

# Accelerating Vegetable Productivity Improvement (AVPI)

MONTHLY REPORT | AUGUST 2018



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## Acronyms and Abbreviations

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AVPI	Accelerating Vegetable Productivity Improvement
BMO	Briquetting Machine Owner
DAE	Department of Agricultural Extension
FDP	Fertilizer Deep Placement
FTF	Feed the Future
GAP	Good Agricultural Practice
ha	hectare
IFDC	International Fertilizer Development Center
mt	metric ton
NPK	Nitrogen, Phosphorus, and Potassium
SAAO	Sub-Assistant Agriculture Officer
SWOT	Strengths, Weaknesses, Opportunities, and Threats

# Accelerating Vegetable Productivity Improvement (AVPI)

## Monthly Report | August 2018

### Highlights

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#### Introduction

The Accelerating Vegetable Productivity Improvement (AVPI) project is the second partnership between the Walmart Foundation and the International Fertilizer Development Center (IFDC) to improve the livelihoods of low-income female vegetable and fruit farmers in Bangladesh.

The project targets the horticulture subsector (vegetables and fruits), which is particularly relevant to women farmers. The project is expected to reach an estimated 37,892 beneficiaries.<sup>1</sup> This report contains a monthly update covering project activities in August 2018.

#### Results

- **Area Coverage under Good Agricultural Practices (GAPs), including Fertilizer Deep Placement (FDP) Technology, in Winter 2018-19:** Winter season vegetable cultivation began in August. Application of GAPs, including FDP, in winter 2018-19 horticultural crops by the women horticulture farmers started from middle of August in the AVPI project locations. As per AVPI weekly reports, a total of 34.50 ha of vegetable and fruits area brought under FDP technology in winter season 2018-19 until the reporting period.
- **FDP Briquette Production:** Information is being collected on *Guti* (briquette) fertilizer production from 233 AVPI villages. In August 2018, a total of 180.45 metric tons (mt) of *Guti* urea and 1.50 mt of NPK briquette was produced. The overall production of *Guti* fertilizers in AVPI villages during the winter 2018-19 vegetable and fruit season was 181.95 mt as of the reporting month.

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<sup>1</sup> AVPI conducted a census during winter 2016-17 to determine the current agriculture status of all 28,360 women farmers who were trained during the IFDC-Walmart activity of 2013-15 in the Feed the Future (FTF) zone. A total of 21,892 farmers were found active in winter 2016-17. AVPI will train another 16,000 women horticulture farmers in 400 batches throughout the life of the project. Therefore, the number of expected beneficiaries will be  $21,892 + 16,000 = 37,892$ .



## Technical Activities

**Summer Season 2018:** In August 2018, AVPI completed crop cuts from AVPI-trained farmers' fields and demonstration plots established in the summer season of 2018. During the reporting period, AVPI also completed data collection for the trained sample household survey and AVPI cluster village monitoring survey.

**Winter Season 2018-19:** AVPI began its winter season 2018-19 activities in August as per the approved work plan. The activities include women horticulture farmers' training on GAPs (including FDP) and polynet houses with trickle irrigation, motivational meetings with previously trained women horticulture farmers, motivational workshops and operational training of fertilizer briquetting machine owners (BMOs), farmers' orientation training for demonstration establishment, and the establishment of demonstration plots to show the results of improved technologies compared to farmers' practices.

AVPI completed the following activities for the winter 2018-19 season during August 2018.

### Technology Transfer

- **Farmers' Training on GAPs and FDP:** A total of 41 batches of AVPI training programs for 2018-19 winter season vegetables and fruits were organized with the participation of 1,640 women farmers. The training program continues for two days, with 3.5 hours each day. Day 1 focuses on the theoretical aspects of vegetable and fruit production, while Day 2 focuses on practical demonstrations of FDP and GAPs application. Training topics include: (1) human nutrition from vegetables and fruits; (2) soil fertility, balanced fertilizer use, and benefits of FDP technology; (3) fertilizer briquette rates and application methods for selected vegetable and fruit crops; (4) integrated pest management (IPM) practices; (5) land preparation, plant spacing, and planting/harvesting times for selected fruit and vegetable crops; (6) quality seed and variety selection for selected crops; (7) gender issues related to the marketing of vegetables and fruits; (8) practical demonstration of FDP application; and (9) trainee feedback/question-and-answer session. Department of Agricultural Extension (DAE) officials also



**AVPI Farmer Training Program  
on GAPs, including FDP Technology**

participated in these training programs. So far, 41 of 130 targeted training programs (32%) for winter 2018-19 have been completed.

- **Motivational Meeting with Walmart/IFDC-Trained Beneficiaries:** A total of 40 batches of motivational meetings were organized with 2,000 beneficiaries who were trained previously under Walmart-IFDC activities. The purpose of the meetings was to identify the beneficiaries' plans regarding GAPs and FDP application in horticulture crop production and motivate them to continue GAPs and FDP practices. So far, 40% of 100 targeted motivational meetings for winter 2018-19 have been completed.

- **Demonstration Farmers' Orientation Training on FDP:** AVPI organized one demonstration farmers' orientation training program as per the set target. A total of 15 female vegetable and fruit farmers will establish AVPI demonstration plots to show the results of different technologies, such as GAPs including FDP, compared to farmers' practices.



*Practical Training on Layout and Measurement*

- **Motivational Workshop and Operational Training of BMOs:** Two motivational workshops and operational trainings of BMOs, as per the set target, were organized with 103 total participants. The discussions and interactions highlighted current briquette (*Guti*) business and technical practices, emphasized the status of participating BMOs, encouraged more robust retailer network development, linked BMOs to local mechanics for machine maintenance, and supported the development of effective marketing techniques to increase the client base of each BMO. The program also included group exercises and poster presentations on strengths, weaknesses, opportunities, and threats (SWOT) in carrying out their *Guti* businesses.
- **Establishment of FDP Demonstration:** Technology results demonstration is one of the most important AVPI activities. AVPI demonstrates the results of FDP technology in selected vegetables. The demonstration plots consist of two plots, each measuring 200 square meters – one using FDP and the other broadcasting conventional urea, keeping all other inputs such as seed and fertilizers and all other management practices the same. So far, six of 15 targeted vegetable demonstrations plots (40%) for winter 2018-19 have been completed.

- **FDP Demonstration Plots Crop Cuts on Summer 2018 Vegetables:** During August 2018, AVPI completed final picking/harvesting from all 20 established AVPI FDP summer 2018 demonstration plots. Data entry and checking are underway, and results will be presented in the monthly report of October 2018.
- **Farmers' Field Crop Cuts on Summer 2018 Vegetables:** During August 2018, AVPI completed nine crop cuts from farmers' fields, which included three crop cuts on eggplant and two each on bitter melon, bitter melon, and taro. AVPI junior horticulturists, field monitoring officers, and sub-assistant agriculture officers (SAAOs) of DAE jointly conducted the vegetable crop cuts. Therefore, all 30 targeted crop cuts (100%) for summer 2018 were completed. Data entry and checking are underway, and results will be presented in the monthly report of October 2018.
- **Trained Sample Household Survey for Summer 2018:** AVPI completed interviews of 3,274 randomly selected trained sample households to assess the degree to which AVPI beneficiaries used GAPs and FDP technology in horticultural crops during summer 2018. The data entry and checking are underway, and the results will be presented in the monthly report of October 2018. The household sample size (3,274) represents 10% of the total AVPI-trained beneficiaries, which are selected through generating a random number from a database of all trained beneficiaries.
- **Cluster Village Monitoring Survey for Summer 2018:** In August 2018, AVPI completed the collection of information on GAPs and FDP from all 233 AVPI cluster villages by interviewing key informants. The data entry and checking are underway. Results will be presented in the monthly report of October 2018.
- **Demonstration Signboards:** Making demonstration signboards indicating the technology applied in AVPI plots has been completed. These signboards will be established in all AVPI demonstration plots.

## Piloting Polynet Houses With Trickle Irrigation

- **Demonstration Farmers' Orientation Training on Polynet Houses with Trickle Irrigation:** AVPI organized one batch of demonstration farmers' orientation training programs as per the set target. A total of 10 women vegetable and fruit farmers will establish AVPI demonstration plots (five plots on seedling raising and five on crop production) to show the results of different technologies, such as GAPs with/without FDP under polynet houses and trickle irrigation compared to farmers' practice with GAPs with/without FDP with no polynet houses or trickle irrigation.



- **Establishment of Demonstration Plots under Polynet Houses:** A total of four demonstration plots on eggplant seedling raising were established under polynet houses to show the results of seedlings grown under polynet houses and farmers' practice of growing seedlings without polynet houses. All five targeted demonstrations on seedling raising under polynet houses for winter 2018-19 have been completed.



*Demonstration Plot on Raising Seedlings Under Polynet Houses*

- **Farmer Training on Seedling Raising under Polynet Houses:** Four batches of training programs were organized on seedling raising under polynet houses with the participations of 160 women horticulture farmers. The trainings were organized near the demonstration plots established under polynet houses. The purpose was to show the good vegetative growth of seedlings under polynet houses compared to the farmers' practice of not using polynet. So far, four of the five targeted training programs (80%) for seedling raising under polynet houses have been completed.



*Practical Training on Establishing a Demonstration Plot on Polynet Houses With Trickle Irrigation*

Table 1 and Table 2 provide information on the activities accomplished as of August 2018 against targets for the 2018 summer and 2018-19 winter vegetable season.



**Table 1. Activities Conducted for 2018 Summer Vegetable Season Through August 2018**

Activities	Unit	AVPI Progress Through August 2018			Remarks
		Target	Actual	%	
<b>Objective 1: Fertilizer Deep Placement (FDP)/Good Agricultural Practices (GAPs)</b>					
Farmer training	Batch	70	70	100%	
Farmers’ orientation for demo establishment	Batch	1	1	100%	
Field demonstration	Number	20	20	100%	
Field days	Number	10	10	100%	
Farmers’ field crop cuts	Number	30	30	100%	
Motivational meetings with beneficiaries trained under IFDC-Walmart Foundation partnership	Number	50	50	100%	
Motivational workshops and operational training for agro-input retailers/briquetting machine owners	Number	2	2	100%	
Design and development of technical booklets, leaflets, flyers, posters, signboards, flags, promotional bags, and caps	Number	*	*		Continuing activity
<b>Objective 3: Improving Farmer Market Knowledge/Access to Market Information</b>					
Vegetable marketing seminars	Number	3	3	100%	

**Table 2. Activities Conducted for 2018-19 Winter Vegetable Season Through August 2018**

Activities	Unit	AVPI Progress Through August 2018			Remarks
		Target	Actual	%	
<b>Objective 1: Fertilizer Deep Placement (FDP)/Good Agricultural Practices (GAPs)</b>					
Farmer training	Batch	130	41	32%	
Farmers’ orientation for demo establishment	Batch	1	1	100%	
Motivational meeting with trained farmers	Number	100	40	40%	
Motivational workshop and operational training of BMOs	Number	2	2	100%	
Field demonstration	Number	15	6	40%	
Crop cuts from:					
➤ Demo plots	Number	15			
➤ Farmers’ fields	Number	20			
Field days	Number	5			
Design and develop technical leaflets, flyers, posters, signboards, flags, promotional bags, and caps					
<b>Objective 2: Piloting Polynet Houses with Trickle Irrigation</b>					
Farmers’ orientation for demo establishment	Batch	1	1	100%	
Field demonstration (seedling raising-5 + crop production-5)	Number	10	5	50%	
Farmer training	Batch	10	4	40%	
Field days	Number	10			
Provide direct technical assistance to farmers in introducing polynet houses with trickle irrigation and FDP technology					
Agro-input retailers training	Number	2			
<b>Objective 3: Improving Farmer Market Knowledge/Access to Market Information</b>					
Vegetable marketing seminar	Number	2			

**Media Campaign:** The media campaign for AVPI activities during August 2018 is shown in Table 3, covering daily national newspapers, local print media, electronic media, and online news. In the media campaign, Walmart Foundation, as the donor, is always emphasized in relation to AVPI activities.

**Table 3. Newspaper and Television Reports, News, and Publicity, August 2018**

Sl. No.	News Heading	Media	Date/ Time	Remark
<b>A. Electronic Media</b>				
<b>B. Print Media</b>				
<b>(i) National Newspaper</b>				
<b>(ii) Local Newspaper</b>				
1.	Demonstration plot crop cut and field days program at Bagerhat	The Daily Sangbad	02-Aug-18	Hard Copy of News Documented
2.	Farmers training program at Khulna	The Daily Probaha	07-Aug-18	Hard Copy of News Documented
3.	Farmers training program at Jhenaidah	The Daily Samajer Katha	09-Aug-18	Hard Copy of News Documented
4.	Farmers training program at Rajbari	The Daily Amar Barta	12-Aug-18	Hard Copy of News Documented
5.	Farmers training program at Jhenaidah	The Daily Probaha	21-Aug-18	Hard Copy of News Documented
6.	Farmers training program at Jhikargachha	The Daily Protidiner Katha	30-Aug-18	Hard Copy of News Documented
7.	Motivational workshop and operational training of BMOs at Jessore	The Daily Spandan	31-Aug-18	Hard Copy of News Documented
<b>(iii) Online News</b>				
1.	Farmers training program at Jhenaidah	e-kantho24.com	08-Aug-18	<a href="http://e-kantho24.com/%E0%A6%B8%E0%A6%BE%E0%A6%B0%E0%A6%BE%E0%A6%A6%E0%A7%87%E0%A6%B6/districts_38%E0%A6%95%E0%A7%8B%E0%A6%9F%E0%A6%9A%E0%A6%BE%E0%A6%81%E0%A6%A6%E0%A6%AA%E0%A7%81%E0%A6%B0%E0%A7%87%E0%A6%86%E0%A6%87%E0%A6%8F%E0%A6%AB%E0%A6%A1%E0%A6%BF%E0%A6%B8%E0%A6%BF%E0%A6%B0%E0%A6%86/">http://e-kantho24.com/%E0%A6%B8%E0%A6%BE%E0%A6%B0%E0%A6%BE%E0%A6%A6%E0%A7%87%E0%A6%B6/districts_38%E0%A6%95%E0%A7%8B%E0%A6%9F%E0%A6%9A%E0%A6%BE%E0%A6%81%E0%A6%A6%E0%A6%AA%E0%A7%81%E0%A6%B0%E0%A7%87%E0%A6%86%E0%A6%87%E0%A6%8F%E0%A6%AB%E0%A6%A1%E0%A6%BF%E0%A6%B8%E0%A6%BF%E0%A6%B0%E0%A6%86/</a>
2.	Demonstration plot on raising of seedling under polynet house at Chuadanga	The Daily Kalerkantho	26-Aug-18	<a href="http://www.kalerkantho.com/online/country-news/2018/08/26/673108">http://www.kalerkantho.com/online/country-news/2018/08/26/673108</a>
3.	Organized BMO workshop at Chuadanga	Bangladesh Protidin	29-Aug-18	<a href="http://www.bd-pratidin.com/country/2018/08/29/356171">http://www.bd-pratidin.com/country/2018/08/29/356171</a>

## Reporting

The AVPI Monthly Report of July 2018 was submitted to the Walmart Foundation. A concept note for an extension of the AVPI project to cover the winter season of 2018-19 for the transitional period has also been submitted.