Bangladesh Water Development Board (BWDB)

Embassy of the Kingdom of the Netherlands (EKN) Dhaka, Bangladesh

Department of Agricultural Extension (DAE)



Orientation on

Community-led Agricultural Water Management (CAWM)

Mozaffor Garden Satkhra

23 to 24 July 2017

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Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
1	Oct 2017	Nripen Chandra Das Training Coordinator	Md. Abul Kashem Training Expert		1st Draft

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1. Introduction

It is commonly perceived that salinity is the main reason for non-adoption of improved agricultural technologies and low productivity in the coastal zone of Bangladesh. But actually the poor water management/ waterlogging, in particular, lack of drainage during and at the end of the rainy season is the root cause of low production in polder areas and also lack of coordination among the polder dwellers on water management and that community coordination is needed to enable wide scale adoption of improved agricultural technologies in the polder ecosystems. To overcome of this problem Blue Gold Program started new intervention which was piloted in polder-30 of Khulna zone, commonly known as Community-led Agricultural Water Management, in six area of 4 polders and four areas of 2 polders in Patuakhali and Khulna respectively.

To orient the farmers and staff (Lid Farmer, DAE, BWDB field staff) and Blue Gold TA part about community-led water management, this 2 days orientation course is planned at Satkhira, Khulna and Patuakhali.

2. Objectives of orientation program

This orientation course has been designed for the SAAOs, CDF, & Lead & contact farmer working in CAWM areas in Satkhira. The overall objective of the orientation is to implement CAWM with the assistance of SAAO and CDF with gather necessary knowledge/skills and to utilize these learning to the farmers for producing multifaceted crops and also after completion the orientation program participants are able:

- To improve understanding of the concept of Internal Polder Water Management and Community-led Agricultural Water Management (CAWM) specifically;
- To develop understanding and techniques to execute a crop-water system analysis for a CAWM area in a participatory manner through practical/field observation.
- To develop team spirit and familiarizing the roles & responsibilities for different field staff members in CAWM areas;
- To develop understanding on the main activities, timeline and process steps for CAWM;

At the beginning Mr.Abul Kashem explained the objectives of orientation. He refers 10 CAWM last year in Khulna & Patuakhali as piloting where WMG got remarkable production. As polder-2 is water logging area where we can implement community led agricultural production by removing water logged through ensuring the proper water management. However from that realization this orientation is very important to develop common understanding, where will be the maximum production to get from the CAWM initiatives?

Mr. F.M. Shorab Hossain made a detail presentation on the overview of CAWM program where he discussed about the background, rationale, funding, working areas, and collaboration and future directions of CAWM Initiatives.

Mr. Shorab Hossain mentioned about the unique nature of the project and its possible impact on the community specially the water logging area. He specially mentioned that through the collaboration with BWDB, DAE and other government wings this program will give higher benefits. He mentioned that BGP and DAE staff are technically sound who will continuously assist the farmers in transferring this technology during implementation period.

Mr. Aowlad Hossain, Institutional/ legal advisor made a short presentation regarding horizontal learning where he mentioned that all the farmers can't participate in this orientation but this HL can disseminate/transfer the learning and best practices to others.

Resource person/facilitator

Following BGP Experts were facilitated this orientation program:

1. Abul Kashem, Training Expert
2. Sohrab Hossain, Community Org. Expert
3. Aowlad Hossain Legal Advisor
4. Maksudur Rahman, Socio Econimist & ZC
5. Md. Sahidullah, Civil Engineer
6. Md Hurmuz Ali, Junior Master Trainer and
7. Nripendra Chandra Das,Training Coordinator

Participants

Following 35 participants were attended in this 2 days orientation program:

SL	Participants & resource person	Participant		Total	Remarks
		Male	Female		
1	Farmer	19	4	23	
2	SAAO	3	1	4	
3	XO, BWDB	1	0	1	
4	Resource Person	6	1	7	
Total		**29**	**6**	**35**	

Applied Training Method

To make the session perceptive, interesting and easy understanding to the participants this training course followed participatory methods and techniques. Many of the sessions were conducted by the participants using their materials:

- Lecture Discussion
- Small Group Discussion
- Large Group Discussion
- Brainstorming
- Questioning & Answer
- Demonstration
- Experience Sharing
- Exercise/practice
- Picture Drawing
- Field visit

CAWM Implementation Steps

Mr. Shorab Hossain explained the following steps through Power Point Presentation. He also relates this discussion with the experience what he gathered from the last 10 CAWM FFS:

- Collective decision
- Report buildup with Partners organization like BWDB, DAE, UP & Others
- Area selection
- Land selection
- Farmer selection
- Land preparation
- Proper water management
- Purchasing to Agro materials & equipment
- Rice Plantation by proper spacing
- Intercultural Operation and regularly land visit
- Quality seeds selection / Water tolerant variety
- Seed bed preparation depends on land topography
- Pest management
- Harvesting, Processing, Preservation
- Horizontal learning

According to this orientation program there was a field visit to observe a proposed CAWM FFS catchment, talk with key farmers, and collect problem and prospects. After coming back from

the field they will prepare plan and vision mapping. But due to bad weather (heavy rainfall) the field visit was cancelled.

Problem analysis and identify ways of solution

Facilitator were invited the participants to identify the problems to implement CAWM considering from their experience/practical field situation (catchment) and how/ what will be the way of solution based on the available resources. The participants were divided into 4 groups where SAAOs, Lid Farmers and XOs were actively participated. Participants were also suggested to identify the possible cropping pattern for that particular catchment. Based on the existing experience, each group will design their vision and demonstrate in the large groups:

Through reviewing the group outcome's following problems, possible solution and proposed cropping pattern were identified by the groups and tried to reflect in their vision mapping.

Group-1: Uttor Ziala

Problem	Possible solution	Possible crop production
• No seedbed preparation in proper time • No enough culvert and pipe • No branch canal • To establish shrimp cultivation by stopping khal & culvert • Out of order siltation of Ziala sura khal • Water logging and no any drainage system • No drain out of Ziala kalu mulla khal due to using net fench	• To make enough pipe culvert • Excavation of branch canal in beel • To keep opening main khal and front side of culvert • Re-excavation of Ziala Sura khal • To remove net fench	Boro - Aush - Amon Boro - Jute - Amon Master – Boro - Amon

Group no-2: Bhadondanga

Problem	Possible solution	Cropping pattern
• Water logging • High and low land • No canal /channel in beel • No any connection of branch with beel • Unplanned cultivation • Twice production (Rupa Amon & Boro)	• To make water drainage and connect with canal by channel re-excavation • To bring equal level in between high and low lands • Planned cultivation	Amon BR- 52 Mastered Boro Jute cultivation

Group-3: Kaikhali Fulbari

Problem	Possible solution	Possible crop production
• To establish shrimp cultivation in unplanned way • Water logging due to siltation • 6 band Sluice gate damage of khejur danga • No any sluice gate or culvert on katakhal embankment • Water log is being made due to not any pipe	• Establishment fish- garth /shrimp cultivation in planned way • Khal re-excavation • Construction of sluice gate • Construction of culvert on katakhal • Establishment drainage pipe	Aush- Amon- Boro Jute- Amon- Boro Jute –Amon- mastered /Dal

Group-4: Kaikhali Fulbari

Problem	Possible solution	Possible crop production
• Low land than canal hight • Inactive of drainage system • Fish garth/ shrimp cultivation in unplanned way • Khal out of order in different places	• Khal re-excavation • Developing drainage system • construction fish garth in proper and planning way • To remove illegal net fence • To develop water drainage out through pump • Construction sluice gate on katakhal • To make channel to drain out water from the culvert	Cropping Pattern Boro –Aush- Amon Boro- Jute- amont Master-Boro –Amon

Vision Mapping

Each group drown their vision through analysing the above problems and prospects and presented in the plenary. Through this exercise participants demonstrated the process of problem analysis, justification, prospects, identify the possible resources. Through this exercise the participants learn the following important issues:

- Problem identification and process of analysis
- Process of plan preparation
- Identification local resources
- Time Management
- How to determine cropping intensity/pattern with a view to batter production
- Creativity in translating resources and opportunity in vision
- Team Building

Marketing and Value Chain

Mr. Hurmuz Ali, presented this session through PPP where he tried to clarify the detailed conceptual part of marketing and value chain. He also tried to describe the importance of marketing and value chain in CAWM.

After that formal presentation Mr. Kashem took the floor and divided participants into 2 groups. He distributed 2 types of colour cards to each groups. He relates the previous discussion made by Mr. Hormuz and asked the group (A) to write the preparation of farmers before production of crops that they have planned in earlier exercise. Another group (B) was suggested to identify the preparation after crop production for good pricing through selling the crops from the market.

Preparation before More Production	Preparation after production for getting maximum profit/benefit
• Production Plan Preparation • Land selection • Quality seeds selection & collection • Seedbed preparation • To apply basal dose of fertilizer during land preparation • Rice Plantation by logo method • Plantation by early ages(25-30) days saplings • Appling balance fertilizer • Doing intercultural operation in proper way • Purchasing Agro materials collectively • Communication with different institution (DAE UP)	• Group formation for market justification • Market survey • Communicate with buyers to know market demand • Selling collectively to mill owners, whole seller, buyer & Retailer • Preservation Properly • Always communicate with informants • Comparing in to adjacent and outside market • Directly communicate with Mill owner to sell product • Transport arrange in time

The cards were posted to the VIPP board and reviewed by the participants. At the end of this discussion, facilitator were related this outcomes with marketing and value chain and why these are important in CAWM and other production.

Recommendation and conclusion

The CAWM orientation was not like just orientation rather it was more likely workshop where participants shared their experience, identified their problems designed their vision using considering their resources with minimum support from Blue Gold Program, It was very successful event where the participants found the optimum opportunity to reflect their experiences, views, ideas prepared their own vision. However following are some recommendations which may help to design orientation for more effective event:

- Increase involvement of BWDB, DAE representatives in the whole process.
- Due to heavy rainfall and long distance the participants faced very difficulties to attend the orientation session timely from the long distance. In considering that it may be residential in future.
- Training venue - the venue was scattered area from city and communication was disrupted .it was recommended that next time training be held alternative and nearest city.

In conclusion, we would like say that it was another timely initiative to better success of the program. The participants were so active and cordial to learn more and more. The participants commitments is really appreciable and their valuable time for better success of the program. Hope all the participants learn lot and able to provide quality service for the program and its beneficiaries.

Annex 1. Agenda

Time	Topics	Methods	Facilitators
08.45 – 09.15	Registration		
09.15 – 09.30	Official opening	Speech and Game	
09.30 – 10.15	Introduction to concept of CAWM – including why and benefits of CAWM) Background, objectives and Main activities of CAWM	PPT Presentation, Discussion	
10.15 – 10.45	Examples and Challenges of CAWM-Experience from last year piloting 10 CAWM under BGP	Experience Sharing	
10.45 – 11.00	Tea Break		
11.00 – 11.45	How to start CWM (steps of implementation with WMG and WMA)	Small Group Discussion, VIPP	
11.45 – 01.00	Orientation for field visit CWM and Crop-water system analysis	Maps; presentation;	
01.00 – 02.00	Lunch		
02.00 – 05.00	Field Visit and Crop-water system analysis	Field visit	
Evening time	Prepare brief group presentation Review the day learning	Small Group Work	

Day 2

Time	Topics	Methods	Facilitators
09.00 – 09.30	Open discussion about field visit and Groups present Crop-water system analysis	Experience Sharing, Presentation & discussion	
09.30 – 10.30	Team Building – Dream for Catchment	Model preparation	
10.45 – 10.45	Tea break		
10.45 – 11.15	Brief presentation of FFS curriculum	Presentation & Large Group Discussion	
11.15 – 11.45	Brief experience sharing on market orientation issues	Presentation, Large Group Discussion	
11.45 – 12.30	Presentation timeline and roles & responsibilities of field staff in CWM activities	Presentation & plenary discussion	
12.30 – 01.00	Review and closing		
01.00 – 02.00	Lunch		

Annex 2. Participant List

Sl no.	Name and Designation	Organization	Contract no.	Remarks
1	Abdul Khalek Mali	Lead farmer	01747824025	
2	Md. Nasiruddin	Lead farmer	01714808550	
3	Khadija Khatun	Lead farmer	01722758803	
4	Masura Khatun	Lead farmer	-	
5	Md. Taijul Islam	Lead farmer	01733396040	
6	Md. Nur Islam	Lead farmer	01915434517	
7	Monjuara Begum	Lead farmer	-	
8	Md. Hassan	Lead farmer	01826596914	
9	Dinesh Datta	Field trainer	01721006905	
10	Md. Azizur Rahman	Field trainer	01942439373	
11	Md. Siddikur Rahman	Field trainer	01714904737	
12	Md. Rahmat Ali	Field trainer	01724219965	
13	Md. Kabirul Islam	Field trainer	01710900347	
14	Hafizul Sarder	Contact farmer	01734158168	
15	Md. Abdul Aziz	Contact farmer	01784776383	
16	Abdul Hamid	Contact farmer	01715686936	
17	Md. Akkas Ali	Contact farmer	01719714599	
18	Md. Salam	Contact farmer	01989609921	
19	Anita Banarjee	Contact farmer	01735804534	
20	Anonnda	DF	01757847708	
21	Md. Salek Mali	DF	01778106826	
22	Md. Rabiul Islam	DF	01748908625	
23	Md. Siddikur Rahman	DF	01732172927	
24	Nilkanta Sarkar	SAAO	01732592889	
25	Md. Anisur Rahman	SAAO	01717489570	
26	Kamrul Hassan Dalim	SAAO	01710887931	
27	Sahnaj Afroz	SAAO	01718848080	
28	Md. Ibrahim Khalil	XO	01718700127	