

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

MONTHLY REPORT | APRIL 2019



This report by IFDC was made possible through funding support from the OCP Foundation.



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Acronyms and Abbreviations

BADC	Bangladesh Agricultural Development Corporation
BARI	Bangladesh Agricultural Research Institute
BRI	Bangladesh Rice Research Institute
DAE	Department of Agricultural Extension
GAPs	Good Agricultural Practices
GOB	Government of Bangladesh
ha	hectare
ICARDA	International Center for Agricultural Research in the Dry Areas
IFDC	International Fertilizer Development Center
IPM	Integrated Pest Management
MLT	Multi Location Trial
mt	metric ton
NPSB	Nitrogen, Phosphorus, Sulfur, and Boron
NPSZn	Nitrogen, Phosphorus, Sulfur, and Zinc
OFRD	On-Farm Research Division
SRDI	Soil Resource Development Institute
SSMC	Sustainable Soil Management Component
SSO	Senior Scientific Officer
UP	Union Parishad

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Monthly Report | April 2019

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 works 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 and private sector agro-input dealers. This monthly report shows the progress achieved in April 2019.

Technical Program Activities

As per the annual workplan, major technical activities conducted during the reporting month include the following, which are linked to cropping seasons and deliverables and aimed at achieving the project goal.

Field Trials

In this reporting month, crop conditions in all the on-station and on-farm maize trials were good. All of the 13 on-station and on-farm field trials on potato, maize, wheat, and lentil at various regional research stations and multi-location trial (MLT) sites of Bogra, Rangpur, Nilphamari, and Dinajpur districts were monitored by different On-Farm Research Division (OFRD) scientists. All of the wheat, lentil, and potato crops were harvested, and results were presented by BARI at the Fifth Steering Committee meeting held in Morocco on April 16, 2019. These three crops showed better results in terms of improving yield and gross margin using OCP fertilizers compared to farmers' practice.

Farmer Training

In this month, four batches of farmer training programs were conducted with 120 progressive farmers. Details are presented in Table 1. Of the 120 trained farmers, 86 were male and 18 (15%) were female progressive wheat and lentil farmers.¹ Four demonstration farmers also attended the training program. In addition, 16 agro-input retailers were present. The training module during the training program included an oral presentation, and group discussions using the participatory approach, and practical demonstrations on identification techniques of adulterated micronutrient fertilizers. In Year 3, 49 farmer-training programs on transplanted (T) *Aman*, lentil, potato, maize, wheat, and *Boro* were completed.

Table 1. Farmers' Training Organized in April 2019 under SSMC

Sl. #	Districts	Upazilas	Batches	Male	Female	Total	Fertilizer Retailers	Grand Total
1.	Chapai Nawabganj	Gomostapur	2	43	10	53	7	60
2.	Chapai Nawabganj	Nachole	2	43	8	51	9	60
	Total		4	86	18	104	16	120

Crop Cut

In this month, five crop cuts from lentil and two from wheat demonstration plots have been completed in different locations. SSMC senior staff and Field Coordinator, DAE officials, Union Parishad (UP) member, and concerned demonstration farmers attended the crop cut and field day programs. In almost all the demonstration plots, among the three fertilizer treatments, OCP compound fertilizer (NPSZn and NPSB) treatment plots performed better than farmers' practice. Crop yield data of wheat and lentil by treatment are provided below.

¹ Progressive farmers are those who are willing to use the good farm practices (GAPs – such as using good quality seed and balanced doses of fertilizers, maintaining proper spacing from line to line and plant to plant, practicing integrated pest management [IPM] with improved technologies, etc.), establish their own demonstration plots, share their knowledge, and encourage their neighboring farmers to use GAPs along with improved technologies.

Table 2. Results on Wheat 2019 Demonstration Crop Cut Under SSMC

Sl. #	Location	Variety	T1 (Farmers Practice)	T2 OCP Compound + Straight Fertilizer with Lime (NPSZn)	T3 OCP Compound + Straight Fertilizer with Lime (NPSB)	Yield Increase over Farmers' Practice	
						T2-T1	T3-T1
						(%)	
1.	Nilphamari Sadar	BARI Gom 26	4.27	5.18	5.45	21%	28%
2.	Saidpur, Nilphamari	BARI Gom 30	3.81	4.19	4.66	10%	22%
3.	Dinajpur Sadar	BARI Gom 30	3.15	3.56	4.66	13%	48%
4.	Chirirbandar, Dinajpur	BARI Gom 30	4.03	4.51	4.70	12%	17%
5.	Kurigram Sadar	BARI Gom 28	4.92	5.41	5.91	10%	20%
6.	Natore Sadar	BARI Gom 28	4.55	5.57	4.96	22%	9%
7.	Natore Sadar	BARI Gom 28	3.99	4.32	5.26	8%	32%
8.	Lalpur, Natore	BARI Gom 30	4.51	4.81	5.10	7%	13%
9.	Gomostapur, Chapai Nawabganj	BARI Gom 28	4.44	5.17	5.01	16%	13%
10.	Nachole, Chapai Nawabganj	BARI Gom 30	3.86	5.13	4.78	33%	24%

Table 3. Results on Lentil 2019 Demonstration Crop Cut Under SSMC

Sl. #	Location	Variety	T1 (Farmers Practice)	T2 OCP Compound + Straight Fertilizer with Lime (NPSZn)	T3 OCP Compound + Straight Fertilizer with Lime (NPSB)	Yield Increase over Farmers' Practice	
						T2-T1	T3-T1
						(%)	
1.	Gomostapur, Chapai Nawabganj	BARI Mosur 7	1.22	1.57	1.72	29%	41%
2.	Gomostapur, Chapai Nawabganj	BARI Mosur 6	1.63	2.33	2.03	43%	25%
3.	Nachole, Chapai Nawabganj	BARI Mosur 6	1.10	1.25	1.48	14%	35%
4.	Nachole, Chapai Nawabganj	BARI Mosur 6	2.01	2.56	2.15	27%	7%
5.	Nachole, Chapai Nawabganj	BARI Mosur 6	1.16	1.40	1.57	21%	35%
6.	Lalpur, Natore	BARI Mosur 7	1.49	1.60	1.62	7%	9%
7.	Lalpur, Natore	BARI Mosur 7	1.34	1.69	1.74	26%	30%
8.	Lalpur, Natore	BARI Mosur 7	2.13	2.27	2.37	7%	11%
9.	Natore Sadar	BARI Mosur 7	1.47	1.77	1.63	20%	11%
10.	Natore Sadar	BARI Mosur 7	1.23	1.44	1.49	17%	21%

Field Day

In this month, one wheat and three lentil demonstration field days were organized at Gomostapur and Nachole of Chapai Nawabganj district (Table 44). SSMC senior staff and Field Coordinator, DAE officials, local farmers, and fertilizer dealers attended the crop cut and field day programs. A total of 409 farmers attended the field day program (275 male and 126 female). Demonstration farmers shared their experiences with all of the participants. In all the demonstration sites harvested, lentil and wheat yields in OCP fertilizer treatment plots increased compared to farmers' plots.

All of the farmers showed interest in OCP compound fertilizers as long as the products' quality remains good and the fertilizers are available locally. Demonstration farmers expressed positive opinions about SSMC demonstration plots and crop performance. Local newspaper reporters attended the field day program.

Table 4. Field Days Organized in April 2019 under SSMC

Sl. #	Districts	Upazilas	Batches	Male	Female	Total	Fertilizer Retailers	Grand Total
1.	Chapai Nawabganj	Gomostapur	2	151	49	200	2	202
2.	Chapai Nawabganj	Nachole	2	124	77	201	6	207
	Total		4	275	126	401	8	409

Fifth Steering Committee Meeting of SSMC Project

The Fifth Steering Committee meeting was held at the OCP Foundation office, Rabat, Morocco, on April 16, 2019, at 10:00 A.M. The meeting was held in one session and chaired by Mr. Nawfel Roudies. Attendees included IFDC Regional Director of Asia, Ishrat Jahan; Hassina Moukhariq, Head of International Agricultural Development Program, Rouini Imadeddine, Project Manager, OCP Foundation; Mr. Abdelmonim Elkanit, Senior Manager, Agronomical Support, OCP Group, Mr. Tarik Boudiar, Senior Sales Manager, India and Middle East, Executive Commercial, OCP Group; Dr. Akkas Ali, Chief Scientific Officer and Head of OFRD, BARI; Dr. Aminul Islam, Chief Scientific Officer, BRRI; Dr. Gazi Zainul Abedin, SSO (Senior Scientific Officer), SRDI; Mr. Faruque Zahidul Haque, General Manager (Fertilizer), BADC; and Mr. Mainul Ahsan, Senior Soil Scientist, SSMC, IFDC. In accordance with the agenda, the IFDC Regional Director of Asia made a PowerPoint presentation on the progress achieved through March 2019 under SSMC as per the approved workplan. She also made a brief presentation on Stage 2 of the SSMC project to be continued from January 2019. After a detailed review of the presentations, members of both OCP Group and OCP Foundation commented on the presentations and expressed their appreciation for the outcome of the activities achieved so far. It was also agreed, in principle, to continue the second stage of the SSMC project without any break. The Chief Scientific Officer and Head of OFRD, BARI, and Chief Scientific Officer, BRRI, made PowerPoint presentations on trial progress. A separate presentation was made on concept notes of SRDI regarding their capacity building, which is also under review by the OCP Group.

Activity Achievement Against Target

Details of activities completed through April 2019 against the target of the Year 3 Workplan are presented in Table 55.

Table 5. Activity Achievement through April 2019 Against Year 3 Workplan

Deliverables	Unit	Target	Achievement		% of Target
			In April 2019	Through April 2019	
Orientation training for establishing demonstrations	No.	2		2	100%
Farmer training with DAE	No.	60	4	49	82%
<i>Establishment of Field Trials</i>					
Lentil	No.	3		3	100%
Potato	No	4		4	100%
Wheat	No	2		2	100%
Maize	No	4		4	100%
Total		13	4	13	100%
<i>Crop Cut</i>					
<i>Field Trials</i>					
Lentil	No.	3		3	100%
Potato	No	4		4	100%
Wheat	No	2		2	100%
Maize	No	4			0%
Total		13		9	69%
<i>Establishment of Field Demonstrations</i>					
Rice (<i>T. Aman</i>)	No.	10		10	100%
Lentil	No	10		10	100%
Potato	No	10		10	100%
Wheat	No	10		10	100%
Maize	No	10		10	100%
Boro	No	10		10	100%
Total		60		60	100%
<i>Crop Cut</i>					
<i>Field Demonstration</i>					
Rice (<i>T. Aman</i>)	No.	10		10	100%
Potato	No.	10		10	100%
Lentil	No.	10	5	10	100%
Wheat	No.	10	2	10	100%
Total		40	7	40	100%
Field Days					
Field days (<i>T. Aman</i>)	No.	5		5	100%
Field days (<i>Potato</i>)	No.	5		5	100%
Field days (<i>Lentil</i>)	No.	5	3	5	100%
Field days (<i>Wheat</i>)	No.	5	1	5	100%
Total		20	4	20	100%

Media Report

The media campaign for SSMC activities during April 2019 is shown in Table 66, covering daily local print media. In the media campaign, OCP Foundation, as the partner, is always emphasized along with SSMC activities.

Table 6. Television Reports, News, and Publicity in April 2019

Sl. #	News Heading	Media	Date	Remark
A. Local Newspaper				
1.	Organize farmers training program at Lalpur, Natore	The Daily Sunshine	05-Apr-19	Hard copy of news documented.
2.	Organize farmers training cum field days program at Gomostapur, Chapai Nawabganj	The Daily Chapai Chitra	09-Apr-19	Hard copy of news documented.
3.	Organize farmers training cum field days program at Nachole, Chapai Nawabganj	The Daily Chapai Chitra	09-Apr-19	Hard copy of news documented.
4.	Organize farmers training cum field days program at Nachole, Chapai Nawabganj	The Daily Amader Rajshahi	09-Apr-19	Hard copy of news documented.
5.	Organize farmers training cum field days program at Gomostapur, Chapai Nawabganj	The Daily Sonar Bangla	11-Apr-19	Hard copy of news documented.
6.	Organize farmers training cum field days program at Gomostapur, Chapai Nawabganj	The Daily Gour Bangla	11-Apr-19	Hard copy of news documented.

Photographs of SSMC Activities



Farmer Training Program on Lentil in Nachole, Chapai Nawabganj, April 2019



Field Day Program on the Lentil Crop Cut in Nachole, Chapai Nawabganj, April 2019



Presentation by IFDC's Regional Director of Asia in the 5th Steering Committee Meeting in Morocco on April 16, 2019



Participants in the 5th Steering Committee Meeting in Rabat, Morocco, on April 16, 2019



Briefing by Scientist during Visit to INRA in Morocco on April 17, 2019



Farmer's Strawberry Plot Visit by the 5th Steering Committee Members in Morocco on April 17, 2019