



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

MONTHLY REPORT | JULY 2017



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Acronyms and Abbreviations

AEZ	Agro-Ecological Zone
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
OFRD	On-Farm Research Division
RARS	Regional Agricultural Research Station
SAAO	Sub-Assistant Agriculture Officers
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 (July 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 July 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 deliverables and aimed at achieving the project goal.

Field Trials

- The deputy director for IFDC Asia attended a meeting with the principal scientific officer and head of Regional Agricultural Research Station (RARS), On-Farm Research Division (OFRD) Rangpur of BARI. During discussion, she emphasized the importance of on-station and on-farm SSMC non-rice trial activities in different locations. The scientists shared their experiences and views with her. She also requested they perform all the research activities as per protocols. They were also advised to maintain liaison with the focal point of BARI. Senior staff of SSMC and other scientists also attended the meeting. The deputy director, SSMC senior staff, and BARI scientists also visited the on-farm locations for trials with other crops.
- SSMC senior staff monitored two on-farm *Aman* trial sites. The on-farm trial site at Chilapara, Kurigram Sadar, was found in a suitable place. At the time of the visit, land preparation was in progress. The trial site is under Agro-Ecological Zone - 3 (AEZ-3) (Tista Flood Plain). SSMC senior staff discussed with the trial farmer and concerned Sub-Assistant Agriculture Officers (SAAO) of that block. The trial farmer is a progressive farmer and interested in establishing the trial in his plot voluntarily. The selected variety was BRRI dhan 51. The cropping pattern of the selected site is *Boro-T. Aman*. Staff discussed the progress of the field activities with the BRRI focal point.

During the visit of SSMC senior staff, the on-farm trial plot at Kashimpur, Pirganj, Rangpur, was not found as suitable as the first one. However, it is acceptable. It is under AEZ-25 (Level Barind Tract). The selected variety was BRRI dhan 49. The seedbed was established, but it was affected by disease and needed nourishment. The Upazila Agriculture Officer (UAO) of Pirganj also visited the trial site with the senior staff of SSMC. The UAO advised the concerned SAAO of DAE and BRRI scientist to take immediate initiative to overcome the problem. He also recommended to use the required amount of urea as well as some prescribed pesticide in the seedbed. The cropping pattern of the selected site was *Maize-T. Aman*. After harvesting, the maize farmer kept the stover in the field. The trial farmer and DAE field officials stated they will closely monitor the field trial activity and inform the BRRI scientist of progress. Staff discussed with the BRRI focal point about the present field situation at Pirganj. He assured staff that he will instruct the concerned scientist of BRRI to take immediate steps. The BRRI scientist has taken

steps accordingly.

- BIRRI scientists established two on-farm *Aman* rice fertilizer management trials at Kurigram Sadar of Kurigram and Pirganj of Rangpur district between July 21 and 24, 2017. Varieties were BIRRI dhan 49 and 51. The seedling age varied between 31 and 33 days. Total treatments were eight with three replications. Total plots were 24. Layout, land leveling, fertilization, and transplantation were done properly. Detailed information on the locations and trial establishment dates are given below.

Sl. No.	Upazila	District	Target	Achievement	Date of Establishment
1	Kurigram Sadar	Kurigram	01	01	July 21-22, 2017
2	Pirganj	Rangpur	01	01	July 23-24, 2017
Total			02	02	

- Senior staff of SSMC also monitored two on-farm *Aman* rice fertilizer management trial plots after establishment by BIRRI scientists at Kurigram Sadar and Pirganj upazilas. In both the trial plots, few ails/bunds were inundated due to continuous heavy rainfall. Concerned trial farmers were advised to repair the bunds after the rain stopped. They have agreed. In all the trial plots, the crops were found in good condition. Farmers were progressive and active.

Field Demonstrations

- One *Aman* rice seedbed for the demonstration plot was prepared by the selected farmer at Natore Sadar upazila on July 4, 2017. Of the 10 demonstrations, nine seedbeds were prepared earlier at different upazilas and reported in the semi-annual report of January-June 2017.
- During the reporting month, nine *Aman* demonstration plots were established at Nilphamari Sadar, Nageswari, Chirirbandar, Saidpur, Dinajpur Sadar, Nachole, Gomostapur, and Shahjahanpur of Nilphamari, Kurigram, Dinajpur, Chapai Noawabganj, and Bogra districts. All the layout, fertilization, and transplantation activities have been done properly. Varieties were BIRRI dhan 49 and 51; seedling age ranged from 30 to 35 days. Concerned SAAOs of DAE and the field coordinator (FC) and senior staff of SSMC actively participated in all the activities. Deputy director, DAE, Nilphamari, Dinajpur, and UAO/agriculture extension officers of DAE, Nilphamari Sadar, Dinajpur Sadar, Chirirbandar, Saidpur, Nageswari, and Gomostapur upazilas were present at the time of establishing the layout and transplantation of seedlings by the farmers. The detailed information on the location and demonstration establishment dates are provided below:

Sl. No.	District	Upazila	Target	Achievement	Date of Transplantation
1	Nilphamari	Nilphamari Sadar	01	01	July 9, 2017
2	Chapai Noawabganj	Nachole	01	01	July 13, 2017
3	Kurigram	Nageswari	01	01	July 16, 2017
4	Dinajpur	Chirirbandar	01	01	July 17, 2017
5	Nilphamari	Saidpur	01	01	July 18, 2017
6	Chapai Noawabganj	Gomostapur	01	01	July 18, 2017
7	Dinajpur	Dinajpur Sadar	01	01	July 19, 2017
8	Kurigram	Sadar	01	01	July 20, 2017
9	Bogra	Shahjahanpur	01	01	July 30, 2017
	Total		09	09	

- The deputy director for IFDC Asia monitored rice transplantation activities in three *Aman* demonstration plots at Nageswari, Chirirbandar, and Saidpur upazilas. She also visited one *Aman* demonstration plot at Nilphamari Sadar that was established earlier.
- The SSMC senior staff monitored six *Aman* demonstration plots at Nilphamari Sadar, Saidpur, Nageswari, Kurigram Sadar, Chirirbandar, and Dinajpur Sadar of Nilphamari, Kurigram, and Dinajpur districts. In all the demonstration plots, crops were in good condition. Due to continuous and heavy rainfall, ails/bunds were inundated by rainwater in six demonstration plots. The relevant demonstration farmers were advised to raise the ails/bunds after rain stopped. All the ails/bunds of these six demonstrations were raised again by the farmers under the supervision of SAAOs and the SSMC FC. The SAAOs of DAE are regularly supervising their respective demonstration plots.
- In one area (Nilphamari Sadar upazila), due to scarce rainfall, the farmers applied supplementary irrigation water. First, urea topdressing was applied by the demonstration farmers in five *Aman* demonstration plots at Nilphamari Sadar, Nageswari, Gomostapur, Nachole, and Chirirbandar upazilas of Nilphamari, Kurigram, Chapai Noawabganj, and Dinajpur districts as per guidelines. Concerned SAAOs of DAE supervised this activity.

OCP Company Gifted Compound Fertilizers

- SSMC senior staff of IFDC received the required amount of OCP fertilizers (800 kilograms or 16 bags) from the Bangladesh Agricultural Development Corporation (BADC), Mirpur Seed Multiplication Farm, Dhaka, on July 3, 2017. As per demand from BRRI and BARI, 175 kilograms (kg) of all the OCP fertilizers were distributed to BRRI and BARI for use in different rice and non-rice trials. Of the 175 kg,

25 kg were given to the Focal Point of BRRI. He confirmed receipt of the desired amount of triple superphosphate (TSP) zinc (Zn) and 12N-45P₂O₅-5S-1Zn categories of fertilizers. The remaining 150 kg were given to the Focal Point of BARI. He confirmed receipt of the desired amount of TSP Zn (50 kg), 12N-45P₂O₅-5S-1Zn (50 kg), and 19N-38P₂O₅-6S-1B (50 kg) categories of fertilizers.

- For use in rice and non-rice demonstration plots, 475 kg of OCP fertilizers were sent to the FC of SSMC at Bogra. An additional 150 kg of fertilizer has been kept at IFDC's office in Dhaka. It will be used as per demand of the DAE field officials and BRRI and BARI scientists.
- The senior staff and FC of SSMC completed re-bagging of different categories of OCP compound fertilizers by crop at Bogra for 54 demonstration plots to be established in 2017. These will be gradually distributed among the demonstration farmers through DAE and FC of SSMC.

Motivational Meetings with Progressive Farmers and DAE Officials

- The deputy director for IFDC Asia attended three gatherings of SSMC-trained and non-trained farmers near the demonstration sites at Nageswari, Chirirbandar, and Saidpur of Kurigram, Nilphamari, and Dinajpur districts. She exchanged views with the farmers on sustainable soil fertility management and informed them about OCP fertilizers. Farmers have shown interest in using compound fertilizer provided that the quality of the product is ensured. The farmers also showed interest in adopting sustainable soil management practices in rice and non-rice crops.
- The deputy director for IFDC Asia also attended two meetings with deputy directors/district training officers of DAE, Kurigram, Nilphamari, and Dinajpur at their offices. She discussed present SSMC activities as well as the future work plan. She extended her thanks to DAE officials for their cooperation in carrying out SSMC activities.

Other Activities

- SSMC senior staff are regularly maintaining liaison with all Focal Points and concerned deputy directors of DAE for motivating the field officials on implementation of SSMC activities smoothly and on time.
- The FC of SSMC discussed with UAOs of Shahjahanpur, Gabtoli, Lalpur, and Dinajpur Sadar upazilas of Bogra, Natore, and Dinajpur districts about selection of sites for demonstration plots by crop in the coming *Rabi* (winter) season. The UAOs of DAE have proposed the name of some of the blocks for individual

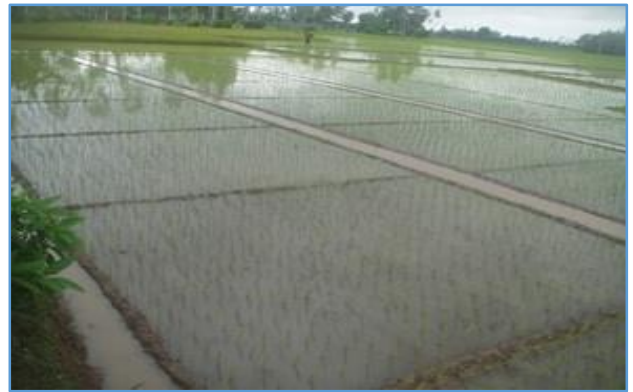
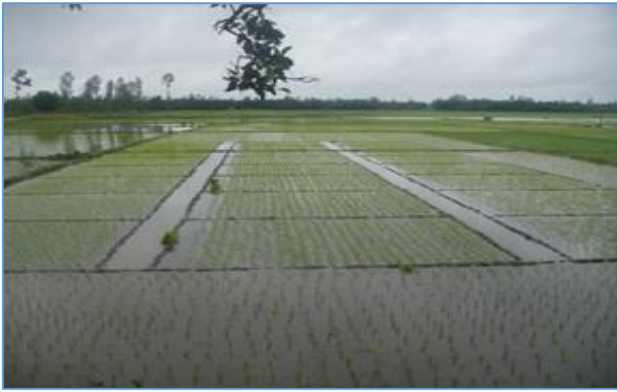
crops and handed over part of the list of the blocks by crop for potato, maize, lentils, and *Boro* demonstration plots to the FC of SSMC. More selection of blocks will be done gradually.

- Senior staff of SSMC discussed with the deputy director of Nilphamari, UAO Nilphamari Sadar, Nageswari, and Kurigram Sadar about the present field situation and work plan for the coming *Rabi* season. They assured staff that they will instruct all the concerned field officials to take necessary steps in time.
- Senior staff of SSMC also discussed with concerned scientists of the Regional Research Stations of BIRRI in Rajshahi and Rangpur about the progress of on-farm *Aman* trials as well as on-farm and on-station field trials in the coming *Boro* season. They requested them to provide the required space in their research stations for on-station field trials in the *Boro* season. They assured the senior staff that they will provide the required space in their stations for SSMC field trials as per protocol.
- The editing of the Training Manual (English version) by SSMC senior staff is in progress.

Photographs of SSMC Activities



SSMC *Aman* demonstration plot established under the supervision of the SAAO of DAE and FC of SSMC



Two on-farm *Aman* rice fertilizer management trial plots established by BRFI scientists at Sadar of Kurigram and Pirganj of Rangpur districts on July 21-24, 2017



Deputy director for IFDC Asia and DAE officials during gatherings of SSMC-trained and non-trained farmers near the demonstration plots at Nageswari of Kurigram district and Saidpur of Nilphamari district on July 16-18, 2017