

# **Char Development and Settlement Project Phase IV Bangladesh**

## **Technical Report No. 15**

### **Evaluation of Water Management Groups**

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**Government of Bangladesh / IFAD / Government of the Netherlands**

**Implementing Government Agencies:**

- Bangladesh Water Development Board (BWDB)
- Ministry of Land (MoL)
- Local Government Engineering Department (LGED)
- Department of Public Health Engineering (DPHE)
- Department of Agriculture Extension (DAE)
- Forest Department (FD) and NGOs

**Technical Assistance:**

- BETS
- Euroconsult Mott MacDonald
- Socioconsult

## **A. Introduction**

### **1. Objective of WMGs**

The participation of people at the grass-roots level is one of the cornerstones of the CDSP approach. The project has placed considerable emphasis on the development of various type of Field Level Institutions (FLI), of which one of the most important are Water Management Groups (WMG).

The specific objectives of WMGs are:

- To encourage and enable community participation in the areas of water management (i.e. reducing loss of water, optimum utilization of water in productive purposes, conservation water, infiltration of saline water and drainage of excess water)
- To maintain & smooth operation of water control infrastructure built by the different phases of CDSP by BWDB and other agencies.
- To assist all the partner agencies of CDSP and other bodies in providing services to the community in an effective manner and to resolve any crisis constraining the development process.
- Develop partnership with other agencies including respective Local Government Institutions in order to provide services on sustainable basis after CDSP interventions are completed.

WMG are a key element of BWDB's national policy for participatory water management, whereby completed water infrastructure should be handed over to community organisations for operation and maintenance by these organisations. BWDB has drawn up Guidelines for Participatory Water Management (GPWM) in accordance with the Participatory Water Management Rules of 2014. These include this eight step process for WMG formation: (i) information campaign, (ii) workshops with key persons for demarcation of operational area, (iii) plan for WMG, (iv) mass meetings (men and women separately), (v) orientation on roles and responsibilities of WMG, (vi) formation of a 12 member management committee and organisation of regular meetings, (vii) preparation of bylaws, and (viii) training and registration. As the process is participatory, so the whole process depends on the community and their situation rather than following a top-down blue-print.

### **2. Evaluation approach**

An evaluation of Water Management Groups (WMG) has been carried out with the following objectives:

- Assess the functioning, governance and effectiveness of all the WMG formed by CDSP IV
- Assess the sustainability of WMG formed in earlier phases of CDSP IV

The information collected will assist in drawing up the project's exit strategy and provide evidence of sustainability for project completion reporting. The effectiveness and sustainability of WMG is also a logframe indicator for component 1 at the outcome level.

Information was collected visits by project field staff to all 24 CDSP IV WMGs and a sample of 10 WMG formed during CDSP I, II and III. Interviews were held with WMG leaders and WMG records were inspected. A schedule listing the required information was used – this included the criteria to rate WMG performance on a number of key indicators (seen Annex 1). In addition, the six project field staff made an overall qualitative evaluation of the WMG that they visited. Evaluation indicators were based on those used in a pilot evaluation of 13 CDSP WMG (three CDSP II WMG, two from CDSP III and eight CDSP IV) carried out in the first part of 2016.

In addition, focus group discussions were held with seven WMG (three CDSP II, one CDSP III and three CDSP IV). The findings of these meetings are in Annex 5.

## B. CDSP IV WMGs

### 1. Profile

CDSP IV has formed and supported a total of 24 WMGs – 11 in char Nangulia, five on Noler Char, three on Caring char, two on char Ziauddin and three on Urir char. As full water management infrastructure (embankments and sluice gates) has not been developed on Caring and Urir chars, the WMG here were first formed as Local Area Development Committees (LADC), and later converted to WMG. Information on each CDSP IV WMG is in Annex 2.

The WMG on Zia char were formed in November 2011, followed shortly by those on Nangulia and Noler chars, formed between December 2011 and February 2012. There was then a break of 16 months before the WMG were converted from LADC on Caring char between May 2013 and February 2014, with WMG on Urir char being formed out of LADC after another gap of three years in February 2017.

Each WMG represents around 1,000 farmers (ranging from 600 to 1,400) and were formed at a mass meeting of these farmers. Since WMG were formed the average number of farmers per WMG has declined from 1,106 to 1,022. Average numbers have decreased in Nangulia, Noler and Caring chars, and increased in Urir and Ziauddin. The decline in numbers on three chars is partly due to erosion displacing some farmers, but erosion has not affected all WMG, but all WMG except one on these chars reports a fall in the number of farmers – so much of the fall in numbers must be attributed to the decline in the relative importance of farming as a source of livelihood.

**Table 1: Profile of CDSP IV WMGs**

Name of char	Nangulia	Noler	Caring	Ziauddin	Urir	Total
Number of WMG	11	5	3	2	3	24
Average command area – ha	637	556	529	922	4100	1063
Number of sluice gates	4	1	1	2	0	8
Average khal length – km	12.9	7.2	1.7	19.5	28.3	12.8
Average number of WMG members						
Male	23.1	20.8	13.7	19.5	22.3	21.0
Female	18.0	14.6	12.3	20.0	5.0	15.1
Average WMG committee members						
Male	7.3	8.0	7.0	8.5	8.7	7.7
Female	4.7	4.0	5.0	3.5	3.3	4.3
Average no. of farmers in WMG area						
At time of WMG formation	1268	1230	904	1036	733	1128
At present time	1121	1044	781	1069	833	1022
Avg no. non-farm h'holds at present	253	187	98	122	75	186
Average savings per WMG	91794	101012	67450	76825	33000	82075
No. of WMG with IGA/micro-credit	10	4	0	2	1	17

Each WMG itself has between 20 and 56 members, with an average of 36<sup>1</sup>. In accordance with BWDB guidelines, all WMG have women members, with women making up between 16% and 56% of WMG

<sup>1</sup> This is rather different from other water management projects where the membership of WMG includes all (or the vast majority of) farmers in the WMG command area. CDSP WMG only have a limited membership that is drawn from, and representative of, command area farmers. This practice has been followed in all phases of CDSP for the following reasons: (i) being newly settled chars, social unity is not strong and social organisations not well established; (ii) BWDB and CDSP TA staff are not equipped to organise fully representative organisations; (iii) it is difficult to organise and accommodate large general meetings of WMG given the lack of meeting places. Information on the CDSP WMG formation process, and a comparison with other water management projects, is in CDSP IV Mission Report 5.

membership – with an average 42%. WMGs are managed by a committee with 12 members, of whom one third are usually women.

Eight of 24 WMGs manage sluice gates and all have some length of drainage khal to look after (average of 12.8 km). Apart from Urir char the command area for one WMG varies from 375 to 1091 ha, with an average of 629 ha. WMG on Urir char have much larger command areas – an average of 4,100 ha.

All the WMG have savings funds – collecting contributions from WMG members. Two of the more recently formed WMG on Urir char have less savings – as little as Tk.3000. On the other chars the size of these funds varies from Tk53,350 to Tk114,200. On Ziauddin, Nangulia and Noler chars all the WMGs except for two, invest savings in micro-credit loans and income generating activities. On Caring char there are no such use of saving funds – possibly because of the risks associated with land loss to erosion, while on Urir char only one of the three WMGs has sufficient funds for investment.

## 2. Performance of CDSP IV WMG

The performance of each WMG has been rated using 13 criteria (see Annex 1, with rating scores for each WMG in Annex 2). These cover governance, management and operation.

### (a) Governance

All WMG are registered with BWDB apart from the three more recently formed WMG on Urir char, which are in the process of registration. All 11 WMG on Nangulia are also registered as cooperatives – as this was done prior to the implementation of the 2014 Participatory Water Management Rules which specified that WMG should be registered with BWDB rather than as cooperatives (through the Cooperative Department).

**Table 2: Governance of CDSP IV WMG**

		Nangulia	Noler	Caring	Ziauddin	Urir	total
Registered with BWDB	Yes – registered	100%	100%	100%	100%	0%	88%
	Registration under process	0%	0%	0%	0%	100%	13%
	Not registered	0%	0%	0%	0%	0%	0%
Formation of management committee	Elected democratically based on majority votes from members	100%	100%	100%	100%	100%	100%
	Selection based on influential members	0%	0%	0%	0%	0%	0%
	Selection done ignoring general members	0%	0%	0%	0%	0%	0%
Most recent selection of committee	Within last 3 years	100%	60%	100%	100%	100%	92%
	between 3 and 6 years	0%	40%	0%	0%	0%	8%
	Over six years	0%	0%	0%	0%	0%	0%
Accountability and transparency (in the areas of election, audit, annual general meeting etc)	Audit, election, and annual general meeting held regularly and regular discussion held on audit report with audit committee and general members	0%	0%	0%	0%	0%	0%
	Audit and annual general meeting held on regular basis	100%	80%	100%	100%	0%	83%
	Irregular audit, election and annual general meeting in practice	0%	20%	0%	0%	100%	17%
Participation of women	Women members are very active and contributing	18%	20%	33%	50%	0%	21%
	Women members are active more or less	45%	40%	67%	50%	0%	42%
	Participation of women members are very less	27%	40%	0%	0%	67%	29%
	Women members are present but, not active	9%	0%	0%	0%	33%	8%

All WMG have selected their management committee via a democratic process and almost all have held elections for the committee within the last three years (the exceptions being two WMG in Noler char).

With the exception of the three Urir char WMG and one WMG in Noler char, annual general meetings are held regularly and WMG accounts are audited. However, all WMGs lack audit committees and audit reports are not discussed.

Although it is mandatory for all WMG to include women, the picture regarding their active participation is mixed. In only 21% of WMG are women very active and participate fully, in 42% they are reasonably active and in 37% they participate very little, if at all. Participation of women is particularly limited in the recently formed WMG on Urir char.

### (b) WMG management

WMG do not score so well in terms of management systems and processes (Table 3). Only one quarter of WMGs regularly write up and distribute resolutions agreed in their meetings. Half of WMGs do this occasionally with the remaining WMGs rarely keep such records – this includes all three WMGs on Urir char and one of the two in Ziauddin.

Although all WMGs are collecting savings, fund management is not of the required standard. Collection of savings is irregular, although almost two thirds of WMGs do maintain adequate accounting records – but the remaining 38% do not have proper accounts.

**Table 3: Record keeping, meetings and decision making**

		Nangulia	Noler	Caring	Ziauddin	Urir	total
Record keeping and filing	Meeting resolutions written properly and distributed to all committee members regularly	18%	40%	67%	0%	0%	25%
	Resolution written and distributed occasionally	64%	60%	33%	50%	0%	50%
	Resolutions written rarely	18%	0%	0%	50%	100%	25%
	Resolutions never written and filed	0%	0%	0%	0%	0%	0%
Fund raising and bookkeeping (share, savings, grant etc.) procedures	Savings collected from members and maintained accounts properly	0%	0%	0%	0%	0%	0%
	Savings/grants collection irregular but, maintained properly	55%	60%	67%	50%	100%	63%
	Savings/grants collection irregular and accounts not maintained properly	45%	40%	33%	50%	0%	38%
	No kinds of funds are collected or maintained	0%	0%	0%	0%	0%	0%
Organizing Meetings	Meeting organized with their own efforts	18%	40%	33%	0%	0%	21%
	Meeting organised occasionally (>50%)	82%	60%	67%	100%	0%	67%
	Meeting irregular (<50%)	0%	0%	0%	0%	100%	13%
	No meeting organised	0%	0%	0%	0%	0%	0%
Most recent meeting	Within last one month	64%	80%	33%	0%	33%	54%
	Between one and three months ago	36%	20%	67%	50%	33%	38%
	Between three and 12 months ago	0%	0%	0%	50%	0%	4%
	Over one year ago	0%	0%	0%	0%	33%	4%
Decision making and implementing process	Decisions taken after discussions in the meeting and implanted as per decisions	73%	80%	67%	0%	0%	58%
	Decisions taken by few members and implement later	27%	20%	33%	100%	100%	42%
	No decisions are taken democratically	0%	0%	0%	0%	0%	0%

Two-thirds of WMG only organise occasional meetings, with 21% meeting more regularly and 13% being very irregular- particularly those on Urir char. However just over half of WMG have held meetings within the last month, and 92% within the last 3 months. Over half of WMGs discuss and take decisions in meetings, which are then implemented, but in 42% of WMG (including all in Ziauddin and Urir chars), decisions are taken by a few members and implemented after some delay.

All WMG seem to perform well in terms of WMG committee members communicating with farmers, BWDB, local government and other service providers to resolve problems. Most (79%) of WMG are also good at identification of problems - although again WMG on Urir char and, to a lesser extent, Ziauddin, do not do so well. However, most WMG leaders and members do not seem to be well trained or aware of their responsibilities.

**Table 4: Communication, problem solving and skill**

		Nangulia	Noler	Caring	Zia	Urir	total
Communicating and networking with related stakeholders and alliances	Committee members communicate with beneficiaries, BWDB, UP and service providers to resolve problems	100%	100%	100%	100%	100%	100%
	Only communicate with BWDB for water management problem	0%	0%	0%	0%	0%	0%
	There is no communication	0%	0%	0%	0%	0%	0%
Identification and solving of problems	Challenges of integrated development identified	91%	100%	100%	50%	0%	79%
	Integrated interests are not prioritized in identification of challenges	0%	0%	0%	50%	67%	13%
	No initiatives in identifying challenges and solving problems thereof	9%	0%	0%	0%	33%	8%
Skill and efficiency	Trained and very much aware about accountability and responsibility	9%	0%	0%	0%	0%	4%
	Trained and more or less aware about accountability and responsibility	36%	0%	0%	0%	0%	17%
	Trained through very short period and less aware of responsibilities	55%	100%	100%	100%	100%	79%
	No training and still work	0%	0%	0%	0%	0%	0%

### (c) WMG operations

Over half (59%) of WMG make plans for maintenance of water structures, but most of these are not able to fully implement these plans. Other WMG are weak in planning and do little in the way of maintenance works.

Almost all (96%) WMG have completed at least two small repairing tasks over the last two years – these being done using cash and labour contributed by farmers. However only 13% of WMG have completed over 10 of these small tasks. Very few WMG (only 8%) have carried out repairs funded by BWDB or other agencies – possibly because the infrastructure is too new to require such maintenance.

WMG involvement in IGAs is mostly limited to assistance of members in a small number of activities. Involvement in micro-finance and IGAS was reported by 17 out of 24 WMG (Table 1), but this seems to be more provision of micro-finance loans than operation of IGAs. One WMG is reported to have run into problems with an investment in aquaculture – possibly in a drainage khal or a water body created by a closure dam.

**Table 5: WMG activities**

		Nangulia	Noler	Caring	Zia	Urir	total
Maintenance of water structures	Plan for maintenance and perform as per plan	18%	20%	0%	0%	0%	13%
	Plan for maintenance but perform little bit less	36%	60%	67%	50%	33%	46%
	Weak in planning and perform also very less	45%	20%	33%	50%	67%	42%
	No plan and do not perform	0%	0%	0%	0%	0%	0%
Perform small repairs with own fund or physical labour from farmers	Complete over 10 repairing tasks over last two years	9%	20%	0%	50%	0%	13%
	Complete between two and 10 repairing tasks over last two years	91%	80%	100%	50%	67%	83%
	Complete one repairing task over last two years	0%	0%	0%	0%	0%	0%
	Do no task in last two years	0%	0%	0%	0%	33%	4%
Perform repairs using funds from BWDB or other agencies	Complete over 4 repairing tasks over last two years	0%	0%	0%	0%	0%	0%
	Complete between two and four repairing tasks over last two years	9%	0%	0%	0%	33%	8%
	Complete one repairing task over last two years	0%	0%	0%	0%	0%	0%
	Do no task in last two years	91%	100%	100%	100%	67%	92%
Income generating activities (IGAs)	Directly involved in productive and income generating activities or assist members in performing IGAs	0%	0%	0%	0%	0%	0%
	Only involved limited number of IGAs and assist members in performing IGAs	18%	20%	0%	100%	0%	21%
	Only assist members in performing IGAs	73%	60%	0%	0%	33%	50%
	None involved in any IGAs	9%	20%	100%	0%	67%	29%

### 3. Overall rating of CDSP IV WMG

Performance criteria for each WMG have been given scores as per Annex 1. The total maximum for score is 100. Based on these scores, WMG have been placed in five performance bands (Table 6). Half of WMGs are in bands A and B, scoring over 70%, but only one scores over 80%, placing it in band A. At this stage of the project, many WMGs are not very much involved in maintenance and their support for IGAs is quite limited. Other areas where almost all WMGs do not score well are in their skill and training, maintenance of savings records, and audit committee.

**Table 6: Percentage of CDSP IV WMG by rating scores**

Rating score	Nangulia	Noler	Caring	Ziauddin	Urir	total
A - 80% and over	9%	0%	0%	0%	0%	4%
B - 70% to 79%	55%	40%	67%	50%	0%	46%
C - 60% to 69%	18%	40%	33%	0%	0%	21%
D - 50% to 59%	18%	20%	0%	50%	0%	17%
E - 49% and under	0%	0%	0%	0%	100%	13%
Total	100%	100%	100%	100%	100%	100%
Average score (out of 100)	69.64	68.40	69.00	63.50	48.00	66.08

The WMG in Urir char have performed particularly badly – all three are in band E. This can at least partly be attributed to the fact that they were only formed (out of LADCs) in February 2017, and they also suffer by having much less development of water management infrastructure on this char, as well as no land settlement activities. One of the Ziauddin WMG, which was formed in the first batch in November 2011, is in band D. This WMG has been adversely affected by interference from local

leaders. In contrast, the Caring char WMGs, formed between May 2013 and February 2014, are all in bands B and C – rather better than Noler char which has one WMG in band D (as are two in Nangulia). There does not appear to be any correlation between operation of sluices and WMG performance – having a sluice to operate does not mean the WMG are motivated to lift their performance.

### C. WMG in CDSP I, II and III areas

#### 1. Status of WMG

A stocktaking has been carried out of all WMG formed by earlier phases of CDSP. Out of a total of 53 WMG, 27 are still active, 20 cannot be traced and six are traceable but not active. This evaluation has covered a sample of 10 out of the 27 active WMG – of these, two are from CDSP I, four from CDSP II and four from CDSP III. A full listing of all these WMG is in Annex 3.

**Table 7: Status of WMG from earlier CDSP phases**

	CDSP I	CDSP II	CDSP III	Total
Traceable and active	3	15	9	27
Traceable but not active	0	5	1	6
Not traceable	0	20	0	20
Total	3	40	10	53

There are a range of explanations for WMG becoming inactive – and eventually no longer traceable. Significant parts of the CDSP II area has been lost to erosion, with some WMG areas disappearing altogether, and others losing protective embankments along with the sluice gates that they used to operate. In the latter case, WMGs cease to have much reason to exist. One WMG visited (Diara Balua Guchagram WMG in polder 59/3C), although classed as inactive, still did some activities – such as arranging for cross-dams in drainage khals (put in to retain irrigation water or to trap fish) were removed when the khal was needed for drainage. It had also persuaded BWDB to open sluices in another area to help drain the WMG's land. However, unlike active WMGs, it no longer operated a savings fund and had minimal financial resources. Details are in Annex 2.

Out of 20 WMG on south Hatiya (Hatiya island), 17 are classed as being untraceable, with the remaining three being active. The main reason for these WMG ceasing to function is reported to be local political disputes and changes in local leadership.

#### 2. Profile of WMGs

CDSP I WMG were formed in 1998 (so have been operating for almost 20 years), CDSP II WMG were formed between 1999 and 2004, and CDSP III WMG were formed in 2005.

The average command area and number of farmers for CDSP I&II WMG is larger than for those in phases III and IV – with phase III having a rather smaller command area but larger number of farmers than phase IV. The average length of khal is also higher in CDSP I&II and some WMG operate two sluice gates. CDSP I&II WMG have fewer members (average of 34) than CDSP III (46) or IV (43). However, all follow the standard of having 12 members committees and all include women – both as WMG members and committee members – the proportion of women is notably high for CDSP III.

As these WMG have been operating for some time, it is not surprising that they tend to have larger savings funds than CDSP IV WMG. However, CDSP III funds are notably larger than the older WMG in I&II – one of the CDSP II WMG (Char Elahi) only has Tk.5917 in its fund.



**Table 8: Profile of WMG from earlier CDSP phases**

CDSP phase		CDSP I&II	CDSP III	Total
WMG in survey	Number	6	4	10
Average command area	Ha/WMG	1867	493	1317
Sluices	Number	10	2	12
WMG with sluices	Number	5	3	8
Average length of khals	Km/WMG	24.8	9.8	18.8
WMG formed	Date			0
Average number of members per WMG	Male	21.2	19.8	20.6
	Female	13.5	23.5	17.5
Average number of members per committee	Male	8.2	6.3	7.4
	Female	3.8	5.8	4.6
Average farm HH at formation date	number	1429	997	1256
Average farm HH now	Number	1797	1108	1521
Average non-farm HH now	Number	620	79	404
Savings - current balance	Tk/WMG	175,974	450,609	285,828
IGA/micro-credit	No. of WMG	5	3	8

**3. Performance of WMG in CDSP I, II and III areas**

The performance of each WMG has been rated using 13 criteria (see Annex 4). These cover governance, management and operation.

**Table 9: Governance of CDSP I&II WMG**

		CDSP I&II	CDSP III	Total
Registered with BWDB	Yes – registered	83%	100%	90%
	Registration under process	17%	0%	13%
	Not registered	0%	0%	0%
Formation of management committee	Elected democratically based on majority votes from members	100%	100%	100%
	Selection based on influential members	0%	0%	0%
	Selection done ignoring general members	0%	0%	0%
Most recent selection of committee	Within last 3 years	100%	100%	100%
	between 3 and 6 years	0%	0%	0%
	Over six years	0%	0%	0%
Accountability and transparency (in the areas of election, audit, annual general meeting etc)	Audit, election, and annual general meeting held regularly and regular discussion held on audit report with audit committee and general members	0%	0%	0%
	Audit and annual general meeting held on regular basis	100%	100%	100%
	Irregular audit, election and annual general meeting in practice	0%	0%	0%
Participation of women	Women members are very active and contributing	17%	75%	40%
	Women members are active more or less	17%	0%	10%
	Participation of women members are very less	67%	25%	50%
	Women members are present but, not active	0%	0%	0%

(a) Governance

All WMG are registered with BWDB apart from one of the CDSP II WMG, which is in the process of registration. All 10 sample WMG are also registered as cooperatives – as this was done prior to the implementation of the 2014 Participatory Water Management Rules – BWDB registration did not take place until 2015.

All WMG have selected their management committee via a democratic process and all have held elections for the committee within the last three years.

Annual general meetings are held regularly and WMG accounts are audited. However, WMGs lack audit committees and audit reports are not discussed.

Threequarters of CDSP III WMG have very active participation by women - and CDSP III performs better in this respect than the other phases – although phase IV is better than I&II.

**(b) WMG management**

CDSP III WMG do better than other phases in terms of management systems and processes. Half of these WMGs keep proper and regular records of meetings and resolutions. Although all WMGs are collecting savings, fund management is mostly not of the required standard. Collection of savings is irregular, although 80% of WMGs do maintain adequate accounting records – but the remaining 20% do not have proper accounts – this being one area where CDSP III WMG do not do so well.

**Table 10: Record keeping, meetings and decision making**

		CDSP I&II	CDSP III	Total
Record keeping and filing	Meeting resolutions written properly and distributed to all committee members regularly	0%	50%	20%
	Resolution written and distributed occasionally	100%	50%	80%
	Resolutions written rarely	0%	0%	0%
	Resolutions never written and filed	0%	0%	0%
Fund raising and bookkeeping (share, savings, grant etc.) procedures	Savings collected from members and maintained accounts properly	0%	25%	10%
	Savings/grants collection irregular but, maintained properly	100%	25%	70%
	Savings/grants collection irregular and accounts not maintained properly	0%	50%	20%
	No kinds of funds are collected or maintained	0%	0%	0%
Organizing Meetings	Meeting organized with their own efforts	17%	75%	40%
	Meeting organised occasionally (>50%)	83%	25%	60%
	Meeting irregular (<50%)	0%	0%	0%
	No meeting organised	0%	0%	0%
Most recent meeting	Within last one month	83%	100%	90%
	Between one and three months ago	17%	0%	10%
	Between three and 12 months ago	0%	0%	0%
	Over one year ago	0%	0%	0%
Decision making and implementing process	Decisions taken after discussions in the meeting and implanted as per decisions	67%	100%	90%
	Decisions taken by few members and implement later	33%	0%	10%
	No decisions are taken democratically	0%	0%	0%

CDSP III WMG are mostly good at organising meetings but CDSP I&II WMG only meet occasionally. All CDSP II WMG have held meetings within the last one month – as have most of the CDSP I&II WMGs. All CDSP III, and two-thirds of CDSP I&II WMG, discuss and take decisions in meetings, which are then implemented.

All WMG, except one, perform well in terms of WMG committee members communicating with farmers, BWDB, local government and other service providers to resolve problems. All WMG are also good at identification of problems - although again WMG on Urir char and, to a lesser extent, Ziauddin, do not do so well. However, WMG leaders and members do not seem to be well trained or aware of their responsibilities.

**Table 11: Communication, problem solving and skill**

		CDSP I&II	CDSP III	Total
Communicating and networking with related stakeholders and alliances	Committee members communicate with beneficiaries, BWDB, UP and service providers to resolve problems	83%	100%	90%
	Only communicate with BWDB for water management problem	17%	0%	10%
	There is no communication	0%	0%	0%
Identification and solving of problems	Challenges of integrated development identified	100%	100%	100%
	Integrated interests are not prioritized in identification of challenges	0%	0%	0%
	No initiatives in identifying challenges and solving problems thereof	0%	0%	0%
Skill and efficiency	Trained and very much aware about accountability and responsibility	0%	0%	0%
	Trained and more or less aware about accountability and responsibility	50%	100%	70%
	Trained through very short period and less aware of responsibilities	50%	0%	30%
	No training and still work	0%	0%	0%

### (c) WMG operations

Most (90%) of WMG make plans for maintenance of water structures but are not able to fully implement these plans. CDSP III WMGs are particularly active in maintenance work – three-quarters of these WMG have completed over 10 small repairing tasks over the last two years – these being done using cash and labour contributed by farmers. All other WMG have completed at least two small repairing tasks over the last two years. All CDSP III WMG have carried out at least five repair tasks funded by BWDB or other agencies, while two-thirds of CDSP I&II WMG have done between one and four tasks.

Only one of the CDSP I&II WMG is directly involved in IGAs. Other WMGs do provide some assistance to members, but this is limited, especially for the other CDSP I&II WMG. Involvement in micro-finance and IGAS was reported by 8 out of 10 WMG (Table 12), but this seems to be more provision of micro-finance loans than operation of IGAs.

**Table 12: WMG activities**

		CDSP I&II	CDSP III	Total
Maintenance of water structures	Plan for maintenance and perform as per plan	0%	0%	0%
	Plan for maintenance but perform little bit less	83%	100%	90%
	Weak in planning and perform also very less	17%	0%	10%
	No plan and do not perform	0%	0%	0%
Perform small repairs with own fund or physical labour from farmers	Complete over 10 repairing tasks over last two years	0%	75%	30%
	Complete between two and 10 repairing tasks over last two years	100%	25%	70%
	Complete one repairing task over last two years	0%	0%	0%
	Do no task in last two years	0%	0%	0%
Perform repairs using funds from BWDB or other agencies	Complete over 4 repairing tasks over last two years	0%	100%	40%
	Complete between two and four repairing tasks over last two years	33%	0%	20%
	Complete one repairing task over last two years	33%	0%	20%
	Do no task in last two years	33%	0%	20%
Income generating activities (IGAs)	Directly involved in productive and income generating activities or assist members in performing IGAs	17%	0%	10%
	Only involved limited number of IGAs and assist members in performing IGAs	17%	75%	40%
	Only assist members in performing IGAs	67%	0%	40%
	None involved in any IGAs	0%	25%	10%

**4. Overall rating of CDSP I&II WMG**

Performance criteria for each WMG have been given scores as per Annex 1. The total maximum score is 100. Based on these scores, WMG have been placed in five performance bands (Table 13). CDSP III WMG score well, 75% being in band A (80% and above) and the remainder are in band B. CDSP I&II WMG also score quite well – two-thirds being in band B and one third in band C. However, unlike for the CDSP IV WMG, the evaluation only covered a sample of 10 out of 27 active WMG, and it is possible that there are some weaker WMG that were not in the sample.

**Table 13: Percentage of WMG by rating scores**

Rating score	CDSP I&II	CDSP III	Total
A - 80% and over	0%	75%	30%
B - 70% to 79%	67%	25%	50%
C - 60% to 69%	33%	0%	20%
D - 50% to 59%	0%	0%	0%
E - 49% and under	0%	0%	0%
Total	100%	100%	100%
Average score (out of 100)	72.8	82.0	76.5

#### **D. Qualitative information**

In addition to the quantitative rating of WMG performance, interviews collected the opinions of WMG members regarding important contributions of WMG, the major impacts of CDSP as a whole, the problems faced by WMG, and their hopes for the future.

The contributions of WMG go far beyond the operation and maintenance of water management infrastructure. WMG have helped in selecting locations for water management infrastructure, and have dug small drains to channel water into khals. Much of the work of WMG has involved working with their communities – solving conflicts over waterlogging and issues that arise during project implementation. WMG also contribute in the resolution of other social conflicts and discouraging child marriage. WMGs also make an important contribution to disaster preparedness and warning of cyclones. A number of WMGs work alongside school management committees to maintain these shelters. WMG also have a role in liaison with implementing agencies, help in getting access to support from GoB and NGOs, and support the implementation of agriculture and forest activities.

In assessing the various impacts of CDSP, WMG members often stress the importance of land settlement and titling. The development of communications infrastructure is another important impact as are cyclone shelters (and schools in these shelter). The productivity of crops has greatly increased due to improved drainage and adoption of HYV paddy. The population has also benefited from improved water supply via DTW and household latrines, along with health services and micro-finance from NGOs.

The major problem faced by some WMG is the severe erosion of land and loss of embankments and other infrastructure to this erosion. Some CDSP II WMGs said that, with the loss of embankments and sluices, and siltation of khals, there has been some reversion to less productive local varieties of paddy. WMG members complain about lack of support from BWDB, and lack of funding for water infrastructure maintenance. They also say that WMG (and LCS) are not getting contracted to carry out any works that are done. WMG are said to need more training in areas such as accounting. WMG also need funds and are not good at regularly collecting savings from their members.

Another important issue that was identified is the potential for over-abstraction of fresh groundwater. In 2017-18, encouraged by high paddy prices, many farmers are seeking to grow boro paddy. Only limited irrigation is available from surface water sources, and a significant number of tubewells are being sunk. Some of these are approaching the depth of the CDSP deep tubewells sunk by DPHE to provide fresh drinking water. This deep aquifer is not rapidly recharged and extraction for irrigation is quite likely to mean that drinking water supplies are affected – apart from the irrigation supplies not being sustained and the considerable investment by farmers in these tubewells becoming unproductive.

To be sustainable after the end of CDSP IV, WMG say that they will continue to need to be monitored and supported by BWDB, and to get contracts from BWDB to carry out works (LCS and their need for road maintenance contracts with LGED were also mentioned). WMG will also need to have good accounting systems, along with regular meetings, AGMs and audits. It was also said that if WMG manage a sluice it is more likely to be sustainable (although data from the assessment does not provide evidence of any link between whether or not the WMG operates a sluice and its performance). WMG also say that they need to develop their own enterprises and links to local government and other agencies. One of the CDSP II WMG is now a partner in the implementation of a Danida funded livestock and fisheries project.

## E. Conclusions

### 1. WMG performance

Although the governance aspects of WMG are not perfect – nevertheless most WMG do function as they should in terms of having regular AGMs, and in the formation and selection of management committees. Although all women participate in all WMG, with the notable exception of CDSP III WMG, the active participation of women is quite limited.

WMGs generally hold meetings reasonably frequently (although not at regular intervals). Although CDSP III WMGs are better at organising meetings, the majority of WMG have held meetings within the last one month. Apart from those in Ziauddin and Urir chars, most WMG also take decisions at meetings which are then implemented. However, record keeping could be better - apart from half of the CDSP III WMG (which do better), meeting resolutions are not promptly written up and circulated. Management of group savings funds is poor, with savings usually being collected irregularly, and the accounting of savings funds being poor at some WMG (this is a good reason for WMG only having a limited number of members and not including all the farmers in their commands as members – as mismanagement of savings can be a reason for members to become dissatisfied with WMG management and to stop participating in WMG activities).

WMG do much better in terms of communications with their members and, apart from those on Ziauddin and Urir chars, in the identification and solving of problems. Training of CDSP IV WMGs does not seem to have been as thorough as for earlier phases, particularly CDSP III. This may help explain why CDSP III WMG generally perform better in terms of these management indicators.

The CDSP I, II and III WMGs are also better in terms of planning and implementing maintenance of water infrastructure. CDSP III have done the most repair work – using both their own resources and funds from BWDB and other agencies. CDSP IV have so far done very little work with external funding – maybe because the infrastructure is still too new to need this.

The overall rating of WMGs shows that CDSP III perform best followed by CDSP I&II. The ratings for CDSP IV are dragged down by the low marks of WMG on Ziauddin and Urir char. Even if these five WMG are excluded, CDSP IV WMG do not perform as well as those in CDSP III. The relatively poor ratings for CDSP IV WMG may be at least partly due to the fact that CDSP IV has provided less support to its WMG compared with CDSP III. The amount of training that CDSP IV provided to each WMG was less than half that in CDSP III, while CDSP III also provided funds for its WMG to carry out maintenance activities, something that is yet to happen in CDSP IV. Compared to CDSP III, BWDB had greater responsibility for supporting WMG, rather than this being mostly left to the Technical Assistance (TA) team. Unfortunately, BWDB was not able to provide the number of extension staff required for this work – these being fewer than were available for the smaller number of WMG in CDSP III.

**Table 14: WMG performance rating scores by CDSP phase**

Rating score	CDSP I&II	CDSP III	CDSP IV
A - 80% and over	0%	75%	4%
B - 70% to 79%	67%	25%	46%
C - 60% to 69%	33%	0%	21%
D - 50% to 59%	0%	0%	17%
E - 49% and under	0%	0%	13%
Total	100%	100%	100%
Average score (out of 100)	72.8	82.0	66.1

All of the CDSP III WMG also benefited from some continuing support from the CDSP IV TA team in terms of organizing monthly meetings, supporting in the process of BWDB registration, and provision of O&M funds for maintenance works. This support was also provided to one CDSP I and two CDSP II WMG.

It is difficult to compare these results with those in the pilot evaluation of a sample of 13 WMG in 2016. This is because the 2016 results combine the data from WMG of CDSP II, III and IV. If it is assumed that CDSP II and III results from 2016 are at least as good as those from CDSP IV WMGs, then comparing overall 2016 results with those from CDSP IV WMG in this evaluation it can be surmised that performance of CDSP IV WMG has improved in the areas of savings management, decision making, communications and networking, problem solving, and planning and implementation of maintenance. Performance levels for other criteria in the 2016 survey are much the same or exceed those for CDSP IV WMG in this evaluation, but this may be due to the superior performance of CDSP II and III WMG.

## **2. Lessons Learned**

The following lessons can be drawn from this evaluation of WMG performance:

- a) The amount of training and support provided to newly formed WMG has a direct impact on their performance in terms of adoption of good management practices. CDSP IV does not seem to have allocated sufficient resources to this area – especially as some WMG were in remote and hard to reach locations.
- b) The provision of funds for WMG to carry out maintenance activities also seems to impact on WMG performance (at least in terms of the quantum of their work), and WMG claim that the lack of such funding has contributed to their poor performance in CDSP IV. That said, using WMG as maintenance contractors means they will handle more money, which in turn can increase risks from financial mis-management. One of the strengths of CDSP WMG, which has enabled some of them to operate successfully for 20 years, is that they are small organisations with limited functions and resources.
- c) External factors also effect WMG performance. Loss of land and water management infrastructure to erosion can mean that WMG disappear – or have little role in terms of water management. Local leadership and political changes can also undermine WMG.
- d) Although savings management and accounting may not always be of the required standard, problems with savings funds, including investments in IGAs, do not appear to be a factor leading to the failure of WMG. CDSP WMGs are helped in this regard by only having a limited number of members (similar to a micro-credit group) – so savings management does not become an onerous task. WMGs with large memberships can run into problems in savings management, which may contribute to their failure<sup>2</sup>.
- e) Monitoring of WMG performance would be more effective if an institutional assessment similar to this study were to be carried out on an annual basis for all WMG. This would enable areas of poor performance to be identified and action taken at an earlier stage in the project implementation period.
- f) As part of the exit plan for CDSP IV, WMG need to be provided with more assistance in the closing months of the project. This could include a plan for their participation in local development committees and bodies, further training – particularly in accounting and savings management, and a plan for their continued monitoring by BWDB.

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<sup>2</sup> Report on Microcredit Study, Dewan A.H. Alamgir, Participatory Small Scale Water Resources Project, July 2008

## Annex 1: Framework for rating of WMG

Sl. no.	Main areas for assessment	Total Scores	Basis/Scoring methods	Scores obtained
1	Registered with BWDB	6	Yes – registered Registration under process Not registered	6 4 0
2	Formation of management committee	6	Elected democratically based on majority votes from members Selection based on influential members Selection done ignoring general members	6 4 0
3	Most recent selection of committee	6	Within last 3 years between 3 and 6 yeas Over six years	6 2 0
4	Record keeping and filing	6	Meeting resolutions written properly and distributed to all committee members regularly Resolution written and distributed occasionally Resolutions written rarely Resolutions never written and filed	6 4 2 0
5	Fund raising and bookkeeping (share, savings, grant etc.) procedures	6	Savings collected from members and maintained accounts properly Savings/grants collection irregular but, maintained properly Savings/grants collection irregular and accounts not maintained properly No kinds of funds are collected or maintained	6 4 2 0
6	Organizing Meetings	6	Meeting organized with their own efforts Meeting organised occasionally (>50%) Meeting irregular (<50%) No meeting organised	6 4 2 0
7	Most recent meeting	6	Within last one month Between one and three months ago Between three and 12 months ago Over one year ago	6 4 2 0
8	Maintenance of water structures	4	Plan for maintenance and perform as per plan Plan for maintenance but perform little bit less Weak in planning and perform also very less No plan and do not perform	4 2 1 0
9	Decision making and implementing process	6	Decisions taken after discussions in the meeting and implanted as per decisions Decisions taken by few members and implement later on No decisions are taken democratically	6 2 0
10	Communicating and networking with related stakeholders and alliances	6	Committee members communicate with beneficiaries, BWDB, UP and service providers to resolve the problems in hand Only communicate with BWDB for water management problem There is no communication	6 4 0
11	Identification and solving of problems	4	Challenges of integrated development identified Integrated interests are not prioritized in identification of challenges No initiatives in identifying challenges and solving problems thereof	4 2 0
12	Accountability and transparency (in the areas of election, audit, annual general meeting etc)	6	Audit, election, and annual general meeting held regularly and regular discussion held on audit report with audit committee and general members Audit and annual general meeting held on regular basis Irregular audit, election and annual general meeting in practice	6 4 0



Sl. no.	Main areas for assessment	Total Scores	Basis/Scoring methods	Scores obtained
13	Participation of women	6	Women members are very active and contributing Women members are active more or less Participation of women members are very less Women members are present but, not active	6 4 2 1
14	Skill and efficiency	6	Trained and very much aware about accountability and responsibility Trained and more or less aware about accountability and responsibility Trained through very short period and less aware of responsibilities No training and still work	6 4 2 0
15	Perform small repairs with own fund or physical labour from farmers	8	Complete over 10 repairing tasks over last two years Complete between two and 10 repairing tasks over last two years Complete one repairing task over last two years Do no task in last two years	8 6 2 0
16	Perform repairs using funds from BWDB or other agencies	8	Complete over 4 repairing tasks over last two years Complete between two and four repairing tasks over last two years Complete one repairing task over last two years Do no task in last two years	8 6 4 0
17	Income generating activities (IGAs)	4	Directly involved in productive and income generating activities or assist members in performing IGAs Only involved limited number of IGAs and assist members in performing IGAs Only assist members in performing IGAs None involved in any IGAs	4 2 1 0
	Total Score	100		

## Annex 2: Data on CDSP IV WMG

WMG##		1	2	3	4	5	6
CDSP phase		CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV
Name of char		Char Nangulia	Char Nangulia	Char Nangulia	Char Nangulia	Char Nangulia	Char Nangulia
Name of WMG		Char-Lakshmi	South-NK	Bhuier-Khal	Noner-Khal	South-KK-1	North-KK-1
Command area	ha	637	797	700	500	607	587
Sluices	number	0	1	0	0	1	0
Length of khals	km	11	19	18	5	10	12
WMG formed	date	27/02/2012	18/01/2012	24/01/2012	01/02/2012	31/01/2012	30/01/2012
No of WMG members	male	21	22	38	18	26	21
	female	18	22	18	17	18	18
No. on WMG committee	male	8	8	7	8	8	6
	female	4	4	5	4	4	6
Farm HH at formation date	number	1033	1471	1440	1234	1200	1120
Farm HH now	number	1023	1352	1444	848	1056	1080
Non-farm HH now	number	113	339	361	211	264	258
Savings - current balance	Tk	86500	99750	181800	70500	95600	53830
IGA/micro-credit	yes/no	Yes	Yes	Yes	No	Yes	Yes
Registered as a cooperative	yes/no	Yes	Yes	Yes	Yes	Yes	Yes
Registered with BWDB	date	17/12/2014	17/12/2014	17/12/2014	17/12/2014	17/12/2014	17/12/2014
1. Registered with BWDB	score	6	6	6	6	6	6
2. Selection of committee	code	6	6	6	6	6	6
3. Most recent selection	date	29/10/2016	30/10/2016	29/02/2016	15/11/2016	07/04/2016	26/05/2016
3. Most recent selection	code	6	6	6	6	6	6
4. Record keeping	code	6	4	6	2	2	4
5. Saving collection & records	code	2	2	4	2	2	4
6. Organisation of meetings	code	4	4	6	4	4	6
7. Most recent meeting	date	08/03/2017	03/04/2017	25/04/2017	21/03/2017	28/03/2017	24/04/2017
7. Most recent meeting	code	4	6	6	4	4	6
8. Maintenance of structures	code	4	1	4	1	1	1
9. Decision making process	code	6	6	6	2	2	6
10. Communications/networks	code	6	6	6	6	6	6
11. Problem solving	code	4	4	4	0	4	4
12. Accountability/transparency	code	4	4	4	4	4	4
13. Participation of women	code	4	4	6	1	2	6
14. Skill and efficiency	code	4	4	4	2	2	6
15. Repairs with own fund/labour	code	6	6	8	6	6	6
16. Repairs with BWDB etc. fund	code	0	0	0	0	0	0
17. Income generating activity	code	2	1	1	0	1	2
Total score out of 100		<u>74</u>	<u>70</u>	<u>83</u>	<u>52</u>	<u>58</u>	<u>79</u>
Grade		B	B	A	D	D	B

WMG##		7	8	9	18	19	10
CDSP phase		CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV
Name of char		Char Nangulia	Char Nangulia	Char Nangulia	Char Nangulia	Char Nangulia	Noler Char
Name of WMG		Dorbesh Khal	Boro Khal	South-KK-2	North Nang khal	North KK-2	Chanandi Khal
Command area	ha	799	607	548	599	627	414
Sluices	number	1	0	0	1	0	0
Length of khals	km	12	16	3	20	16	6
WMG formed	date	16/01/2012	28/02/2012	28/12/2011	17/01/2012	15/02/2012	17/01/2012
No of WMG members	male	18	25	23	16	26	16
	female	26	12	13	19	17	15
No. on WMG committee	male	7	8	8	6	6	8
	female	5	4	4	6	6	4
Farm HH at formation date	number	1609	1213	1100	1295	1228	969
Farm HH now	number	1360	1091	720	1183	1178	819
Non-farm HH now	number	340	121	180	296	295	150
Savings - current balance	Tk	79250	75000	92200	83751	91550	99300
IGA/micro-credit Registered as a cooperative	yes/no	Yes	Yes	Yes	Yes	Yes	No
	yes/no	Yes	Yes	Yes	Yes	Yes	No
Registered with BWDB	date	17/12/2014	17/12/2014	17/12/2014	17/12/2014	17/12/2014	18/12/2014
1. Registered with BWDB	score	6	6	6	6	6	6
2. Selection of committee	code	6	6	6	6	6	6
3. Most recent selection	date	06/11/2016	06/06/2016	29/10/2016	30/11/2016	16/11/2016	01/12/2014
3. Most recent selection	code	6	6	6	6	6	6
4. Record keeping	code	4	4	4	4	4	4
5. Saving collection & records	code	4	2	4	4	4	2
6. Organisation of meetings	code	4	4	4	4	4	4
7. Most recent meeting	date	17/04/2017	18/04/2017	19/04/2017	04/03/2017	05/06/2017	01/04/2017
7. Most recent meeting	code	6	6	6	4	6	6
8. Maintenance of structures	code	2	1	2	2	2	2
9. Decision making process	code	6	6	6	2	6	6
10. Communications/networks	code	6	6	6	6	6	6
11. Problem solving	code	4	4	4	4	4	4
12. Accountability/transparency	code	4	4	4	4	4	4
13. Participation of women	code	4	2	2	4	4	2
14. Skill and efficiency	code	4	2	2	2	2	2
15. Repairs with own fund/labour	code	6	6	6	6	6	6
16. Repairs with BWDB etc. fund	code	0	0	6	0	0	0
17. Income generating activity	code	1	1	1	1	1	0
Total score out of 100		<u>73</u>	<u>66</u>	<u>75</u>	<u>65</u>	<u>71</u>	<u>66</u>
Grade		B	C	B	C	B	C

WMG##		11	12	13	16	14	15
CDSP phase		CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV
Name of char		Noler Char	Noler Char	Noler Char	Noler Char	Caring Char	Caring Char
Name of WMG		Alamin Khal	Milon Khal	Rahamat Khal	Noar Khal	Caring Khal	Sahebani Khal
Command area	ha	659	496	605	606	574	375
Sluices	number	0	0	0	1	1	0
Length of khals	km	7	8	7	8	3	1
WMG formed	date	18/01/2012	27/12/2011	19/12/2011	21/12/2011	01/05/2013	12/02/2014
No of WMG members	male	21	17	21	29	20	9
	female	11	13	20	14	14	11
No. on WMG committee	male	8	8	8	8	8	5
	female	4	4	4	4	4	7
Farm HH at formation date	number	1377	1376	1125	1305	1012	800
Farm HH now	number	1200	1200	955	1044	862	600
Non-farm HH now	number	177	176	170	261	150	25
Savings - current balance	Tk	94660	88250	114200	108650	65550	69400
IGA/micro-credit	yes/no	Yes	Yes	Yes	Yes	No	No
Registered as a cooperative	yes/no	No	No	No	No	No	No
Registered with BWDB	date	18/12/2014	18/12/2014	18/12/2014	18/12/2014	18/12/2014	12/03/2017
1. Registered with BWDB	score	6	6	6	6	6	6
2. Selection of committee	code	6	6	6	6	6	6
3. Most recent selection	date	18/01/2012	06/01/2015	07/09/2015	25/11/2014	24/08/2015	26/12/2016
3. Most recent selection	code	2	6	6	2	6	6
4. Record keeping	code	4	6	6	4	6	6
5. Saving collection & records	code	4	4	4	2	4	4
6. Organisation of meetings	code	4	6	6	4	4	6
7. Most recent meeting	date	12/04/2017	16/05/2017	08/05/2017	18/04/2017	19/04/2017	22/03/2017
7. Most recent meeting	code	4	6	6	6	6	4
8. Maintenance of structures	code	2	2	4	1	1	2
9. Decision making process	code	6	6	6	2	6	6
10. Communications/networks	code	6	6	6	6	6	6
11. Problem solving	code	4	4	4	4	4	4
12. Accountability/transparency	code	4	4	4	0	4	4
13. Participation of women	code	4	4	6	2	4	6
14. Skill and efficiency	code	2	2	2	2	2	2
15. Repairs with own fund/labour	code	6	8	6	6	6	6
16. Repairs with BWDB etc. fund	code	0	0	0	0	0	0
17. Income generating activity	code	1	1	1	2	0	0
Total score out of 100		65	77	79	55	71	74
Grade		C	B	B	D	B	B

WMG##		17	20	21	22	23	24
CDSP phase		CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV	CDSP-IV
Name of char		Caring Char	Char Ziauddin	Char Ziauddin	Urir Char	Urir Char	Urir Char
Name of WMG		Batankhai	Char Bagga	Motobi Khal	Urir Char-1	Urir Char-2	Urir Char-3
Command area	ha	637	752	1091	10000*	15000*	20000*
Sluices	number	0	1	1	0	0	0
Length of khals	km	1	14	25	25	30	30
WMG formed	date	01/02/2014	21/11/2011	12/11/2011	02/02/2017	01/02/2017	03/02/2017
No of WMG members	male	12	23	16	21	25	21
	female	12	20	20	6	5	4
No. on WMG committee	male	8	8	9	9	8	9
	female	4	4	3	3	4	3
Farm HH at formation date	number	901	752	1319	700	600	900
Farm HH now	number	881	737	1400	750	750	1000
Non-farm HH now	number	120	105	138	50	50	125
Savings - current balance	Tk	67400	100300	53350	6000	3000	90000
IGA/micro-credit	yes/no	No	Yes	Yes	No	No	Yes
Registered as a cooperative	yes/no	No	No	No	No	No	No
Registered with BWDB	date	12/03/2017	18/12/2014	18/12/2014	In process	In process	In process
1. Registered with BWDB	score	6	6	6	4	4	4
2. Selection of committee	code	6	6	6	6	6	6
3. Most recent selection	date	29/12/2016	18/11/2014	23/09/2014	02/02/2017	01/02/2017	03/02/2017
3. Most recent selection	code	6	6	6	6	6	6
4. Record keeping	code	4	2	4	2	2	2
5. Saving collection & records	code	2	2	4	4	4	4
6. Organisation of meetings	code	4	4	4	2	2	2
7. Most recent meeting	date	24/04/2017	17/01/2017	30/05/2017	07/07/2017	08/07/2017	
7. Most recent meeting	code	4	2	4	4	6	0
8. Maintenance of structures	code	2	1	2	1	1	2
9. Decision making process	code	2	2	2	2	2	2
10. Communications/networks	code	6	6	6	6	6	6
11. Problem solving	code	4	2	4	2	0	2
12. Accountability/transparency	code	4	4	4	0	0	0
13. Participation of women	code	4	4	6	1	2	2
14. Skill and efficiency	code	2	2	2	2	2	2
15. Repairs with own fund/labour	code	6	6	8	6	6	0
16. Repairs with BWDB etc. fund	code	0	0	0	0	0	6
17. Income generating activity	code	0	2	2	0	0	1
Total rating score out of 100		62	57	70	48	49	47
Grade		C	D	B	E	E	E

\* command areas on Uir char as reported by WMG. In the analysis these have been adjusted to equate with the overall area of the char which is now estimated to be 12,300 ha.

### Annex 3: Status of WMG in CDSP I, II and III

	Status	Name of WMG	Name of char	Phase
1	Not traceable	Burirdhona char Fakira -1 WMG	South Hatiya	CDSP -II
2	Not traceable	Char Fakira Killa -3 WMG	South Hatiya	CDSP -II
3	Not traceable	Alladhigram Burirdhona	South Hatiya	CDSP -II
4	Not traceable	Kalirchar -5 WMG	South Hatiya	CDSP -II
5	Not traceable	Bhot bhordhel -6 WMG	South Hatiya	CDSP -II
6	Not traceable	Purba Mekhpersan WMG	South Hatiya	CDSP -II
7	Not traceable	Pachim Meakhpersan WMG	South Hatiya	CDSP -II
8	Not traceable	Muktaria WMG	South Hatiya	CDSP -II
9	Not traceable	Pachim Sukchar WMG	South Hatiya	CDSP -II
10	Not traceable	Uttar Sukchar WMG	South Hatiya	CDSP -II
11	Not traceable	Birbiri WMG	South Hatiya	CDSP -II
12	Not traceable	Purbo Birbiri WMG	South Hatiya	CDSP -II
13	Not traceable	Dakhin Birbiri WMG	South Hatiya	CDSP -II
14	Not traceable	Dakhin Mohammadpur WMG	South Hatiya	CDSP -II
15	Not traceable	Purbo Mohammadpur WMG	South Hatiya	CDSP -II
16	Not traceable	Mohammadpur Mohila WMG	South Hatiya	CDSP -II
17	Not traceable	Mekh Pasan WMG	South Hatiya	CDSP -II
18	Not traceable	Char Jatra WMG (polder 59/3C)	Companigong	CDSP -II
19	Not traceable	Char Katchapia WMG (polder 59/3C)	Companigong	CDSP -II
20	Not traceable	Char Kakra WMG (polder 59/3C)	Companigong	CDSP -II
21	traceable but inactive	Diarabalua Guchagram WMG (polder 59/3C)	Companigong	CDSP -II
22	traceable but inactive	Musapur Bagdara WMG (polder 59/3C)	Companigong	CDSP -II
23	traceable but inactive	C C A WMG polder 59/3C)	Companigong	CDSP -II
24	traceable but inactive	Jagdananda WMG (polder 59/3C)	Companigong	CDSP -II
25	traceable but inactive	Gangchil WMG -3 (polder 59/3B)	Companigong	CDSP -II
26	traceable but inactive	Gabtolikhal - 4 WMG <sup>1</sup>	Boyerchar	CDSP -III
27	Traceable and active	Char Elahi WMG (polder 59/3C)	Companigong	CDSP -II
28	Traceable and active	Char Fakira WMG (polder 59/3C)	Companigong	CDSP -II
29	Traceable and active	Sonadia WMG (polder 59/3C)	Companigong	CDSP -II
30	Traceable and active	Char Langta WMG (polder 59/3C)	Kober Hat	CDSP -II
31	Traceable and active	Gangchil WMG -1 (polder 59/3B)	Kober Hat	CDSP -II
32	Traceable and active	Gangchil WMG -2 (polder 59/3B)	Kober Hat	CDSP -II
33	Traceable and active	Char Baggadona - II WMG <sup>1</sup>	Submachar	CDSP -II
34	Traceable and active	Char Baggadona - I WMG <sup>1</sup>	Submachar	CDSP -II
35	Traceable and active	Char Fakira - 2 WMG	South Hatiya	CDSP -II
36	Traceable and active	Mohammadpur WMG	South Hatiya	CDSP -II
37	Traceable and active	Sukhchar Muktaria WMG	South Hatiya	CDSP -II
38	Traceable and active	Gabtolikhal - 1 WMG <sup>1</sup>	Boyerchar	CDSP -III
39	Traceable and active	Gabtolikhal -2 WMG <sup>1</sup>	Boyerchar	CDSP -III
40	Traceable and active	Gabtolikhal - 3 WMG <sup>1</sup>	Boyerchar	CDSP -III

	<b>Status</b>	<b>Name of WMG</b>	<b>Name of char</b>	<b>Phase</b>
41	Traceable and active	Tankirkhal -1 WMG <sup>1</sup>	Boyerchar	CDSP -III
42	Traceable and active	Tankirkhal -2 WMG <sup>1</sup>	Boyerchar	CDSP -III
43	Traceable and active	Basumajirkhal WMG <sup>1</sup>	Boyerchar	CDSP -III
44	Traceable and active	Hatiyakhal WMG <sup>1</sup>	Boyerchar	CDSP -III
45	Traceable and active	Chairmankhal WMG <sup>1</sup>	Boyerchar	CDSP -III
46	Traceable and active	Chatlakhal WMG <sup>1</sup>	Boyerchar	CDSP -III
47	Traceable and active	Ziller WMG	Submachar	CDSP -II
48	Traceable and active	Montaj WMG	Submachar	CDSP -II
49	Traceable and active	Karim WMG	Submachar	CDSP -II
50	Traceable and active	Gopal WMG	Submachar	CDSP -II
51	Traceable and active	Nabogram WMG	Kober Hat	CDSP - I
52	Traceable and active	Kalmi WMG	Kober Hat	CDSP - I
53	Traceable and active	Char Mojid WMG <sup>1</sup>	Submachar	CDSP - I

<sup>1</sup> WMG that were supported by CDSP IV

**Annex 4: Data on CDSP I, II and III WMG** (WMG marked \* received support from CDSP IV)

WMG##		1	2	3	4	5	6
CDSP phase		CDSP-I	CDSP-I	CDSP-II	CDSP-II	CDSP-II	CDSP-II
Name of char		Char Bhatir Tek	Char Mojid	59/3B-Torabali	59/3B-Alauddin	Chae Elahi	Char Fakira-Haiya
Name of WMG		Nabagram	Char Mojid*	Zillar Khal	Karim Khal	Char Elahi	Char Fakira
Command area	ha	550	2200	1230	1020	3000	3200
Sluices	number	1	1	1	3	2	2
Length of khals	km	14	31	35	18	20	31
No of WMG members	male	14	17	15	46	20	15
	female	13	16	15	10	10	17
No. on WMG committee	male	8	9	9	9	9	5
	female	4	3	3	3	3	7
Farm HH at formation date	number	2150	2283	567	874	1200	1500
Farm HH now	number	1700	4500	650	1280	1200	1450
Non-farm HH now	number	1300	1500	150	320	300	150
Savings - current balance	Tk	82140	455562	111000	317525	5915	83700
IGA/micro-credit	yes/no	Yes	Yes	No	Yes	Yes	Yes
Registered as a cooperative	yes/no	Yes	Yes	Yes	Yes	Yes	Yes
Registered with BWDB	date	20/01/2015	In process	15/03/2015	20/01/2015	18/08/2015	18/11/2015
1. Registered with BWDB	score	6	4	6	6	6	6
2. Selection of committee	code	6	6	6	6	6	6
3. Most recent selection	date	27/06/2014	12/02/2016	30/11/2014	14/01/2017	13/06/2015	18/11/2015
3. Most recent selection	code	6	6	6	6	6	6
4. Record keeping	code	4	4	4	4	4	4
5. Saving collection & records	code	4	4	4	4	4	4
6. Organisation of meetings	code	4	4	4	6	4	4
7. Most recent meeting	date	11/07/2017	01/07/2017	15/06/2017	20/06/2017	01/06/2017	05/06/2017
7. Most recent meeting	code	6	6	6	6	4	6
8. Maintenance of structures	code	2	2	2	2	2	1
9. Decision making process	code	6	2	6	6	2	6
10. Communications/networks	code	4	6	6	6	6	6
11. Problem solving	code	4	4	4	4	4	4
12. Accountability/transparency	code	4	4	4	4	4	4
13. Participation of women	code	4	6	2	2	2	2
14. Skill and efficiency	code	4	4	2	4	2	2
15. Repairs with own fund/labour	code	6	6	6	6	6	6
16. Repairs with BWDB etc. fund	code	6	4	6	0	4	0
17. Income generating activity	code	1	2	1	4	1	1
Total score out of 100		<u>77</u>	<u>74</u>	<u>75</u>	<u>76</u>	<u>67</u>	<u>68</u>
Rating grade		B	B	B	B	C	C



WMG##		7	8	9	10
CDSP phase		CDSP-III	CDSP-III	CDSP-III	CDSP-III
Name of char		Boyer Char	Boyer Char	Boyer Char	Boyer Char
Name of WMG		Hatiya Khal*	Chaiman Khal*	Tankir Khal-2*	Gabtoli Khal-1*
Command area	ha	310	305	513	844
Sluices	number	0	0	1	1
Length of khals	km	7	7	15	10
No of WMG members	male	26	15	15	23
	female	12	48	25	9
No. on WMG committee	male	9	5	3	8
	female	3	7	9	4
Farm HH at formation date	number	728	1187	926	1146
Farm HH now	number	879	1330	887	1336
Non-farm HH now	number	87	70	88	70
Savings - current balance	Tk	687111	440000	608000	67323
IGA/micro-credit	yes/no	Yes	Yes	Yes	No
Registered as a cooperative	yes/no	Yes	Yes	Yes	Yes
Registered with BWDB	date	29/11/2015	29/11/2015	25/06/2015	29/11/2015
1. Registered with BWDB	score	6	6	6	6
2. Selection of committee	code	6	6	6	6
3. Most recent selection	date	16/10/2015	15/12/2014	15/04/2015	01/11/2015
3. Most recent selection	code	6	6	6	6
4. Record keeping	code	6	6	4	4
5. Saving collection & records	code	6	4	2	2
6. Organisation of meetings	code	6	6	6	4
7. Most recent meeting	date	05/07/2017	04/07/2017	19/07/2017	25/06/2017
7. Most recent meeting	code	6	6	6	6
8. Maintenance of structures	code	2	2	2	2
9. Decision making process	code	2	2	2	2
10. Communications/networks	code	6	6	6	6
11. Problem solving	code	4	4	4	4
12. Accountability/transparency	code	4	4	4	4
13. Participation of women	code	6	6	6	2
14. Skill and efficiency	code	4	4	4	4
15. Repairs with own fund/labour	code	8	8	6	8
16. Repairs with BWDB etc. fund	code	8	8	8	8
17. Income generating activity	code	2	2	2	0
Total score out of 100		88	86	80	74
Rating grade		A	A	A	B

## Annex 5: Focus Group Interviews with WMGs

### A. WMG in CDSP II WMG (polder 59/3C)

Three WMG were interviewed on 3 October 2017

CDSP II was implemented 2002-2007. There were no other CDSP II interventions here apart from water management.

Bamni 12 vent sluice was washed out in 2009. Other sluices were also lost and much (maybe one quarter) of this polder has been eroded away and no longer exists. In the area that remains, as a result of loss of embankment and sluices, crops are now affected by tidal inundation – but some areas are affected more than others. Many WMG have packed up as either their land has gone or there is no longer any means of managing water in the area that remains. Of the 11 WMG formed in polder 59/3C, three are classed as no longer traceable, four are traceable but (to a large extent) inactive, and four are classed as being active.

1. Diara Balua Guchagram WMG (before was called WMG 1 of WMA-2). It is now classed as traceable but inactive.

WMG is still doing some temporary drainage works in places where this is needed, and it removes fishing cross dams seasonally when the khal is needed for drainage. The WMG communicates with BWDB if there is a problem, but BWDB usually does nothing. The WMG did get BWDB to open a sluice when there was a drainage problem. Siltation of drains getting worse, and they are gradually silting up. In total 3.5 km of drain is getting silted up – these are big channels so the WMG needs outside help to clean them.

Aman is the main crop. 40% grow local aman (Razashail), and 60% HYV aman. The productivity of local aman is declining. People who have embankment protection grow HYV aman and get a yield of 60-65 md/ghani (=160 decimals). This is 3.7 to 4.0 ton/ha and farmers say that this not a particularly good yield as the crop can be effected by salinity problem and also by poor drainage during a spring tide. The drainage sluice does not have enough capacity. A little keshari is grown in rabi,

DAE: it is 4 km to block SAAO, and farmers never see him. But the UP chairman is active

A woman at the meeting was a UP member and is deputy secretary of the WMG. She is very active, and builds links to other people and schemes. Bangladesh Red Cross helps individuals - sanitation for 100 households, and Tk65,000 each for 200 eroded families. The UP provided land to resettle people, and provides a pension for elderly, VDG 30 kg/month of rice for ultra-poor households, and poor pregnant women get a grant of Tk3000 (6 months X Tk500),

NGO/MFIs in the area include: ASA, GB, Prism, Uttaran, BRAC, and “one house one farm” of MLGRD&C (WMG secretary is on the committee of this). All provide loans that cover most households.

This WMG has Tk1500 left in its account, but no longer raises funds. It used to have regular savings collection.

People who still have land keep animals – milk is in high demand, and sells for Tk60/litre. Fish ponds are only in the interior - away from floods, siltation and salt. Not interested in digging ponds here.

2. Char Langda WMG (WMA-1, WMG-3). Classed as active

75% of WMG area has been lost to erosion. Sluice and embankment was eroded in 2009

The WMG maintains two small khals – removes cross-drains if they cause a blockage, clear pipe culverts. These khals are not becoming silted up.

Most land is no longer cultivated – when there was a sluice, they used to grow HYV boro and aman, now only grow a little local aman (this may be an exaggeration – all land seen right up to the sea was being used for local aman – which seemed to be growing well). There is no aus grown and no vegetables. People buy food in the market. Main occupation now is fishing in the sea and migration to towns and cities for 9-10 months per year.

There are 30 members in this WMG. In the WMG are there were 475 farmers at time of WMG registration. Now there are have 600-700 farmers all growing Razashail aman. Yield is 10-20 md/ghani (0.6 to 1.2 tons/ha) – used to get 40-50 md/ghani (2.5 to 3.1 tons/ha). But in the last 2 years this crop has failed due to saline intrusion. The increase in number of farmers due to family division – there has been no in-migration. The household size is now 5-6 persons.

One WMG member is a UP elected member.

Number of fisherman has increased by 25% to 50% or more. Catch is increasing as the closed season has increased fish catches.

Funds – WMG collect Tk25 per month per member, use this for loans to members – loan size is Tk2000-5000 up to Tk10,000. Interest = 20-30% per year

DAE SAAO is 15 km away in upazila HQ. See him every 1 or 2 months. Some people get free seed and fertiliser. No new technology has been recently adopted.

No fish ponds here as there is a danger of them being washed out.

### 3. Char Elahi WMG (WMG-2) – now classed as active

WMG now has 3 mouza, with 2 small sluices (DS-5 and DS-6), but 3 other mouzas and DS-4 have been eroded away. Some eroded households went to Urir and other chars. Some are now living on the embankment.

WMG woman member is also a UP member (Rani Begum)

Growing HYV aman and farming is doing well. DS-5 is OK but DS-6 has some waterlogging due to its channel being silted up for 5 km both above and below the sluice. It is 30'-35' wide (it looks less than this). The WMG has asked BWDB to de-silt this khal a number of times, including in writing in the presence of CDSP. Four WMGs have made a joint application. But no action. Desilting would produce at least 10,000 extra md of paddy. Now get 60-70 md/ghani (3.7 to 4.3 ton/ha) from HYV aman. Also grow chili, potato, keshari, fallon. No irrigation (not sure why). DS-4 has gone – lost to erosion, but if had a pipe from BWDB, WMG could divert this water to DS-5 – the WMG says that it would contribute labour.

Adopt new paddy CVs, and a new type of salt tolerant sesame from DAE sells for Tk2000/md, get 6-7 md per ghani (400 kg/ha).

Fish ponds were seen between DS-5 and DS-6 – both inside and outside the embankment – especially outside. Quite a number had poultry sheds built over them.

WMG savings collection is Tk25 per month per member. Have Tk20,000 in the bank, plus Tk50,000 out in loans

At registration WMG had 510 farmers, now there are 600-700 farmers (not all are seriously farming).

## **B. WMG in Boyer char (CDSP III)**

One WMG was interviewed on 22 January 2019

### Hatiya khal WMG

Members – 39 members (12 women)

#### Activities

- Meetings – meet monthly
- Repair water infrastructure – have had 5 contracts from BWDB – repair canals and embankments – two for Tk490,000 and Tk495,000 this year. After retaining some profit, distribute the rest to WMG members – over Tk2000 each in one year.

- New floor in WMC centre with own funds – cost Tk75,000, which WMG paid for instead of distributing profit
- Small repairs – to connecting roads – use own funds (say Tk5000). Did not ask for funds from other people, but some other people do help.
- Cleaning of khals and ensure water flow for drainage.
- Carry and distribute latrines for DPHE under CDSP IV
- Has a DPHE LCS contract making latrines, all LCS members are WMG members – who will give Tk5000 as profit share to WMG

Some sluices nearly no longer operational – WMG says that BWDB plan to repair them this year.

#### Funds

- Savings of Tk100 per member per month. One member will have up to Tk25,000 to Tk50,000 in savings
- Total savings = Tk708,427
- Loans to members are Tk554,000 outstanding. Interest is 15% per year. Loan size is Tk5,000 to Tk50,000, for 10 months, with monthly repayment instalments. Good records. Loans are used for grocery and hardware shop, cow rearing, nursery, agriculture. 25 to 30 members have taken loans. Do not take bank or NGO loans any more.
- Bank balance is Tk182,500
- Cost of floor – Tk75,000
- Cash @ Tk5,000
- At the WMG AGM there is a flip chart showing savings and interest on savings (seems to be really profit shared out in proportion to individual savings) for each member.

#### Linkages

- Good relations with BWDB.
- No link with LGED
- UP – administrative links, UP chairman recently joined WMG

#### Sustainability

- Will sustain – have done well for the last 6 years
- Gradually increasing members each year. Selective in allowing people to join

#### Irrigation:

- DTW are being sunk for boro irrigation.
- There are two types: (i) 4” pipe up to 400’ deep, costs Tk90 per foot plus pipe cost of Tk40 per foot, and (ii) 6” pipe up to 780’ deep, costs Tk180,000 with pipe and centrifugal pump.
- People say that hand-pump DTW are starting to get less water, but generally CDSP TW are running well.

#### Changes in farming in the last 5 years

- Crop areas. Used to grow only 1 crop. From this year grow 2 crops – grow hybrid boro with DTW (estimate that this will cover 25% of land). Have recently adopted HYV aman. Did not know about it before – got demonstration from DAE.
- Also growing potato, tomato, c-bean, spinach, radish, “soil potato”. Sell these crops to wholesale agents in Hatiya bazaar. Carry it to the bazaar themselves. The market is very overcrowded on a hot day, and is the 2<sup>nd</sup> largest cattle market in the district.
- Took some time after end of CDSP 3 for salinity to decrease.
- One HH typically produces 100-120 maunds of paddy per ghani (6.2 to 7.4 tons/ha – seems to be an exaggeration). They got 20 to 30 maunds (1.2 to 1.9 tons/ha) before CDSP.

#### Support services for farmers

- Farmers Forums are still active – closely work with UP and get some inputs from UP.
- Little coordination between FF and WMG
- For problems get advice from local input dealers on pest control. DAE do not frequently visit.

Labour wage:

- Men are paid Tk300 for working up to 1 pm, Tk500 to 5 pm. Women are paid Tk200 and Tk300. But not many women work as hired labour.
- Much less out migration of labour and work and employment is now available.

Prices:

- Paddy was Tk600/md at the time of aman harvest, currently it is Tk850.
- Milled rice (course) is Tk35-40/kg

### Report on a WMG initiative in Boyer char

Gabtolli khal plays an important role in drainage and communications for Boyer char. There are two bridges over Gabtolli khal, one at Mohammadpur bazaar, and another at Mirpur samaj. The bridge at Mohammadpur bazaar connects Boyer char to Ramgati upazila. These bridges form a major artery of communication between Boyer char and the rest of Bangladesh. Every day thousands of people move across these two bridges.

In 2016, due to heavy rainfall, the approach roads to the two bridges were badly eroded. As a result, vehicular communication between Boyer char and Ramgati, and across the khal at Mirpur samaj was blocked. The Local Government Engineering Department and the Union Parish had the responsibility to make repairs, but failed to respond. In this situation four WMGs (Gabtolli khal-1, Gabtolli khal-2, Gabtolli khal-3 and Tankir khal-2) came forward to take the initiative to restore communications. They discussed the problem within their groups and with other local people. Everybody was eager to solve this problem within a short time. The WMG calculated that Tk36,000 would be needed for temporary repairs to the two approach roads. Local business persons from Mohammadpur market donated Tk15,000, with the remaining Tk21,000 was contributed by the WMGs. In addition, the WMG members worked voluntarily to make the repairs using bags filled with earth. After completion of repairs, communication was restored between Boyer char and Ramgati.



**Before repair**



**After repair**



**Before repair**



**After repair**



**Communication restored**

Md. Alauddin, Project Area Coordinator

### **C. WMG in CDSP IV**

Three WMG were visited between 15<sup>th</sup> and 17<sup>th</sup> January 2018

#### **1. Bhuier khal WMG on char Nangulia**

Members – 49 now, when formed had 20 members from 5 villages/samaj. Later more households arrived in the area, so have more members now.

Work of WMG:

- problem identification and pass this information to CDSP. Example – no road before, request road, this was built. Request khal re-excavation, embankment and cyclone shelter, WATSAN – got all this.
- voluntary labour from members and farmers to drain waterlogging. Before 2016 there was a waterlogging problem, but less now as the khal has been re-excavated.
- built little roads between 30 to 40 homesteads
- used excavator soil to build up a road for 4 km on both sides. Gave the excavator driver snacks to place soil in the right place so it could be easily moved to the road.
- During cyclones the WMG helped people get to cyclone shelters and provided food.

#### LCS / WMG contracts.

- Not from BWDB – but 3 LCS contracts from LGED – valued at Tk500,000 to Tk1,000,000. WMG helped select LCS members. WMG gets 5% of the LCS profit. Two LCS contracts are complete, and one more is planned.
- Also built the WMG shed – made loss of Tk50,000 out of the Tk464,000 contract due to material costs going up – this is true for other WMG in this char

#### Linkages

- BWDB – WMG should get support and works contracts but they do not get this.
- UP – get no works or assistance, even in a disaster.

#### Micro-finance:

- save Tk100/month/member, put it in bank,
- give loans for emergency and investment, interest Tk200 per Tk1000 per year. Loan size: all are Tk5000 for one year. Last month 12 members had running loans. All have repaid so now there are now no loanees. NGO loans are for women only, and here men can take loans from the WMG. Women members have taken WMG loans 3 or 4 times as well as 3 or 4 loans from NGOs.

#### Benefits:

- infrastructure (water and roads, schools), land title, significant improvement in lives

#### Issues

- need high school / college, hospital, more road works.
- Need to re-excavate small channels and install culverts to improve drainage now the main khals have been excavated.

#### Sustainability:

- will continue with savings, and do small voluntary works that they can afford
- Would like contracts for repairs from BWDB.

#### Farming changes

- Local to HYV paddy (yield x 3), beans and gourds now grown.
- Even a small family can earn Tk40-50000 from vegetables. No food shortages any more.

#### 2. Raghunathpur Khal WMG, Noler char

42 members now, of whom 20 are women. Cover 6 samaj with 1125 HH

#### Activities:

- solve waterlogging problem – inform CDSP that khal needs re-excavation (and CDSP/BWDB does this), or if just need cleaning, then organise voluntary labour – 20-25 WMG members plus 5 or 6 other farmers from the affected area.
- At the start hold mass discussions on local needs and location of infrastructure
- LCS: DPHE x 2, LGED x 8 (4 for market development). The WMG got Tk20,000 from two of the LGED contract, but other LCS were not formed through the WMG. Some WMG members (about 6) have worked in LCS.
- Hold a monthly meeting

#### Savings

- Tk50/member/month
- Total savings Tk149,500,
- Total fund now Tk196,000 (savings, admission fee, RFLDC funds, bank interest, investments income)

- Now Tk178,350 in bank, expenditure from start Tk8,660, have some cash in hand.
- No micro-credit and no investment now. When funds get sufficient (Tk300,000) plan to loan out.

#### Linkages

- BWDB: know them but get no work or benefit.
- UP: not democratically elected (selected by government), communication takes place, but get no resources or assistance.

Training: on book-keeping for 3 members, gender for 42, management for 42. Say that this was useful

Sustainability: still need more works (khals, roads, market), so want more LCS with government programmes, plan to continue WMG meetings and saving.

#### Problems:

- CDSP works still not finished. Need compensation money for land for embankment retirement
- Erosion. Lost DS2 – need a new sluice or slow down erosion
- Eroded Caring char HH have migrated here – need more DTW for them
- Contracts have mostly been given to contractors not WMG/LCS – but staff like contractors

#### Success / benefits:

- Land title is number 1 benefit, also roads, WATSAN, cyclone shelter, khals, embankment
- Lot of training in IGA etc (most useful is agric in HYV/hybrid paddy, tailoring – earing Tk3000-4000 per month – has resulted in empowerment.
- Much more crop production now.
- Only one knows about vermicompost – and is making it.

### 3. Motobi Khal WMG, char Ziauddin

Members – 39 (21 women) – 10 samaj

#### Functions and activities of WMG:

- find solutions to waterlogging – either fix themselves or refer to CDSP
- take care of 3.5 km of embankment – do small repairs on voluntary basis.
- WMG shed built – made Tk15000 profit
- Fix waterlogging problem – but there is very little need for this now CDSP IV works are done

#### Savings

- Tk50/member/month
- Loans of Tk10,000 at interest of Tk50/Tk1000 per 6 months, loans are used instead of advance sales of crops like rice (dadon). Repaid to WMG in cash or crop. Loans to WMG members only. These loans are cheaper than BRAC and WMG keeps the service charge income.
- Total savings Tk58,750
- Total outstanding Tk41,000, bank balance Tk60,000
- Total capital Tk146,750.
- This data seemed to be well known

#### LCS

- WMG has Tk45,000 invested in DPHE LCS contract – all in LCS are WMG members
- Would like more contracts



- No other LCS contracts in past

Vocal lady is elected UP member and on WMG management committee

#### Linkage

- Good relations with BWDB – grateful for the water infrastructure
- UP provided money to a group to build a footpath. The group included WMG members.

#### Future

- Will continue monthly meetings and savings
- Want exposure visits

#### Training:

- Gender (1 day for all), management (1 day for all), bookkeeping (2 days 3 people).
- Most useful (according to women) was gender training on women's rights.

#### Changes in farming

- Did not know before how to rear cows and poultry – know now to vaccinate
- Now know how to rear fingerlings
- Paddy production up from 20-30 mds per acre (2.0 to 3.0 tons per ha) with local cv to 120 mds per acre (11.8 tons per ha – unbelievable!) from HYV/hybrids such as Hira 2 and Shona.
- Boro has being grown started this year. It was too saline before. Irrigate from pond and canal but will not have enough water.
- Okra, soya, and other veg, sweet potato also grown widely
- People now keep more cows and chickens. Feed cows on mustard cake, straw, grass. Has been a demo of napier and other grasses. Keep cows for sale at Eid and for milk. Many people sell milk for Tk40-50 in local market and to local collectors. Use AI from DLS.
- Poultry – for own use and sale, mostly desi, there are 3 commercial broiler farms in this char
- Poultry are vaccinated by 4 women poultry workers