



Kingdom of the Netherlands



Blue Gold Trends Watcher
Issue 1, December 2016

This is the first Blue Gold Trends Watcher, a seasonal project bulletin which aims at summarising the latest results. This bulletin gives an at-a-glance summary of where we are on our journey to improving livelihoods.

The next Trends Watcher is expected to be issued in April 2017. Suggestions for improving the layout and content of this seasonal bulletin are very welcome and can be sent to: bluegold_mrteam@bluegoldbd.org

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Water Resource Management

Households Supported on Improving Safety and Water Management

According to the original program target, Blue Gold aims at delivering more secure livelihoods to 150,000 households in polders in Khulna, Satkhira, Patuakhali and Barguna. Up to now BGP supported an estimated 102,409 (agricultural) households in improving the safety (flood protection) in their polder and management of their water resources (participatory water management and O&M) which is a 68% achievement against the original program target of 150,000.

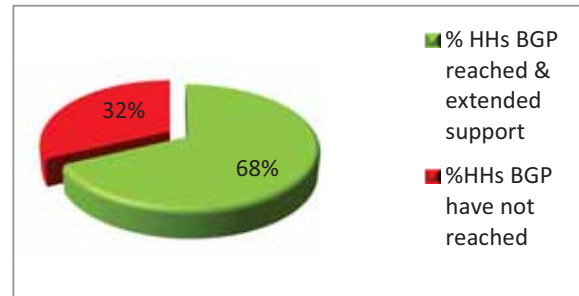


Figure 1: HHs supported on improving safety and water management

Table 1: HHs with more secure livelihood

Polder	District	HHs with more secure livelihoods	Details	Remarks
22	Khulna	1,824	Infrastructure needs to be further strengthened	Source of data: These are estimates and calculations of the TA team.
29	Khulna	10,558	Infrastructure needs to be further strengthened	
30	Khulna	7,039		More work needs to be done in polders for sustainability of protection. Polders 22, 29, 43/2A and 43/2B need specific attention. In polders 43/2A and 43/2B, 4-5 villages are unprotected.
31 Part	Khulna	3,588		
26	Khulna	3,388		
2	Satkhira	21,441		BGP, in close collaboration with local communities, is currently mapping the areas that will directly benefit from the constructed and improved infrastructure.
43/2D	Patuakhali	9,082		
43/2F	Patuakhali	5,676		
43/2A	Patuakhali	est. 6,211 (of 7,211)	2 villages are not yet protected	
43/2B	Patuakhali	est. 6,597 (of 7,597)	2/3 villages are not yet protected	
43/2E	Patuakhali	1,981		
43/1A	Patuakhali	4,385		
55/2A	Patuakhali	11,941		
55/2C	Patuakhali	8,698		

Area Covered by Project Interventions to Improve Safety and Water Management

Up to now, Blue Gold covered 74,472 ha with its Water Resource Management interventions, which is a 47% achievement against the original program target (160,000 ha) and a 65% achievement against the proposed, revised program target (115,000 ha). This area (74,472 ha) has a basic level of flood protection and benefited from participatory water management interventions, but further infrastructural interventions are required to sustain this protection.

Up to now an estimated 14,894 ha benefited from improved water management infrastructure for agriculture (e.g. drainage and irrigation)

Community-led Agricultural Water Management (CAWM)

Community-led Agricultural Water Management (CAWM) targets at increasing agricultural production and income through improved internal polder water management. Focus Group Discussions were held with CAWM farmers and they reported significant higher yields (5 - 7.2 tonnes per ha) than the regular production when using local varieties (3.5 tonnes per ha). After the depression (5th November 2016) CAWM farmers in Patuakhali reported a crop damage of 10% in their BR52 rice against 30% damage in local rice varieties. The BR 52 and BR 54 varieties were also harvested 20 - 25 days earlier than local varieties. Blue Gold in partnership with BRAC started an impact study in November. As part of this study actual yields and increases in yields will be measured through in-depth surveys and crop cuts. The next Trends Watcher (April 2017) will include a first analysis of the study findings.

Table 2: Self-reported CAWM yields (collected through Focus Group Discussions)

AWM Area	Polder Area	Yield produced t/ha
Gopipagla CAWM	Polder 22	7.2
Fulbaria CAWM		5.2
Bakultala CAWM	Polder 29	6.0
Ghaterkhal CAWM	Polder 31 part	5.5
Uttar Soilabunia CAWM	Polder 43/2B	6.0
Doribahir chair CAWM		6.2
Atharogachia CAWM	Polder 43/1A	5.3
Shonakhali CAWM		5.0
Morichbunia CAWM	Polder 43/2D	5.0
Daskin Bighai Daskin CAWM	Polder 43/2A	5.6

Assessment Results of WMOs (Polder 22)

Blue Gold has developed progress markers to monitor the performance of water management organisations through participatory self-assessments. The progress markers are – among other things - related to *partnerships formed for water management and agricultural development, collective actions undertaken for agricultural development, participation in infrastructure planning and operation and maintenance*. The Executive Committees of all Water Management Groups are currently being trained on how to conduct these self-assessments. Below a first summary of the results until now.

Polder 22: Except for 1 (Noai), all WMGs in Polder 22 reported a progress of 50% or more against the progress markers. 5 of the WMGs reported a progress of 60% or more. The progress scores in Polder 22 are relatively high compared to those in Polders 26 and 31-part.

We see significant differences in the theme-wise scores per WMG. This information will be used to link WMGs to each other for peer-learning.

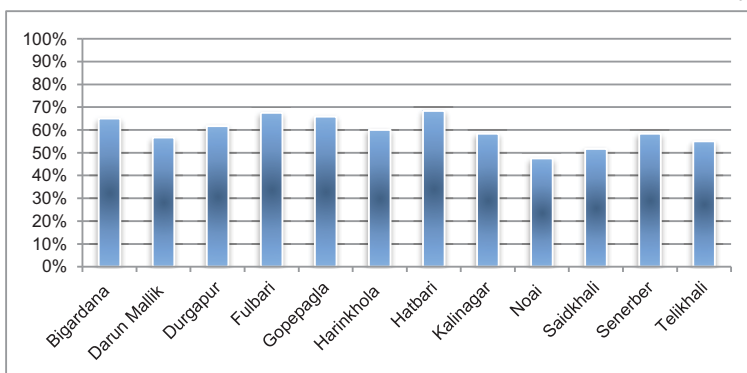


Figure 2a: Cumulative progress in Polder 22

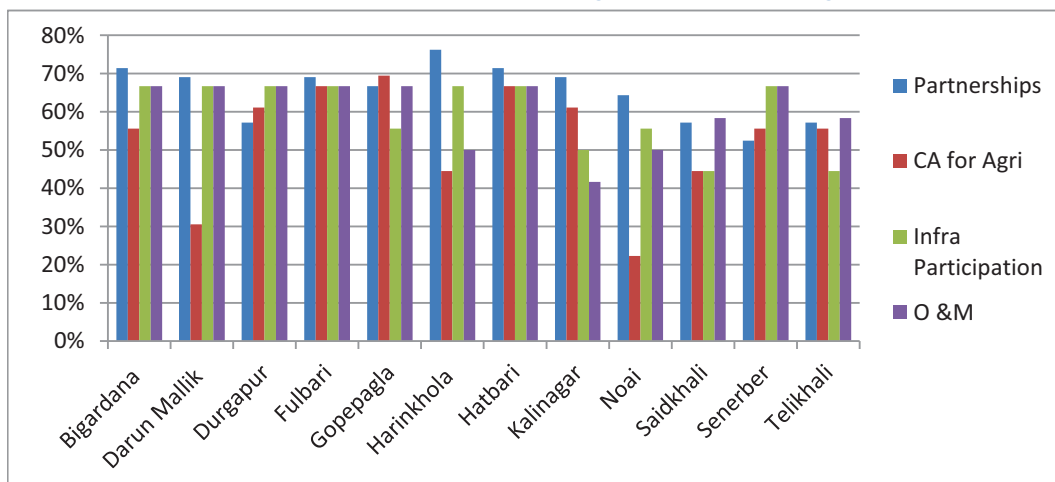


Figure 2b: Theme-wise progress achieved by WMGs in Polder 22

Assessment Results of WMOs (Ctd. Polder 26 & 31part)

Polder 26: 4 out of 15 WMGs in Polder 26 reported a progress of 50% or more against the progress markers. The progress scores in Polder 26 are relatively low compared to those in Polder 22 and 31-part.

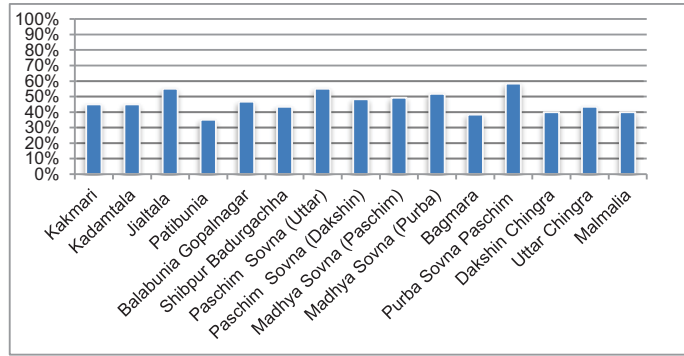


Figure 3a: Cumulative progress achieved by WMGs in Polder 26

Again, we see significant differences between the theme-wise scores of different groups. This will help to link WMGs to each other for peer-learning.

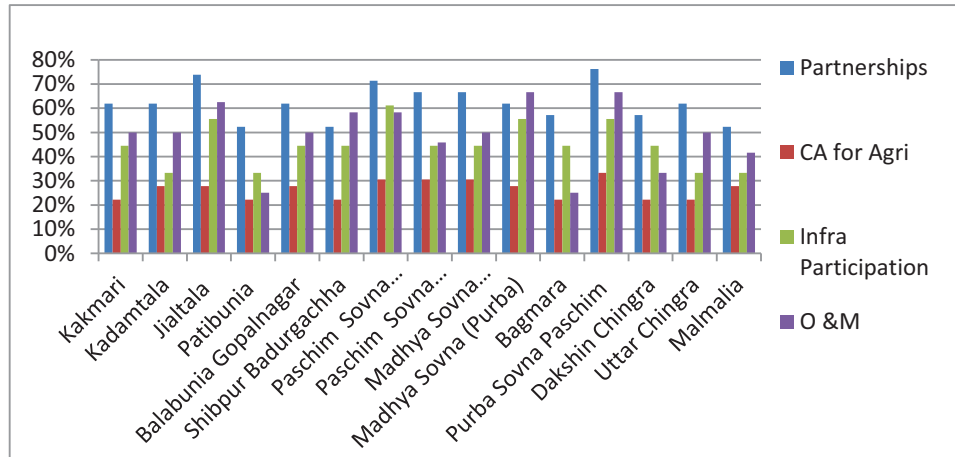


Figure 3b: Theme-wise progress achieved by WMGs in Polder 26

Polder 31-part: 8 out of 12 WMGs in Polder 31-part reported a progress of 50% or more against the progress markers. The progress scores in Polder 31-part are higher than in Polder 26, but lower than in Polder 22.

Again, we see large differences between the theme-wise scores of different groups.

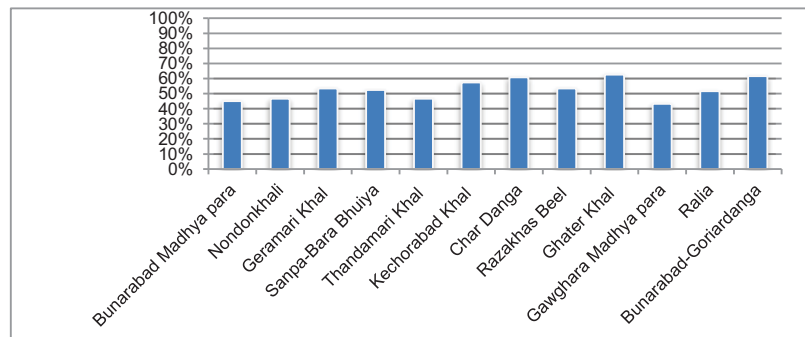


Figure 4a: Cumulative progress achieved by WMGs in Polder 31-Part

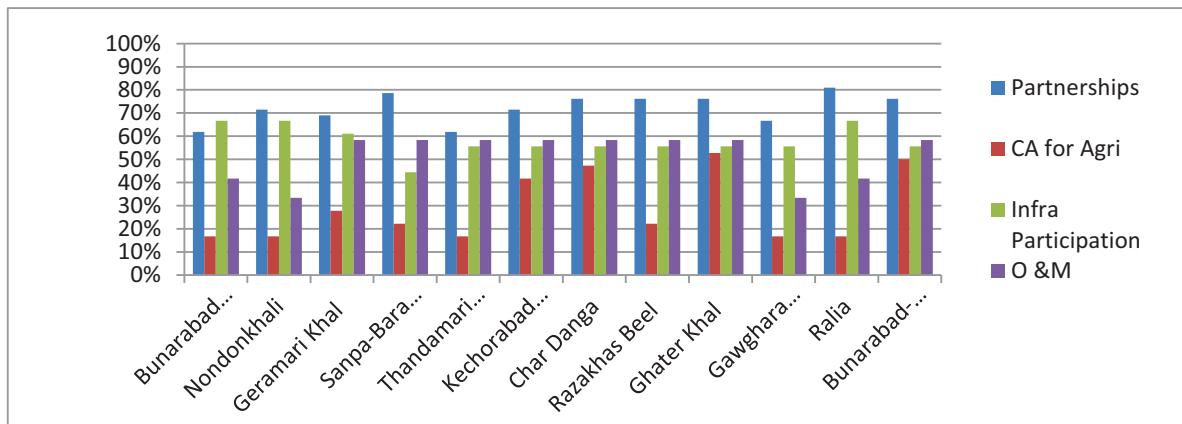


Figure 4b: Theme-wise progress achieved by WMGs in Polder 31-Part

Food Security

Dietary Improvement

During its Farmer Field Schools (FFS), Blue Gold promotes diverse and healthy diets. To monitor the changes resulting from the FFS, benchmark surveys (at the start of each new cycle) and end line surveys (at the end of each cycle) are conducted. The last FFS Cycle (6) took place from October 2015 to March 2016. As part of this cycle, 88 FFS were held on poultry, homestead vegetables, fruits and nutrition. Table 3 (below) shows that the *introduction of new practices* through the FFS (e.g. separating chicks from hens after 1 week) resulted in a 100% increase of eggs per hen. The total number of birds per FFS participant increased by 297%.

Table 3: Change in dietary system (Khulna, Satkhira & Patuakhali)

FFS Cycle	Eggs (per hen)			Birds (chickens & chicks)		
	Benchmark	End line	Increase	Benchmark	End line	Increase
6	46	92	100%	3.2	12.7	297%

Table 4 (below) shows that the consumption of own eggs went up among FFS participants.

Table 4: Percentage farmers eating their own eggs

District	Percentage farmers eating their own eggs	
	Benchmark	End data
Khulna	71%	100%
Satkhira	29%	100%
Patuakhali	78%	99%

Table 5 (below) shows that overall consumption also improved. The consumption of meat, fish, eggs and fruits went up suggesting that FFS participants got more diverse diets.

Table 5: Change in dietary system (Khulna, Satkhira & Patuakhali)

Type of food	Khulna Days per week		Satkhira Days per week		Patuakhali Days per week	
	Benchmark (n=800)	End data (n=800)	Benchmark (n=800)	End data (n=700)	Benchmark (n=700)	End data (n=599)
Meat	0.9	1.1	0.7	1.2	0.4	0.9
Fish	3.3	4.1	2.9	3.8	1.5	2.5
Eggs	1.8	2.8	1.1	2.2	1.1	1.9
Fruits	1.4	2.6	0.9	1.9	0.6	1.6

The MRL-team will conduct follow-up surveys to monitor whether the direct impact of the FFS sustains after completion of each of the relevant cycles.

Achievements towards Strengthening Value Chains

The Market Oriented Farmer Field School (MFS) is an innovative approach to support farmers on increasing their productivity and profitability while considering the involved risks. MFS seeks to facilitate market linkages and therefore enhances the farmers' understanding of the market system and the expansion of their network of market actors for inputs, technology, market information and finance. Through MFS sessions, resource farmers from the communities are trained and supported to improve their market linkages with e.g. input providers. Recently, Blue Gold facilitated MFS on Mung bean (Patuakhali) and Sesame (Khulna).

A benchmark survey and end line survey were conducted to measure change. Figure 5 (right side) shows that the use of black sesame seed went up from 60.4 to 96.7%. The use of red/brown sesame seeds went down from 63.3% to 7.2%. Over the last years, farmers got a better price for black sesame than for red/brown sesame. So, the observed change in seeds suggests that farmers increasingly base their decisions on market information. However, further research is required (and will be conducted) to validate this claim.

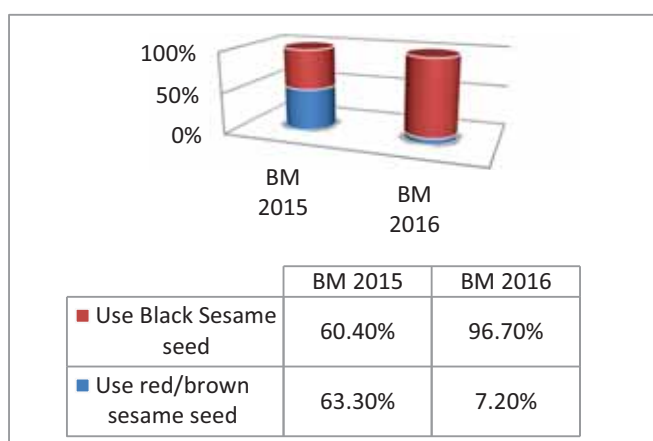


Figure 5: % of farmers that adopted red/brown instead black

Achievements towards Strengthened Value chain (ctd.)

The survey results furthermore show that after the MFS, 71.1 % of the sesame farmers undertake production or marketing activities together with other farmers against 0% before starting the MFS.

The survey data also show positive changes in respect of the percentage of mung bean farmers owning agriculture assets. The highest change (65.63% increase) happened on crop storage asset ownership. Table 4 (below) provides a full overview of changes in crop asset ownership.

Table 2: % Sesame farmers having agricultural assets

Agriculture Assets	Year	Response from Farmers%	Change in %
Own Power tiller	Benchmark 2015	9.4	3.75
	Performance 2016	13.1	
Own Irrigation Pump	Benchmark 2015	17.5	1.25
	Performance 2016	18.8	
Own harvesting sheet	Benchmark 2015	45.6	10.63
	Performance 2016	56.3	
Own Crop Storage	Benchmark 2015	20.6	65.63
	Performance 2016	86.3	
Own Spray Machine	Benchmark 2015	56.3	7.50
	Performance 2016	63.8	
Own other Assets	Benchmark 2015	80.0	3.13
	Performance 2016	83.1	

Figure 7 (below) shows the positive changes in collective action. Except for Joint Access to Finance all categories of collective action increased. Collective action on the input (purchase) side has clearly increased more than collective action on the output (sales) side.

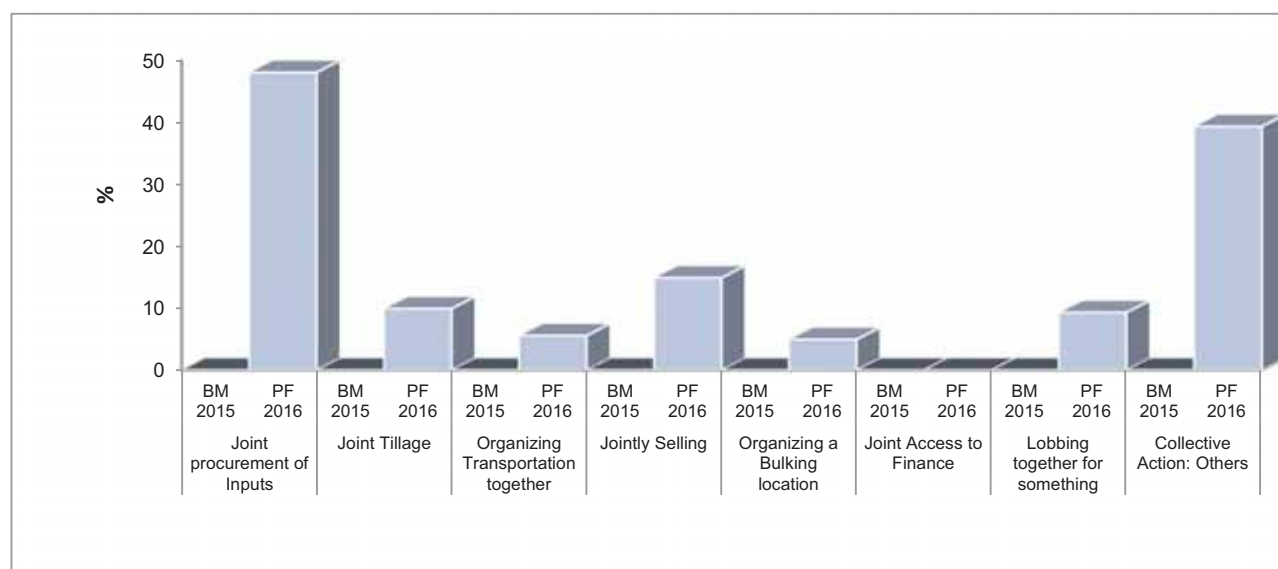


Figure 7: % Increase in collective action – mung bean

Overall Progress

Summary Progress of Major Activities

Figure 8 gives a summary of the Blue Gold progress up to now (against the total project targets).

BGP has already exceeded the minimum target of 55% households representation in WMGs. Also, female representation in WMGs and FFS crossed the minimum targets of respectively 40% and 50%.

In regard to infrastructure, the financial progress is 28.73% and the physical progress is 18%.

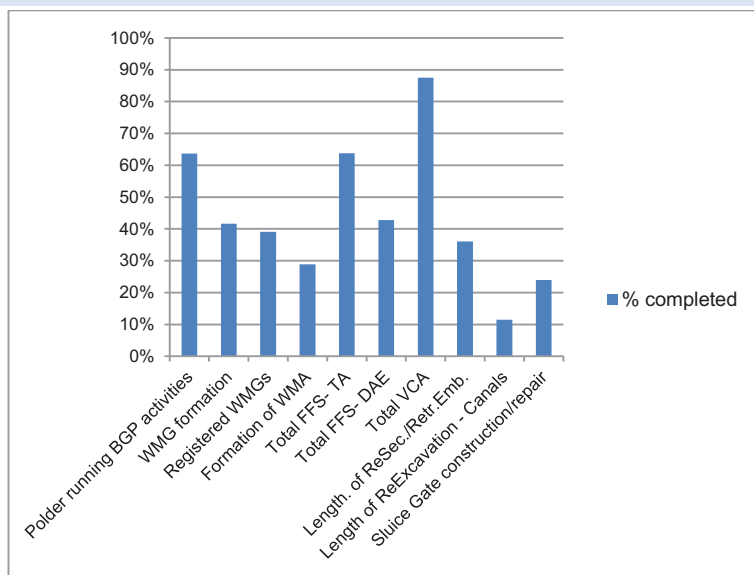


Figure 8: Summary of Output Monitoring

Table 3: Target Achievement (structural) unto December 2016

Item	Target	Achievement
Embankment Re-Sectioning /Repair	551	180.98 km(full) 27.79 km (Part) Total : 208.77 km
Retire Embankment Construction (Km)	4.58	2.84 (full) 1.74 (Part)
Khal Re-excavation	854	50.7 km (full) 47.22 km (Part) Total: 97.916 km
Structure construction	33	6 sluice (part) 1 inlet (part)
Structure Repair	903	144 (Full) 99 (Part)

Success Stories

JULIA BEGUM

General Member of
Ghater-Khal Water Management Group
Village: Kollansri
Union: Shurkhali
Polder: 31 Part
District: Khulna



Julia Begum is an ordinary housewife like any other women in the area. Her husband is the only earning member of her family. Whenever she needs money she has no other option but to ask her husband for that. She never dared to spend money on herself, not even in her dreams. She never gave it a good thought to change her economic condition by her own effort. Blue gold organised FFS groups where some farmers were taught about new poultry rearing methods (i.e. hajol) and about fast growing methods for homestead vegetables. Julia was not a member of such groups, but in her surroundings, she observed people adopting these methods. She saw how they benefited with little effort and small investment. She replicated the chicken rearing methods and has had her chickens vaccinated by the community poultry worker. As a result the mortality rate dropped. Julia used to have 4 to 5 chickens and soon she increased this to 50 chickens. When she had already earned BDT 14,000 by selling the chickens, Julia built a big poultry house following the Blue Gold method. Julia also replicated homestead vegetable cultivation methods. She started growing calabash/bottle gourd in her homestead. She sells one portion of the vegetables and the other portion is consumed by her and her family. Julia now financially contributes to her family and that changed her life.



SHOHIDUL ISLAM

General Secretary of South-East Kalibari Water Management Group &
Resource Farmer of
Gulisha Khali Union, Amtoli Upazilla
District - Barguna

Mr. Shohidul is the leading farmer of the Market-Oriented Farmer Field School (MFS) and Blue Gold nominated him as a resource farmer for his MFS group. In his team he has 30 members of which 25 are WMG members and 5 are non-WMG members. As a resource farmer, Shohidul's main responsibilities are to initiate collective actions like collective purchase of inputs (seed, fertilizer, agricultural assets, etc.) and collective selling of harvests. This year, their farmer group jointly bought seeds, which saved them transport costs, time and money. They bought 75 Kg Mung bean seeds which costed BDT 6,000 only at a rate of BDT 80/kg. If they would have bought it individually then that would have costed them BDT 100/ kg which means the group saved 1,500 BDT. Moreover, if they would have bought it all individually from Patuakhal then the travel costs would have been BDT 100 per farmer. Instead of that, Shohidul bought all the seeds on behalf of them and the farmers saved BDT 2,900 by working together. Joint purchase also saved 90 hours, as it takes 3 hours to travel from their union to Patuakhal. Each hour values BDT 45 for the farmers and they thus saved BDT 4,005 because of the time saved. Altogether, this MFS group saved BDT 8,405. This economic benefit is a strong incentive for future collective actions.

