



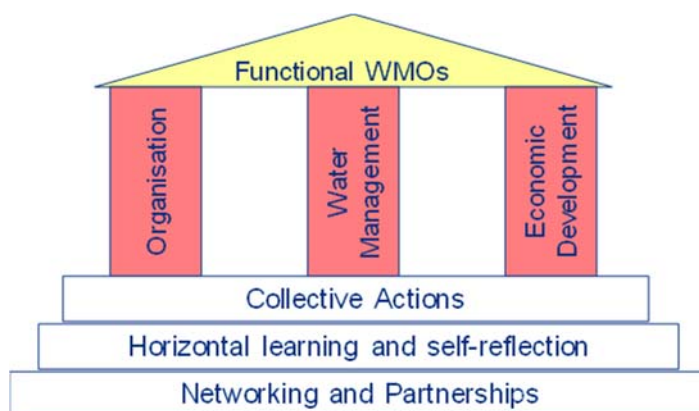
Blue Gold Program Participatory Water Management Field Manual

Introduction

This guide is a reference for the polder teams responsible for establishing functional Water Management Organisations in the polder-areas. The process described here helps local communities stabilise their environments and pursue sustainable socio-economic development through participatory water management and diversified farming practices with increased market participation. The concise description of the work process in this guide gives the polder teams a global activity chart; and leaves them adequate room for improvisation, for anticipating and supporting local initiative; for helping build relations with partner organisations, line agencies, local resource persons, private sectors; and for optimising the mix of disciplinary support to the situation at hand.

Through the approach described in this manual, the polder teams (BWDB OCWM and BWDB O&M Divisions, DAE and TA field staff) help establish sub-catchment-based Water Management Groups and polder-level Water Management Association (see annex B).

The WMGs and WMA will be assisted to engage in water management, to build their organisations (self-evolving) and to foster inclusive economic development. In this way, improved water management and the organisation required to improve water management forms the driver for economic development in the polders. To harness the organisational powers of local people, collective actions to generate economic benefits will form the first point of entry. DAE supports this by



introducing knowledge and skills for improved agricultural production. Through collective actions, the cohesion and benefit created by working together on a small scale, will pave the way for development of water management organisations. Moreover, economically beneficial collective actions will provide a starting point for the financial sustainability of improved water management. Organisational strength will be developed by stimulating horizontal and experiential learning; and by helping the development of a support network through relevant linkages with other public and private entities.

In line with the Government's Guidelines on Participatory Water Management, the WMGs and WMA are – when fully established – responsible for operation of the water infrastructure in the polder and for regular maintenance of the same. This includes the mobilisation of adequate resources for operation and maintenance. The Local Government (Union Parishad) supports the WMOs in an advisory capacity. The BWDB is the key agency responsible for periodic maintenance, emergency repairs and rehabilitation.



- Building blocks for developing functional Water Management Organisations (WMOs): Collective Actions (CAs), horizontal learning and self-reflection, and partnerships and networking, ;
 - Collective actions and how to stimulate these with opportunities in FFS / MFS activities, operation and maintenance, and income generating activities (IGAs)
 - Horizontal learning and participatory monitoring as tools for promoting self-reflection and supporting a self-evolving development process
 - Creating partnerships and a support network to turn to as needed when addressing problems and opportunities on water resource management and economic development.
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4. **Deploy polder team.** During this phase it needs to familiarise itself with the polder and the key actors therein; it needs to collect basic information (see Annex C for Data Collection Guideline). It is important at this stage that the polder team identifies existing CAs and the leaders involved in these CAs and it will have to develop its network with key community leaders and representatives of local government institutions and the line agencies therein;

Stage 2: Activation at entry

1. **Support, enhance and expand collective actions:** enhance existing collective actions and motivate their leaders to get involved in identifying and implementing new ones e.g. FFS sessions, group actions addressing construction-related issues and conflicts, using bargaining power in market linkages, water management/operation and maintenance, disaster preparedness, etc. Polder Team with support from Zonal and Dhaka Experts provide guidance and technical support to FFS and other common interest groups in undertaking actions. Involve selected farmer-trainers as apprentice in FFS implementation. It is important at this point to discuss with the collective action leaders the importance of horizontal learning strategies and tactics to hasten expansion of collective actions and disseminate lessons learned to as many households in the community as possible.
2. **Conduct walk-throughs and mapping exercises.** As part of familiarisation process, walk-through and mapping of the polder will be conducted to identify catchment and sub-catchment areas, existing structures and khals and existing cropping patterns. Zonal Engineer, Agriculturist and Sociologist will be joining the polder team during the walk through. A basic polder map showing administrative boundaries, existing roads and infrastructures will be prepared by GIS Coordinator for use during the walk-through. Polder team to pursue participation of interested collective action leaders and key informants from the polder community (existing WMOs, if applicable), SAAOs and UP members during the walk-through;
3. **Core group formation.** The BGP polder team will form and synthesise a core group of people at each WMG area who will be responsible for laying the foundation for a self-evolving WMG. The core group will be composed of community leaders that have emerged from the existing collective actions and new ones implemented including existing farmer trainers / resource farmers. The BGP polder team will, in consultation with key community informants and with the concerned UP ward members, carefully identify these core group members based on the following criteria: willingness and interest to invest time and effort voluntarily to perform required tasks; physically fit; with good communication skills; well-respected in the community; preferably representing landowning farmers, fishermen, women-household heads, and landless. The BGP polder team will strive to achieve gender balance in the core group. The size of core group will depend on the number of households and number of



potential WMG members in those households (8-10 is ideal size). Once the core group has been established, exposure visits to nearby WMGs will be arranged to help in developing awareness and knowledge of the core group regarding importance and roles of WMOs in water resource management. Representatives of existing WMGs will be enlisted as co-facilitators during the visits. The polder team provides in-depth orientation to the core group members on water management for development and the important role of the WMOs in attaining this. Key concepts, principles and methodologies in the formation and capacity building of WMGs and WMAs should be discussed thoroughly with the core group members. The following describe the evolving process of WMG formation and capacity building:

- Core group together with the BGP polder team initiate awareness building among potential WMG members on the rationale/objectives, roles and functions of WMG, membership of the WMG, and roles and responsibilities. The awareness building process will involve folk drama and theatre, focus group discussions, courtyard sessions, and informal discussions at homes, fields, tea stalls and markets;
- Core group to undertake the following tasks:
 - List potential members within the WMG boundary area;
 - Conduct individual and courtyard sessions with the potential members to sensitise them on the following: key roles and responsibilities of the WMOs in attaining the goals and objectives of BGP; the roles and responsibilities of the WMG members; the need to select/elect committed leaders to the Executive Committee of the WMG; the need to give equal opportunity for men and women to become members in the WMG and to participate in the selection/election process; the need to ensure that membership of the WMG adequately represents all stakeholder groups (men and women) in the WMG area; to adopt selection instead of election method in choosing the EC members.
 - In due time, initiate formation of ad hoc committee that has male and female representatives from each major stakeholder groups (farmers, fishermen, landless, destitute);
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Stage 3: Planning for Action

1. **Involve CA leadership and key informants.** After linking the BGP approach to existing collective action in the above stage, the process now moves on to identifying and initiating opportunities for the near future. To this end, the polder team continues to associate with the identified leaders of collective activities and other key informants. In this way, a group of potential initiators and leaders is kept well-abreast of the support that can be rendered by the programme, while at the same time being challenged to identify opportunities that bring about local economic development;
2. **Prepare Polder-level Water and Land Use Analysis (WLUA) meeting.** The following are key steps:
 - Prepare and print (big size) polder map based on output of the walkthrough/transect walk
 - BGP Polder team to identify and list 5-10 men and women representatives at each catchment area who should attend the meeting from the following stakeholder groups:
 - Small, marginal, medium and large farmer-landowners;
 - Farmer leaders/resource farmers of farmer clubs/producer groups formed by DAE, DANIDA, NGOs and other projects, if any;
 - Women-headed farming households;
 - Fishermen (sellers, buyers, supplier of fingerlings/other inputs);



- Landless with homestead;
 - Landless with no homestead and destitute;
 - Traders; and
 - Professionals
- Polder team to pursue attendance of BWDB XEN/SDE/SO and XO, relevant SAAOs, UP Chairman and Ward members and Upazila Chairman or representative
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3. **Conduct Polder-level Water and Land Use Analysis (WLUA) Workshop.** The following are the agenda and expected outputs of the Polder-level WLUA with the participation of the core group and the catchment representatives:
- General overview of the goals, objectives, and key activities of BGP and specific participation and responsibilities of the polder community and partner/line agencies and the WMO vision, roles and functions. (Show video, distribute leaflets, fix posters in the meeting venue)
 - Presentation and validation of the polder map and mapping of water management and production-related issues e.g. water logged and water shortage areas; erosion points, if any, obstructions in canals and sluices/other structures, production system potentials
 - Proposed options/steps to address identified water management and production-related issues
 - Presentation of the overall program for infrastructure interventions/rehabilitation program
 - Overview and validation of existing collective actions being implemented in the polder and how these are being managed
 - Overview of DAE FFS and initial FFS activities that can be initiated by Blue Gold (e.g. homestead gardening, fish/livestock/crop) including the criteria in selecting FFS members and mechanics in forming the FFS groups
 - Scheduling of catchment-level planning meetings and preparations
 - Polder team to prepare report on the WLUA meeting completed and distribute to BWDB, DAE, Departments of Livestock and Fishery
4. **Conduct catchment-level planning meetings** by polder teams with zonal team experts with the catchment core members and -representatives as follows:
- Prepare validated polder and catchment maps (big size) showing data gathered during the WLUA meeting. If needed, polder team may revisit the polder and organise informal discussions with the local people to deepen analysis of the water management and production situation with them.
 - BGP polder team to identify/list and mobilise at least 30 catchment representatives (giving priority to the leaders of existing collective actions and organisations/projects like National Technology Project-NATP groups¹) and to invite BWDB SDE/SO, DCEO and XO, relevant SAAOs, UP Chairman and Ward members and Upazila Chairman's representative
 - BGP polder team together with UP disseminate agenda and schedule of catchment-level planning meeting.

¹ We can identify and may work with 15 Common Interest Groups (CIGs) formed by NATP program under DAE, DLS and DoF per UP. They can be potential resource of leadership for initiating or expanding CA to gradually form WMOs. In addition to NATP, there is another project called Second Crop Diversification Project supported by ADB both under DAE, with special programs on value chain component.



- BGP polder team with UP Chairman and catchment core group initiate the catchment-level planning meetings. The following are the proposed agenda and expected outputs of the catchment-level planning meetings:
 - Review outcome of the polder-level WLUA meeting (as well as meetings at the community-level) using the map to show and/or validate following: identified water management and production-related problems; overall infrastructure program of works for the polder, and existing collective actions in the polder (savings and credit; other on-going collective IGAs, others);
 - Discuss actions to address construction-related issues as early as possible e.g. ensuring soil availability for embankment re-sectioning, freeing land for embankment and canal alignment, space for placing earth spoils from canal. UP Chairman and member should facilitate this discussion. Assignment of responsibilities and agreement to an action plan should be the output at the end of this discussion.
 - Fix and reach consensus on WMG boundaries based on hydrological units/factors (in polders where there are existing WMOs, discuss WMO reformation/re-activation policies and procedure will be followed. BWDB-OCWM staff together with the polder community will be responsible for this. TA will provide support. **Annex B** presents the basis and formation of WMOs.
 - Extensive discussions on improving the awareness and understanding of the operation modalities of the infrastructure based on preferred production systems and its regular maintenance requirements
 - Further planning on actions and options to address water management and production-related problems including preferences on types of FFS (homestead gardening, crop, fish, and livestock). Identify those interested to be involved in the preferred FFS to be included in the “long list” which will be trimmed down after criteria verification through household visits. Discuss BGP’s plan to develop farmer-trainers who will be immediately involved in the FFS implementation that will be initiated. Criteria/qualifications of a farmer-trainer will be discussed and during the meeting ask who are interested to become farmer-trainers (TA team with concerned WMG to further interview and evaluate potential farmer-trainers).
 - Review status of existing collective actions and identify new ones besides FFS e.g. bargaining power based market linkages, water management/operation and maintenance, other income generating activities;
 - Polder team prepares report on each catchment-level planning meeting completed and distribute to BWDB, DAE and departments of Livestock and Fishery.
5. **Facilitate initiation of additional collective actions.** During the above planning exercises water users are stimulated to identify opportunities for collective actions. This could be replications of existing group-based input purchasing, service procurement and coordinated marketing activities, but would also expand to include opportunities to improve local water management conditions through collective action and identification of resources for joint farming or fisheries. The agencies involved in the planning exercises play an active role in stimulating discussions about alternatives and use good practices elsewhere as examples of collective action that could be considered by the water users. Initiatives are supported by tailor-made support for production systems, water management practices and market orientation.
6. **Prepare first draft of PDP** and submit to BWDB. PDP has to be revised/updated annually



Stage 4: WMG Activation

- 1. Formation and registration of the WMG.** The core group that has been partner to the polder team through the preceding stages now is in charge of setting-up an ad hoc committee that performs the steps leading to formal establishment of the WMG (in accordance to government rules and regulations). This includes enrolling members from all stakeholder groups representing 55% of the total households in the WMG area; formulation of by-laws; selection of EC members; and registration with BWDB. The ad-hoc committees benefit from guidance and advice by the BWDB extension overseers;
- 2. Organise EC exchange visits.** Polder team with zonal team's assistance will organise exchange visits for the EC and selected members of newly formed WMGs to strong and progressive WMGs to learn about their on-going activities (and collective actions), and about the experiences and challenges they faced in strengthening and sustaining the functionality of their WMGs in terms of water resource management and economic development to the benefit of their members.
- 3. Support WMG action planning** in newly established WMGs to help it establish collective actions in the realms of water management, production, market linkages and value addition, which would bring tangible benefits to the members. Doing so helps the emerging WMG prove its relevance to its constituents. The support rendered includes a discussion of local action for improving water management ('community-led agricultural water management'), as well as an assessment of under-utilised land and water resources in the area. Opportunities are developed by supporting FFS groups for field crops and other topics and by group formation for collective actions. The outcomes of the planning meetings are summarised in a WMG Action Plan (WAP);
- 4. Provide foundation courses.** Organise the following foundation courses tailored to the needs and expectations of the WMG ECs using experiential learning: a) Organisational and Water Management (OWM); b) Accounts Keeping and Audit System; (AKAS); and c) Gender and Leadership Development (GLD). OWM training will be focusing on the key building blocks for the formation of functional and sustainable WMGs in terms of water resource management and economic development. Collaboration with local government and line agencies for collective actions, agricultural water management, and opportunities for improved productivity and profitability, horizontal learning and self-reflection and evaluation are major subjects for experiential learning. An Infrastructure Operation and Maintenance hands-on training course will be imparted to WMGs shortly before the completion of rehabilitation works. In these courses, catchment-level plans operation modalities and regular maintenance requirements are linked with water management and production activities within the WMGs. Based on the outcome of the catchment-level planning, the respective WMGs will further develop their WAPs.
- 5. Facilitate LCS implementation.** In preparation for construction works specifically the earthworks, WMGs will have close interactions with BWDB field staff to plan, form and train LCS groups. Concerned WMG EC members mobilise LCS groups and supervise these closely to ensure quality and timely completion of works. Polder team supports and advises the WMGs.



Stage 5: Learning and Networking

1. **Organise CA exchange visits.** Using the horizontal learning methodology, the polder teams help WMGs to learn from each other's successes and failures with respect to the WAP implementation and the collective actions initiated by their members.
2. **Facilitate networking and partnerships.** A mature WMG seeks to establish constructive relations with key partners and its support network. This includes the partners for each WMG: BWDB Divisions and water management staff; Local Government – especially the Unions – and the departments there represented: DAE, DLS and DoF. UPs and WMGs may consider cooperation in the field of disaster risk management, following the existing guidelines. In their search for support and advisory services for the activities it plans to undertake, the WMGs may call on others local contacts as well, such as LGED; or be assisted to develop linkages with relevant players in other regions (e.g. RDA Bogra) or nationally (e.g. PKSF). In addition, and particularly to develop economic opportunities, WMGs should build relations with and seek the support of local resource persons (CIG leaders, resource farmers, contact farmers, SAAOs, Farmer Trainers, etc) along with input providers, service providers, buyers, and the private sector at large.
3. **Regular Catchment-level Water Management Planning.** This recurrent step addresses opportunities and constraints in water management in the area served by a single main regulator. It will be carried-out jointly by the WMGs located in the catchment and by the WMA established at polder-level. The activity will involve identification of benefits and opportunities created by the completed infrastructure works and formulation of actions to act on the opportunities identified in order to maximise and sustain the benefits from the completed rehabilitation works. High on the agenda are the consensus on operating the infrastructure in light of the preferred production systems and the regular maintenance requirements. One example of opportunity is implementation of CAWM which should be linked to catchment-level water management plan to effect coordinated maintenance, retention and/or drainage in order to optimise local cropping systems and their farmer's market orientation.

Stage 6: WMG Consolidation

1. **Support evaluation and reflection on action plan implementation including collective actions.** WMGs implement their Action Plans and continue implementing and / or facilitating collective actions on water management and production aspects e.g. crop/fish FFS, collective actions aimed at strengthening market linkages (e.g. group input buying), including conflict resolution and construction-related preparatory works, and water management/operation and maintenance works. Polder team will discuss importance of and initiate with the WMGs evaluation and reflection processes that will assist WMGs to evolve into functional and sustainable organisations. Indicators and guidelines on WMO participatory monitoring evaluation are discussed in separate documents. An important point to discuss is the funding of continuous operational and regular maintenance activities from the benefits created by improved water management.
2. **Support mature collective actions and their market linkages.** Once WMGs and their collective action groups have adequate experience, knowledge and maturity, they can intensify their networking and partnerships with private companies and other value chain actors (service providers, buyers, input providers). To this end, meetings between well-established collective



action groups and representatives from concerned value chain actors are organised to discuss further opportunities for improvements in productivity and profitability;

3. **Coach foundation skills.** As part of the regular maintenance of the new organisations, their performance will be reviewed through the regular monitoring by the programme, but also through the audit by the BWDB. XOs and polder team TA will work together to help WMGs address any weaknesses in performance. The review process will include self-assessments by the WMGs as well as exchanges on performance between WMGs, to strengthen the process of self-evolvement.

Stage 7: WMA Activation

Annex B describes the basis and boundary for WMO formation based on GWPM and PWM Rules 2014.

1. **WMA formation and Registration.** WMG representatives together with OCWM field staff (DCEO and XO) discuss WMA formation process with general members of WMGs and guide EC selection and WMA registration process with BWDB.
2. **Organise EC exchange visits.** Polder team with zonal team's assistance will facilitate exchange visits for the EC and selected members of newly formed WMAs to strong and progressive WMAs to learn about their on-going activities, and about the experiences and challenges they faced in strengthening and sustaining the functionality of their WMAs, both in terms of water resource management and economic development.
3. **Implement Catchment-level water management and O&M plans.** WMA EC members present and discuss CLWM plan with their respective WMGs for validation and approval; and mobilise WMGs to implement it by upscaling CAWM activities and by intensifying other collective actions on water management, O&M, productivity and profitability. Project technical support and modest budget for co-financing polder internal water management improvement works are available.
4. **Construction monitoring.** WMA EC members form and mobilise Monitoring Committee to help BWDB ensure construction works quality and participate in bill certification
5. **O&M agreement.** After completion of rehabilitation works and O&M Training, BWDB XEN initiates signing of O&M Agreement with the Polder-level WMA.
6. **Assist WMAs to improve performance.** WMA exchange visits and other horizontal learning activities are undertaken to facilitate development of all WMAs. This aims at the gradual build-up of water management and O&M activities and at resource mobilisation for water management and O&M. Annual WMO Participatory Performance Assessment by OCWM (jointly with TA during Project) based on objectively verifiable indicators and targets will help motivate the WMA to continue to build its organisation.

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Annex A

Overviews of BGP Participatory Water Management Approach

Flowchart of BGP Participatory Water Management Approach²

Collective Actions	Water management	Organisation
Preparations stage		
Meet partner agency field staff; set-up polder team; conduct orientation workshop and deployment of polder team (including collection of basic data)		
Activation at entry stage		
Identify existing collective actions (CAs) and liaise with their leadership	Conduct walkthrough and mapping with CA leadership and key informants	Form core group and organise horizontal learning
Planning for action stage		
Facilitate and expand existing CAs	Water and Land Use Analyses Workshop, catchment-level planning and preparation of first Polder Development Plan	Involve core group and key informants
WMG activation stage		
Promote and implement new CAs (<i>inter alia</i> community agricultural water management) and LCSs	Support WMG action planning	WMG formation from core group and strengthening; exchange visits; selected foundation courses for WMGs
Learning and Networking stage		
Exchange visits between CAs (horizontal learning)	Review and update of catchment-level water management and O&M plans	Facilitate networking and partnerships
WMG consolidation stage		
Support mature CA and market linkages	Support evaluation and reflection on action plan implementation and collective actions	Coach and review foundation skills
WMA activation stage		
Support mature CA functions and market linkages	Support implementation of catchment-level water management and O&M plans; support construction monitoring; prepare O&M agreements	WMA formation and registration; WMA exchange visits; assist WMAs to improve WMA performance

² This flowchart is a draft and will be updated as experience in the ten new polders has validated its utility. The text entries coincide with the more detailed schedule of activities (overleaf)



Annex B

Basis and Boundary for WMO Formation

Formation and reformation/reactivation of water management organisations under the Blue Gold Program started in September 2013 after WMO Functionality Assessment was undertaken as part of its effort to establish pre-project condition. The basis and boundary for WMO Formation followed the Guidelines for Participatory Water Management (GPWM) which stipulates that for Project/Sub-Project/Scheme up to 5000 hectares, the WMO may consist of 2 or 3 levels as follows:

1. WMG at the lowest level for each smallest hydrological unit or social unit (Para/Village)
2. WMA either at the mid-level for each sub-system of the project or at the apex level for the project
3. If necessary, WMF at the apex level of the project in case WMA is formed at the mid-level for each sub-system.

The PWM Rules 2014 was issued on February 2014 which transfers the responsibility for formation, registration and audit from the Department of Cooperatives to BWDB (Office of the Chief Water Management). It described under Chapter 3 (Water Management Organisations) the types and tiers of WMOs and determination of their number and jurisdiction summarised as follows:

- In small project (up to 1000 ha): 2 tier WMO: primary level WMG and at apex level WMA;
- Medium project (between 1000-5000): 2 or 3 tier: primary level WMG, WMA 2nd level and WMF 3rd level
- Large project (above 5000 ha.): 3 tier WMO: primary level WMG, WMA 2nd level and WMF 3rd level

However, PWM Rules 2014 did not mention the basis and boundary for each type of WMO and for this, BGP followed the GPWM. Based on GPWM and PWM Rules 2014, in the existing 12 polders (9 IPSWAM and 3 new rehabilitation polders), primary level WMGs were formed and/or reactivated in combination of hydrological and social unit (villages). In the case of the second tier, WMAs were formed on the basis of catchment area considering that BGP polders fall under medium and large project categories (above 1000-above 5000 ha). It was then (2014-2015) proposed to form the 3rd tier, the WMF, especially in large polders which later on in the same year was replaced with the proposal to form Joint Polder Management Committee which connects the WMA is to the BWDB, the LGI and line agencies (e.g. DAE, DoL and DoF). A clear course of action was, however, not defined.

In view of the above, in his letter to the PCD dated November 8, 2016, the Chief Water Management advised that WMGs will be formed following catchment boundaries and that a single WMA be established at polder level:

- In the 12 existing polders, the WMGs will be maintained as they are; but the existing WMAs will be merged into a single WMA for each polder;
- For the new polders, WMGs will be formed based on sub-catchment and/or catchment areas in such a way that their size does not exceed 1000 HHs. A single WMA will be formed at the polder level and will be the apex body that will sign the O&M Agreement and will be dealing with BWDB on management, operation and maintenance of water resource infrastructures.



Annex C

Data Collection Guideline for New Polders

Introduction

Upon deployment of the Polder Field Staff, familiarisation with the polder community will be initiated. This entails interaction with the local people and key informants from different stakeholder groups in the polder, 'walking through the polder area' and mapping exercise.

Integral with the familiarisation is gathering basic information about the polder through different methods of data collection e.g. key informant interviews, focus group discussions or courtyard sessions, household census, walkthrough/transect walk and mapping.

The Polder Team specifically the Community Development Facilitators (CDFs) will undertake the data collection together with Local Facilitators hired for this purpose.

The basic information gathered during the familiarisation stage will be utilised in the conduct of the Polder Level Water and Land Use Analysis Workshop and Catchment Level Planning Meetings.

Basic Information

A. Polder Level Data

1. Name and number of upazilas, unions and villages including number of *paras*
2. Estimate number of households and male and female voters
3. Existing formal or informal groups/associations (formed by DAE, NGOs, other projects, example KJDRP)
4. Existing and on-going collective actions and identification of leaders managing these
5. Available persons which can act as resources to farmers and WMGs, e.g. CIG leaders, resource farmers, lead farmers, contact farmers, input and service providers, buyers, etc.
6. Existing water management structures/facilities and roads; functionality status of these
7. Mapping size and location water logged and water stressed areas
8. Number, type and hierarchy of markets as well as connectivity with regional/national market identifying where and which types of products are being bought and sold.
9. Identify and estimate number of different stakeholder groups and land ownership in the polder e.g. farmers (small & marginal, medium and big), fishermen, landless with homestead, landless without homestead and destitute, women-head of households, traders, professionals/employees
10. Existing production system (crop, fish, shrimps, production surplus- export items and deficit-import items)
11. Other past and ongoing programmes e.g. NATP II, Crop Diversification Programme
12. Main economic activity and main sources of income, timing of labour requirements and labour migration characteristics
13. Identify and estimate number of owners of agricultural equipment and livestock
14. Number of ponds/gher-water body
15. Opportunities for new collective actions on social, production, economic, water management and operation & maintenance aspects



16. Is there any conflict between agriculture farmer and , shrimps farmers, high land owner and low land owner or any other

Some of the polder data can only be accomplished after completion of the household data collection for example items 6, 7, and 8.

B. Household Level Data

This will be gathered through household visits and individual interview with head of household (see questionnaire on page C-3).

Blue Gold Program Household Census/Survey Questionnaire

Data to be collected through an individual interview with the head of household

Polder No:-----Union:-----Village:-----

1. Name of household head:-----
2. Father's/Husband's name of household head:-----
3. Age :-----Education:-----
4. Occupation: Principal:-----Subsidiary:-----
5. Ownership of land(acre):Homestead:-----Pond:-----Agricultural land:-----
Gher:-----
6. Ownership of agricultural equipment: Power tiller Power pump Power thresher
7. Do you own cattle/Cow: Yes No Buffalo: Yes No
8. No. of Voter in your family: Male: ----- Female:-----
9. Membership in WMO: Yes No
10. How many days/months can you maintain/survive from your own produce ?
Days: -----Months:-----
11. Do you migrate outside of your village. Yes No.
12. According to your own assessment, do you belong to: Rich family Well to do family
Poor family Ultra poor family

Name & signature of Investigator:

Date: