

# Accelerating Vegetable Productivity Improvement (AVPI)

MONTHLY REPORT | APRIL 2018



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INTERNATIONAL FERTILIZER DEVELOPMENT CENTER  
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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
DMO	District Marketing Officer
FDP	Fertilizer Deep Placement
FTF	Feed the Future
GAP	Good Agricultural Practice
ha	hectare
IFDC	International Fertilizer Development Center
IPM	Integrated Pest Management
mt	metric ton
NGO	Non-Governmental Organization
NPK	Nitrogen, Phosphorus, and Potassium
PPS	Probability Proportional to Size
SAAO	Sub-Assistant Agriculture Officer
SWOT	Strengths, Weaknesses, Opportunities, and Threats

# Accelerating Vegetable Productivity Improvement (AVPI) Monthly Report | April 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 April 2018.

### Results

- **Trained Farmer Sample Survey, Winter 2017-18:** AVPI completed analysis of survey data from 2,990 sample trained farmers from 225 survey villages. The sample size represented 10 percent of the total trained farmers, and the number of sample farmers interviewed from each village was calculated using the probability proportional to size (PPS) sampling procedure. The analyzed data show that all of the interviewed sample women farmers (2,990) applied good agricultural practices (GAPs)<sup>2</sup> in winter 2017-18 horticulture crop production and, among them, a total of 1,947 (65 percent) applied fertilizer deep placement (FDP) technology (Figure 1). The data also show that sample farmers applied GAPs on 572.46 hectares (ha), which was almost 100 percent of the total vegetable area cultivated (572.95) by the sample farmers. Of the 572.95-ha vegetable area, a total of 264.80 ha (46 percent) were brought under FDP technologies by sample farmers during winter 2017-18 crop production (Figure 2). Therefore, the FDP users applied this technology on about 34 decimals of land per farm.<sup>3</sup> This implies that many IFDC-Walmart Foundation trained beneficiaries are continuing and expanding to practice GAPs and FDP technology, obtaining good

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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 2013-15 period 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 its project life. Therefore, the number of expected beneficiaries will be  $21,892 + 16,000 = 37,892$ .

<sup>2</sup> GAPs include the use of at least two of the following practices by sample farmers: improved quality of seed/seedling, improved seed variety, line transplanting, balanced fertilizer, integrated pest management (IPM) methods, and FDP application.

<sup>3</sup> During the first phase of the Walmart Foundation activity, farmers applied FDP on 24 decimals per farm.

yields from their crops, and, therefore, improving the nutrition and livelihoods of their family members through increased income. This is empowering the women in various aspects of their family life, including making decisions jointly with their husbands.

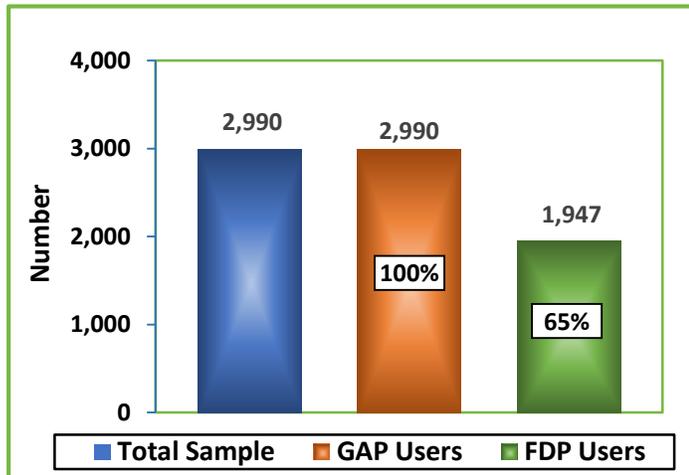


Figure 1. GAPs and FDP Users, Trained Sample Survey, Winter 2017-18

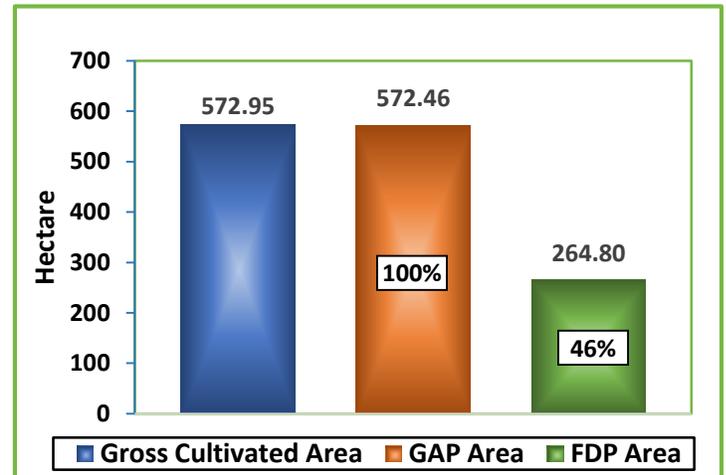


Figure 2. Total Area Under Vegetable Production, GAPs, and FDP (in ha), Trained Sample Survey, Winter 2017-18

➤ **Cluster Village Monitoring Survey, Winter 2017-18:** AVPI also completed analysis of the cluster village monitoring survey. Data were collected from key informants, such as progressive women leaders, fertilizer briquetting machine owners (BMOs), and female members of village-based clubs and associations in the 233 AVPI villages. The analyzed data show that a total of 27,838 AVPI trained farmers cultivated horticultural crops during winter 2017-18. Among them, 27,574 farmers (99 percent) applied GAPs and 21,322 (77 percent) applied FDP during winter 2017-18 (Figure 3). The data also show that trained beneficiaries applied GAPs on 6,864.51 ha, or 91 percent of the total vegetable area cultivated by the women farmers (7,545.82 ha). Of the cultivated 7,545.82 ha, a total of 4,364.32 ha (58 percent) were brought under FDP technologies by trained farmers during winter 2017-18 crop production (Figure 4). Therefore, the trained FDP users applied FDP technologies on about 51 decimals of land per farm. It may be noted that the results of both these surveys are relatively close with slight differences, indicating higher accuracy of the information being collected by IFDC-AVPI staff.

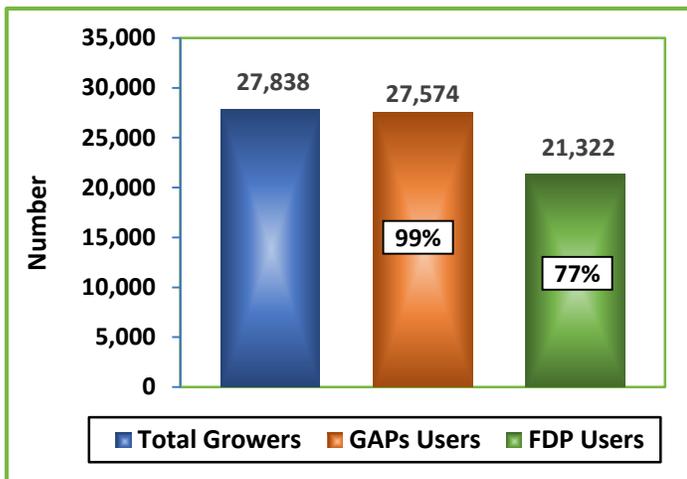


Figure 3. Total AVPI Direct Beneficiaries Using GAPs and FDP, Cluster Village Monitoring Survey Winter 2017-18

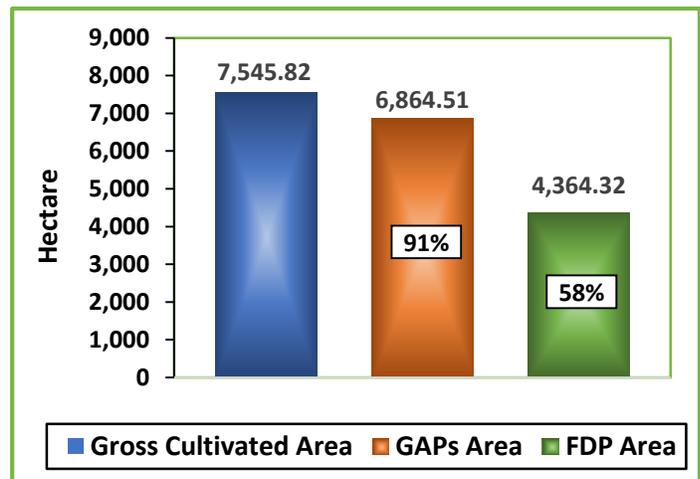


Figure 4. Total Vegetable, GAPs, and FDP Area (in ha), Cluster Village Monitoring Survey, Winter 2017-18

- Area Coverage under GAPs, including FDP Technology, in Summer 2018:** Summer season vegetable cultivation began in February. The women horticulture farmers have been applying GAPs, including FDP, in summer 2018 horticultural crops in the AVPI project locations. A total of about 1,947 ha of vegetable and fruit area has been brought under FDP technology. More farmers are using GAPs in their crop production compared to FDP application due to the unavailability of FDP products near their locations. The project staff are continuously motivating the BMOs to purchase more machines and to increase their production so that all farmers who are interested in using FDP technology can access the product near their farms. The project staff also assisted 13 BMOs by establishing linkages with local mechanics to repair their briquette machines that were out of order. Information on total GAPs, including FDP, will be captured through an AVPI cluster village monitoring survey and a trained sample household survey once the total fertilizer applications are completed for the 2018 summer vegetable season.
- FDP Briquette Production:** Information is being collected on *Guti* (briquette) fertilizer production from 233 AVPI villages. In the reporting month, 283.90 metric tons (mt) of *Guti* urea were produced. In addition, 27.50 mt of nitrogen, phosphorus, and potassium (NPK) *Guti* were also produced. In total, 311.40 mt of *Guti* fertilizers were produced during April 2018. The overall production of *Guti* fertilizers in AVPI villages during the summer 2018 vegetable and fruit season has been 993.80 mt, as of the reporting month.

## Technical Activities

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**Winter Season 2017-18:** AVPI completed all field-level activities earlier. During the reporting month, analysis of field data was completed for the cluster village monitoring survey and the trained farmers' sample household survey for winter 2017-18.

**Summer Season 2018:** Since February 2018, AVPI has implemented its summer season field activities, such as women horticulture farmers' training on GAPs (including FDP), motivational meetings with earlier-trained women horticulture farmers, motivational workshops and operational training of BMOs, farmers' orientation training for demonstration establishment, a vegetable marketing seminar, and the establishment of FDP demonstration plots to show the results of GAPs using FDP compared with farmers' practice with broadcast urea.

AVPI completed the following activities for summer 2018 seasons during April 2018.

### Technology Transfer

- **Establishment of FDP Demonstration Plots:** In April 2018, AVPI established 10 FDP demonstration plots, which included four on eggplant, three on bitter gourd, and three on cucumber. The purpose of the demonstration plots is to show the results of GAPs using FDP and farmers' practice with broadcast urea. Therefore, 20 FDP demonstration plots for four crops (bitter gourd, eggplant, cucumber, and taro) with five replications for each crop were established, achieving 100 percent of the target for the 2018 summer season.
- **Vegetable Marketing Seminar:** In April 2018, AVPI organized one vegetable marketing seminar at Kotchandpur upazila in Jhenaidah district. The purpose of the seminar was to improve the women farmers' market knowledge and their access to market information, including market demand, post-harvest handling, and product quality. The program highlighted the findings of three surveys conducted under AVPI. These are: (a) assessment of IFDC-Walmart women farmers' knowledge on vegetable and fruit market



*The Deputy Director of the Department of Agricultural Extension (DAE) inaugurated the vegetable marketing seminar at Jhenaidah.*

information; (b) survey on women growers of vegetable and fruit seedlings and saplings on a commercial basis; and (c) study on vegetable and fruit market information. AVPI women vegetable and fruit farmers playing a leadership role in their communities and market actors (faria/bepari/aratdar/paiker/retailers) participated in the seminar. A total of 40 persons (19 female and 21 male) participated in the seminar, including a deputy director, upazila agriculture officer, sub-assistant agriculture officers (SAAOs) of the Department of Agricultural Extension (DAE), district marketing officer (DMO), non-government organization (NGO) representative, women farmers (19), and market actors (16) from Kotchandpur, Maheshpur, Kaliganj, and Shailkupa upazilas of Jhenaidah district. The DAE officials and DMO extended their thanks to the Walmart Foundation and IFDC for organizing the seminar and discussed the importance of having a good marketing network and quality products for improving the farmers' incomes. The female farmers and market actors were divided into four groups for conducting a group exercise on strengths, weaknesses, opportunities, and threats (SWOT), followed by a presentation from each group. So far, two (67 percent) of the three targeted vegetable marketing seminars for summer 2018 have been completed.

Table 1 provides information on the activities accomplished as of April 2018 against targets for the 2018 summer vegetable season.

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

Activities	Unit	AVPI Progress Through April 2018			Remarks
		Target	Actual	%	
<b><i>Objective 1: Fertilizer Deep Placement (FDP)/Good Agricultural Practices (GAPs)</i></b>					
Farmer training on GAPs and FDP	Number	70	70	100%	
Demonstration farmer orientation training	Number	1	1	100%	
Establishment of demonstration plots	Number	20	20	100%	
FDP demonstration field days	Number	10			
Farmers' field crop cuts	Number	30			
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><i>Objective 3: Improving Farmer Market Knowledge/Access to Market Information</i></b>					
Vegetable marketing seminars	Number	3	2	67%	

**Media Campaign:** The media campaign for AVPI activities during April 2018 is shown in Table 2, 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 addition to AVPI activities. AVPI is also in the process of preparing three promotional videos, which are expected to be completed by mid-May 2019.

**Table 2. Newspaper and Television Reports, News, and Publicity, April 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.	Vegetable and Fruits Marketing Seminar at Kotchandpur, Jhenaidah	The Daily Purbanchal	24-Apr-18	Hard Copy of News Documented
2.	Vegetable and Fruits Marketing Seminar at Kotchandpur, Jhenaidah	The Daily Nabochitro	24-Apr-18	Hard Copy of News Documented
<b>(iii) Online News</b>				
1.	Vegetable and Fruits Marketing Seminar at Kotchandpur, Jhenaidah	BartaBD24.com	24-Apr-18	<a href="http://bartabd24.com/archives/4146">http://bartabd24.com/archives/4146</a>

## Reporting

The AVPI Monthly Report of March 2018 was submitted to the Walmart Foundation.