per WMG, CO/WMG performance monitoring and strengthening action plan, modified FFS for involving the whole community through forward and backward linkages instead of selected farmers only, collective actions etc. etc. may be utilized.</p>	<p>We do not agree with this statement. See for instance page 2:</p> <p>-cooperating with CDSP, Southwest Project and WMIP to continue the process of embedding the participatory approach for the development of FCDI projects in BWDB.</p> <p>and page 21:</p> <p>Formation of WMGs and WMA in selected polders rehabilitated by projects other than IPSWAM and new polders (Types 2 and 3) will build on the experience in IPSWAM and Southwest projects.</p>	<p>Page 2</p> <p>This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired</p> <p>Page 21 OK</p>

SL	Comment	Response	Location of response In red text: response of EKN
		and Chapter 3.3.8, notably points 5 and 11, regarding the forward and backward linkages for FFS.	Page 58,59 OK
2	A structured benefit monitoring and impact evaluation mechanism is be established for the program.	Yes, that is part of the M&E plan. See Chapter 8	Page 140 OK
Component 1:			
1	Marriage registration may be made as a mandatory pre-condition to become WMG member. This is expected to improve condition of violence against women and dowry situation.	This is not part of the Blue Gold scope of work and has not been discussed with BWDB and DoC as far as I know. It may hamper subscription to WMG membership.	OK
2	A well designed strategy should be devised for effective/sustainable formation of WMOs and their functioning having clearly stated 'development steps' with specific time frame for each steps.	Agreed. Indicative time frame has been added in Table 3 of chapter 3.1.	Table 3 of Page 15 OK
3	Detailed analysis should be included with specific criteria/considerations for designing various program components/activities e.g. WMO formation process, producer group formation, linkages amongst FFS, WMG, producer group and (business) value chain development etc.	We would need more specific questions from your side. What exactly is missing or should be added?	This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired
4	Why village has been selected as an unit for WMG formation, what are the analysis behind this selection? Village gives a social bondage but not water based unit nor production based unit. Then why we will follow an unrelated (village) unit instead of following a water sub-unit which is also a production unit.	The answer to this question is given in the new text (03 September 2013) on page 22.	Page 22 This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired (discussed in CM – 13 Nov 2013)
5	Why it is considered that- 'further development of WMOs into cooperatives' will be a big challenge? Is it because of the experience of IPSWAM WMGs which are not well functioning as a cooperative unit? Whereas, the WMOs under Small Scale Project (by LGED) and Southwest Area project (by BWDB) are functioning very well as cooperative units. Several times EKN encouraged Blue Gold TA Team to take lesson from Southwest Area project;	Nobody can deny that further development of WMO's into cooperatives is a big challenge. Just to mention the problems with DoC registration!	OK

SL	Comment	Response	Location of response In red text: response of EKN
6	If it is already considered as a big challenge then how the additional objectives of Blue Gold on food security and value chain development will be achieved.	See Chapter 3.3 (Comp-3) and Chapter 3.4 (Comp-4) for a detailed answer to this question.	Pages 49-84 OK
7	A disconnection or gap is observed between WMO formation/functioning/sustenance and enhanced production & business development. This kind of distorted development is risky for overall sustainability of the WMOs thus water security in the area.		No Comments
8	The provision of leasing of BWDB land/water bodies to the WMOs should be elaborated and incorporated into the IR.	Agreed. This can be found in Chapter 5.3.2 under <i>Leasing out of land to WMO's</i> The same is also mentioned in Chapter 3.2.7 under <i>Resource mobilisation for routine O&M</i>	Page 123 OK Page 44 OK
9	WMG-wise GIS maps should be prepared for future monitoring purpose.	Agreed. The advantages of GIS are mentioned in Chapter 8.5: GIS/MIS	Page 143 OK
Component 2:			
1	Include the full list of candidate polders from which the 26 polder have been selected for BGP.	The 26 polders haven't yet been selected and approved. See new text on page 37: <i>final selection of the polders will be done in phases during the first 3 years.</i> The long list is part of the DPP. We will add this list to the IR in an Annex.	Page 37 OK
2	Why 14 polders have been selected from Patuakhali district	Sorry, I can't find the text block where 14 polders from Patuakhali are selected.	OK
3	LCS works may include a structured component of livelihoods training as well as support to IGA (e.g. loan or grant funds) as practiced under WPF models.	I don't understand this point. What is the relation with Comp-2?	To be discussed in Coordination Meeting
4	Whether the assumed per hectare polder development cost is sufficient to include popular demand of 1 meter heightening of the embankments as climate change adaptation?	The assumed per hectare polder development cost is certainly not sufficient to include popular demand of 1 meter heightening of the embankments. That type	Page 46, 47, 48 OK

SL	Comment	Response	Location of response In red text: response of EKN
		of climate change adaptation is not part of Blue Gold. This is explicitly mentioned in Section 3.2.10 Climate Change Effects and Innovation.	
5	Which climate change adaptation/climate proofing activities are included in the program?	See Section 3.2.10: Climate Change Effects and Innovation, under <i>Mitigation Measures</i> .	Page 47 OK
Component 3:			
1	This component spells out that Blue Gold will cover much beyond the activities of IPSWAM, then why Component-1 chose to follow IPSWAM approach? Should the approach not be suitable for accommodating these additional targets on enhanced production and business development specifically?	The Comp-1 approach is suitable for accommodating additional targets on enhanced production and business development and vice versa: comp-3 and comp-4 activities enhance the sustainability of the WMO's and thus the likelihood that O&M of infrastructure will improve,	OK
2	FFS will increase production for selected farming groups i.e. 25,000 farmers whereas our total beneficiary is 160,000 HHs. FFS will deal with food production only and cannot ensure food security. So appropriate measures should be taken up for addressing other issues of the food security themes.	I assume this question is about the spin-off of FFS (or in other words the forward and backward linkages). This matter is explained in Chapter 3.3.8, notably points 5 and 11,	Page 58 and 59 OK
3	It should be noted that the limited number of FFs members will not be able to supply the commodity demand of the market. So the whole farming community of the polder area should be mobilized under the WMO platform and linked to the production and market. Horizontal learning from the FFS experiences should be expanded via WMO platform.	Agreed. Following text is added to Chapter 3.3.1: <i>"Horizontal learning from the FFS experiences will be expanded via the WMO platform"</i> .	Page 49 OK
4	The traditional institutional structure of FFS i.e. registration may not be required as they are already under the Agriculture sub-group of the WMOs.	I don't think that FFS will be registered.	OK
5	Establishment of soil laboratory for testing of soil/water quality may be considered.	Testing of soil and water quality is mentioned under Chapter 3.5.3.4 (SEMP). However, we assume that soil and water	Page 93 and 94. OK

SL	Comment	Response	Location of response In red text: response of EKN
		testing can be outsourced to existing organisations in the area (such as WorldFish), allowing Blue Gold to refrain from setting up their own facilities.	
Component 4:			
1	Business development should be adding value to the longer term sustenance of the WMOs and its members and over all water management, and it should not emerge as a threat to participatory water management practices.	Agreed.	OK
2	Business activities should be as much as linked to WMO activities and its members' wellbeing.	The issue of "short" and "long" value chains is an integral part of Comp-4. Both types of value chains will be promoted.	OK
3	Producer organizations should not pose any threat for WMO activities and its sustenance rather these should be contributory and supplementary to WMO activities.	See point 2	OK
4	WMOs should be primarily developed as Multi-functional cooperatives as far as possible.	See point 2	OK
Component 5:			
1	Extensive training components for WMO members, GoB staff, community facilitators/ organizers, LGI representatives etc. may be designed, on topics like improved O&M, Cooperative issues, IGA, agricultural extension services, business linkages/issues, WASH, CCI, DRR etc. The experiences from Southwest Area project, IPSWAM project, Small Scale Projects etc. may be utilized.	Agreed. See Annex 11.17: Indicative Training Plan	OK
Wijay			
Component 1:			
1	<u>Village as the Base?</u> He agrees that village-based organizations are "socially more cohesive".	Agreed. The matter is explained in great detail in	Page 42 This is still a complicated topic. EKN

SL	Comment	Response	Location of response In red text: response of EKN
	However, he stressed that in order to manage water and undertake O&M of water structures, it would be counterproductive if we ignore water boundaries. If we continue with "Village-base", he suggested to have a mechanism to deal with situations where Infrastructure boundaries cut across Village boundaries.	Chapter 3.2.7 (O&M), under " <i>Organisation of routine O&M in the polder, Formation and tasks of O&M sub-committees</i> ".	suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired (based on CM 13 Nov 2013 with Hero Hearing)
2	<u>Formation of new WMGs (600) (p. xvi):</u> While formation new WMGs (600), he suggested start with assisting/organizing useful Collective Action (e.g. production activity or a service function for Common Interest Groups).	Agreed. See new text on page 14.	Page 14 OK
3	<u>Registering WMOs (especially WMAs) (p. xvii):</u> Because of the delays and basic problems in registering higher-level organizations as Cooperatives (WMAs), he proposed (for Southwest) to help WMGs to form WM/Companies at the next level. However, if there is no delay in registering as Coops, it would be a better choice as people and Government are used to it.	Agreed. There is no choice other than registering WMG's as cooperatives.	OK
4	<u>O&M - TA Monitoring during project period (p. xvii):</u> This would be necessary for the project period and until WMOs reach maturity. He suggested that the project consider strengthening a Network of WM Organizations, so that the higher level organizations would have decisive involvement in O&M at higher level/major structures (I am implying "WMO-BWDB Shared management" at higher levels and exclusive WMG/WMO management at lower levels (of FCD / I structures). This relates to Item 3 of Component-2.	This might be an interesting issue to be dealt with later on in the project, if and when required.	This is still a complicated topic. EKN suggests to come back to it during future Coordination Meetings and improve and optimize approach as desired (based on CM 13 Nov 2013 with Hero Hearing)
5	<u>In the text (under community mobilization), I didn't find a "link" with other economic activities, value-chain etc:</u> He is not sure whether we would be able to organize sustainable WMGs/WMAs just for water management (O&M). He thinks just by imparting knowledge and "Planning" with them, they may not "start" livelihood development activities (enterprises) in a sustainable way.	Wijay added: "May be I misunderstood"? I think he did, because this linkage is at the very heart of Blue Gold.	OK
6	<u>Recommendation to "give land to WMOs":</u> He appreciated this idea. He mentioned about instances where BWDB had given land to WMGs (e.g. Southwest project). However, he thinks just by giving land we	Yes.	OK

SL	Comment	Response	Location of response In red text: response of EKN
	should not expect water users and others in the community would improve their livelihoods to an extent that they take care of O&M and develop a sense of ownership. During the Project period we need to "Walk-them-through" the correct path and make WMOs self sustained business entities.		
7	<u>It is better if LCSs are organized by WMOs</u>	Yes, they are.	OK
8	<u>Recruiting Community Facilitators (and other staff):</u> He suggested setting a methodology and reaching an understanding with BWDB.	Staff is recruited directly by Blue Gold Component Leaders. No NGO's are involved as was the case in the Southwest project. I am not sure why an understanding with BWDB would be required.	OK
Component 2:			
1	<u>O&M by WMOs (after handing over)</u> (p. xvii): He accepted that, WMO and BWDB need to define and come to an agreement on the division of responsibilities. He expects that this would be elaborated, Agreements would be developed upfront.	That is correct.	OK
2	<u>WMOs undertaking O&M:</u> He thinks as most of the water users are poor and also are not "used" to contribute to O&M, the project may consider organizing and assisting WMGs to begin with "Mutually Beneficial Collective Action" as "start-up" activities.	This is very much agreed,	OK
Component 3:			
1	He is happy that FFS is taken as the key tool for "extension". He thinks this is much productive than formal class-room type Training.	Agreed	OK
2	Wijay thinks that there is too much emphasis on "imparting knowledge". He asks what is the most crucial constraint: lack of knowledge OR lack of organised action? He suggested employing Facilitators until Collective Action is internalized and WMO Network becomes sustainable. He also suggested to provide "Start-up funds / seed money; may be in the form of "Revolving funds" so that many WMOs can benefit.	These are excellent observations. We think that both constraints are equally important. Our CO's are appointed to assist the WMO's in organising their path to sustainable growth and the FFS help the WMG members to increase their knowledge.	Page 49 OK

SL	Comment	Response	Location of response In red text: response of EKN
		<p>We have added a sentence to Chapter 3.3.1 to that effect: <i>“Organizing FFSs early on in the process of community mobilization provides opportunities for the people to identify good leaders and to initiate collective action (e.g. input supply or service functions). Collective action will bind them together and will help avoid conflicts”.</i></p> <p>See also an addition on page 53:</p> <p><i>“Collective action initiated by the FFS will be organized with and for the whole community”.</i></p>	<p>Page 53 OK</p>
3	<p>He thinks only aiming value chain at FFS Groups will be a problem. He suggested to develop and promote WMOs as "Umbrella Organization" (say by providing service benefits to ALL the members (in different forms; WMO-organized input-output services, forward and backward linkages which will also improve employment for even non-water users, WMO-owned enterprises such as primary value-addition, WMO-Private Sector Partnerships etc.)</p>	<p>Figure 9 (page 51) explains clearly the "incubator" role of FFS and the "umbrella" role of WMG, exactly as promoted by Wijay.</p> <p>And also, on the same page:</p> <p><i>“FFS graduates will play a leading role in larger “producer groups”, sharing information with other WMG members”.</i></p> <p>And an added text (again on page 51):</p> <p><i>“FFSs will be designed for the benefit of everyone”</i></p>	<p>Page 51 OK</p>
	<p>Wijay states that class-room type training is of very little value to this type of projects. Learning by doing is more useful.</p>	<p>That is correct and Blue Gold doesn't do any classroom type training of WMO's and it is nowhere mentioned in the IR that we would.</p>	<p>OK</p>
	<p>He thinks only FFSs may not help us achieve Blue Gold targets. He suggested addressing financial issues, input-output marketing issues etc; not just crop or fish production practices.</p>	<p>Agreed. This is why Comp-3 and Comp-1 are linked and we have FFS facilitators as well as Community Organisers.</p> <p>See also the Indicative Training Plan in</p>	

SL	Comment	Response	Location of response In red text: response of EKN
		Annex 11.17, notably pages 204 and 205.	
	<p>M&E</p> <p>Other than farmers measuring their own progress, he suggested that the project can also undertake some M&E of the FFS. For example, How many community members attended FFSs (and other training) before? What they learned? % of them actually used what they learned (especially new enterprises/methods)? What is the % increase in income? If they did not adopt OR if they failed to achieve what has been told in the training, WHY? Please "measure" why they don't adopt all what they learn? Also, please assess to what extent the knowledge-sharing (between FFS people and those who didn't attend FFS) is taking place?</p>	<p>This is part of the M&E plan which is presently being developed.</p> <p>More specifically, this issue is also addressed in Chapter 3.3.8 – Activities of Comp-3, under 1. Information collection and under 10. Implement FFS.</p>	Page 57, 59 OK
Component 4:			
1	<p>Wijay appreciates very much the way the situation is analysed and presented in the Report.</p> <p>Wijay recognises the challenge or possible conflict between participatory WMO and Value Chain Development.</p> <p>He ends by saying: I think, the best for now is – as suggested in the Report on page 73 – that “the business development component will keep an open mind to the ultimate form of producer organisation involved in business development. Their form of association or coordination will be the subject of further analysis and scenario development.</p>	Agreed	Page 73 OK
Catharien Terwisscha			
Gender:			
1	She thinks based on the use of ‘word count’; the inception report gives considerable attention to ‘gender’.	<p>Agreed.</p> <p>Regarding the word counts: interesting, though it overlooks text in which other wording (synonyms or descriptive text) is used, for example, incorporating or</p>	OK

SL	Comment	Response	Location of response In red text: response of EKN
		<p>integrating gender issues instead of gender mainstreaming, or text in which we state that male and female representatives of all socio-economic classes should be included (instead of using the term diversity). Moreover: the word count was not done for “male” and “female”, which I know is also often used in the IR instead of men and women. Note that when doing the word count for “male”, also “female” will be counted.</p>	
2	<p>In Component 1, she suggested to be more gender sensitive, e.g. when indicating that ‘key informants’ or ‘local people’ or ‘O&M subcommittee’ will be addressed, it should be taken care of to address both men and women.</p>	<p>Regarding the “measures to be taken to give sufficient priority to incorporate gender in the activities” we had several in mind: gender training for staff (separate gender training and/or integrating gender issues in other training); backstopping of Blue Gold staff, e.g. by meetings (probably by component) on how to mainstream gender and on progress and constraints regarding gender mainstreaming; actual support (e.g. gender activities implemented by the (national) gender consultant; and ensuring that gender issues / indicators are well included in the M&E system.</p>	OK
3	<p>She was confused that in the polder concept, the gender action plan is a standard component (page 12, p.95). However, in figure 2 on the polder concept it does not feature, but the ‘village action plan’ is mentioned.</p>	<p>We can’t find this on pages 12 and 95, so it is unclear what the confusion is about.</p>	Unclear, needs to be cleared in Coordination Meeting
4	<p>Overall for the team it should be noted that women are less represented, especially for the technical assignments.</p>	<p>Regarding gender balance in BG staff: I agree very much, and therefore we had included this also as a gender indicator (see the Annex with the gender indicators), even though we did not set a quantitative target for this (in July it was about 8%) and we stated that we want to substantially increase this even though we know it may not always be easy to find women technical</p>	OK

SL	Comment	Response	Location of response In red text: response of EKN
		<p>staff (especially for certain field positions).</p> <p>To be noted that for Community Organisers we have recruited 50% female and 50% male staff; same for field socio-economists.</p>	
5	<p>The inception report does not indicate how stereotypes and mind-set issues on gender will be addressed. It could be suggested to include this topic as part of the training courses, to exchange views on changes in stereotypes and mind-set issues with other projects and to include this point in project review meetings and reports.</p>	<p>The issue of stereotyping and mind setting was indeed hardly addressed. Appropriate text is added on page 89.</p>	Page 89 OK
6	<p>It may be noted that the Dutch funded capacity development projects, NICHE81, 85, 155, and 156 have specific targets regarding gender, and that the Blue Gold project could benefit from interaction with these projects. Also regarding knowledge development on integrated water management, food security and climate change, exchange with the NICHE projects will be relevant and interesting. The Blue Gold project could offer research, internship and thesis possibilities to staff and students of the related organizations</p>	<p>Regarding the NICHE projects: Kitty Bentvelsen had a first discussion with Catharien Terwisscha van Scheltinga , including the option that students could do research (e.g. on evidence of the impact of gender mainstreaming). A sentence to this effect was added to Chapter 3.5.2.7 on page 90.</p>	Page 90 OK
Climate change:			
1	<p>She appreciated that the topic of climate change has been added in this inception report.</p> <p>From the section on climate change, section 3.2.10 (p50), it appears that the consultant is not aware of the order of magnitude of the expected impacts of climate change.</p>	<p>We don't understand the relevance of the rather generic statement that the consultant is "not aware of the order of magnitude of the expected impacts of climate change".</p> <p>Perhaps the (adapted) text in Chapter 3.5.4, pages 96 and 97 is helpful.</p> <p>I would also like to point out that the consultant considers drainage improvement and river bank erosion control as the most important issues in the context of climate change. See 3.2.10.2 on page 48</p>	Page 47, 48, 96, 97 OK
2	<p>She suggested including climate change awareness, as longer term changes in temperature and precipitation are envisaged, as well as salinity intrusion, cyclone frequency changes etc. It is noted that orientation training is foreseen for staff</p>	<p><u>Activity 3:</u></p> <p>Training of WMO members on following</p>	Page 99 (2 nd row of column 2 in Table 8)

SL	Comment	Response	Location of response In red text: response of EKN
	(p144).	<p>topics:</p> <ul style="list-style-type: none"> -Impacts of natural and climate change disaster -community-based disaster risk reduction (CBDRR) plan -community-based adaptation (CBA) <p>By these trainings members will learn on different climate change adaptation measures and practical measures they can undertake in pre-disaster, disaster response and post-disaster period (see Annex 11.17, Indicative Training Plan).</p> <p>Scope to collaborate with IUCN or BBC for building awareness of school students, teachers and WMO members for climate communication will be explored.</p>	OK
3	She advised that the team gets training or assistance to formulate what kind of information they could require, in order to make the project 'climate proof', and what kind of community based adaptation activities (local level) would be relevant.	<p><u>Activity 2:</u></p> <p>Training of COs on DRR and climate change related issues.</p>	Page 99 (2 nd row of column 2 in Table 8) OK
4	She also advised to see at polder and regional level what climate change impacts are to be expected and which adaptation measures at polder and regional level would be appropriate.	<p>Risk assessment: Identify major natural and climate change related risks and their impacts at village level from WMO's in cooperation with component 1 (Community Mobilization & Institutional Strengthening).</p>	Page 99 (1 st row of column 1 in Table 8) OK

11.22 SUMMARY OF BWDB/DAE/DLS COMMENT AND RESPONSE ON INCEPTION REPORT

SL	Comment	Response	Location of response
BWDB			
1	Elaboration of 'DP III'	Changed	List of Abbreviations (page no. xiii)
2	Component wise presentation of executive summary with differential heads should be avoided. It is better to present with identical heads for each components.	Will be taken into consideration for future reference	
3	The challenge of 'climate change proof' to be addressed in the Blue Gold program and the measures for mitigation to be outlined in the report.	Agreed. Paragraph 3.210 was added.	Page 45-47
4	DPP does not have a list of 26 polders as mentioned in the IR. The statement needs revision.	Changed and Annex 11.8.1-3 added with long list of DPP polders	Page xix
5	Any kind of duplication with CEIP should be avoided. The statement in the ES may be replaced as- "Final selection of polders will be done in close consultation with BWDB."	Statement is added: "Suitable and prioritised polders can be proposed for confirmation by BWDB".	Page no. 33
6	Rehabilitation works for new polders to be started from year 2 for demonstrating a positive impact of Blue Gold program.	It is not possible to start rehabilitation works for new polders from year 2, as selection of of polders could not be completed by the end of year 1. However, Comp 1 will start community mobilisation activities in Polder 26 in year 2	

SL	Comment	Response	Location of response
7	M&E mechanism after year 2015 to be outlined in the report.	Agreed. M&E will continue until the end of the project (2018). Details are given in Chapter 8.2	Page 136
8	GPWM was approved in 2000	Changed	Page xxvii
9	Formation of additional 600 WMG cooperatives would be a big challenge in the light of IPSWAM experience. Proper assessment in this regard to be done as per practical situation.	Agreed. In the approach and methodology lessons learned from other projects such as Southwest project will be taken into account.	Page 13
10	DPP list identified polder no. 26 for rehabilitation and polder no. 45 for fine tuning as it is an ECRRP polder. So Inception report should clearly mention the category of these polders.	Correct. We have added Annex 11.8.1 with the full list of polders in the DPP and the qualifications fine-tuning – IPSWAM – rehabilitation.	Page 171-172
11	There should be a range of area (in ha.) for the polders within the limit mentioned in the NWPo (1999) for BWDB (e.g. medium size). In the last criteria, "involving relatively minor rehabilitation of the infrastructure" needs to be clarified more. The statement- "Final selection of polders will be done in close consultation with BWDB." to be mentioned after the description of criteria.	Correct. Final selection is mentioned at the end of page 33: "Suitable and prioritised polders can then (that is after field visits by BWDB and TA teams) be proposed for confirmation by BWDB" "Medium size" added on page 32.	Page 32-33
12	The text in page 41 which states 'In case ME (Mechanical Engineering Department of BWDB) fails to supply and install the gates in time, they will have to bear the cost of cross dams', may be revised as 'In case ME (Mechanical Engineering Department of BWDB) fails to supply and install the gates in time, they will be responsible for any compensation needed.'	Corrected as requested.	Page 37
13	'Smart dyke sensor technology' should also be included in the list as mentioned in the DPP.	Agreed.	Page 47
14	IPSWARM guidelines with six steps approach to be presented in more detail with flow chart.	The detailed flow chart is presented on page 10	Page 10
15	Value chain development and the involvement of private sector to be explained more by giving a practical example emphasizing women entrepreneurship in	The principle of VC development and private/productive sector involvement is	Page 71

SL	Comment	Response	Location of response
	context of existing situation of the coastal region.	nicely explained in the box on page 71 (study of CIRAD, Montpellier, France).	
16	Area for Fine-tuning IPSWAM should be 45,000 instead of 42,000 as mentioned in the IR.	Correction made in Table 7 on page 91	Table 7 of page 91
17	Structure and function of PMC to be presented along with the Steering Committee.	Added to Chapter 4.2	Page 102
18	One legend missing for cross lines	????	
19	<p>Section 1.12</p> <p>Study Tours to countries with participatory water management, climate change adaptation, climate proofing, value chain development</p> <p>Target Participants: BG Central and Zonal Team Members from BWDB, DAE, DoC, DoF and DoL</p> <p>To be as:</p> <p>'Overseas Study tours in multiple slots starting from year 2 on participatory water management, climate change adaptation, climate proofing, value chain development'</p> <p>Target participants should be: 'BWDB and other GoB staffs including MoWR, Planning Commission- Irrigation Wing, ERD, IMED, GED' as mentioned in the DPP on page no. 36.</p> <p>For training and research oriented academic degrees envisaged in the program, sufficient budget with detail break-up should be provided in the Inception report.</p>	<p>'Text changed as requested</p> <p>Breakdown of budget for MSc and post graduate degrees cannot be given in the Inception Report, as there is no provision in the TA budget for training and research oriented academic degrees.</p>	Page 201

SL	Comment	Response	Location of response
20	ToR information should be matched with that of DPP and also with respect to qualification and experience.	It is proposed to update the TOR information from time to time as many changes took place since the Inception Phase.	
21	Activities for providing fresh drinking water within the project area should be ensured as per direction of the ECNEC meeting.	Activities in the field of water supply and sanitation are included in a separate contract between EKN and Max Foundation.	
22	Registration of WMA under cooperative rules to be ensured for the Blue Gold program to explore more opportunity.	Strongly agreed and addressed in Chapter 5 (Institutional Strengthening).	Pages 115-119
23	Coordination among the different components of Blue Gold program needs to be clearly defined particularly for the training sub-component. Special care should be taken for coordination between field level and central planning level.	See Figure 1 and Figure 2 (pages 10-11) for the Blue Gold Polder Development Approach (six steps), which aims at safeguarding the coordination between the different components. The same is given again in more detail in Figures 4 and 5 on pages 19 and 20.	-
24	Detail breakup of agency wise activity and cost to be formulated for inclusion in the DPP and approval of Planning Commission after the Inception phase.	???	
25	Schedule of Workshop, Seminar and Conference for the program to be worked out and presented in the Inception Report	Workshops, seminars and Conferences will be held or attended based on actual requirements and availability and cannot be put in a schedule. A number of courses, workshops and seminars are mentioned in Table 11 and 12.	Pages 129-130
26	Detail of communication and training equipments to be procured for the program should be included in the report as per direction of the Planning Commission.	Table 13 (Communications and Training Equipment) is added.	Page 134
DAE			

SL	Comment	Response	Location of response
1	DAE part of Blue Gold will organize at least 30% FFS for female farmers on homestead agriculture	Agreed.	Page 61
2	DPP of DAE will cover more or less all upazilas of 3 selected districts including polders of Amtali of Barguna district	Correct	
3	FFS approach is not only designed to disseminate technology but also to empower farmers and help to become more confident in making their own crop management decisions.	Agreed	
4	From past experience, to organize FFS, DAE DPP might not be able to confined only within water mgt group (WVG), it might have to extend up to water users/water beneficiaries as because it will work in all 24 upazilas of Khulna, Satkhira and Patuakhali.	This matter is still under discussion with DAE and Comp 3 staff.	
DLS			
1	Suggestion to establish milk processing plant	This activity is not included in the DPP	
2	Suggestion to establish milk production & collection	Value Chains on Livestock (dairy products) are included in the Dutch funded SAFAL program.	Page 62
3	Suggestion to include fodder cultivation	Agreed. Included in Livestock FFS	Page 60
4	Suggestion to include surveillance of livestock diseases & diagnose the diseases	Training of CAH-workers is included in Chapter 3.3.7.3.4	Page 54

**11.23 PROCEEDINGS OF THE WORKSHOP ON BLUE GOLD DRAFT
INCEPTION REPORT PRESENTATION**



উন্নয়নে পানি ব্যবস্থাপনা

September, 2013

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Introduction

The Blue Gold Program is a Dutch-Bangladesh joint endeavor to support the people of Khulna, Satkhira and Patuakhali districts in water management for development. It is a six years program—from March 2013 to March 2019—the essence of which is to establish and empower community organizations to sustainably manage their water resources and make them more productive. A draft Inception Report was presented at a workshop at the BRAC Inn on 26 June of 2013 that proposed guidelines—strategy and activities— to direct the program’s implementation. The workshop was attended by 102 people from different government and non-government organizations having significant expertise in the area. The inception report was discussed and commented by the experts, which is recorded in this proceedings report.

This proceedings report was published in September 2013.

Inauguration

Mr. Zahirul Islam, Chief Planning, BWDB chaired the meeting. The inaugural session began with a recitation from the Holy Quran by Mr. Kamruzzaman Khan, Sub-Divisional Engineer, DP-III, BWDB, Dhaka. Mr. Md. Masud Ahmed, Project Coordinating Director, Blue Gold Program welcomed all the guests and participants in the workshop. He described the objectives and background of Blue Gold Program in short. He termed the inception report as a *Road Map* for the project.

Mr. Md. Azizul Haque, Director General, BWDB was present in the workshop as chief guest. Mr. Md. Abdul Mannan, Additional Director General (Planning, BWDB) and Mr. Martin Bos, first Secretary (Water Management), Embassy of the Kingdom of the Netherlands, Bangladesh were the special guests of the workshop. Md. Azizul Haque extended his gratefulness to Government of the Netherlands for funding the project. He advised to take some lessons from the experience of IPSWAM project while implementing the Blue Gold program. He also emphasized on the integration of all partners who are directly or indirectly involved with execution of the project. Md. Abdul Mannan, Additional Director General also described the background of the Blue Gold Program in his speech. Martin Bos, on the other hand, termed the Blue Gold Program as an innovative project that has huge challenges to encounter. He hoped all the beneficiaries—men, women and children—will benefit from the program. He reiterated also by remarking that this benefit will be extended to other areas of Bangladesh.

After tea break Mr. Dirk Smits, Team Leader of Blue Gold Program, introduced the inception report. He presented basic information, duration and area of the project, funding agency, number of polders that will be undertaken, implementing partners, overall and specific objectives and lastly 6 steps approach which will be followed by the project. After his presentation component leaders and other experts notably Vicki Pineda, Mofazzal Ahmed, Hein Bijlmakers, Tanvir Islam, Abul Kashem and Kitty Bentvelsen presented their respective components through Power Point Presentations. At the end of the presentation, the participants, the experts and the officials of the various departments presented their comments while written questions were collected that were given to the respective component leaders for answers and explanations.

Comments

1. Mr. Sharafat Hossain Khan, Project Director, DIFPP & Project Coordinator, CEIP-1

Mr. Khan extended his thanks to the presenter for their excellent presentation of the Inception Report; he also thanked EKN for their continued support and assistance to different water resource management projects of Bangladesh. He wondered that since WMOs are entrusted mainly with the responsibility of O&M of water resources infrastructure, then why they need to be registered by DoC. He stated that climate change in Bangladesh is an extremely crucial issue. Thus it is extremely important both for the Government and the project to address the climate change problem. But this critical issue is not addressed properly in the presentation of Blue Gold Program. He sought to protect the coastal population from natural hazards by upgrading embankment, water control structures for drainage and improvement of the early warning system. He urged in favor of various issues of climate change to be included in the Blue Gold Program.

According to him, the community participation, which is widely practiced in the development projects, will be a key element of the Blue Gold Program. Realizing community organization's importance, he emphasized to evaluate the WMO by involving a third party to get an impartial report. Blue Gold can draw on lessons from other projects regarding this issue. He is in favor of LCS work and hence he suggested providing 50% of earth work to the LCS group members. But he opined that women involvement in LCS earth work may be 30% instead of 50%. Lastly he expressed the difficulty to fully grasp the concept of Value Chains.

2. Mr. Mahfuzur Rahman, Project Director, CDSP IV

CDSP project has generated significant experience and useful lessons in the development of rural infrastructure at the village level by diffusing new agricultural technologies, providing the poor with access to common property resources, and helping poor people improve their livelihoods. Specific lessons from CDSP project can be adopted by Blue Gold.

He also stated that Climate Change does not involve sea level rise and embankment raising only, rather it also includes many other adaptation issues, which should be included in the project. According to him, if fund becomes a problem, the number of polders should be reduced to better address the climate change problem.

He asked whether the presenter has any base line survey on existing value chains in the selected polder area. If not, then how the project will improve the existing value chains without any base line facts. He pointed out that lesson can be taken from other BWDB projects practicing value chain activities.

3. Mr. Zainal Abedin, Deputy Team Leader, CDSP.

He emphasized on handing over of borrow-pit and other khas areas to WMOs to empower them. He also stressed on afforestation of fore shore of the polders to combat sea level rise and erosion hazard. Mr. Abedin advised to follow the national agriculture policy which is to make the nation self-sufficient in food through increasing production of all crops including cereals and ensure a dependable food security system for all. He also shared his observation that productivity training has not been included in the Value chain component. He also emphasized on the recruitment of more staff especially at the field level to strengthen the implementation progress.

4. Dr. Mominul Haque, Deputy Executive Director, CEGIS

Climate influences the water, vegetation, soil, and animal resources upon which people depend for food and other products. It is now a burning issue for the country. But this issue is not addressed much in the presentation. He mentioned that it would take long time to address sea level rise by raising embankments, however, other related issues of global warming need to be incorporated in the Blue Gold activities. Blue Gold should consider the level of

protection of polder people from cyclone and storm surge. This program should upgrade the existing protection mechanisms.

5. Mr. Khaleduzzaman, EKN

While forming WMG, the field staffs of Blue Gold are advised to be careful to select the members in the group. He suggested that a marriage registration document should be required for WMO membership, as an additional way to empower women.

He reiterated that transformation of a WMO into a cooperative association is an innovative and challenging job. Therefore, a lot of attention and support should be given to this aspect.

He pointed out that most of the presentation on food security and agricultural production covered only FFS. To achieve food security and increase agricultural production FFS is necessary but not sufficient. Other issues should be addressed in the food security component.

6. Mr.Zahiruddin Ahmed, ADB Resident Mission

According to Mr. Zahiruddin, sea level rise is not an important issue, but other issues of global warming should be considered properly. Drainage system should be improved. According to him Value Chain is a new component which requires further explanation. He stressed on the establishment of cold storage and its management to reduce the post-harvest losses which will ultimately benefit the farmers and traders. He proposed the possibility of establishing cold storage through public-private partnerships.

7. Dr. Monwar Hossain, Executive Director, IWM

He commented that WMO issues are a long time practice, practiced over a span of 20 years, which has not produced much success. He also commented that FFS is an appreciable approach, but proper implementation may be problematic. An appropriate approach needs to be developed.

8. Dr. M.A. Kasem, Water Management Expert

He was involved in the 1st formulation phase of the Blue Gold program and expressed satisfaction on the presentation of draft inception report of Blue Gold.

9. Ms. Tahmina Begum, Project Director, Blue Gold (Agriculture Component)

She commented that the concept of FFS is a group approach, being successfully tested and practiced by DAE for about 2 decades. According to DAE, at least 30% of the FFS members are women. She suggested that male FFS members may participate in field crops, while women members will engage in homestead gardening as the main activity. She ended her comment with a question, whether there is any scope for overseas training of any DAE personnel in the project. She mentioned about a separate DPP of DAE, which is going to be approved soon.

Reply to comments

Dirk Smits, Team Leader, Blue Gold

Mr. Smits stated that it is still early days for the Blue Gold Program. He expressed satisfaction that there were such a lot of questions during the workshop, although time was not sufficient to answer all the questions and queries.

He mentioned that Blue Gold Program is a BWDB project, with direct involvement of DAE through a separate DPP. Blue Gold also cooperates with other Government Agencies. Coordination is important for such a multi-party endeavor. Therefore, the project will be supervised by an Inter-Ministerial Steering Committee, chaired by the MoWR Secretary. It is also proposed to bring Blue Gold and other similar projects in the coastal areas under the umbrella of a joint GoB – donor community Local Consultative Group (LCG).

The effects of Climate Change are on the top of our minds and many things should and will be done. Several interventions, such as increasing the drainage capacity of the polders by pumping and studies to determine the ideal crest height of embankments are or could be included in Blue Gold. Regarding value chain development, the establishment of cold storage facilities is an excellent suggestion.

Vicki Pineda, Component 1 Leader, Blue Gold

Ms Pineda pointed out that it is observed that some WMGs suspended conducting regular meetings after IPSWAM had pulled out. However, they still perform their O&M responsibilities. Since O&M is occasional and in fact seasonal, they see no point in conducting monthly meetings when there is no need for O&M. In IPSWAM project, there were only two components. But Blue Gold has 5 components where the WMOs, mainly supported by component 1, will be the cradle of socioeconomic activities. The activities that the other components will carry out are likely to strengthen WMOs. WMOs in Blue Gold will not simply be involved in water management but will discharge their capacity and strength on a wider horizon to accomplish a holistic development. WMOs will still continue functioning after the end of the project.

She further shared her observation that there is lack of political commitment to carry out O&M as well as collecting O&M fees from the beneficiaries which is critical to WMO sustainability. The IPSWAM WMOs in general do not have O&M fund but they contribute labor and collect cash donations from rich people in the polder for repair and maintenance works. In Blue Gold, it is hoped that the WMOs will be able to create their own O&M fund.

She also mentioned that evaluation of WMOs' functionality will be done by proper cross-checking to avoid any bias.

Written Comments and Questions and Answers

Component-1

Mr. Abul Kalam Azad, SE Khulna O&M Circle

Question: So far we heard that existing IPSWAM's WMO/WMAs are not functional due to resource constraints. Could we say that IPSWAM Program was not sustainable?

Answer: WMOS in IPSWAM polders need the additional components of Blue Gold (i.e. food security and business development components) to further promote sustainability of the existing WMOs. Several WMGs under IPSWAM have actually progressed into multi-purpose cooperatives performing both production and economic functions on top of water management chores.

Question: Why the name of the program is Blue Gold? What is the meaning of Blue Gold?

Answer: Blue represents water and if water is managed and used properly, it will promote economic development.

Sharmin Farhat, Program Manager, BRAC, WASH Program.

Question: Are there any way-out or conflicts created between WMO & LGIs during execution & other activities?

Answer: Proper and close coordination between WMO and LGIs should be established from the very start.

Question: In Khulna coastal area conflicts arise between agriculture & shrimp cultivation. Is there any scope during motivation time to resolve the issue?

Answer: It's difficult to manage this conflict. Dialogues can only work to a certain point. Getting the key players to meet and discuss is the first step.

Md. Aminur Faisal, XEN, JMREMP, BWDB.

Question: What is the role of Executive Committee of the WMO?

Answer: It is basically responsible for executing/implementing the laws and regulations of the organization which were formulated by the general membership.

Question: How are WMA and WMG linked with each other?

Answer: 2 member representatives (1 male and 1 female) from each WMG form the WMA and it represents all the WMGs in the polder. WMA basically oversees implementation of rules and regulations and activities by WMGs and provides support. Through the WMA, the WMGs are able to communicate to the service provider (BWDB for example) about what they plan to do and what support they need.

Dr. Abdul Hamid, CEGIS.

Question: Much good things said about strengthening of WMOs. But I do not find anything about the sustainability of WMOs. Our experience shows the WMOs are functioning well during project implementation. But after projects end the WMOs are seen to be inactive. So, what is planned for WMOs sustainability?

Answer: Blue Gold aims to strengthen WMOs that will enable them to perform production and economic functions/activities aside from water management which was not mandated in IPSWAM. Blue Gold also aims to establish strong partnership between WMOs and service providers (BWDB, DAE, DoC, partner organizations of Blue Gold and others). WMOs will need to pursue higher goals and objectives to become self reliant and self-sustaining organizations

Md. Zainul Abedin , DTL, CDSP-V.

Question: At the local level, WMG & WMA will be confronted with other overlapping sectors in this domain. As such, there is a need of involvement of local administration tiers like Upazila and Union Parishad to coordinate issues affecting the business of the WMG/MMA's. How such conflict resolution will be solved without involving local administration in the coordination loop?

Answer: Strong LGI participation will be promoted in Blue Gold.

Question: How the linkage between the BWDB and WMG/WMA would be maintained regularly? Is there any plan matrix from BWDB?

Answer: WMGs/WMAs are created for sustainable water management. WMOs and the BWDB are working jointly and practically playing the complementary role in water management. The O&M agreement between WMAs and BWDB clearly defines the process to work together.

Mr. Riad, Country Director, Max Foundation

Question: How resources like Borrow-pits and property like khals will be handed over to WMOs?

Answer: Government procedures will be followed and it is clearly indicated in the proposed DPP about the use of acquired land by BWDB. In the past certain khals and acquired lands were handed over for management to some WMGs in the IPSWAM polders under leasing arrangement for a period of time. The issue of public khals was perused and supported by the Executive Engineers of BWDB in IPSWAM. However, this needs to be discussed in the district coordination committee and negotiated with the DC (Administration).

Question: Why no EMG for embankment in the WMO?

Answer: WMOs are responsible for routine maintenance of all water management infrastructures in the polder and BWDB is responsible for periodic and emergency maintenance following the agreement between WMA and BWDB. Of course, WMOs should be financially stable to be able to support this activity. In Blue Gold, there is no provision for Embankment Maintenance Group.

Mr. Afsal, IDE

Question: Is there any plan/action plan for coordination with other partners such as BRAC, Max Foundation at field level?

Answer: We proposed to have a Coordination Mechanism with BRAC and Max Foundation at the HQ and zonal level in the Blue Gold area. Regular meetings will be initiated to map out plans of action. EKN support for this mechanism will be sought.

Mahfuz Ahamed, Chief Agronomist, WMIP-PCU

Question: BWDB intended to give registration of MWO's formed under different BWDB projects. Chief Water Management (CWM), BWDB in favor of Board drafted *Bhidhimala* (Rules) for giving registration of WMOs and it is now under process of approval. If it is approved, then what will be the process of registration of WMOs (by DoC or by BWDB) under Blue Gold?

Answer: At the moment, Blue Gold will be registering WMOs with the Department of Cooperatives. Decision on whether or not to continue registration with DoC once *Bhidhimala* is approved should be made by Blue Gold with EKN and BWDB.

Kevin Kamp, World Fish

Question: I do not understand how the basic infrastructure of the polders is financially sustainable at the WMO level.

Answer: WMOs are responsible for routine/preventive maintenance of all water management infrastructures in the polder and BWDB is responsible for periodic and emergency maintenance including dredging following the agreement between WMA and BWDB. Unless WMOs are assisted by BWDB in creating O&M fund for preventive maintenance i.e. handing over acquired lands to the WMOs for their

management and revenue generation, water management infrastructure will not be financially sustainable. Moreover, preventive O&M funds must be allocated in BWDB budget and should be undertaken on a regular basis to prevent deterioration of infrastructure and avoid major rehabilitation costs.

Question: Currently, WMG & WMO are often (always) hijacked by the elite & powerful people. How will this be addressed in Blue Gold?

Answer: This will require genuine community organizing process and a cadre of committed community organizers who can initiate consciousness-raising among the villagers on the need to select leaders who will serve for the benefit of the organization as a whole. This entails changing attitude and mind set which takes time and conscious effort.

Md. Rafiqul Islam, Joint Chief Planning Commission

Question: You mentioned 50% of WMA members will be women. How and who will ensure 50% women members to be selected in the WMA?

Answer: 2 member representatives (1 male and 1 female) from each WMG form the WMA and it represents all the WMGs in the polder and this process of WMA formation ensure 50% women members to be selected in the WMA.

Mr. Zahirul Haque Khan, Director, Coastal and Estuary management division IWM

Question: Community organizations WMO are essential for polder management. WMOs work well for polder management during project period. However, in the post project situation WMO does not work well. Will Blue Gold develop any strategy or policy for long term sustainability of WMO?

Answer: Blue Gold aims to strengthen WMOs that will enable them to perform production and economic functions/activities aside from water management which was not mandated in IPSWAM. Blue Gold also aims to establish strong partnership between WMOs and service providers (BWDB, DAE, DoC, partner organizations of Blue Gold and others). WMOs will need to pursue higher goals and objectives to become self reliant and self-sustaining organizations.

Question: There is a power politics between WMO and elected UP members & chairman. How this conflict will be resolved during formation of WMG and strengthening of WMO?

Answer: From the beginning of the program in the polders, orientation and consultation with the UP members and chairman will be done to make them aware of the Blue Gold goals and objectives and the role they will be playing including what support Blue Gold expects from them. In the same vein, the potential members of WMOs or the villagers will be made aware of the need for a WMO and the need to elect/select the right leaders for the WMO. The Zonal staff and the Community Organizers will work together with the people and the UP to avoid political conflict.

Component-2

Mr. Abul Kalam Azad, SE Khulna O&M Circle

Question: In coastal areas CEIP is going to address climate change effect. Local people also want that and in future all projects will show their interest to address climate change effect. Is there any scope to rethink the issues?

Answer: This issue is taken care of in the updated inception report. We have added a section on this important issue.

Question: What do you mean by temporary protective work?

Answer: Temporary protection means short term protections like bamboo/balli spurs, porcupines and sand filled gunny bags etc. No permanent revetment work will be done.

Question: WMA clearance needed for bill clearance, whether it will be by individual member of WMA or a resolution for WMA committee?

Answer: WMA clearance will be in the form of a resolution from WMA general/ executive committee meeting as outlined in the main report.

Aminul Hoque,SE, JMREMP, BWDB

Question: The polders are being selected on the criteria other than WRM issues. With these criteria we are going to address the polders not seriously affected by WRM issues. Is this plan intentional or not?

Answer: Since in the non-IPSWAM polders formation of WMAs and real participatory water management issues will take place only after selection of the polders, this issue was not given that much weight. However, it was covered under other criteria, willingness of people in forming WMA and participation in identification, planning, execution and O&M of WRM infrastructures/ activities.

Mannan Khan, EE/ Satkhira

Question: The khals and small rivers outside the polder area have already been silted out creating serious drainage congestion in the project area. Only re-excavation of outfall khal will not give the appropriate solution. It needs sediment management. What is the plan?

Answer: Blue Gold Program is mostly polder based and its scope outside the polders is very limited. However, innovative studies will identify these problems and refer them to other regional programs/projects of BWDB.

Zainal Abedin, DTL, CDSP-IV

Question: Has afforestation in embankment/foreshore been planned?

Answer: Afforestation is not planned under Blue Gold program. It will be linked to the respective government departments.

Question: How the existing long process for design work can be avoided?

Answer: This is also a concern of Blue Gold. We think it can be addressed to some extent through close coordination and monitoring by PCD, Chief Planning, respective BWDB field XENs, and support from the TA team.

Question: How civil and mechanical works will be coordinated?

Answer: We have identified it as a challenge. Need to solve this issue through discussion with BWDB and EKN.

Md. Amir Faisal, Executive Engineer, JMREMP, BWDB

Question: I don't find any safe guard element to the project affected people due to intervention of project, though there is some big construction work like construction of sluice gates and river protection work etc.

Answer: BWDB will follow standard government procedures to address related social safe guard issues.

Sharmin Farhat, Program Manager, BRAC, WASH

Question: As environment is one of the cross-cutting issues, climate change need to be considered from the beginning of the project for sustainability.

Answer: Climate change effects are obviously taken into account.

Mr. Zahir, Director, Coast & Estuary division, IWM

Question: What would be scientific basis and criteria for assessing the scopes of works and effectiveness?

Answer: Under IWRM Blue Gold will develop land use plan inside polders in low, medium and high saline zone since in the high saline zone Rabi and Kharif-1 crops are not feasible and farmers are practicing shrimp aquaculture. Main water management challenges of the polders are drainage management at present and the effects of the changing climate and proper operation of sluice gates.

Question: How Blue Gold is going to address these issues?

Answer: Scope of fine tuning and new rehabilitation works are already detailed in the main report. Blue Gold will develop a land use plan as well as a gate operation plan. Saline/shrimp dominated areas will be brought under innovative study programs for appropriate action. Climate change issues have been taken in to consideration.

Kevin Kamp, World Fish

Question: Your selection criterion eliminates the polders which need the most help: siltation, declining infrastructure conflict etc. How will Blue Gold help? Polders were designed 50 years ago for an agriculture system that no longer exists. Are not major re-thinking and major change needed? I don't see these issues represented. Can't address climate change due to fund constraints? This is very short sighted! It might not be funds that are needed so don't dismiss climate change so easily. Climate change is the biggest issue- give it due focus.

Answer: Blue Gold cannot solve major conflicts in the polders. These have to be solved politically which is beyond the scope of the program. Blue Gold is a polder based program and not a regional program. It will address all siltation and infrastructure related problems inside the polders but has limited scope to solve major siltation and erosion problems outside the polders. These problems will be referred to other BWDB regional programs/projects. Notably, the Dutch-funded Delta Plan 2100 project will look into the options for much needed "major re-thinking and major change" with a much farther time horizon.

Blue Gold recognises that the effects of Climate Change are topmost priority for Bangladesh and together with BWDB we will certainly give it due attention within the scope of the project.

Component 3

Mr. Afzal, IDE

Question: Is there any scope to focus on Quality food/ Safe food production along with crop production? Also focus on post-harvest technology?

Answer: Yes FFS pays attention to food quality for example when addressing issues such as pesticide contamination of food. FFS participants will be aware of the risks involving pesticide use (including risks for farmers and consumers). Post harvest issues are also addressed. Component 3 will have 3 mechanization/processing experts.

Question: What is the plan to make farmers a good facilitator? I agree with this concept but how to achieve?

Answer: It's already being done in other FFS programs, such as Danida's AEC project. Farmers who have first attended a FFS (as participants) are selected based on certain strict criteria. They then receive a 3-weeks Training of Trainers course where they learn facilitation skills and get more details on the FFS training curriculum (for example how to set up field experiments with farmers). Following this TOT they will be apprentice for one FFS season together with experienced FFS facilitators of DAE. After completing this they will be allowed to run their own FFS.

Question: Is there any plan to involve Local Service Providers (LSPs) in Component 3, how?

Answer: Component 3 together with Component 4 will develop a "business module" to be included in FFS to make farmers more market oriented. This will of course include issues related to local services. Component 4 will also work with local service providers in selected value chains in order to improve their services to producers.

Mr. Zahir, IWM

Question: Are you going to provide new cropping systems based on farmers practice for enhancing agriculture?

Answer: After rehabilitation of polders and/or fine-tuning the water management, there will be cases where new cropping systems become possible. In such cases, the FFS will include trials to test new cropping systems, for example by setting demonstrations that are managed and studied by the FFS farmers.

Mr. Abdul Hamid, CEGIS

Question: In the presentation, nothing was mentioned about the shrimp production in the project area which usually happens at the cost of rice production as well as the ecosystem. Further to that, it creates problems in management What are the initiatives of the Blue Gold approach to address this issue?

Answer: The conflicts between crop and shrimp production are well known and form a risk that has to be addressed at WMO level. Training programs for WMOs will pay attention to increasing their skills in conflict management.

Mr. Partha Rathi Sarker, Director Extension, DLS

Question: Is there any opportunity for Fodder cultivation in the Blue Gold Program?

Answer: Yes, if farmers are interested in fodder production we can develop special training modules for FFS. The FFS is a good tool to test new crops or cropping systems together with farmers and this can include fodder as well.

Question: Is there any scope of Livestock Shelter during disasters in the program?

Answer: At this moment it is not part of the program, but if farmers bring it up as an important issue we will look how this can be addressed.

Question: Is there any scope for livestock, medicine, vaccine, dry feed after calamities?

Answer: Blue Gold is a development program and not an emergency relief program. However, if any calamities take place during the program period, we will of course in consultation with EKN decide if emergency assistance can be provided.

Mr. Zoinal Abedin. DTL, CDSP -IV

Question: What are the linkages between FFS and WMOs?

Answer: In Blue Gold the FFS will be organized as sub groups of the WMG. The FFS participants will be supported to share their new knowledge with other farmers in the WMG, for example through field days.

Question: What will be the role of SAAO?

Answer: SAAOs who have been trained to run FFS (season-long TOT) will be used as FFS facilitators, especially for crop related modules (field crops, rice, homestead vegetables and fruits). SAAO will also play a role in monitoring and backstopping FFS that are organized by farmer Trainers.

Question: Is it linked with National Agriculture Extension Policy of GOB?

Answer: Yes, the FFS approach is a group-based training approach according to the NAEP and is already being used for many years in several DAE implemented projects

Component-4

Mr. Afzal, IDE

Question: We need to keep eye on the enabling environment of value chains but what is the mechanism?

Answer: The Business Enabling Environment (BEE) is an important element for the sustainable implementation of a value chain program in a particular area. Also the local culture and norms must be considered for getting success. The enabling environment impacts on the achievement of the goals and objectives of the program and a contribution to the improvement of the BEE will in turn facilitate future business development. The mechanisms are as follows:

Engaging Business Membership Organisations (BMO) /Community Based Organisations (CBO) in Advocacy and Lobbying Role:

In value chain development, we support value chain actors to form different Business Member Organisations (BMOs) or Community Based Organisations. At the local level the Water Management Organisations and Producer Groups are the primary level of representation for the producers. The representation role is one of the core roles of cooperatives. Other value chain actors are represented in a

variety of business associations and federations. During Blue Gold's Value Chain Development activities, constraints in the BEE will be identified and brought to the attention of the representatives, who in turn place it on the agenda of public-private sector business forums.

Using Responsible Regulatory Bodies:

In the value chain BEE, the public sector regulatory bodies play an important role. Regulatory bodies develop rules, norms and standards to regulate business activities for a particular industry or sector. During the value chain strengthening process, we will identify the regulatory bodies and side by side, rules or regulations that hinder the value chain performance within the subsector. We will involve the regulatory bodies in the process of value chain upgrading, and discuss the prospects of regulatory reforms and modifications to facilitate value chain development. The above described representative bodies will take the lead to place the necessary reforms on the agenda and pursue their implementation.

It should be noted that Blue Gold can only contribute to the improvement of the BEE on the basis of its implementation experience. BEE reforms are not a primary objective of the Blue Gold program. The primary objective will be to increase the awareness of constraints and strengthen the representation role of WMO's, in order to enhance the public-private business forum agenda.

Mr. Partha Rathi Sarker, Director Extension, DLS

Question: Is there any scope of or support for capacity development of DLS staff in respect of value chain from the Blue Gold program?

Answer: Blue Gold will enhance the understanding of value chain development amongst the field staff of a variety of public service providers in the business environment of the respective value chains. See envisaged Value Chain awareness programme.

Mr. Abdul Hamid, CEGIS

Question: As a value chain establishment hindrance, don't you think that the local market broker and hoarders would be a considerable factor? Could you please clarify the standing of Blue Gold in this respect?

Answer: Local broker and hoarders are presently actors in the market system and will be given considerable attention when we analyse the respective value chains. They are important actors in the rural area value chains. They may act as service provider and sources of primary information for designing interventions and upgrading present value chains. We refer in this regard to our discussion in paragraph 3.4.2 Approach and Methodology.

Chair's comments

Mr. Zahirul Islam, Chief Planning, BWDB

Mr. Zahirul Islam emphasized the need for assessing WMOs by a third party, which had already been done according to the Coordinating Project Director. He also commented that, in some cases, embankments are overtopped during tidal surges, requiring raising of embankment height. In this regard he stressed on drainage improvement. He also pointed out that for embankment raising we have to wait for the recommendation of the Design office of BWDB.

In line of his experience in SAIWRPMP, Mr. Islam suggested that WMOs be formed in one go before they will be registered, as WMO should have substantial amount of share and savings for registration. In replying to one

comment that transforming WMG into cooperative is a big challenge, the chair thinks that it is not at all a challenge if they follow the norms of mobilization of share and savings within two months of the WMG formation. From previous experience it was shown that it took one year to collect the subscription money. Delayed collection of subscription money will delay registration.

He also emphasized on size/composition of WMG in relation to the number of households and magnitude of area. He pointed out that number of households should be determined at the initial stage of the project. Mr. Islam suggested collecting data for household survey through Participatory Rural Appraisal (PRA) method. He felt the necessity of plantation along the foreshore of the embankments.

He stressed about the approval of the LCS policy before start of the work. He continued that in SAIWRPMP, 85% of the earthwork was carried out by LCS in 2012, although it was much less in the earlier years. He opined that even 100% of the earthwork can be given to LCS, if the LCS is composed of true landless people in order to reduce poverty.

Mr. Islam suggested for introduction of high value crops in the Blue Gold Program areas. He also opined for signing of Memorandum of Understanding (MoU) with the concerned organizations like BADC, DoC, LGED, DoF and DoL.

Mr. Islam also opined that the formation of FFS will not be enough to materialize Blue Gold objectives; rather it should be supplemented by demonstration crop plots (for agricultural development) and demonstration pond (for fishery development). He also emphasized on supplying soil test kit and water test kit to the WMOs.

Significant recommendations

1. Climate change measures needs to be addressed with effective activities.
2. Measures should be taken to ensure WMG's sustainability when the project will end.
3. Pragmatic plan is required to hand over borrow-pits and other khas areas to WMOs for financial empowerment.
4. Establishing cold storage will reduce post-harvest losses.
5. Value chain will benefit from incorporating existing market actors like broker and hoarders.