

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

## **Technical Report No. 16**

### **Assessment of Farmers Forums in CDSP IV**

**April 2018**

**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

A total of 90 Farmers' Forums were established in the CDSP IV chars by the Department of Agricultural Extension (DAE) – one of the six government agencies implementing CDSP IV. The aim of Farmers' Forums was to act as a channel for the introduction and popularisation of improved farming methods, to be a focal point for extension services and a means of improving the technical capacity of farmers.

The design of CDSP IV envisaged that DAE, working through Farmers Forums (FF) would have responsibility for field crops, with homestead vegetables being the responsibility of the four project partner NGOs (PNGO) working through the women's micro-credit groups that they had formed. Livestock, poultry and aquaculture development was to be supported by an existing project, RFLDC, supported by DANIDA that was active in the project area. In practice, the coverage of RFLDC was quite limited, and when it ended in 2012, a more intensive livestock, poultry and fisheries initiative was implemented by the PNGOs.

With new water management infrastructure, farming has become more productive and less risky, while new roads have improved market access, allowing a move from subsistence to commercial farming. There has been considerable expansion of vegetable production and, as these crops have spread from small homestead plots into the fields, the division of responsibility for supporting vegetables between the PNGOs and DAE has become blurred, with both DAE and PNGOs providing technical advice.

The design of CDSP IV envisaged that 280 FF would be set up, each with about 20 members. In 2011 and 2012 90 FF were formed, each with 30 to 60 members (most had 30). Rather than form further groups, it was then decided to enlarge existing groups to 60 members. With a total of 5,400 members, FF covered almost 20% of all farmers in the chars, the proportion envisaged in the design. In each char, a Farmers' Association (FA) was formed with the membership of all FF to coordinate their activities and act as a conduit for communication with DAE and other government agencies.

The mid-term agricultural survey, carried out in 2015, found that members of FF were slightly more likely to be growing modern varieties of paddy (getting higher average yields), and a larger range of diversified non-rice crops. More FF members had adopted a range of improved methods and used a little more fertiliser<sup>1</sup> (Table 1).

**Table 1: Differences between FF members and other farmers**

		FF members	Other farmers
Adopt line sowing of paddy	% of farmers	11%	9%
Use of balanced fertiliser	% of farmers	14%	10%
Use of pheromone trap	% of farmers	105	7%
Growing BRRIdhan 40 aman paddy	% of farmers	30	20
Application of urea in t.aman paddy	Kg per ha	134	117
Chilli – yield	Tons per ha	1.2	0.6
Bottle gourd – yield	Tons per ha	17.0	13.0
Cucumber – yield	Tons per ha	22.0	10.0
Aman paddy yield – BRRIdhan 40	Tons per ha	4.1	3.7

Source: Mid-term Agricultural Survey, 2015 – DAE/CDSP IV

The objective of this survey was to find out how FF have operated, and what activities they have carried out. The agriculture sub-component of CDSP IV was completed in December 2016, DAE having achieved its physical targets. The survey will therefore be able to see if FF have been continued after the end of DAE support. Information for the survey was collected by interviewing FF leaders and other

<sup>1</sup>A comparison between FF and non-FF farmers needs to bear in mind that farmers who joined FF may well be more progressive and interested in innovation – and so may have got better yields even before they joined the FF

members using a questionnaire (Annex 1) in August-September 2017. Although the aim was to collect information from all 90 FF, eight appeared to be defunct and could not be contacted.

The breakdown of numbers of FF by char in Table 2 shows that the number of FF covered by the survey in Caring char was significantly less than the number formed. A significant part of this char has been lost to erosion and other land was taken over by the Bangladesh Army, and this would seem to account for most of the missing eight FF.

**Table 2: Number of Farmers Forums**

Name of char	Number of FF formed	Number of FA	Estimated total households*	Households per FF	FF covered in survey
Noler	25	1	6000	240	25
Nangulia	37	2	12000	324	37
Caring	15	1	6000	400	8
Ziauddin	7	1	2000	286	7
Urir	6	1	2000	333	5
Total	90	6	28000	311	82

\* estimate at the time of project design.

## B. Survey findings

FFs were formed at a mass meeting of farmers in the area to be covered. In total, almost 50,000 attended meetings for the formation of 81 FF (Table 3). While this exceeds the total number of households, both husbands and wives attended these meetings.

**Table 3: Number of farmers at formation meeting**

	Number
Total	48,925
Average	604
Minimum	110
Maximum	3,000
n = 81	

### 2. FF membership

The average number of members per FF at the time of formation was 31 (one had 60, another had 40 and the rest were 30), of which 38% were women. In 2013 membership was increased to 60 per group, and at this time 42% of members were women. At the time of the survey all the FF, except one, reported having 60 members, with an average of 40% being women (Table 4).

**Table 4: Number of FF members**

	Members at formation			Members at current time		
	men	women	total	men	women	total
Average	19	12	31	36	24	60
Minimum	2	3	30	15	5	30
Maximum	40	28	60	53	45	60
'n=83	62%	38%	100%	60%	40%	100%

The number of farm households within the FF catchment area has generally increased since FFs were formed, with the average increase being about 20%. The average number of farmers has increased in 85% of all FF, and in all chars except Caring char – where land has been lost to erosion and taken over by the army (Table 5).

**Table 5: Change in number of farmers in FF catchment areas**

Name of char	Number of FF reporting change in numbers of farmers in their area		Percent of FF reporting an Increase
	increase	decrease	
Noler	21	4	84%
Nangulia	34	3	92%
Caring	3	4	43%
Ziauddin	7	0	100%
Urir	4	1	80%
n = 81	69	12	85%

### 3. FF funds

Almost all (96%) FF keep and maintain records (Table 6). CDSP IV guidelines for the formation of FF do not suggest that they collect savings or other financial contributions from their members. Unlike WMG, the FF do not operate under a formal legal framework, so members have no recourse if funds are mis-used.

Despite no encouragement from the project, 15 FF (18% of the total) report having group funds, but only 6 (7%) have a bank account (Table 6). Reports from 13 FF, show that, on average, they have total funds of TK58,796 (ranging from Tk175,000 to Tk800) of which Tk30,265 is in cash or the bank, and the rest invested – mainly in loans to members for agricultural and livestock enterprises, but one FF reports investing in share ownership of cattle. These funds come from regular monthly savings contributions from each member plus any profits on investments.

**Table 6: FF funds and record keeping**

			% of FF	n
Keep records	number of FF	79	96%	82
Maintain records	number of FF	79	96%	82
Have funds	number of FF	15	18%	82
Have bank account	number of FF	6	7%	82
Cash and bank funds	Average Tk	30,265		13
Funds loaned out	Average Tk	46,363		8
Total funds	Average Tk	58,796		13

#### 4. FF meetings

A total of 64 of the 82 FF (79%) said they had held an average of 8.4 meetings in the last 12 months. The average number of farmers attending these meetings range from 10 to 50, with an overall average of 31. In all FF except one, farmers who were not FF members also attend meetings.

However, the date of the most recent meeting suggests that meetings are actually being held less frequently than an average of 8.4 times per year. Data in Table 7 shows that, although 78% of FF have met within the last 12 months, only 52% have met within the last six months. DAE ceased its participation in CDSP IV at the end of 2016, and in the first eight months of 2017, 61% of FF have held meetings. DAE staff continue to visit CDSP IV chars and meet FF; they are also implementing some demonstrations and supplying inputs (such as seed of new varieties and fertiliser) using funds from other projects (including the National Agricultural Technology Project phase 2 – supported by the World Bank and IFAD), but these activities are much less intensive and involve many fewer farmers<sup>2</sup>.

**Table 7: Period since most recent meeting of FF**

Months since last FF meeting	Number of FF	Cumulative percent of FF
1	6	7%
2	9	18%
3	9	29%
4	10	41%
5	1	42%
6	8	52%
7	7	60%
8	1	61%
9	11	76%
11	1	77%
12	1	78%
13	1	80%
14	2	82%
15	7	90%
16	2	93%
18	1	94%
19	1	95%
21	1	96%
23	1	98%
28	1	99%
35	1	100%
Total (n)	82	

Analysis of this data for each of the five chars in Table 8 shows that most (78%) FF on char Nangulia have met within the last eight months. Fewer FF on Caring char have been meeting, reflecting a possible loss of interest in agricultural innovation and problem solving given the continuing loss of land to erosion. Noler char is also suffering erosion, while local disputes have affected the functioning of CDSP Field Level Institutions in char Ziauddin, and Urir char is an island with very poor communications.

<sup>2</sup>In October 2017 the DAE SAAO covering char Nangulia (in addition to areas outside of CDSP IV) reported three group demonstrations on char Nangulia funded by NATP-2 for vermi compost and FYM, and for mixed fruit gardens.

**Table 8: Period since last meeting and location of FF**

Name of char	Number of FF meeting within last 8 months	Total number of FF	Percentage of FF meeting within last 8 months
Noler	13	25	52%
Nangulia	28	37	76%
Caring	3	8	38%
Ziauddin	4	7	57%
Urir	3	5	60%
Total	51	82	62%

Areas affected by erosion might be those where FF report declining numbers of farmers. There does seem to be some correlation in Table 9 between the number of FF that have met (or not met) within the last eight months and those reporting increasing or decreasing numbers of farmers in their areas. Only 10% of FF who have met within the last eight months report that the numbers in their area has decreased, compared with 23% of FF that last met more than eight months ago.

**Table 9: Period since last meeting and change in number of farmers**

Change in number of farmers in FF area	Number of FF meeting within last 8 months	Percent of FF	Number of FF not meeting within last 8 months	Percent of FF	Total number of FF	Percent of FF
Increased number of farmers	46	90%	23	77%	69	85%
Decreased number of farmers	5	10%	7	23%	12	15%
total	51	100%	30	100%	81	100%

The DAE SAAO (Sub-Assistant Agricultural Officer – the field-level extension worker of DAE) attended 25% of the FF meetings during the last 12 months. Apart from SAAO, 63% of FF report that more senior DAE staff have also attended FF meetings at some time. These were usually Upazilla Agricultural Officers, but Agricultural Extension Officers, Assistant Directors of Agriculture and Deputy Directors have also been attended. Some meetings were joined by other government staff from BWDB or LGED.

## 5. Activities of the FF

All FF have been involved in a range of activities (Table 10). FF have selected farmers for DAE training and demonstrations; they have also assisted DAE to distribute inputs and equipment (such as small machinery).

**Table 10: Activities and roles of FF**

FF activities	Number of FF	Percent of FF
Select farmers for training	80	98%
Select farmers for demonstrations	80	98%
Distribution of inputs and equipment from DAE	82	100%
Discuss production problems	82	100%
Advice on marketing and links with buyers	77	94%
Advice on inputs and links to suppliers	77	94%
Discuss water management and link to WMG and BWDB	79	96%
Other matters such as land titles and social forestry	68	83%
Total responses (n)	82	100%

FFs have discussed production problems and have suggested possible solutions, as well as providing advice on marketing and input supply – involving links with buyers and suppliers. Water management

issues (drainage and flood control) have also been discussed, with FF communicating with WMG and BWDB as required. Other matters for discussion have been the progress of land titling and social forestry.

All FF have benefited support from DAE. This has included training of members, demonstration of new crops and production methods, distribution of inputs, provision of seeds of improved varieties along with seed preservation drums to preserve home-saved seed (Table 11). DAE have also provided pheromone traps, and environmentally-friendly way of controlling some vegetable pests, and small machinery (pedal threshers for paddy and knapsack sprayers).

**Table 11: Support from DAE**

Type of support	Number of FF	Percent of FF
Training	82	100%
Demonstrations	69	84%
Distribution of inputs	82	100%
Seeds of improved varieties	82	100%
seed storage bins	82	100%
Pheromone traps	69	84%
Small machinery	82	100%

FF reported discussing a range of technical problems in different crops. The main crops involved were paddy, and beans, followed by cucumber, chilli, and gourds and melons (Table 12). Some of these crops are widely grown and therefore their problems concern many farmers – paddy is grown by 98% and chilli by 32% of farmers (data from the 2016 Annual Outcome Survey) and feature high on the list of problem crops. Other crops which are quite widely grown (pulses grown by 10%-15% of farmers, sweet potatoes by 15%), have not been identified as crops for which problems are often discussed.

**Table 12: Crops for which problems have been discussed**

Crop	Number of FF	Percent of FF
Paddy	82	100%
Bean	70	84%
Cucumber	43	52%
Gourds and melons	43	52%
Chilli	25	30%
Other vegetable (tomato, carrot)	11	13%
Okra	9	11%
Long bean	7	8%
Soya	6	6%
Pumpkin	6	7%
Potato/sweet potato	5	6%
Pulse	4	5%
Brinjal (aubergine)	2	2%
Cereal	2	2%
Fenugreek	2	2%
Groundnut	1	1%
n = 82		

Some of the crops with problems do not seem to have been so widely grown – including beans and cucurbits (gourds, melons cucumber etc). The areas of these and other high value crops has substantially increased – both on homesteads and in fields. Beans, cucumber and gourds are grown in *sorjon* (integrated vegetable-fish cultivation) plots, which have become popular on part of char Nangulia. Such crops and technologies may be relatively new to farmers who are seeking solutions to problems about which they have little knowledge. Teasel gourd was introduced by CDSP IV and has generated quite a bit of interest with questions on pest control mentioned by 19 FF.

These problems, almost without exception, involved crop pests and diseases. For paddy the main problem is stem borer, followed by other insects and diseases. One FF also mentioned soil salinity. For beans the main problems were aphids and pod borer. Cucumbers and cucurbits also suffer from aphids, along with red pumpkin beetle and white fly. Chilli suffers from fungal diseases, such as root rot. Suggested solutions to these problems include the use of pesticides and non-chemical means of pest and disease control.

Most of the FF reported getting suggestions to solutions to these problems from CDSP IV PNGOs and DAE. A small number of FF also got suggestions from input sellers and from farmers (members of FF). Table 13 shows PNGOs being slightly ahead of DAE as sources for solutions. At the time the survey was conducted, DAE had completed its participation in CDSP IV and had withdrawn its nine CDSP IV field staff, but the PNGOs still had 13 agriculturalists based in their branch offices. Follow-up FGDs with three FF in January 2018 (see Appendix 2), after CDSP IV showed that DAE was the principal source of advice for farmers. These three FF, which all reported having regular monthly meetings, said they had closed links with the DAE SAAO, who was said to attend around half of FF meetings, and could be easily contacted by phone.

**Table 13: Sources of suggested solutions for crop production problems**

Source of suggestions	Number of FF	Percent of FF
DAE	62	76%
PNGO	72	88%
FF members / farmers	15	18%
Input dealers & shops	16	20%
CDSP IV staff	4	5%
Total responses (n)	82	100%

While all FF have reported discussing production problems, usually for three or four different crops, marketing of crops is generally not seen as a problem, and some FF did not respond to this question. Of those that did respond, more than 80% reported that there are no marketing problems. When there are problems, these are mostly related to transport and communications – roads do not reach all parts of the chars and bulky vegetable crops are best produced where trucks can be loaded close to the field where they are grown. A small number of FF report other marketing problems – for instance saying that they feel that buyers do not give them a fair price (Table 14).

**Table 14: Marketing problems**

Crop	No problem		Transport problem		Other problems		Total responses (n)	
	Number of FF	Percent of FF	Number of FF	Percent of FF	Number of FF	Percent of FF	Number of FF	Percent of FF
rice	64	82%	9	12%	5	6%	78	100%
bean	45	82%	8	15%	2	4%	55	100%
cucumber	31	89%	3	9%	1	3%	35	100%
other	49	80%	9	15%	3	5%	61	100%

CDSP IV linked FF to “market actors” with the objective of ensuring market access for growing volumes of produce. The market actors were themselves members of the FF, and they got training from CDSP



IV. Six market actors were interviewed during the follow-up visits to three FF in January 2018 (see Annex 2). These market actors purchased produce that: (i) farmers bought to local markets, (ii) from other traders who themselves purchased from farmers at the farm gate; and (iii) via contract farming arrangements. However, the six market actors did not seem to have developed any significant new market channels or marketing systems (contract farming already existed before CDSP IV). That said, it is clear that there have been significant reductions in transport costs with better road communications, and big increases in volumes that are marketed.

## 6. Sources of information for farmers

Key informants at each FF were asked to identify and rank in terms of importance, sources of information and advice on farming matters. Results are in Table 15. The Farmers Forum was ranked by almost all informants as the most important source of information and advice – but the opinions of FF leaders could well be biased. This was followed by PNGOs and then DAE. Most FF placed other farmers in fourth place, although input dealers and suppliers were identified by some. As already mentioned, the higher ranking of PNGOs compared to DAE could be because PNGOs still had technical staff in the chars at the time of survey data collection. Follow-up FGD in January 2018 showed that DAE was the principal source of information and advice – both via the SAAO attending FF meetings and via phone calls to the SAAO.

**Table 15: Sources of information and advice**

Source of advice and information	Percentage of FF reporting			
	Rank in order of importance			
	1	2	3	4
Farmers Forum	99%	1%	0%	0%
Direct from DAE (not in FF meetings)	0%	4%	61%	18%
NGOs	7%	90%	2%	0%
Input dealers and suppliers	2%	1%	6%	25%
Market trader / crop buyer	1%	0%	1%	0%
Other farmers	1%	0%	4%	63%
Mass media – TV, radio, newspapers	0%	0%	2%	13%
Other (CDSP staff, local leaders)	0%	0%	5%	1%
'n = 83				

## 7. Benefits of FF membership

FF respondents were asked to identify the major benefits that they thought had accrued to farmers from the operations of FF. Table 16 shows that almost all FF said that production had increased by two or three times with the use of high yielding crop varieties. Some also said that farmers were now using better farming methods and technologies that they learned from good quality training and advice, and from the use of agricultural machinery – which was now available locally. A few also mentioned that production costs had been reduced by the use of green manures. Almost half of all FF said that crop yields had increased due to reduced waterlogging and some also said salinity had been reduced – but these benefits stem from engineering interventions rather than FF. Only one of the FF mentioned poverty reduction as a specific benefit of the FF, but this is not to say that incomes were not increased and poverty reduced as the result of the benefits to farming that were cited by FF.

**Table 17: Major benefits for farmers from the Farmers Forum**

		Number of FF	Percent of FF
1	Use good farming methods learned from quality training & advice	24	29%
2	Water logging reduced and crop yield increased	36	44%
3	Salinity reduced	6	7%
4	Getting 2 to 3 times more production using HYV crops	80	98%
5	Production cost has reduced due to use of green manures	6	7%
6	Better farming with improved technologies and agri-implements	15	18%
7	Agri-implements and equipment made available locally	3	4%
8	In general poverty is reducing day by day	1	1%
	n = 82		

**8. Problems faced by farmers**

FF respondents reported that, prior to CDSP IV, major problems faced by farmers included the poor crop production environment (waterlogging, poor drainage and saline soil) and the use of traditional cultivation methods, with low yielding local crop varieties. Communications were poor, hindering market access, and government agencies and NGOs had few staff in the area (Table 17). Again, only one FF specifically mentioned extreme poverty as a major problem, but the activities of FF were orientated towards farming and respondents identified specific problems in agriculture.

**Table 17: Major problems before CDSP IV**

		Number of FF	Percent of FF
1	Water logging and lack of a drainage system	46	56%
2	High salinity	42	51%
3	Cultivating with local varieties	25	30%
4	Cultivating traditional methods	50	61%
5	Less production with local varieties	10	12%
6	Lack of communication problems	2	2%
7	Lack of sufficient staff in both Government agencies and NGOs	22	27%
8	Suffering from extreme poverty	1	1%
	n=82		

Problems that farmers still have, even with the implementation of CDSP IV, include poor financial returns from the cultivation of aus and boro paddy<sup>3</sup> – which helps explain the great interest being shown in high value and other non-rice crops (Table 18). One third of FF reported that some farmers have not yet received their land titles. Some FF reported problems in shortages of quality seeds, implements and other inputs.

<sup>3</sup>Aus is low yielding and very little is now grown. Boro requires irrigation, which is costly without access to the electricity grid. Aman paddy is by far the main type of paddy that is now grown.

**Table 18: Major problems still faced by farmers**

		Number of FF	Percent of FF
1	Agri-land is washed away due to heavy river erosion	17	20%
2	Lack of a drainage system	2	2%
3	Risks due to lack of an embankment	6	7%
4	High salinity	6	8%
5	Lack of water during the boro season	24	30%
6	Need a cross-dam	1	1%
7	Still not received land titles	27	33%
8	Not getting good price due lack of communication and value chain	2	2%
9	Crisis in supply of good quality seeds	14	17%
10	Shortage of agri-implements and input services	12	14%
11	Suffering loss in cultivation of aus and boro paddy	36	43%
12	Lack of advice on proper pest control and management	6	7%
13	Insufficient arrangement for quality training	8	10%
14	Lack of health services	2	2%
	n = 82		

A few FF also say farmers need more good quality training and advice on pest control and management. Almost a third of FF reported on a lack of water to irrigate boro paddy, and one FF said a cross-dam was needed – this could be used to retain water for irrigation. The crop production environment (drainage and salinity) can still be a problem – with risks in places where there is no embankment and land being lost to erosion.

### **C. Summary and conclusions**

Although fewer FF were formed than planned in the project design, each had more members, so they covered about 20% of the total number of char households. This was considerably more than the previous phase of CDSP, where FF membership only reached about 5% of households.

Most FF claim to meet around eight times per year; however, meetings appear to have become less regular since DAE support for this component finished at the end of 2016. Nevertheless 61% of FF have met in the first eight months of 2017.

Most FF meetings now take place without DAE staff being present, however most FF have had some meetings with DAE in the last year, so this linkage is being maintained.

All FF have been actively involved in the implementation of the agricultural sub-component of CDSP IV – selecting farmers for DAE training and demonstrations, and assisting DAE to distribute inputs and equipment. At their meetings, all FF have discussed production problems and possible solutions, as well as providing advice on marketing and input supply – involving links with buyers and suppliers. Water management issues have also been discussed, along with the progress of land titling and social forestry.

Production problems, almost without exception, involved crop pests and diseases. The crops that were mainly discussed included two of the crops that have traditionally been widely grown in the area (rice and chilli) and a number of high value crops, like cucumber and beans, that are now becoming popular with the move to more intensive and commercial farming.

Marketing of crops is generally not seen as a problem, and more than 80% of FF reported that there were no marketing problems. When there are problems, these are mostly related to transport and

communications – roads do not reach all parts of the chars and bulky vegetable crops are best produced where trucks can be loaded close to the field where they are grown.

The Farmers Forum was ranked as the most important source of information and advice on farming matters – but the opinions of FF leaders could well be biased. Follow-up FGD clearly showed that DAE was the main source of external information for FF members, and FF has close links with their local SAAO. At the time of survey data collection in late 2017 PNGO still had technical staff in the area and so were considered to be an important source of information. Other sources of information were other farmers, CDSP IV staff, input dealers and mass media.

In terms of the benefit of FF membership, almost all FF said that production had increased by two or three times with the use of high yielding crop varieties. Some also said that farmers were now using better farming methods and technologies that they learned from good quality training and advice, and from the use of agricultural machinery. Almost half of all FF said that crop yields had increased due to reduced waterlogging and some also said salinity had been reduced – but these benefits stem from engineering interventions rather than FF.

FF respondents reported that, prior to CDSP IV, major problems faced by farmers included the poor crop production environment (waterlogging, poor drainage and saline soil) and the use of traditional cultivation methods, with low yielding local crop varieties. Communications were poor, hindering market access, and government agencies and NGOs had few staff in the area.

Problems that farmers still have include poor financial returns from the cultivation of aus and boro paddy. One third of FF reported that some farmers have not yet received their land titles. Some FF reported problems in shortages of quality seeds, implemented and other inputs. A few FF also say farmers need more good quality training and advice on pest control and management. The crop production environment (drainage and salinity) can still be a problem – with risks in places where there is no embankment and land being lost to erosion. Almost a third of FF reported on a lack of water to irrigate boro paddy.

This survey shows that farmers continue to need advice on pest and disease control, especially for the new crops that are now becoming important as farming becomes more commercial. The intensity of DAE activities has already been reduced as their role in CDSP IV has been completed. Most FFs are getting advice from the PNGOs, but their technical staff will be much reduced as CDSP IV comes to an end. Future projects could consider developing more sustainable models for technical problem solving, possibly based around “plant clinics/doctors<sup>4</sup>” and/or mobile phone-based information services.

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<sup>4</sup> <https://www.plantwise.org/plant-clinics/>

## Annex 1: Data collection form

### CHAR DEVELOPMENT AND SETTLEMENT PROJECT (CDSP IV) Institutional assessment of Farmers' Forum in CDSP IV area

Resp-ID ##:

#### A. Profile

FF name ..... Somaj ..... Char  
.....

PAC .....

Name of respondent ..... Position in FF ..... Mobile number  
.....

Date of FF formation ..... No. farmers attending mass meeting at time of formation  
.....

Membership at the time of formation: men ..... women ..... total .....

Membership at current time: men ..... women ..... total .....

Area covered by FF ..... ha / km<sup>2</sup>

Number of farm HH in this area: when FF formed ..... number at the current time: .....

FF record books available y / n Record books properly maintained y / n

Does FF have any funds? y / n Does FF have a bank account? y / n

Total funds: bank account Tk. .... Cash Tk. .... Loans outstanding Tk. ....

Sources of these funds: ..... What are these funds used for?  
.....

How often does the FF meet? ..... What was the date of the last meeting? .....

What is the average number of farmers at a FF meeting? .....

Are all farmers at the FF meeting members of the FF? All are FF members / other farmers also  
attend

How often does DAE SAAO attend FF meetings in the last one year?

Total number of FF meetings..... Number of FF meetings where SAAO attended .....

Do any other DAE or staff from GoB agencies attend FF meetings? Yes / no if yes:

Who are these staff? .....

What has the FF organized and supported?

Selection of farmers for DAE and other training yes / no

Selection of farmers for demonstrations yes / no

Distribution of machinery, equipment and inputs from DAE yes / no

Discuss of production problems faced by farmers & suggest solutions yes / no

Marketing advice and linkages with market buyers yes / no

Input advice and linkages with input suppliers yes / no

Discuss of flood protection and drainage and requests to WMG / BWDB yes / no

Other matters, such as land titles and social forestry yes / no

Since July 2016, has DAE provided any direct support (training, demonstrations, inputs etc.) yes / no

If yes: Describe this support .....

How many farmers have benefitted .....

If technical problems have been discussed, give examples of four problems, what was the solution suggested, and who was it who made this suggestion.

	Crop or sector	Description of problem	Suggested solution	Who suggested solution
1				
2				
3				
4				

If marketing problems have been address in the FF, or help with marketing provided, describe these problems

	Crop	Marketing problem	Solution
1			
2			
3			
4			

Where do farmers get most of their advice and information? [rank the following sources of advice and information in order of importance]

Source of advice and information	Rank – 1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> etc
Farmers Forum	
Direct from DAE (not in FF)	
NGOs	
Input dealers and suppliers	
Market trader / crop buyer	
Other farmers	
Mass media – TV, radio, newspapers	
Other – specify	

What were the main benefits that farmers have obtained from the FF – in the words of the FF members

What were the major problems that farmers faced before the FF started?

What are the major problems that farmers have now?

Date of interview .....

Name of enumerator .....

## Annex 2: Discussions with Farmers Forums in January 2018

### 1. Miazi Gram Chamber Plot Farmers Forum (Char Nangulia)

#### Meetings

- FF is now meeting monthly,
- Discuss seasonal crops problems, seed supply, fertiliser doses, pests and diseases (problem and solution), encourage line sowing of paddy, visit plots.
- Some non-member farmers attend, SAAO sometimes attends (50-60% of meetings) but no other DAE staff. CDSP field officer may also attend.

#### Problems

- if cannot solve between themselves will ask DAE, sometimes ask NGOs – but DAE are more useful.
- seed supply problem - boro (hybrid) seed costs Tk275/kg increasing through the sowing season to Tk550/kg. Ordinary HYV seed costs Tk100/kg,

#### Hybrid paddy

- Normal boro HYV yields 4-5 md/gunta (8 decimals), hybrid yield is 9-10 md/gunta.
- Hybrid paddy is now of good quality and fetches same price as ordinary HYV or even more.
- Hybrid paddy transplanted 1 seedling per hill, ordinary paddy 2-3 per hill. Hybrid seed: need 1 kg/40 decimals, ordinary seed need 1 kg seed for 8 decimals.
- Hybrid needs double the fertiliser of normal HYV boro. Hybrid needs: urea 4 kg, NPK 4 kg, TSP 5 kg, MOP 2.5 kg, gypsum 2 kg - all per 8 decimals
- More pest infestation in hybrid – need more spraying – red mite, stem borer, leaf roller, white fly, blast, seed blight
- Hybrid paddy was first grown here in 2012-13. Heard about it from DAE and seed sellers. First seed was from BADC.
- Hybrid paddy needs non-saline soil so needed CDSP water control works before it could be grown.
- Now almost all boro is hybrid.

#### Irrigation

- Insufficient water for boro irrigation. Use ground and surface sources. Do not know about AWD (alternate wetting and drying). Tubewells: minimum 350', maximum 850' Many are being installed.
- Water charge is Tk8000 to Tk10,000/160 decimal Boring cost Tk128,000 to Tk180,000.

Hybrid aman – not grown, but trials are being done. Aman is more profitable than boro as the cost of cultivation is lower.

#### Beans

- Country bean has become popular because of good market, and locally popular to eat at home. Before CDSP land was too water logged and flooded to grow much
- Use home saved seed.
- Red mites and caterpillar are the main pests. Spray a lot, but in sorjon plots can use a pesticide that does not harm fish, although is more expensive.

#### Vermicompost –

- Needed for sorjon, will not get good production without it . Apply 40/kg/dec.
- More than 50% of FF members at this meeting make it, with up to 8 rings each.
- Sells for Tk10-20 per kg. Worms sell for Tk1 each.

- One woman also uses kitchen waste as well as cow dung.

#### Market actor – Md Aticullah

- Working as market actor since 2012
- Buy produce for 20 to 25 farmers each market day in 10-15 markets.
- Main crops of produce are: (i) country beans - fresh and seed; (ii) cucumber; (iii) gourds; (iv) paddy; (v) okra and soyabean.
- Buy produce in three ways: (i) Farmers bring their produce to market; (ii) buy from brokers (paikers) who buy from farmers at farm gate; and (iii) 15-20 contract farmers (for vegetables, and soyabeans).
- Make a margin of Tk0.80 to Tk1.00 per kg
- Pay contract farmers an advance – get this capital from BRAC loan and from his own capital. He has a total of Tk500,000 own funds plus Tk120,000 in loans from BRAC. Contract farmers pay no interest and get paid the market rate for their produce – the contracts are needed to guarantee his supply. Would like to do more contracts, but cannot get funds from wholesalers. The wholesaler funded system is common on Ziauddin.
- Visits major markets in Chittagong, Comilla, Mayasdee, and Dhaka. If a sale falls through need to find another buyer.
- For fund transfer from buyers in city markets use Bkash or, if huge amount (Tk500,000+) bank transfer.
- Need to visit all markets regularly. Work as a partnership of 3 to 4 persons to cover all these markets. Go in person rather than use phone.

## **2. Ramatpur Farmers Form – Noler char**

Have 60 members – covers 6 samaj

#### Meetings

- Now taking place every month.
- 30-40 members attend plus 7-8 other farmers.
- DAE SAAO attends 5 to 6 times per year. Also CDSP staff (PAC) attend.
- At meetings discuss problems - pests and diseases, where to get seeds, make machinery hiring arrangements

#### Problems and problem solving –

- DAE and CDSP are best for advice, SAAO very knowledgeable.
- NGO agric staff focused on women vegetable growers.
- Get advice via phone if needed from CDSP agriculturalist and DAE SAAO.

#### Benefits from FF and DAE/CDSP IV

- FF – good for sharing of ideas on new technologies – disseminated to all farmers.
- Most useful from FF: water pumps, power tiller, power threshers, seed
- Most useful DAE demonstration: BR52 (more yield), also other HYV paddy
- DAE training: field days were most useful.

#### Needs

- Would like another FF. Want more FF, not larger FF.
- 25% of farmers should be FF members.
- Would like an FF building.
- Keen to get loans from FF (but these would be very small).

#### Limitations of FF

- FF are more active than WMG, but have no registration, and no legal status or savings.



- DAE gives support via UP, but no link between UP to FF. UP distributes imported groundnut, melon and other seeds – this does not reach FF.

#### Changes in agriculture

- Local aman replaced by HYV paddy – x 4 yield. Varieties BR52, Shorna (Indian, gets higher price). Get seed from BADC dealer
- Boro – hybrid first introduced here in 2017-18. Boro not grown before, now covers 50% of land. Say everyone now growing hybrid. Canal irrigation water for boro can be saline. Use GW irrigation later in the season, but not many TW here. Cost of TW water is Tk16,000/160 decimals.
- Pulse production - not much grown here – stable area – small yield increase. Farmers prefer boro
- Oilseeds – not here
- Vegetables – all types grown, c bean, gourd, okra, tomato, cabbage, in the field, slow increase in area.
- Very little sorjon here are not much low and waterlogged land.

#### Market actors

##### (a) Md. Tajuddin

- Buys from farmers at the Thanhat market (improved by CDSP) on 2 days per week.
- Buy vegetables to sell in distant markets via Beparis (wholesalers).
- Products are country beans, gourds, cucumber, methi, etc. CB seed alone 200 mds per week, 100 md other veg in the season (season is 3 months for CB, veg - most in 6 months, paddy 3 months).
- One truck load of paddy (100-150 md) per week.
- Does not go to distant market as agents come here. Get enough volume.
- Transport: used to send by boat before. Send paddy to Chamony (100 km away) – costs for an 80 kg bag is Tk70 for any produce. Used to cost Tk160-170 per bag by boat. Now volume has gone up by four times.

##### (b) Md. Salim

- Buys from farmers at Thanahat and Alamin bazaars. Same as other traders.
- Transport cost has been reduced - now Tk70-75 per bag, before 100-150 per bag.

##### (c) Moh. Alluddin

- Buys from farmers at Thanahat and Alamin bazaars.
- Sells fish and CBean (mostly CB).
- Buy fish from outside the area and sell locally (reverse in rainy season). Pays Tk700-800/md transport cost for fish in either direction.
- Before only sent fish out – none came in.
- Pond fish are all locally consumed.
- Fish production has declined due to empoldering, while local demand has increased.
- Before fish transported by head load. Transport used to cost Tk300-400/md to Buirhat 15-20 km away. Now only cost Tk20/md to this place.
- Fish worth around Tk15-20,000 per md (hilsa)

### **3. Indris Mazi Siraj Sorder Samaj Farmers Forum – Ziauddin char**

#### Meetings

- 12 meetings in last year – last Tuesday of the month
- 40-50 attend meeting, includes 15-20 other farmers
- SAAO sometimes attends – 7 or 8 out of 12 meetings

- No one else attends – in past some CDSP staff attended

#### Discussions in the FF

- Seasonal farming
- Pests and diseases – how to protect crops

#### Problem solving

- Ask DAE SAAO first, then CDSP, phone if needed
- Rice stem borer common, getting worse

#### Future

- Will continue FF
- Need help with boro irrigation – this is the main issue now

#### What best from CDSP

- Training and seed of HYV – with demonstration
- 4 days residential training was best – learned about use of fertiliser, soil testing, seed preservation

#### Changes since CDSP

- Hybrid boro introduced last year (2016-17) – did not grow HYV boro before. Estimate that 20-30% of land will be used this year. More farmers would like to grow but lack water.
- Soyabean sold to Dhaka and Coxes bazaar – not on contract
- Water melon
- Leafy vegetables
- Okra has declined this year due to heavy rain delayed sowing and fog. Some on contract with Dhaka buyers. Tk1.5 million given as advance – but as production is less farmers cannot repay.
- Rice production is up 3 or 4 times. Used to grow rice for 3-4 months consumption, now 90% are self-sufficient. Expanded boro production will need to be sold – but may not be profitable.

But say paddy is not profitable to grow – grow to consume but not sell. Not all land can grow vegetables – which can be sold to buy rice. Want more input subsidies

#### Market actors

##### (a) Salahuddin Sikder

- Trades mainly okra – plus a little soya and paddy.
- Dadon system – pass money from Dhaka wholesale agents to farmers, farmers get Dhaka market price (Tk30-40/kg) less Tk5 per kg. Dhaka wholesale agent takes Tk1/kg. Sikder makes a profit out of the Tk4/kg after paying transport.
- There are 4 or 5 agents, covering 200 okra farmers.
- CDSP helped with weighing scales and baskets, and with training of farmers.
- Production was growing before the set back this year and farmers say not so much was grown before CDSP.

##### (b) Moh. Nuralam

- Mostly trades in okra as above. Some rice and soya.
- Soya is purchased by local wholesalers. He trades 500 mds per season. Buy at farm gate and sell to wholesalers (visit them first, but wholesalers come and collect).

When a lot of tomatoes produced – farmers take them to 3 markets where they sell to wholesalers and brokers. Other vegetables are mostly consumed locally.