

Blue Gold Program

Database & MIS Development Terms of Reference (ToR)

1. Background

The Blue Gold Program started in March 2013 and extends over a 7+ year period to June 2020. Its operations concentrate on the polders of the districts of Patuakhali, Khulna, Barguna and Satkhira in the south-west coastal zone. The Program covers 115,000 ha where an estimated 150,000 households will directly benefit.

The overall objective is to “reduce poverty for 150,000 households living in 160,000 ha of selected coastal polders by creating a healthy living environment and a sustainable socio-economic development”.

The specific objectives of Blue Gold are:

- a. To protect the communities and their land located in polders against floods from river and sea (climate change adaptation) and to optimize the use of water resources for their productive sectors;
- b. To organize the communities in Water Management Organizations which will have to become the driving force for the natural resources based development (agriculture, fisheries and livestock), whereby environment, gender and good governance are effectively addressed;
- c. To improve livelihoods and increase the household income derived from the productive sectors; and
- d. To strengthen the institutional framework for sustained water resources development and related development services in the SW/SC coastal zones.

The program is implemented by the Bangladesh Water Development Board (BWDB), the Department of Agricultural Extension (DAE) and a Technical Assistance team (TA). The program also works closely with the department of Fisheries (DoF), Department of Livestock Services (DLS). The TA coordinates the M&E on behalf of the program partners.

2. Introduction Database & MIS

Current data collection in the program is done by several departments, leading to data being spread across the program and making it hard to analyse data in an integrated way. The BGP aims to develop a database that stores all information collected in surveys by the program and make this accessible in standard reports and in an easy to analyse format for staff. Data is collected at different frequencies (monthly, seasonal, annual) and the solution should be able to accommodate changes in surveys when the need arises. Eventually the BGP wants to make data available on-line for everyone to access.

3. Objectives of the database

The following objectives have been identified:

1. To collect and store information collected by the program in one place;
2. To standardize the information collected by the project;
3. To present the data in standard reports that can be shared with program partners; and,
4. To provide an easy way for staff to analyze data available in the database.

4. Suggestions for approach

The consultant is responsible for suggesting the approach and timeline. The development phase should include the following activities:

- Mock-up screens have to be developed;
- A list of definitions / calculations to be included in the database should be available and agreed;
- Standard surveys will be developed based on the input provided;
- A full database design will be shared;
- Historical data should be added (not necessarily before go-live);
- Sufficient time for user tests should be included.

Phasing build and implementation is an option but the initial launch of the system should be by end-March.

Please provide details on how the support is envisioned after the development phase. BGP expects that additional surveys will be developed or content of existing surveys might change.

5. Key requirements

The following key requirements are to be taken into account:

- Data should be available on the following geographical levels: project, zonal, district, Upazila, Union Parishad, Polder, Catchment Area
- Different groups BGP works with should be included: WMA (Association-highest level), WMG (Group – lowest level)
- Data should be disaggregated by gender & age when possible
- Data should be available on-line so that staff can always access the data
- It should be possible to export data (preferably from multiple surveys) if needed

Mock reports for the dashboard and data collection tools currently used by the project are included as an annex to provide an indication of the expectations.

- Draft mock-reports required by the project:
 - Improved Livelihoods report
 - Strengthened Value Chain Report
 - Equitable Water Management Report
 - WMO report
- Current data collection tools:
 - Baseline
 - Outcome mapping
 - Output monitoring
 - WMG tracking

- MFS surveys

Nice to have (not essential):

- Public accessibility of data through the website (BGP would like to share data as much as possible)
- Development of standard reports
- Share the monthly reports with key staff automatically (e.g. WMG reports to staff responsible for those groups)
- Benchmarking of areas / groups, benchmarks should be clearly defined

6. Organisational arrangements

Remaining within the policies and practices of the Blue Gold Program, its primary responsibility is to support the consultant to achieve the objective of this ToR.

Specifically Blue Gold is responsible for the following:

- Prepare the ToR and hire the individual consultant / research firm;
- Provide input to finalize the database & MIS design;
- Monitor continually, provide feedback and ensure effectiveness of database & MIS;
- Coordinate with relevant private and public partners to ensure adequate support is provided at all levels;
- Release the budget as per agreed budget disbursement schedule.

A working group with representatives from BWDB, DAE and the Technical Assistance team will be established to coordinate with the consultant.

7. Responsibilities of the consultant

The composition of the consultancy team is left up to the consultant / firm based on their internal organisation, ideas and logic. However, it is recommended that the team comprises of one Team Leader (TL) to coordinate and liaise with the contracting organization. It is also recommended to include a technical expert in the proposal. The TL will work closely with the working group to ensure the database meets all requirements. The consultant and its team will be primarily responsible for:

- Develop / design the MIS & database;
- Provide weekly updates to the working group;
- Ensure all deliverables are met according to the deadlines agreed.

8. Deliverables

The following deliverables are envisioned under this ToR:

- Requirement phase:
 - Mock-up screens of MIS;
 - Database design;
 - Standardized Survey designs;
 - Mock-up of Standard reports;
 - Detailed timeline for development & go-live.
- Development phase:
 - Minimum amount of historic data available;
 - User test report (PPT);

- User training;
 - Database & MIS user documentation;
 - MIS go-live (possibly in phases).
- Operational phase:
 - Support in MIS changes if required.

9. Eligibility criteria

General experience and expertise requirement for the firm / consultant applying:

- Experience in developing and maintaining database & MIS solutions for development projects;
- Clear understanding on the key indicators used in water management & food security programs;
- The ability to communicate in fluent English;
- Be able to provide institutional support to BGP after the initial development;
- The team leader should have an advanced university degree in agriculture / rural development / social sciences with the experience of at least three similar projects;

ANNEXES

1. Draft mock-reports required by the project

- a. Improved Livelihoods report
- b. Strengthened Value Chain Report
- c. Equitable Water Management Report
- d. WMO report

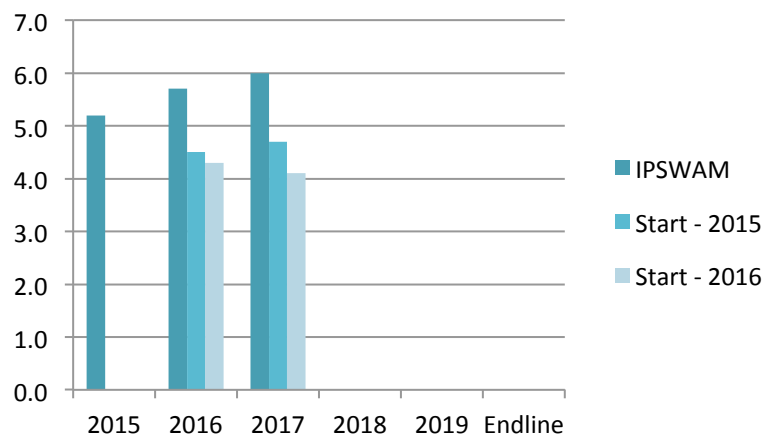
2. Current data collection tools

- a. Baseline
- b. Outcome mapping
- c. Output monitoring (separately annexed in Excel)
- d. WMO Tracker (separately annexed in Excel)
- e. MFS surveys

IMPROVED LIVELIHOODS REPORT

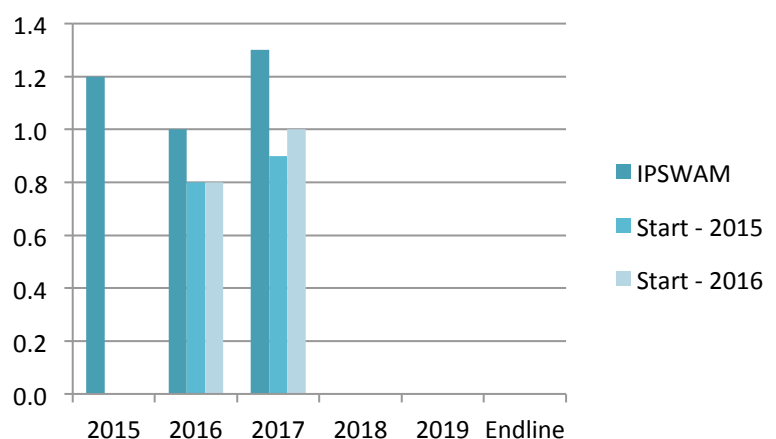
Food Security - Household Dietary Diversity Score

Polders	2015	2016	2017	2018	2019	Endline
IPSWAM	5.2	5.7	6.0			
Start - 2015		4.5	4.7			
Start - 2016		4.3	4.1			
Average	5.2	4.8	4.9			
Increase	-	-0.4	0.1			



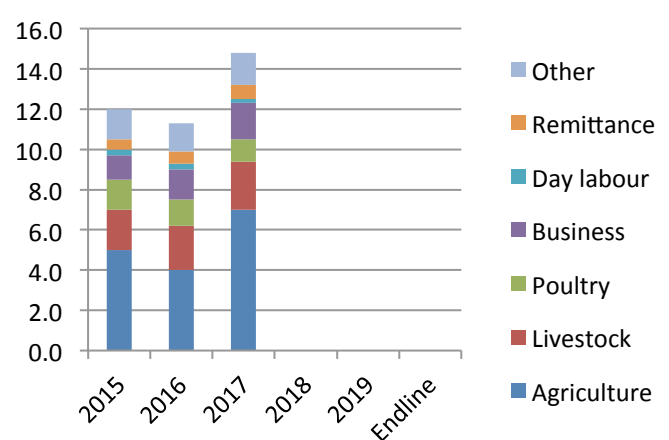
Total annual income - BDT Lakh

Polders	2015	2016	2017	2018	2019	Endline
IPSWAM	1.2	1.0	1.3			
Start - 2015		0.8	0.9			
Start - 2016		0.8	1.0			
Average	1.2	0.9	1.1			
Increase	-	-0.3	0.2			



Total annual income - Source - BDT Ten Thousand

Source	2015	2016	2017	2018	2019	Endline
Agriculture	5.0	4.0	7.0			
Livestock	2.0	2.2	2.4			
Poultry	1.5	1.3	1.1			
Business	1.2	1.5	1.8			
Day labour	0.3	0.3	0.2			
Remittance	0.5	0.6	0.7			
Other	1.5	1.4	1.6			
Total	12.0	11.3	14.8			

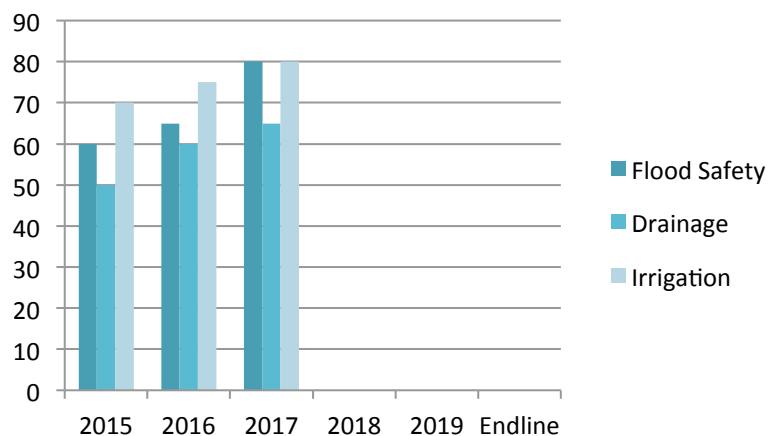


Impact of infrastructure - percentage of working area

Area impacted (%)	2015	2016	2017	2018	2019	Endline
Flood Safety	60	65	80			
Drainage	50	60	65			
Irrigation	70	75	80			

Functioning structures

Embankment	25	30	28			
Sluice	40	50	60			
Khals	15	30	60			
In-/Outlet	70	60	50			

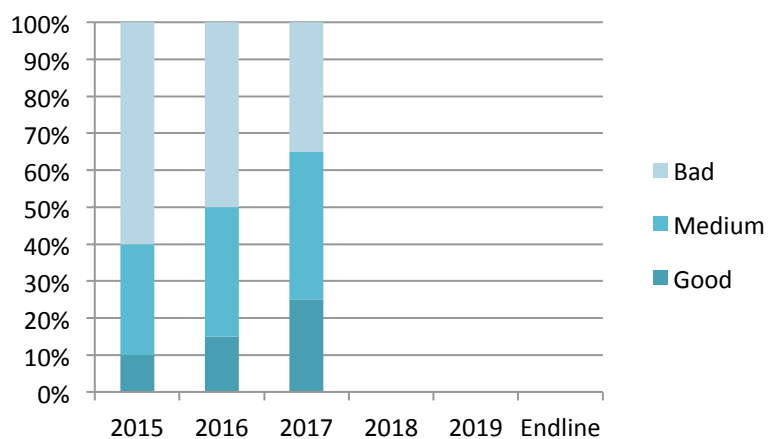


Functioning of WMOs

Qualification	2015	2016	2017	2018	2019	Endline
Good	10	15	25			
Medium	30	35	40			
Bad	60	50	35			

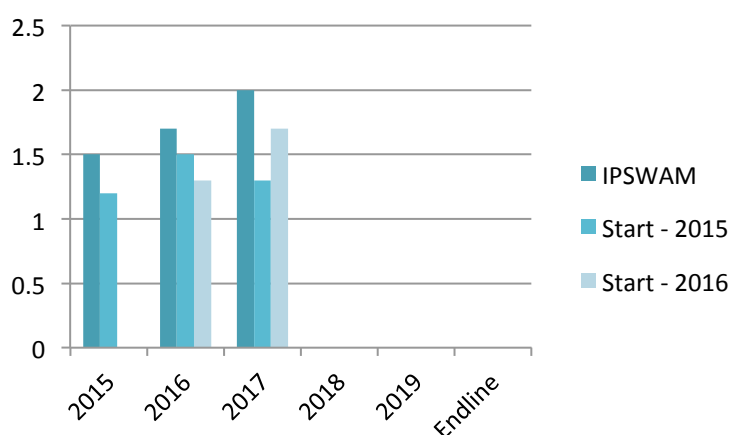
O&M Contribution

Cash	1	2	4			
In kind	10	15	30			



Productivity

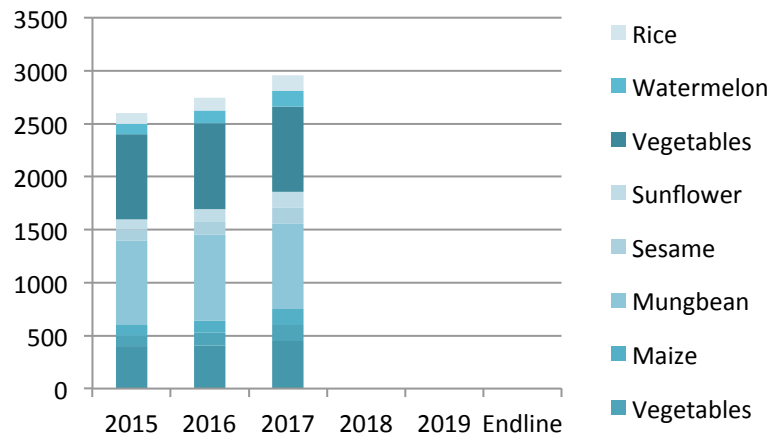
Intensity	2015	2016	2017	2018	2019	Endline
IPSWAM	1.5	1.7	2			
Start - 2015	1.2	1.5	1.3			
Start - 2016		1.3	1.7			
Average	1.4	1.5	1.7			



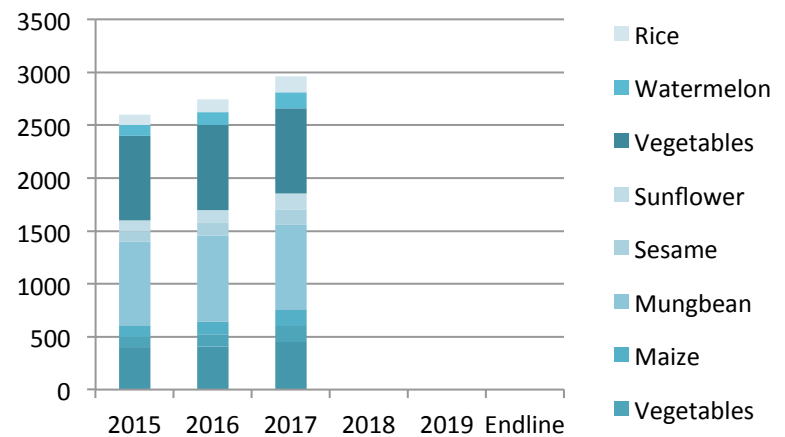
AGRICULTURAL DEVELOPMENT REPORT

Production - main crops

Area (thousand hectares)	2015	2016	2017	2018	2019	Endline
Crop 1						
Rice	400	405	450			
Vegetables	100	120	150			
Maize	100	120	150			
Crop 2						
Mungbean	800	810	805			
Sesame	100	120	150			
Sunflower	100	120	150			
Crop 3						
Vegetables	800	810	805			
Watermelon	100	120	150			
Rice	100	120	150			

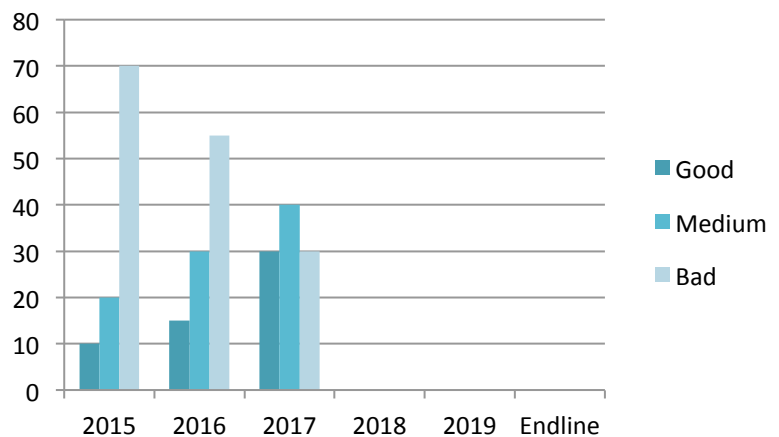


Production (MT)	2015	2016	2017	2018	2019	Endline
Crop 1						
Rice	400	405	450			
Vegetables	100	120	150			
Maize	100	120	150			
Crop 2						
Mungbean	800	810	805			
Sesame	100	120	150			
Sunflower	100	120	150			
Crop 3						
Vegetables	800	810	805			
Watermelon	100	120	150			
Rice	100	120	150			



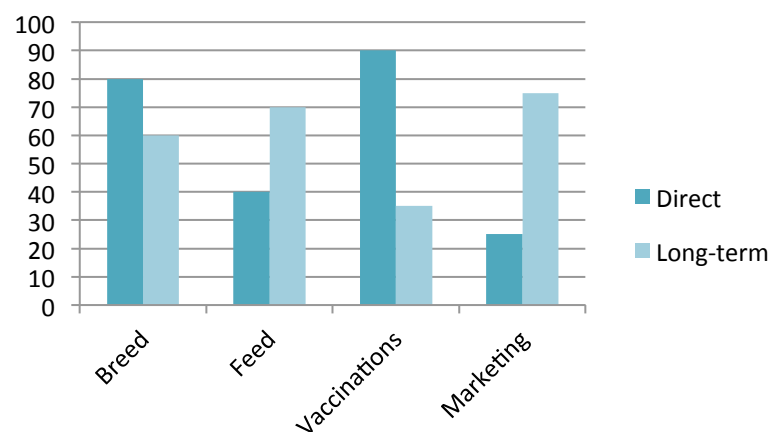
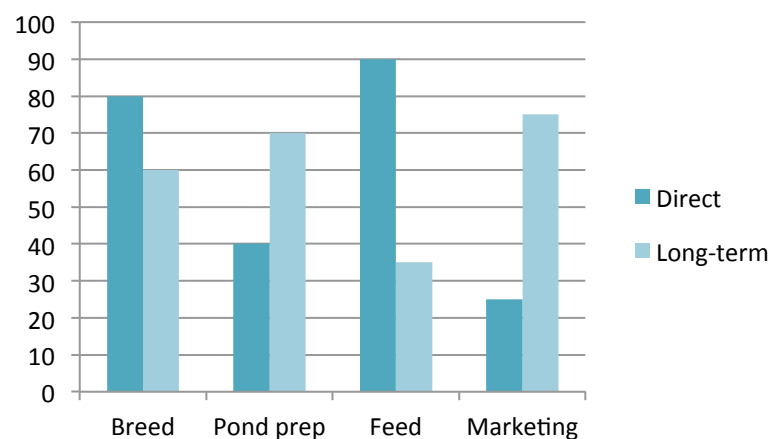
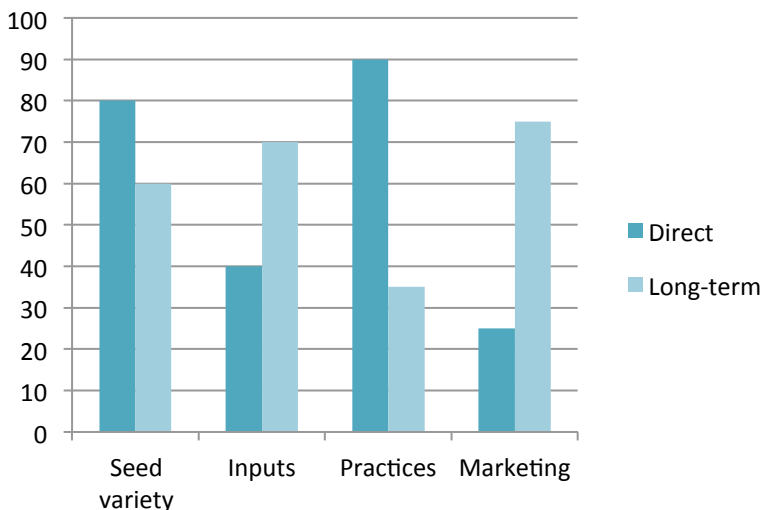
Quality of linkages

	2015	2016	2017	2018	2019	Endline
Good	10	15	30			
Medium	20	30	40			
Bad	70	55	30			



Adopted practices - direct FFS participants

	Cycle 8	Cycle 8	Cycle 9	Cycle 9	Cycle 10	Cycle 10
Crops						
Seed variety	80	60	80	60	80	60
Inputs	40	70	40	70	40	70
Practices	90	35	90	35	90	35
Marketing	25	75	25	75	25	75
Aquaculture						
Breed	80	60	80	60	80	60
Pond prep	40	70	40	70	40	70
Feed	90	35	90	35	90	35
Marketing	25	75	25	75	25	75
Livestock						
Breed	80	60	80	60	80	60
Feed	40	70	40	70	40	70
Vaccinations	90	35	90	35	90	35
Marketing	25	75	25	75	25	75



Adopted practices - working area

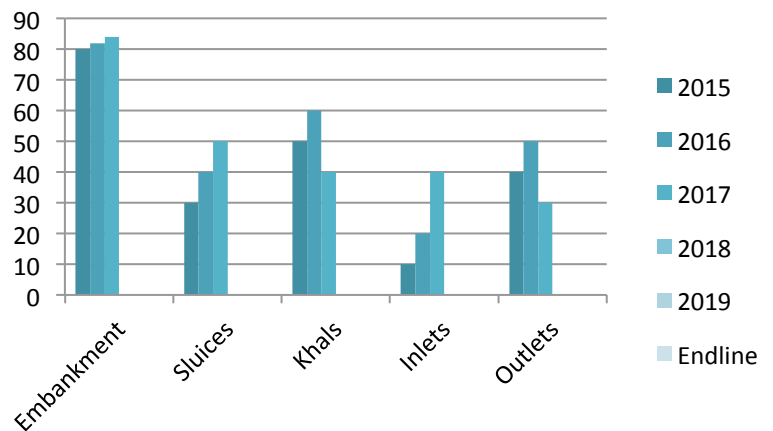
	2015	2016	2017	2018	2019	Endline
Crops						
Seed variety	20	25	40			
Inputs	20	25	40			
Practices	20	25	40			
Marketing	20	25	40			
Aquaculture						
Breed	20	25	40			
Pond prep	20	25	40			
Feed	20	25	40			
Marketing	20	25	40			
Livestock						
Breed	20	25	40			
Feed	20	25	40			
Vaccinations	20	25	40			
Marketing	20	25	40			



WATER MANAGEMENT REPORT

Infrastructure condition

Structure	2015	2016	2017	2018	2019	Endline
Embankment	80	82	84			
Sluices	30	40	50			
Khals	50	60	40			
Inlets	10	20	40			
Outlets	40	50	30			

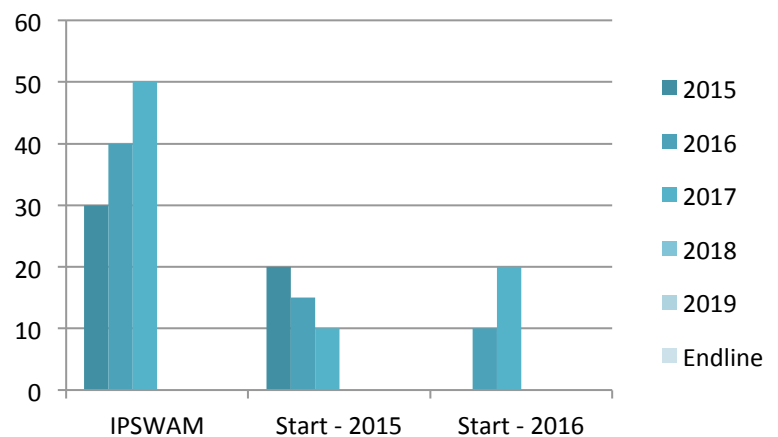


Group contribution to Operation & Maintenance (days - in kind)

Polders	2015	2016	2017	2018	2019	Endline
IPSWAM	30	40	50			
Start - 2015	20	15	10			
Start - 2016		10	20			

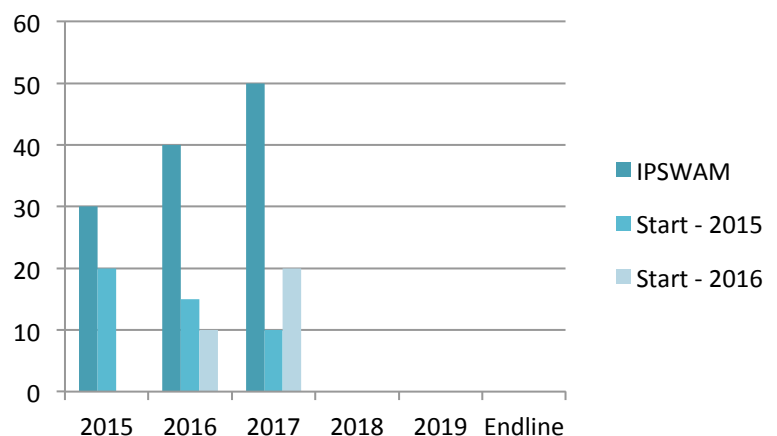
Female contribution

IPSWAM	15	20	25			
Start - 2015	10	5	10			
Start - 2016		5	15			

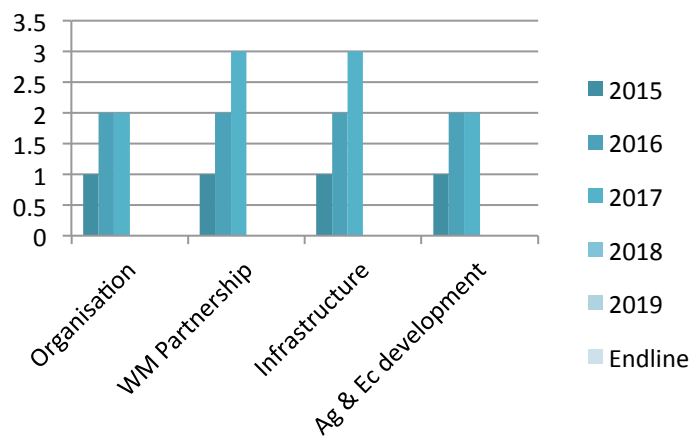


Group contribution to Operation & Maintenance (days - in cash)

Polders	2015	2016	2017	2018	2019	Endline
IPSWAM	30	40	50			
Start - 2015	20	15	10			
Start - 2016		10	20			



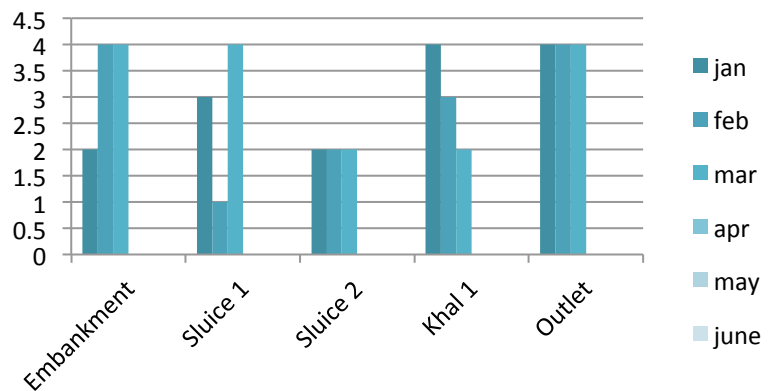
Polders	Organisation	WM Partnership	Infrastructure	Ag & Ec development	Contribution in kind	Contribution cash	O&M Fund
43/2A					240	BDT 13,450	BDT 100
43/2B					103	BDT 23,450	BDT 1,040
43/2D					653	BDT 6,543	BDT 10,400
43/2E					20	BDT 1,034	BDT 2,345
43/2f					134	BDT 40,984	BDT 8,723
43/1A					240	BDT 13,450	BDT 100
22					103	BDT 23,450	BDT 1,040
30					653	BDT 6,543	BDT 10,400
29					20	BDT 1,034	BDT 2,345
26					134	BDT 40,984	BDT 8,723
31-part					240	BDT 13,450	BDT 100
2 & 2-ext					103	BDT 23,450	BDT 1,040
55/2A					653	BDT 6,543	BDT 10,400
55/2C					20	BDT 1,034	BDT 2,345
47/3					134	BDT 40,984	BDT 8,723
47/4					240	BDT 13,450	BDT 100
25					103	BDT 23,450	BDT 1,040
27/1					653	BDT 6,543	BDT 10,400
27/2					20	BDT 1,034	BDT 2,345
28/1					134	BDT 40,984	BDT 8,723
28/2					653	BDT 6,543	BDT 10,400
21					20	BDT 1,034	BDT 2,345
Project average					240	BDT 15,883	BDT 4,690



WMG REPORT: WMG NAME

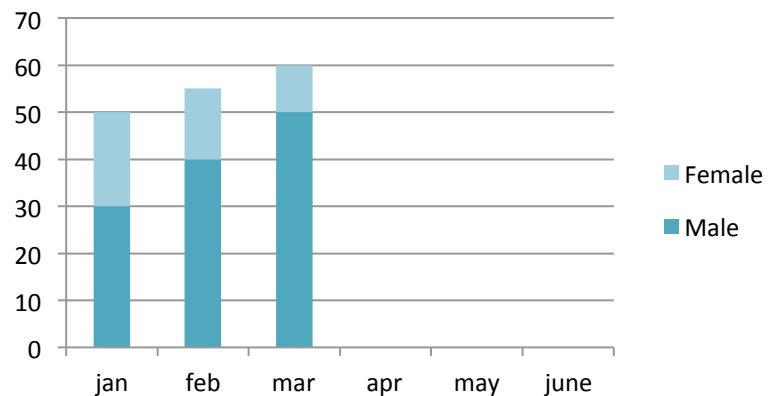
Infrastructure condition

Structure	jan	feb	mar	apr	may	june
Embankment	2	4	4			
Sluice 1	3	1	4			
Sluice 2	2	2	2			
Khal 1	4	3	2			
Outlet	4	4	4			
Average	3.0	2.8	3.2			



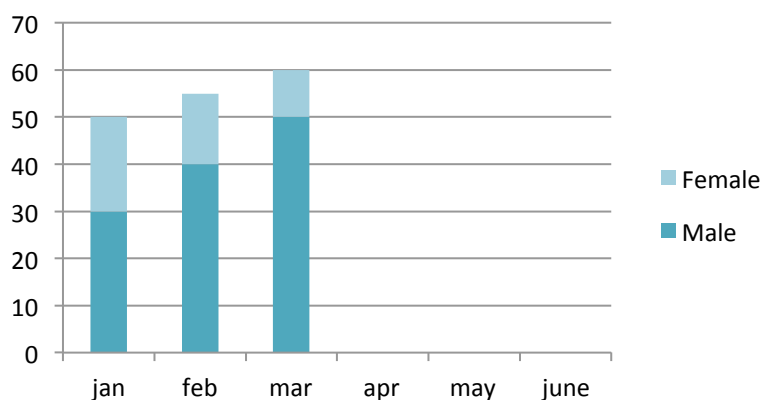
Group contribution to Operation & Maintenance (days - in kind)

Contribution	jan	feb	mar	apr	may	june
Male	30	40	50			
Female	20	15	10			
Total	50	55	60			
Benchmark (zonal)						
Male	15	20	25			
Female	10	5	10			
Total	25	25	35			



Money spent on Operation & Maintenance (BDT)

Money spent	jan	feb	mar	apr	may	june
Male	30	40	50			
Female	20	15	10			
Total	50	55	60			
Benchmark (zonal)						
Male	15	20	25			
Female	10	5	10			
Total	25	25	35			

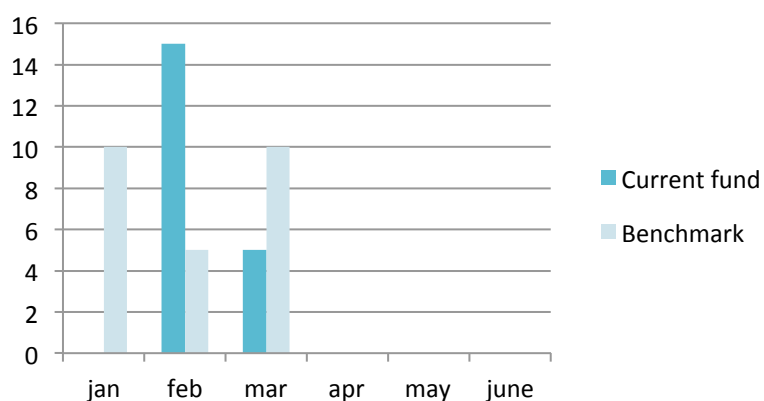


WMO Fund (* 1000 BDT)

Fund mutations	jan	feb	mar	apr	may	june
Start	30	0	15			
Received	20	70	50			
Spent	50	55	60			
Current fund	0	15	5			

Benchmark (zonal)

Benchmark	10	5	10			
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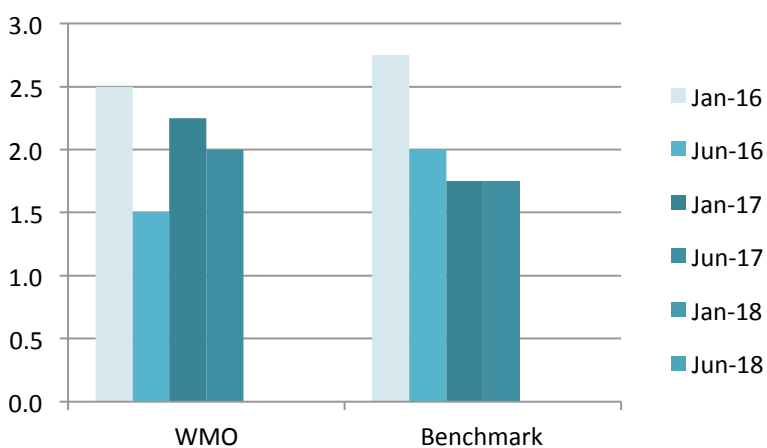


WMO Status

Category	Jan-16	Jun-16	Jan-17	Jun-17	Jan-18	Jun-18
Organisation						
WM Partner						
Infrastructure						
A&E develop						
WMO	2.5	1.5	2.3	2.0		

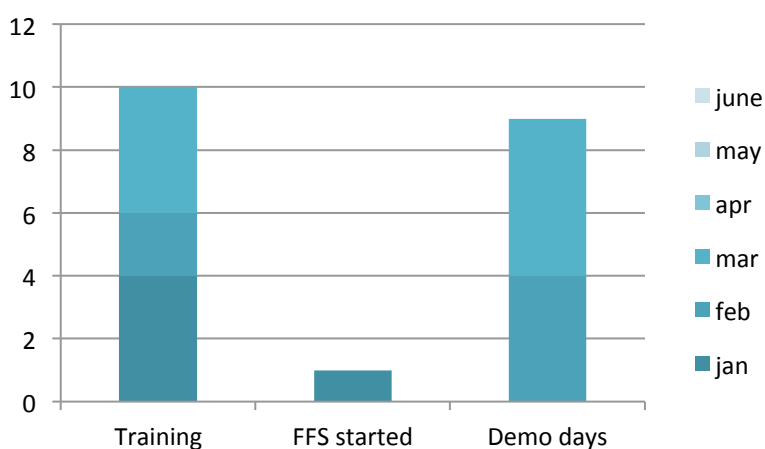
Benchmark

Organisation						
WM Partner						
Infrastructure						
A&E develop						
Benchmark	2.8	2.0	1.8	1.8		



Activities organised

Activities	jan	feb	mar	apr	may	june
Training	4	2	4			
FFS started	1	0	0			
Demo days		4	5			



BASELINE SURVEY QUESTIONNAIRE – BLUE GOLD PROGRAM

Section I: Introduction and general data

Enter date:
 Start Time:
 End Time:
 Phone Serial No.:
 HH Identification Number:
 Enumerators' Identification Number:
 Name of water management group:
 Para/Moholla/Somaj:
 Mouza:
 Union:
 Upazila:
 Polder no:
 Household Phone Number:

A – HOUSEHOLD INFORMATION & DEMOGRAPHICS		
A1	Name of Household Head:	
A2	Sex of Household Head	1= male; 2= female
A3	Formal education of household head:	1= Illiterate; 2= Can sign only; 3= Can read only, 4=Can read and write; 5= Primary; 6= Secondary; 7= SSC; 8= HSC; 9= Graduate and above;10= other
A4	Name of respondent:	
A5	Sex of respondent:	1= male; 2= female
A6	Age of respondent:	Age (number)
A7	Marital status of respondent:	1= Married ; 2= Unmarried; 3= Divorced; 4= Separated; 5= Widow/widower; 6= Never married
A8	Total number of HH members	.... (number)
A9	Number of male HH members	.... (number)
A10	Number of female HH members	.... (number)
A11	Number of people in household above 59:	.... (number)
A12	Number of people in household aged 18-59 years (including the respondents)	.... (number)
A13	Number of children in household under age 6:	.... (number)
A14	Did any of your household members receive training? [Note for enumerator: If yes -> go to A.16. If No or Don't know -> go to 2.a]	Y/N/Don't know
A15	Have any of your household members received the following training? (multiple answers possible)	1= Agriculture related; 2= Fish culture; 3= Cattle and poultry rearing; 4= Handicraft and cottage industry; 5= Technical/vocational skills; 6= Business development; 7= Project management; 8= organizational management and leadership training; 10= bookkeeping/ accounts keeping; 11= Not taken any training; 12= don't know; 13= other

B: Major crops, livestock and fisheries grown and its productivity (tons / ha for crops and fish, animals per household for livestock)		
B1	How much land does your household own?	.....decimals
B2	How much cultivable land does your household own?	.....decimals
B3	How much homestead land does your household own (including ponds, ditches, orchards, etc.)?	.....decimals
B10	How much land does your household cultivate for growing field crops during the Rabi / Boro season?	.... decimals
	How much own land???????	
B11	How much land does your household use for growing crops during the Kharif 1 / Aus season? (both cash crops and homestead crops)	.... decimals
	How much own land???????	
B12	How much land does your household use for growing crops during the Kharif 2 / Aman season? (both cash crops and homestead crops)	.... decimals
	How much own land???????	
B13	How much land did you use for LV T. aman production in the last year?	.... decimals T. aman LV
B14	What was the harvest of local variety T aman in the last 12 months?	.... Kg T. aman LV
B15	How much land did you use for high yielding variety T aman production in the last 12 months?	.... decimals T. aman HYV
B16	What was the harvest of high yielding variety T aman in the last 12 months?	.... Kg T. aman HYV
B17	How much land did you use for local variety boro production in the last 12 months?	.... decimals boro LV
B18	What was the harvest of local variety boro in the last 12 months? 1 Maund = 40 kg	.... Maund boro LV
B19	How much land did you use for MV/HYV boro production in the last 12 months?	.... decimals boro HYV
B20	What was the harvest of high yielding variety boro in the last 12 months?	.... Kg boro HYV
B21	How much land did you use for local variety T. aus production in the last 12 months?	.... decimals T. aus LV
B22	What was the harvest of local variety T aus in the last 12 months?	.... Kg T. aus LV
B23	How much land did you use for high yielding variety aus production in the last 12 months?	.... decimals aus HYV

B24	What was the harvest of high yielding variety aus in the last 12 months?	.... Kg aus HYV
B25	How much of your own paddy did your household consume in the last Rabi / Boro season?	..... Kg consumed
B26	How much of your own paddy did your household consume in the last Kharif 1 / Aus season?	..... Kg consumed
B27	How much of your own paddy did your household consume in the last Kharif 2 / Aman season?	..... Maund consumed
B28	Did your household sell paddy in the 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B41]	Y/N/Don't know
B29	How much paddy did your household sell in the last Rabi / Boro season? 1 Maund = 40 Kg	..... Maund sold
B31	How much money did your household earn per Kg paddy in the Rabi / Boro season?	..... Tk per Kg
B32	How much paddy did your household sell in the last Kharif 1 / Aus season?	..... Kg sold
B34	How much money did your household earn per Kg paddy in the Kharif 1 / Aus season?	..... Tk per Kg
B35	How much paddy did your household sell in the last Kharif 2 / Aman season?	..... Kg sold
B37	How much money did your household earn per Kg paddy in the Kharif 2 / Aman season?	..... Tk per Kg
B38	Where did your household sell the paddy? NOTE FOR ENUMERATOR: Multiple options possible	1= local market 2= Rich farmer 3= Dadon (contractual) 4= Local miller 5= Local buyer (Paiker/ farm gate) 7= Other, specify
B39	Did your household face any problems when selling paddy? [Note for enumerator: If Yes, go to If No or Don't know, go to B41]	Y/N/Don't know
B40	Which of the following problems did your household face when selling paddy? NOTE FOR ENUMERATOR: Multiple options possible Ask each of the options as a Y/N question to the respondent	1= markets far; 2= market inaccessible due to poor infrastructure; 3= market inaccessible due to lack of means for transportation; 4= limited numbers of buyers; 5= oversupply at the time of delivery; 6= low prices; 7= not aware of current prices; 8= poor product quality; 9= price volatility (rapidly fluctuating prices); 10= unavailability of storage facilities; 11= other, specify 12= no problems faced
B41	Did you household cultivate wheat in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B45]	Y/N/Don't know
B42	What area did your household use for wheat cultivation?	.....decimals wheat
B43	How much wheat did your household harvest?	.....kg wheat

B44	How much money did your household earn per Kg wheat?	..... Tk per Kg
B45	Did your household cultivate maize in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B49]	Y/N/Don't know
B46	What area did you use for maize cultivation?	.....decimals maize
B47	How much maize did you harvest?	.....kg maize
B48	How much money did your household earn per Kg maize?	..... Tk per Kg
B49	Did your household harvest sesame seeds in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B55]	Y/N/Don't know
B50	How much land did your household use to cultivate sesame?	..... decimals
B51	How much sesame did your household harvest?	..... Maunds
B52	How much money did your household earn per Kg sesame?	..... Tk per Kg
B53	Where does your household sell its sesame seeds?	1= local market 2= Rich farmer 3= Dadon (contractual) 4= Local miller 5= Local buyer (Paiker/ farm gate) 7= Other, specify
B54	Did you face any problems when selling sesame seeds?	1= markets far; 2= market inaccessible due to poor infrastructure; 3= market inaccessible due to lack of means for transportation; 4= limited numbers of buyers; 5= oversupply at the time of delivery; 6= low prices; 7= not aware of current prices; 8= poor product quality; 9= price volatility (rapidly fluctuating prices); 10= unavailability of storage facilities; 11= other, specify, 12= no problems faced
B55	Did your household harvest sunflower seeds in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B]	Y/N/Don't know
B56	How much land did your household use to cultivate sunflower?	..... decimals
B57	How much sunflower did your household harvest?	..... Kg
B56	How much money did your household earn per Kg sunflower?	..... Tk per Kg
	Did your household harvest other oil seeds (other than sesame and sunflower) in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B60]	Y/N/Don't know
B57	How much land did you use to cultivate other oil seeds?	..... decimals
B58	How much other oil seeds did you harvest?	..... Kg

B59	How much money did your household get for other oil seeds?	..... Kg
B60	Did your household cultivate homestead vegetables over the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B65]	Y/N/Don't know
B61	Which of the following vegetables did your household cultivate? [Note for enumerator: Ask each of the following options as a Y/N question]	1= pumpkin; 2= beans; 3= Cucumber; 4= potato; 5= tomato; 6= chili; 7= Phnui shak; 8= Data shak/ lalshak; 9= brinjal; 10= bottlegourd; 11= cauliflower; 12= cabbage; 13= carrot; 14= radish; 15= bitter gourd; 16= ash gourd; 17= yard long bean; 18= snake gourd; 19= ridge gourd; 20= lady's finger; 21= drum stick; 22= Other
B62	How much homestead vegetables did your household harvest in the last 12 months?	..... Tk harvested
B63	Did your household sell homestead vegetables? [Note for enumerator: If Yes, go to If No or Don't know, go to]	Y/N/Don't know
B64	How much homestead vegetables did your household sell?	..... Tk sold
B65	Did your household cultivate vegetables as a cash crop in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B71]	Y/N/Don't know
B66	How many decimals did you use for cash crop vegetables in the last 12 months?	..... Decimals
B67	How much vegetables did your household sell?	..... Tk Sold
B68	How much vegetables did your household consume?	..... Tk Consumed
B69	Where did your household sell its vegetable cash crops?	1= Local market; 2= Rich farmer; 3=Dadon (contractual); 4=Local miller ; 5=Local buyer (Paiker/ farm gate); 6=Other
B70	Did your household face any problems when selling vegetables?	1= markets far; 2= market inaccessible due to poor infrastructure; 3= market inaccessible due to lack of means for transportation; 4= limited numbers of buyers; 5= oversupply at the time of delivery; 6= low prices; 7= not aware of current prices; 8= poor product quality; 9= price volatility (rapidly fluctuating prices); 10= unavailability of storage facilities; 11= other, specify, 12= no problems faced
B71	Did your household cultivate homestead fruit during the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B73]	Y/N/Don't know
	Which of the following fruits did your household cultivate? [Note for enumerator: Ask each of the following options as a Y/N question]	1= Coconut; 2= Lemon; 3=Guava; 4=Papaya; 5=Banana; 6=Water melon/ melon; 7= Mango/ Jack fruit; 8= Tal/ Date palm; 9= Betel nut; 10= Amra; 11= litchi; 12= jujube; 13= black berry; 14= Other
B72	How much homestead fruit did your household harvest during the last 12 months	.... Tk

B73	Did your household cultivate commercial fruit during the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B81]	Y/N/Don't know
B74	What is the total field size your household used during the last season for commercial fruit cultivation?	.... Decimals
B75	How much commercial fruit did you harvest in the last 12 months?	.... Kg
B76	Did your household sell fruit in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B81]	Y/N/Don't know
B77	How much fruit did you sell in the last 12 months?	..... Tk sold
B78	How much of the the cultivated fruit did you consume in the last 12 months?	..... Tk consumed
B79	Where did your household sell the fruits?	1= Local market; 2= Rich farmer; 3=Dadon (contractual); 4=Local miller ; 5=Local buyer (Paiker/ farm gate); 6=Other
B80	Did your household face any problems while selling fruits?	1= markets far; 2= market inaccessible due to poor infrastructure; 3= market inaccessible due to lack of means for transportation; 4= limited numbers of buyers; 5= oversupply at the time of delivery; 6= low prices; 7= not aware of current prices; 8= poor product quality; 9= price volatility (rapidly fluctuating prices); 10= unavailability of storage facilities; 11= other, specify, 12= no problems faced
B82	What was the harvest of your household's homestead watermelon?	..... Tk
B83	Did your household cultivate watermelon as a cash crop? [Note for enumerator: Dependent on If Yes, go to If No or Don't know, go to B86]	Y/N/Don't know
B84	How much land did you use for watermelon (cash crop) cultivation?	..... decimals
B85	How much watermelon (cash crop) did you harvest?	..... Tk
B86	In the last 12 months, did your household cultivate pulses? [Note for enumerator: If Yes, go to If No or Don't know, go to B95]	Y/N/Don't know
B87	In the last 12 months, did your household cultivate mung bean? [Note for enumerator: If Yes, go to If No or Don't know, go to B95]	Y/N/Don't know
B88	What is the total field size your household used during the last season for mung bean cultivation?	.... decimals

B89	Did your household sell mung bean in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B95]	Y/N/Don't know
B90	How much mung bean did your household sell in the last 12 months?	..... Kg
B91	How much did you earn by selling mung bean?	.....Tk per Kg
B92	How much mung bean did your household consume in the last 12 months?	..... Kg
B93	Where does your household sell mung bean? [Note for enumerator: multiple options possible]	1= Local market; 2= Rich farmer; 3=Dadon (contractual); 4=Local miller ; 5=Local buyer (Paiker/ farm gate); 6=Other
B94	Did your household face any problems when selling mung bean crops?	1= markets far; 2= market inaccessible due to poor infrastructure; 3= market inaccessible due to lack of means for transportation; 4= limited numbers of buyers; 5= oversupply at the time of delivery; 6= low prices; 7= not aware of current prices; 8= poor product quality; 9= price volatility (rapidly fluctuating prices); 10= unavailability of storage facilities; 11= other, 12= no problems faced
B95	Did your household cultivate other pulse crops (other than mung bean) in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B100]	Y/N/Don't know
B96	How much land did your household use for the cultivation of other pulses?	..... decimals
B97	How much other pulses did your household harvest?	..... Maunds
B98	What was the value per Kg of other pulses?	..... Tk per Kg
B99	How much money did your household earn by selling other pulses?	..... Tk
POULTRY AND LIVESTOCK		
B100	Does your household own poultry? [Note for enumerator: If Yes, go to If No or Don't know, go to B109]	Y/N/Don't know
B101	How many adult chickens does your household own?	..... (number)
B103	How many adult ducks does your household own?	..... (number)
B104	How many adult geese does your household own?	..... (number)
B105	Does your household use poultry for own consumption and/or does your household sell? (select one)	1= only for own consumption 2= own consumption, and sells less than a quarter 3= own consumption, and sells more than a quarter but less than half 4= own consumption, and sells more than half 5= own consumption, and sells more than three quarters

B106	How many eggs does your household get per month?	... (number)
B107	How many eggs does your household sell per month?	... (number)
B108	How much does your household earn monthly by selling eggs?	... (number)
B109	Does your household own sheeps or goats? [Note for enumerator: If Yes, go to If No or Don't know, go to B111]	Y/N/Don't know
B110	How many sheeps and/or goats does your household own?	...(number)
B111	Does your household own cows or buffalos? [Note for enumerator: If Yes, go to If No or Don't know, go to B119]	Y/N/Don't know
B112	How many cows does your household own?	.... (number)
B113	How many buffalos does your household own?	.... (number)
B114	How much does your household earn per year by selling cows and / or buffalos?	.... Tk
B115	Does your household own any milking cows? Note for enumerator: If Yes, go to If No or Don't know, go to B119]	Y/N/Don't know
B116	How much milk do your household's milking cows produce per cow per week?	...liters milk per cow per day (estimated average)
B117	How much does your household earn by selling milk?	.... Tk
B118	How much of your own produced milk does your household consume?	.... Tk
FISHERIES		
B119	Does your household own ponds / ditches? Note for enumerator: If Yes, go to If No or Don't know, go to B123]	Y/N/Don't know
B120	How big is the total pond / ditches area that your household owns?	... decimals
B121	How big is the total pond / ditches area that your household had in use for <u>perennial</u> aquaculture over the last 12 months?	... decimals
B122	How big is the total pond / ditches area that your household had in use for <u>seasonal</u> aquaculture over the last 12 months?	... Decimals
B127	Does your household own, share or lease a Gher? [Note for enumerator: If Yes, go to If No or Don't know, go to B133]	Y/N/Don't know
B128	How much gher area do you have under cultivation?	....decimals

B129	What is the ownership model of the largest gher that you have access to? [Note for enumerator: Read out each of the options to the respondent]	1= Yes, household owns a gher; 2= yes, household shares gher with other households under multi ownership; 3= yes, household leases in gher; 4= yes, household leases out gher; 4= yes, household private mortgages in gher; 5= yes, household mortgages out gher; 6= yes, household shares out gher; 7= yes, institutional leased in; 8= yes, khas leased in; 9= yes, institutional/khas freehold
B130	What species of crops do you cultivate in the gher? [Note for enumerator: Multiple options possible]	1= rice cultivation 2= freshwater prawn cultivation 3= Saltwater shrimp cultivation 4= Prawn and Shrimp together 5= Polyculture 6= fruits and vegetable cultivation on the banks 7= crabs 8= other
B131	Did you encounter any problems in relation to the Gher in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B133]	Y/N/Don't know
B132	Which problems has your household encountered over the last year in relation to your Gher?	1= Water pollution; 2= too Saline; 3= lack of water; 4= Viral diseases; 5= Other
B133	Did your household produce any fish in the last 12 months? (In ponds and gher altogether)? [Note for enumerator: If Yes, go to If No or Don't know, go to C1]	Y/N/Don't know
B134	How many Kg of fish (including shrimps and prawns) did your household produce over the last 12 months in total (from the ponds and gher altogether)?	... Kg produced
B135	What was the estimated value of the fish (including shrimps and prawns) that your household produced in the last 12 months?	.... Tk
B136	Did your household sell any fish (including shrimps and prawns) in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B141]	Y/N/Don't know
B137	How many Kg of fish (including shrimps and prawns) did your household sell in the last 12 months?	... Kg sold
B138	How many Kg of fish (including shrimps and prawns) did your household consume in the last 12 months?	... Kg consumed
B139	How much money did your household earn in the last 12 months by selling fish (including shrimps and prawns)?	.... Tk
B140	Where do you sell your fish prawns and/or shrimps? (multiple options possible) [Note for enumerator: Please mention all options to the respondent]	1= Mohajon; 2= Local market; 3= Distant market; 4= Other; 5= doesn't sell fish/prawns/shrimps
B141	Which of the following challenges has your household faced regarding fishing culture in the last year? (select multiple)	1= the flooding of ponds/ditches during high tide; 2= insufficient availability of fingerling or other input; 3= Quality of fingerlings; 4= marketing/ pricing of fish produce was very competitive; 5= fingerling or other

	<p>[Note for enumerator: Ask each of the options as Y / N questions]</p>	<p>input was too expensive; 6= insufficient availability of fish feed; 7= fish feed was too expensive; 8= pond dried up; 9= theft of fish; 10= low prices; 11= water is too saline; 11= water pollution due to weeds and water hyacinth; 12= water pollution, the water looks green or grey-green; 13= water pollution due to poisoning; 14= markets far; 15= market inaccessible due to poor infrastructure; 16= market inaccessible due to lack of means for transportation; 17= unavailability of storage facilities; 18= limited numbers of buyers; 19= oversupply at the time of delivery; 20= not aware of current prices; 21= poor product quality; 22= price volatility (rapidly fluctuating prices); 23= other; 24= None.</p>
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Indicator C_1: Area (ha) and people (#) benefitting from proper water management and protected against floods		
C1	<p>Do you irrigate your land during the dry season?</p> <p>[Note for enumerator: If Yes, go to If No or Don't know, go to C4]</p>	Y/N/Don't know
C2	How much land do you irrigate in the dry season?	.....decimals
C3	What is the source of water for field crop irrigation for your household? (select multiple)	1= Canal, 2=Beel; 3= Pond; 4= Groundwater (tubewells); 5= other
C4	<p>In 2016, was there always sufficient fresh water available for irrigation?</p> <p>NOTE FOR ENUMERATOR: Multiple answers possible</p>	<p>1=yes 2=no fresh water in Boishakh 3=no fresh water in Joshto 4=no fresh water in Ashar 5=no fresh water in Srabon 6=no fresh water in Bhadro 7=no fresh water in Ashin 8=no fresh water in Kartik 9=no fresh water in Ograhoyon 10=no fresh water in Poush 11=no fresh water in Magh 12=no fresh water in Falgun 13=no fresh water in Choitro</p>
C5	<p>Did you experience any of the following problems over the last year?</p> <p>flooding due to storm surge / tide flooding in monsoon cyclone/tornado short-duration waterlogging (max 3 weeks) long-term waterlogging (seasonal / above 3 weeks) salinization of land drought resulted in lack of water, which resulted in loss of agricultural produce none of these problems happened</p>	<p>Y/N Y/N Y/N Y/N Y/N Y/N</p>

C_2: Area (ha) affected by poor drainage		
C6	<p>Did any of your land suffer from poor drainage in the last 12 months?</p> <p>[Note for enumerator: If Yes, go to</p>	Y/N/Don't know

	If No or Don't know, go to C10]	
C7	How much cultivable land could not be cultivated due to poor drainage (short-duration) in the Rabi / Boro season?	..... decimals
	Waterlogging	
C8	How much cultivable land could not be cultivated due to poor drainage in the Kharif 1 / Aus season?	..... decimals
C9	How much cultivable land could not be cultivated due to poor drainage in the Kharif 2 / Aman season?	..... decimals

C_3: Area (ha) effected by salinity		
C10	Did any of your land suffer from salinity in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to C12]	Y/N/Don't know
C11	In the last 12 months, how much of your land could not be cultivated due to salinity?	..... decimals

C_4: Participation in Water Management & Collective Actions		
C12	Do any of your household members participate in a WMG? [Note for enumerator: If Yes, go to If No or Don't know, go to C16]	Y/N/Don't know
C13	How many of your household members are member of the water management group?	.... (number)
C14	How many female household members are member of the water management organisation?	.... (number)
C15	How much time did your household members in total spend in WMG activities?	.... Hours
C16	Did your household contribute to operation and maintenance (O & M) activities by the WMG? [Note for enumerator: If Yes, go to If No or Don't know, go to C21]	Y/N/Don't know
C17	To which of the following O & M activities did your household contribute? [Note for enumerator: Please ask all options separately as Y/N questions to the respondent]	1= hyacinth cleaning 2= khal excavation 3= sluice operation 4= small maintenance of sluices 5= small maintenance of embankments 6= emergency repairs of embankments 7= other, specify
C18	How much did your household financially (in cash) contribute to O & M activities by the WMG in the last 12 months?	.... Tk
C19	How much did your household contribute in kind (labour / materials) to O & M activities by the WMG in the last 12 months?	.... Value in Tk

C20	How much time did your household in total (all HH members) contribute to O & M activities by the WMG in the last 12 months?	.... Hours
C21	<p>Is any member from your household active in the following organisations? [Note for enumerator: Please ask all options separately as Y/N questions to the respondent]</p> <p>Water Management Association Water Management Federation FFS MFS Labour Contracting Society Cooperative Society Other Community-based organisations</p>	<p>Y/N Y/N Y/N Y/N Y/N Y/N</p>
C22	<p>Is any female member from your household active in the following organisations? [Note for enumerator: Please ask all options separately as Y/N questions to the respondent]</p> <p>Water Management Association Water Management Federation FFS MFS Labour Contracting Society Cooperative Society Other Community-based organisations</p>	<p>Y/N Y/N Y/N Y/N Y/N Y/N</p>
C23	<p>In the last 12 months, did your household participate in any collective action for crop production production, aquaculture and / or marketing? [Note for enumerator: If Yes, go to If No or Don't know, go to B142]</p>	Y/N/Don't know
C24	<p>In what type of collective action did your household participate? [Note for enumerator: Please ask each of the options as a Y/N question to the respondent Multiple options possible]</p>	<p>1= Joint procurement of Inputs 2= Joint land preparation / tillage 3= Joint purchase / renting of agricultural machineries 4= Organizing Transportation together 5= Jointly Selling 6= Organizing a sales center 7= Joint Access to Finance 8= Lobbying together for something 9= Aquaculture 9= Other, pls. specify</p>
C25	How many people were involved in this collective action?	..... (number of people)
C26	<p>How much did you invest in collective action? [Note for enumerator: This includes investments in cash, man hours and in kind]</p>	..... Taka
C27	How much money did you save thanks to reduced purchase prices resulting from collective actions?	..... Taka
C28	How much money did you save thanks to reduced labour costs resulting from collective actions?	..... Taka

C29	How much money did you save thanks to reduced transportation costs resulting from collective actions?	..... Taka
C30	How much money did you save on other costs as a result of collective actions?	..... Taka
C31	How much money did you save thanks to reduced purchase prices resulting from collective actions?	..... Taka

Indicator B_2: Crop losses (tons / ha)		
B142	Did you suffer from crop losses in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B147]	Y/N/Don't know
B143	What was your estimated crop loss during the last Rabi / Boro Season? [Note for enumerator: Please discuss each of these crops one-by-one]	.....Tk rice.....Tk cash crop vegetables.....Tk watermelon.....Tk fruits (excl. watermelon) .....Tk sesame.....Tk sun flower.....Tk other oil seeds.....Tk mung bean.....Tk other pulses.....Tk cereals.....Tk other crops
B144	What was your estimated crop loss during the last Kharif 1 / Aus Season? [Note for enumerator: Please discuss each of these crops one-by-one]	.....Tk rice.....Tk cash crop vegetables.....Tk fruits.....Tk sesame.....Tk sun flower.....Tk other oil seeds.....Tk mung bean.....Tk other pulses.....Tk cereals.....Tk other crops
B145	What was your estimated crop loss during the last Kharif 2 / Aman Season? [Note for enumerator: Please discuss each of these crops one-by-one]	.....Tk rice.....Tk cash crop vegetables.....Tk fruits.....Tk sesame.....Tk sun flower.....Tk other oil seeds.....Tk mung bean.....Tk other pulses.....Tk cereals.....Tk other crops
B146	What was the reasons for these crop losses?	1= flooding due to storm surge in monsoon 2= cyclone/tornado 3= waterlogging 4= salinization of land 5= drought resulted in lack of water, which resulted in loss of agricultural produce 6= none of these problems happened

Indicator B_3: Dietary Diversity		
B147	What did you eat yesterday? (select multiple)	1= rice, chira, muri, ata, or gum 2= noodles, biscuits, snacks 3= potatoes 4= vegetables 5= fruits

		6= meat 7= eggs 8= fish or seafood 9= pulse crops, legumes such as beans, peas, lentils, or nuts 10= milk or milk products 11= oil 12= sugar and sweets 13= miscellaneous i.e. coffee, tea, powdered spices 14= I did not eat anything yesterday 15= other
B148	How many different food items did you consume yesterday? [Note for enumerator: This question refers to unique food items consumed. If a person eats 2 bananas this counts as one food item. Tea is not considered a food item.]	.....(number)
B149	Did you lack access to one or more nutritious food items in the last 12 months? [Note for enumerator: If Yes, go to If No or Don't know, go to B152]	Y/N/Don't know
B150	To which of the following food items did you not have access in the last 12 months? [Note for enumerator: Please discuss each of these food items one-by-one]	1= rice, chira, muri, ata, or gum 2= noodles, biscuits, snacks 3= potatoes 4= vegetables 5= fruits 6= meat 7= eggs 8= fish or seafood 9= pulse crops, legumes such as beans, peas, lentils, or nuts 10= milk or milk products 11= oil 12= sugar and sweets 13= miscellaneous i.e. coffee, tea, powdered spices 14= I did not eat anything yesterday 15= other
B151	During which of the last 12 months did your household not have access to all food items mentioned in the previous question? NOTE FOR ENUMERATOR: 'not having access means the item is not available in the area and / or people can't afford to buy it'	1=Boishakh 2=Joshto 3=Ashar 4=Srabon 5=Bhadro 6=Ashin 7=Kartik 8=Ograhoyon 9=Poush 10=Magh 11=Falgun 12=Choitro 13= we had enough food all year round
B152	In case your household includes children aged 6-18, what did the youngest child within this age group eat yesterday? (multiple answers possible) [Note for enumerator: Please discuss each of these food items one-by-one]	1= rice, chira, muri, ata, or gum 2= noodles, biscuits, snacks 3= potatoes 4= vegetables 5= fruits 6= meat 7= eggs 8= fish or seafood 9= pulse crops, legumes such as beans, peas, lentils, or nuts 10= milk or milk products

		11= oil 12= sugar and sweets 13= miscellaneous i.e. coffee, tea, powdered spices 14= I did not eat anything yesterday 15= other
B153	What did the eldest female household member eat? (multiple answers possible) [Note for enumerator: Please discuss each of these food items one-by-one]	1= rice, chira, muri, ata, or gum 2= noodles, biscuits, snacks 3= potatoes 4= vegetables 5= fruits 6= meat 7= eggs 8= fish or seafood 9= pulse crops, legumes such as beans, peas, lentils, or nuts 10= milk or milk products 11= oil 12= sugar and sweets 13= miscellaneous i.e. coffee, tea, powdered spices 14= I did not eat anything yesterday 15= other
B154	How many days over the last month did your household eat meat and fish?	.... (number)
B155	In the past four weeks, how often did you worry that your household would not have enough food? [Note for enumerator: Please discuss the options one-by-one with the respondent]	1=Rarely (once or twice in the past 12 months), 2=Sometimes (3 to 10 times in the past 12 months), 3=often (more than 10 times in the past 12 months), 4=never / it did not happen
B156	In the last 12 months, did your household eat insufficient food at any time? [NOTE FOR ENUMERATOR: 'insufficient food' is defined as 'had less than two meals a day' If Yes, go to If No or Don't know, go to B160]	Y/N/Don't know
B157	During which of the last 12 months your household did not have enough food? (select multiple) NOTE FOR ENUMERATOR: 'not enough food' is defined as 'had less than two meals a day'	1=Boishakh 2=Joshto 3=Ashar 4=Srabon 5=Bhadro 6=Ashin 7=Kartik 8=Ograhoyon 9=Poush 10=Magh 11=Falgun 12=Choitro 13= we had enough food all year round
B158	In the last 12 months, how often did you or any household member have to eat a limited variety of foods due to a lack of resources? [Note for enumerator: Please discuss the options one-by-one with the respondent]	1=Rarely (once or twice in the past 12 months), 2=Sometimes (3 to 10 times in the past 12 months), 3=often (more than 10 times in the past 12 months), 4=never / it did not happen
B159	What is your coping strategy when you don't have enough food and / or financial resources to feed yourself?	1= eats seeds; 2= eats fruits and vegetables that are unripe; 3= sells land to be able to buy food; 4= sells livestock to be able to buy food; 5= buys food from finances that were meant for other expenditure (i.e. school fees); 6= gets support from an NGO or religious organization 7= applies for a loan; 8= mortgage or leases out of land to get money;

		9= borrows money from neighbours or relatives to buy food; 10=temporarily migrates out of area to work elsewhere; 11= eats one meal less a day; 12= sells assets or jewelry; 13= begs for food or money; 14= other, specify
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Indicator B_4: Progress out of Poverty Index		
B160	How many household members are 12 years old or younger?	A. Three or more (0 point) B. Two (10 point) C. One (16 point) D. None (29 point)
B161	Do all household members ages 6 to 12 currently attend a school/educational institution?	A. No (0 point) B. No household members of 6 to 12 years old (3 point) C. Yes (6 point)
B162	In the past year, did any household member ever do work for which he/she was paid on a daily basis?	A. Yes (0 point) B. No (8 point)
B163	How many rooms does your household occupy (excluding rooms used for business)?	A. One (0 point) B. Two (3 point) C. Three or more (5 point)
B164	What is the main construction material of the walls of the main room?	A. Hemp/Hay/Bamboo or other (0 point) B. Mud brick, or C.I. sheet/wood (2 point) C. Brick/cement (9 point)
B165	Does the household own any televisions?	A. No (0 point) B. Yes (7 point)
B166	How many fans does the household own?	A. None (0 point) B. One (4 point) C. Two or more (7 point)
B167	How many mobile phones does the household own?	A. None (0 point) B. One (8 point) C. Two or more (15 point)
B168	Does the household own any bicycles, rickshaws, vans, motorcycle/scooters, or motor cars etc?	A. No (0 point) B. Yes (4 point)
B169	Does the household use or have access to (or rent/sharecrop/mortgage in or out) 51 or more decimals of cultivable agricultural land (excluding uncultivable land and dwelling-house/homestead land)?	A. No (0 point) B. Yes (7 point)

Indicator B_5: Household Income		
B170	What is the current value of your cultivable land?	.....Taka
B171	What is the current value of your ponds, ditches and ghers?	.....Taka
	Which materials of roof of main house???????	
B172	What is the current value of your house?	.....Taka
B172	What is the current value of your homestead land?	.....Taka
B173	<p>NOTE FOR ENUMERATOR: please discuss in detail with the respondent what the source of income was</p> <p>How much income did your household earn in 2016 (previous year) from the following activities?</p>	<p>.... Taka agricultural labour</p> <p>..... Taka providing services as Resource Farmer</p> <p>..... Taka from renting out agricultural Machineries</p> <p>..... Taka rice hasking</p>

		..... Taka providing veterinary services Taka catching fish in khals & beels (open water) Taka selling fire wood/fuel/straw Taka cottage industry .....Industrial labour Taka small business / shop-keeping (incl. tea stall, restaurants, etc.) .....Taka self-employed (incl. barber, parlour,etc.) Taka renting out shops/houses Taka working in restaurant Taka transport labour Taka pulling rickshaw/van Taka construction labour (house, roads, etc.) Taka unskilled labour (earthworks, etc.) Taka salaried services (imam, teacher, NGO job, etc.) Taka contractor ship Taka renting out rickshaw/van/boat/motor/car/etc. Taka maid servant in another house Taka remittances Taka others, pls. specify
B174	Does your household run a business? [Note for enumerator: If Yes, go to If No or Don't know, go to B176]	Y/N/Don't know
B175	How many people does your household's business(es) employ [Note for enumerator: If the household runs more than one business, please give the sum of the employees of all those businesses]	1= family labour..... (number) 2= external labour.... (number)
B177	How much did your household spend on education (incl. tuition, fees, etc.) over the last 12 months, in total for all household members? NOTE FOR THE ENUMERATOR: educational costs include books, school fees, stationary, uniforms and transport costs. In case a household doesn't have education costs, fill in '0'.	.... Taka
B178	How much did your household spend on house improvement over the last 12 months? NOTE FOR THE ENUMERATOR: house improvement includes repair of the building inside and outside, new construction of inside/outside housing facilities, expenditure on household assets. Sanitary facilities should also be included.	.... Taka
B179	How much money did your household spend on buying food over the last month?	.... Taka

D: WASH		
D1	Do you have access to a water sealed latrine (at least slab latrine)	Y/N
D2	Do you use tube well (arsenic-free) drinking water all year round?	Y/N

D3	Do you use safe water for domestic use (e.g. dishes, cooking, etc.) all year round?	Y/N
D4	Do you currently have access to a running tube well?	Y/N
D5	How long that tube well has been broken?	Y/N
D6	Do you wash your hands after defecation?	Y/N
D7	Do you wash your hands before taking food?	Y/N
D8	Did your children learn how to wash their hands?	Y/N
D9	Do your children was their hands before taking food?	Y/N

Indicator E: Women Empowerment in Agriculture		
E1	In which of the following activities did <u>female</u> household members participate over the last 12 months? [Note for enumerator: Please discuss each of the options as Y/N questions with the respondents]	1=homestead cultivation, 2=field crop farming (both food and cash crops), 3= post-harvest agricultural activities, 4= poultry and duck rearing, 5=livestock rearing, 6=aquaculture, 7=non-farm economic activities (e.g. running a small business), 8=wage and salary employment, 9=no economic activities, 10=poultry rearing
E2	In which of the following activities did <u>male</u> household members participate over the last 12 months? [Note for enumerator: Idem as above]	1=homestead cultivation, 2=field crop farming (both food and cash crops), 3= post-harvest agricultural activities, 4= poultry and duck rearing, 5=livestock rearing, 6=aquaculture, 7=non-farm economic activities (e.g. running a small business), 8=wage and salary employment, 9=no economic activities, 10=poultry rearing
E3	Who decides about which homestead activities are being undertaken and how? [Note for enumerator: Idem as above]	1=wife, 2=husband, 3=wife and husband jointly decide, 4=other male HH members, 5=other female HH members, 6=other male and female household members jointly decide, 99=non-applicable
E4	Who takes decisions about purchase of agricultural inputs? [Note for enumerator: Idem as above]	1=wife, 2=husband, 3=wife and husband jointly decide, 4=other male HH members, 5=other female HH members, 6=other male and female household members jointly decide, 99=non-applicable
E5	Who decides how the household income is spent? [Note for enumerator: Idem as above]	1=only the male hh members; 2=male members, but with women only control the income they themselves generated; 3=husband and wife jointly decide about the spending of all household income; 4=only the female hh members
E6	Who decides about non-farm economic activities? [Note for enumerator: Idem as above]	1=wife, 2=husband, 3=jointly, 4=other male HH members, 5=other female HH members, 6=other male and female household members, 99=non-applicable
E7	How did you make the above decisions? [Note for enumerator: Idem as above]	1=because I think this is the best decision: 2=because I discussed this with others (husband/wife or others) and together we decided this; (3) because I am expected to make this decision / and or my husband / others told me so; 4=no own decisions made
E8	Who decides about purchasing and selling of assets (including leasing / mortgaging) such as land, ponds, animals, equipment, mobile phones, etc.? [Note for enumerator: Idem as above]	1=only male hh members decide on all assets; 2=male hh members decide on major assets with some input of female hh members; 3=female household members decide on those assets related to their own production (e.g. poultry/vegetable cultivation); 4= joint decision making about all assets; 5=only female household members decide about all assets
E9	Who in your household decides about purchasing or selling consumer durables (e.g. cookware, tv, etc.)?	1=only male hh members decide on all assets; 2=male hh members decide on major assets with some input of female hh members; 3=female household members decide on those assets related to their own production (e.g. poultry/vegetable

	[Note for enumerator: Idem as above]	cultivation); 4= joint decision making about all assets; 5=only female household members decide about all assets
E10	Who in your household uses a cell phone? [Note for enumerator: Idem as above]	1=only male HH members, 2=only female HH members, 3=both male and female HH members, 4=no cell phone available in the HH
E11	Who in your household does have taken any loans or credit (e.g. from NGO microfinance institutions, loans from banks)? [Note for enumerator: Idem as above]	1=wife, 2=husband, 3=jointly, 4=other male HH members, 5=other female HH members, 6=other male and female household members jointly took loans, 99=non-applicable
E12	Who in your household does have taken any informal credits (e.g. loans from relatives and friends)? [Note for enumerator: Idem as above]	1=wife, 2=husband, 3=jointly, 4=other male HH members, 5=other female HH members, 6=other male and female household members jointly took loans, 99=non-applicable
E13	How much time do female household members spend on the following activities on an average day?	
	Leisure (e.g. watching tv, talking with relatives)	..... hour
	Household work	..... hour
	Unpaid agricultural work	..... hour
	Paid agricultural work	..... hour
	Business (other than agriculture)	..... hour
	Wage and salary employment	..... hour
	Eating	..... hour
	Shopping (incl. healthcare)	..... hour
	Care for children	..... hour
	Care for elder family members	..... hour
	Travelling	..... hour
	Religious activities	..... hour
	Sleeping	..... hour
	Other (pls. specify)	..... hour
	Note for enumerator: Pls. discuss all items one-by-one. Pls. make sure the total adds up to 24 hours.]	
E14	How much time do male household members spend on the following activities on an average day?	
	Leisure (e.g. watching tv, talking with relatives)	..... hour
	Household work	..... hour
	Unpaid agricultural work	..... hour
	Paid agricultural work	..... hour
	Business (other than agriculture)	..... hour
	Wage and salary employment	..... hour
	Eating	..... hour
	Shopping (incl. healthcare)	..... hour
	Care for children	..... hour
	Care for elder family members	..... hour
	Travelling	..... hour
	Religious activities	..... hour
	Sleeping	..... hour

	<p>Other (pls. specify)</p> <p>[Note for enumerator: Pls. discuss all items one-by-one. Pls. make sure the total adds up to 24 hours.]</p>	
E15	<p>Which of the following places do female household members visit on their own?</p> <p>[Note for enumerator: multiple answers possible]</p>	<p>1= local market/ hat; 2= health center/clinic; 3= hospital; 4= NGO office/ CBO office; 5= national festive; 6= Union Parishad; 7= Upazila Livestock/ Agriculture/ Fishery/ Social welfare offices; 8= Upazila social welfare office; 9= district level offices; 10= schools, 11= other; 12= female household members do not visit any of these places on their own.</p>
E16	<p>[Note for enumerator: this question is for female household members only]</p> <p>Do you feel comfortable speaking out in public meetings with men and women present?</p>	<p>1=yes, comfortably; 2=yes, but with difficulty; 3=only in women's groups; 4=does not speak out in public at all</p>
E17	<p>[Note for enumerator: this question is for female household members only]</p> <p>Do you feel comfortable speaking out in public meetings?</p>	<p>1=yes, comfortably; 2=yes, but with difficulty; 3=does not speak out in public at all</p>

WMA: Outcome challenges and progress markers

SL	Outcome Challenges	Progress Markers				Remarks/suggestions
		0	1	2	3	
1.	The General Committee of the WMA has been formed with 4 representatives, including at least 1 female representative, of each member-WMG. The General Committee has elected its Executive Committee (EC) and the EC is functioning and has taken over its coordinating role.	Members of WMGs have not selected their representatives yet.	Members of WMGs have selected their representatives for General Committee of WMA, but the General Committee has not elected its EC.	General Committee of WMA has been formed with representatives of member-WMGs, the General Committee has elected its EC but the EC is not yet fully functional.	General Committee of WMA has been formed with representatives of member-WMGs; the General Committee has elected its EC; the EC is functioning well and has assumed its coordinating role.	
2.	The WMA is coordinating efforts of member-WMGs to establish good water management and O&M of infrastructure within its catchment area.	The WMA is not operational yet.	The WMA has started assuming its coordinating role but has not taken any step yet to plan with member-WMGs for establishing good water management and O&M of infrastructure within its catchment area	The WMA has begun to plan with member-WMGs for establishing good water management and O&M of infrastructure within its catchment area	The WMA is performing well, coordinating plans and activities of member-WMGs in establishing good water management and O&M of infrastructure within its catchment area	
3.	WMA has established contacts, cooperation mechanisms and water management partnerships with other stakeholders, including government agencies, Local Government Institutions (LGIs), private institutions/enterprises and	The WMA has not established contacts, cooperation mechanisms, partnerships with other stakeholders yet	The WMA has just begun to establish contacts, cooperation mechanisms and water management partnerships with some stakeholders	The WMA has established contacts, cooperation mechanisms and water management partnerships with some of the other stakeholders	The WMA has established contacts, cooperation mechanisms and water management partnerships with other stakeholders, including government agencies, LGIs, private	

	NGOs.				institutions/enterprises and NGOs.
4.	At least one woman is holding key post in WMA EC. The WMA EC members are fully aware of their responsibilities and they carry them out.	There is no woman holding key post in the WMA EC. There was no meeting held yet and WMA EC members are not aware of their responsibilities.	The WMA EC has been elected, with woman holding key post. WMA EC meeting was held but more than 50% EC members are not fully aware of their responsibilities.	The WMA EC has been elected, with at least one woman holding key post. Meeting are being held and more than 50% WMA EC members are aware of their responsibilities.	The WMA EC has at least one woman holding key post. All WMA EC members are fully aware of their responsibilities and they carry them out
5.	WMA has established good coordination and linkages with BWDB, WMGs, Joint Management Committee, LGIs and other stakeholders	WMA has not established coordination and linkages with other stakeholders/institutions	WMA is trying to establish linkages with other stakeholders/institutions	WMA has established linkages and coordination with some of the stakeholders/institutions	WMA has established good coordination and linkages with most stakeholders/institutions
6.	WMA is holding meetings regularly	Not any meeting held yet	WMA is holding meetings but not so regularly, and does not follow-up the decisions of meetings	WMA is holding meetings quite regularly but does not follow up the decisions of meetings on a regular basis	WMA is holding meetings regularly and it follows up the decisions taken in the meetings regularly
7	WMA formed Monitoring Committee (MC) for monitoring and quality control of physical works, the MC members have received training on quality control of the construction works and the MC is functioning well	No Monitoring Committee has been formed in this WMA area.	WMA has formed Monitoring Committee but has not received training or is not functioning	WMA has formed Monitoring Committee and has received training but is not functioning fully well due to lack of skill and supervision.	WMA has formed Monitoring Committee, members of MC have received training & got skill and dedication, and the MC is functioning well.
8.	WMA is able to settle conflicts between member-WMGs when they occur	WMA is not able to solve any conflict	WMA is able to solve some conflicts between member-WMGs	WMA is able to solve most conflicts between member-WMGs	WMA is able to solve all conflicts between member-WMGs

Joint Management Committee (JMC): Checklist based on JMC challenges- Polder Team

Name of Polder: _____, How many WMG at the Polder: _____, How many WMA at the polder: _____

1. Is the JMC formed? **YES/ NO**
2. If YES, how many members in the JMC: Total____, BWDB_____, DAE:_____, DoF: _____, DLS:____UP: _____, NGO: _____, Others:_____
3. If YES, how many female members in JMC: _____
4. If YES, Is the JMC selected 30% female representatives covering all sectors at the polder level?? **YES/NO**
 - If NOT covering 30% female representatives covering all sectors then what are the reasons please explain: _____
5. If YES, is the JMC fully functioning? **YES/NO**
 - If NOT fully functioning then what are the reasons please explain: _____
6. Is the JMC established and operational?? **YES/NO**
 - If NOT operational then what are the reasons please explain: _____
7. Is the JMC started coordination and linkage with all sectors at the polder level: **YES/NO**
 - If NOT started then what are the reasons please explain: _____
8. Is the JMC regular coordination meeting was held? **YES/NO**
 - If NOT held, then what are the reasons please explain: _____
9. Is the JMC monitoring the infrastructure and follow up activities? **YES/NO**
10. Is the JMC able to settle conflicts between WMGs? **YES/NO**
11. What are general opinions on Polder team and implementation?
12. What are advantages if JMC established at the polder level:
13. What are disadvantages if JMC established at the polder level:

Date of data collection:

Name of MRL coordinator:

Questionnaire of Sesame/ Mung bean Benchmark Survey- 2016

Blue Gold Program

	Questionnaire ID	
	Date of Data Collection:	
	Name of Enumerator	
	Union	
	Polder	
	Season / year	
A	Personal Identification Section	
A1	Name of MFS Group	
A2	Name of MFS Farmer	
A3	MFS Farmer Identification Number	
A4	Mobile Number	
A5	Age of MFS Farmer (Full year)	
A6	Education Level of MFS Farmer	Code: 1. Illiterate, 2. Can Sign, 3. Can read and write only, 4. Upto Primary, 5. Class VI-X, 6. S.S.C, 7. College and above
A7	Sex of MFS farmer	Code: 1=Male, 2. Female
A8	Are you WMG member?	Code; 1=Yes, 2=No
A9	MFS Crop produced?	Code: 1= Sesame, 2= Mung been
B.	Farm (+ season) Identification Section	
B1	What area did you cultivate to Sesame/ Mung bean last year? (in decimal)	..... Decimal
B2	Did you cultivate a different area than last year?	Code: 1=Smaller, 2=Larger 3=Same area
B7	How much smaller (if B2=1)/ larger (if B2=2) was the cultivated land area compared to year 1?	
B8	What was the land condition this season in mid February/ (sesame)/	Code: 1= Water Logged, 2= Previous Crop not Yet Harvested, 3= Ready to Plough, 4= Ready to sow, 5= NA
B9	What was the land condition this season in mid Mid January/ (Mung Bean)	Code: 1= Water Logged, 2= Previous Crop not Yet Harvested, 3= Ready to Plough, 4= Ready to sow, 5= NA
B10	Do you own the following assets? (YES / NO)	Code: 1= Power Tiller, 2= irrigation pump, 3= Harvesting sheet, 4= Crops storage, 5= Others, 6= NA
C	Farm Practices	Sesame/ Mung Bean (Tick mark)
C1	Seed: What Sesame variety of seed did you use this season?	Code for Sesame: 1= Red/Brown, 2= Black, 3= White, 4= NA
C1.1	Seed: What Mung bean variety of seed did	Code for Mung bean: 1= Local, 2= Bari-6, 3=

	you use this season?	Bari-5, 4= BINA, 5= Other HYV, 6= NA
C2	Seed: When did you sow your crop last year?	Date:
C3	Seed: How did you sow your seeds last year?	Code; 1= Broadcast, 2= Line Sowing
C4	Fertilizer: Did you apply fertilizer last year?	Code: 1= Yes, 2= No
C5	Fertilizer: What area of Land you had applied fertilizer in last year?	..... Decimal
C6	Fertilizer: When did you apply fertilizer relative to the sowing date last year?	Code: 1= During Land Preparation, 2= After Seeds Sowing, 3= Both
C7	Fertilizer: What quantity (Kg) of Fertilizer you have used in last year?	..... Kg
C8	Pesticide: Did you use pesticide in your crop in last year	Code: 1=YES, 2= NO
C9	Pesticide: Which types of chemical you have used in last year? (YES / NO)	Code: 1= Fungicide, 2= Insecticide, 3 = herbicide
C10	Area used for pesticide	..... Dec
C11	Rationale for applying pesticide	Code 1 = preventive, Code 2 – curative, Code 3 = both
C12	Did you have irrigation water available during the season when you needed it?	Code: 1=Yes, 2=No
C13	Irrigation: Did you Provide Irrigation last year?	Code: 1= YES, 2= NO
C14	Weeding: Did you do weeding this season?	Code: 1= YES, 2= NO
C15	Post harvest: Did you use net/plastic sheet during harvesting/post-harvesting last year?	Code: 1= YES, 2= NO
C16	Post harvest: Did you sell full production at harvest time?	Code: 1= YES, 2= NO
C17	Post harvest: what percentage of the crop do you sell at harvest time (two months)?%
C18	Selling: Where did you sell your crop last year? (YES / NO)	Code: 1= Local market, 2= Regional Market, 3= Collection centre , 5=Farmgate, 6= Others.....
C19	Selling: What quantity of crop you had produced?	..... Kg
C19.1	Selling: What quantity of crop you had sold?	..... Kg
C20	Selling: avg. sales price / kg or maund	
C21	Selling: Did you have to pay for transport?	Code: 1= YES, 2= NO
C22	Selling: if yes, How much?	..... BDT

C23	Finance: Did you take a loan to produce last year's crop?	Code: 1= YES, 2= NO
C24	Finance: If yes, What was the amount (Tk) taken loan	..... Tk
C25	Finance: was the loan adequate for your needs?	Code: 1= YES, 2= NO
C26	Finance : Do you keep records of production costs and income from your sesame enterprise?	Code: 1= YES, 2= NO
C27	Finance: if yes, In which method you kept records? (select one)	Code: 1= Registration Book/Khata, 2= Cash in head, 3= On loose paper, 4= In a Note book, 5 = other
C28	Collective action: Did you undertake any of the production or marketing activities together with other farmers last year? (collectively)	Code: 1= YES, 2= NO
C29	Collective action: If yes, what type of collective activity? (yes / no questions)	Code: 1= Joint Procurement of Inputs, 2=Joint tillage, 3=Organizing Transportation Together, 4=Jointly Selling, 5= Organizing a Bulking Location, 6= Joint access to finance, 7= Lobbying Together for Something, 8= Others
C30	Collective Action: FOR THE ONES YES (C29): will you do this again next year?	Codes as above Yes / No / Maybe
C31	Collective action / scale-up: FOR THE ONES YES (C29) For the collective actions you participated in, did farmers from outside your group join?	Code 1= Yes, 2= No
C31.1	If Yes, How many?	.....
C32	Support: Did you receive any advise on Sesame/Mung production last year through extension? (DAE)	Code: 1= YES, 2= NO
C33	Support : if yes, What type of advice you get? (YES / NO)	Code: 1=Seed Quality, 2=Pesticide use, 3= Pesticide rate, 4= Drying Method, 5= Drying Benefit, 6= Seed germination, 7= Fertilizer rate, 8= Fertilizer Quality
C34	Support: from whom you get advice? (YES / NO)	Code: 1= Trainers of DAE/other, 2= Buyer on product, 3= Resource Farmer, 4= SAAO, 5= Input Provider, 6= Other NGO staff, 7= NA
C35	Horizontal learning: Did you share learning with other farmers?	Yes / NO

C36	<i>How did you share? (YES / NO)</i>	Code 1: WMG meetings, code 2 = personal visits, code 3: other meetings, 3 = at fairs, 4 = FFD, 5 = others\$
C37	<i>Plan for next year: do you expect to increase land used for production next year?</i>	Yes / No / Maybe

Make Picture:

Mak e GPS