



Sustainable Soil Management Component (SSMC) of OCP Foundation's Agricultural Development Project in Bangladesh – Stage 1

MONTHLY REPORT | September 2017



Table of Contents

Introduction.....	1
Technical Program Activities	2
Field Trials	2
Field Demonstrations	2
Farmers' Training.....	3
GPS Coordinates	4
Photographs of SSMC Activities	6

Maps

Map 1. GPS Map Showing Trial Plots, Demo Plots, and Locations of Farmers' Training in <i>Aman</i> 2017.	5
--	---

Acronyms and Abbreviations

APS	Ammonium, Phosphorus, and Sulfur
BADC	Bangladesh Agricultural Development Corporation
BARI	Bangladesh Agricultural Research Institute
BRRI	Bangladesh Rice Research Institute
DAE	Department of Agricultural Extension
FC	Field Coordinator
GAP	Good Agricultural Practice
GOB	Government of Bangladesh
ICARDA	International Center for Agricultural Research in the Dry Areas
IFDC	International Fertilizer Development Center
kg	kilogram
MOP	Muriate of Potash
NPS	Nitrogen, Phosphate, and Sulfur
OCP	Office Chérifien des Phosphates
SRDI	Soil Resource Development Institute
SSMC	Sustainable Soil Management Component
TSP	Triple Superphosphate
UAO	Upazila Agriculture Officer

Sustainable Soil Management Component (SSMC) of OCP Foundation's Agricultural Development Project in Bangladesh – Stage 1

Monthly Report (September 2017)

Introduction

The OCP Foundation signed an agreement with the International Fertilizer Development Center (IFDC) for implementation of the Sustainable Soil Management Component (SSMC) of OCP Foundation's Agricultural Development Project in Bangladesh – Stage 1 for a period of three years, from January 2017 to December 2019. SSMC is addressing many of the increasing, serious soil fertility concerns of the northern districts of Bangladesh while also helping farmers enhance crop productivity and profitability through the implementation of improved soil management methods in the overall context of market-sensitive good agricultural practices (GAPs).

OCP Foundation's comprehensive project also includes input from OCP Foundation and the International Center for Agricultural Research in the Dry Areas (ICARDA). The overall objective of this agricultural development project is “sustainable management of soil to enhance yields and farmers' incomes under resilient production systems in Bangladesh, resulting in food and nutrition security, improved health and livelihoods.” The project includes the SSMC in addition to monitoring and capacity building inputs by OCP Foundation and work related to the promotion of GAPs, entrepreneurship, and farmer organizations by ICARDA. The project targets rice, maize, potato, pulses, and, to a lesser extent, wheat.

SSMC is being implemented with Government of Bangladesh (GOB) counterparts – Bangladesh Agricultural Research Institute (BARI), Bangladesh Rice Research Institute (BRRI), Department of Agricultural Extension (DAE), and Soil Resource Development Institute (SRDI). Additionally, agro-input retailers are also involved to promote balanced plant nutrient and GAP solutions for improving crop productivity, crop profitability, and soil fertility. The primary approach of the project for IFDC is to conduct trials with BRRI and BARI and field extension activities with DAE. This monthly report shows the progress achieved in September 2017.

Technical Program Activities

As per the annual work plan, major technical activities conducted during the reporting month included the following, which are linked to cropping season and deliverable and aimed at achieving the project goal.

Field Trials

- After receding floodwater, crops recovered quickly. In the trial plot at Kurigram Sadar, the crop condition looked good. In the field trial site at Pirganj, the crop is at maximum tillering stage and also in good condition. Signboards and plot labels were placed properly by BRRI scientists in both the trial sites.
- The senior staff of SSMC monitored two on-farm *Aman* trial sites at Kurigram Sadar of Kurigram district and Pirganj of Rangpur district. In both trial sites, crops were found in good condition. Treatment effect was observed in different subplots of two trial sites. In Kurigram Sadar, crops have recovered significantly after 13 days of flood stress. In both sites, crops were at maximum tillering to panicle initiation (PI) stage.
- Senior staff members of SSMC are continuously maintaining liaison with the focal points of BRRI and BARI and concerned scientists.
- Senior staff of SSMC inquired with the focal point and the concerned scientists of BARI on the selection of sites for non-rice crops. They have been informed that two sites have been selected at Regional Research Stations of BARI in Rangpur and Bogra for on-station field trials of maize and potato, respectively. Lime will be applied there as per research protocol. On-farm field trial sites of other non-rice crops will be selected soon.

Field Demonstrations

- In the reporting month, all ten SSMC *Aman* demonstration plots were monitored regularly by senior staff and field coordinator (FC) of SSMC. After the receding floodwater, the demonstration farmers have filled the gaps in seedlings from the reserve seedlings kept near the demo plots. The crops in the flood-affected demonstration plot at Dinajpur Sadar upazila have recovered significantly.
- In the flood-affected demonstration plots at Nageswari and Saidpur Sadar upazilas, demonstration farmers have also filled the gaps with additional seedlings and used urea and muriate of potash (MOP) as topdressing. In Nageswari of Kurigram district, crops have recovered significantly after

flood stress. In Natore Sadar, crops have also recovered from different disease stress. Crops at Nilphamari Sadar of Nilphamari, Shahjahanpur of Bogra, and Nachole and Gomostapur of Chapai Noawabganj districts are at maximum tillering to PI stage, and overall conditions are good.

- Four demonstration plots at Saidpur of Nilphamari, Kurigram Sadar of Kurigram, Nachole of Chapai Noawabganj, and Chirirbandar of Dinajpur districts were slightly affected by a rat attack in different subplots on patches. Concerned demonstration farmers and SAAOs used different techniques and poison beds to control the rats. It is now under control, and crops are recovering gradually.
- In the reporting month, the focal point of DAE monitored one SSMC *Aman* demonstration plot at Shahjahanpur of Bogra district. He observed that the crop was in good condition. He instructed the SAAO to maintain the SSMC demonstration register properly and incorporate all the relevant information there as per guidelines. He also advised the upazila agriculture officer (UAO) to supervise the SSMC activities through the SAAO regularly and promote GAPs to get better yield.
- The FC of SSMC visited the *Aman* demonstration site at Shahjahanpur upazila and recommended to neighboring farmers to follow GAPs in next non-rice crop as well as *Boro* rice crops. He also briefed them in detail about the benefit of GAPs.
- Senior staff and the FC of SSMC are continuously maintaining liaison with the focal point of DAE. In the reporting month, they also met with DAE deputy directors of Nilphamari, Dinajpur, Bogra, and Natore districts and briefed them about SSMC activities in the coming *Rabi* (dry) season. All the UAOs and concerned SAAOs of DAE were also briefed about non-rice demonstration site selection activities in different locations.
- Of the 50 demonstration sites, 35 have been selected in different upazilas for establishing demo plots for rice and non-rice crops (*Boro*, potato, lentil, maize, and wheat). The upazilas are Gabtoli of Bogra; Natore Sadar and Lalpur of Natore; Saidpur and Nilphamari Sadar of Nilphamari; Kurigram Sadar and Nageswari of Kurigram; and Gomostapur and Nachole of Chapai Noawabganj districts. These were selected by the FC of SSMC with the assistance of DAE field staff. The SSMC senior staff monitored 22 sites and finalized them.

Farmers' Training

- Three batches of farmers' training were conducted at Nachole and Gomostapur upazilas of Chapai Noawabganj and Lalpur of Natore district with 90 lentil farmers during September 26-28, 2017. Of the 90 farmers, nine or 10 percent were women. Of the trained farmers, 72 were progressive

lentil farmers.¹ Three lentil demonstration farmers, who were selected earlier, also attended the training program. In addition, 15 agro-input retailers were also present. Modules followed the during training program include PowerPoint and oral presentations, group discussions in a participatory approach and practical demonstrations on identification techniques of adulterated micronutrient fertilizers. The SSMC senior staff and FC, deputy director of DAE, Chapai Noawabganj and Natore, and UAOs of DAE of Nachole, Gomostapur, and Lalpur upazilas also attended the farmers' training program as resource persons. The concerned SAAOs also attended the programs. The numbers of attending farmers by gender are provided below.

Sl. No.	District	Upazila	Participants				
			Male Farmer	Female Farmer	Fertilizer Retailer	Demo Farmer	Total
1.	Chapai Noawabganj	Nachole	20	4	5	1	30
2.	Chapai Noawabganj	Gomostapur	24		5	1	30
3.	Natore	Lalpur	19	5	5	1	30
	Total		63	9	15	3	90

- A list of farmers and retailers for another seven batches of farmers' training has been collected from different upazilas with the assistance of DAE field staff. In each batch, the participants will include demonstration farmer (one), fertilizer retailers (five), and progressive farmers (24) for the training programs on lentil, wheat, and potato cultivation. The upazilas include Natore Sadar, Gomostapur, Nilphamari Sadar, and Dinajpur Sadar.

GPS Coordinates

SSMC staff members have collected information on coordinates of 10 *Aman* demonstration plots, two on-farm *Aman* trial plots, and five farmers' training venues in different locations. All the coordinates have been compiled by IFDC. Map 1 shows the locations as recorded using global positioning system (GPS) devices for 10 demonstrations, two trials, and five farmers' training venues. Further updates on farmers will be reported in upcoming reports.

¹ Progressive farmers are those who are willing to use GAPs – such as good quality seed, balanced doses of fertilizers, proper spacing from line-to-line and plant-to-plant, and integrated pest management (IPM) practices with improved technologies. The farmers are willing to establish their own demo plots, share their knowledge, and encourage their neighboring farmers to use GAPs along with improved technologies.

Sustainable Soil Management Component (SSMC) Project Location of Demo, Trial and Farmers Training Venue



Map 1. GPS Map Showing Trial Plots, Demo Plots, and Locations of Farmers' Training in Aman 2017.

Photographs of SSMC Activities



Signboard placement by BRRRI scientist and crop condition in *Aman* trial plot at Kurigram Sadar in September 2017



Crop condition in demonstration plot at Nachole in September 2017



Focal point of DAE and other field officers monitoring *Aman* demonstration plot at Shahjahanpur in September 2017



Motivational activity of local farmers on good agricultural practices by FC, SSMC at Shahjahanpur in September 2017



Participation of lentil growers in farmers' training at Nachole in September 2017



Participation of lentil growers in farmers' training at Gomostapur in September 2017