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AGRICULTURAL DEVELOPMENT AND VALUE CHAIN ENHANCEMENT PROJECT (USAID ADVANCE)

FY18 Q3 REPORT: APRIL 2018 – JUNE 2018



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USAID ADVANCE FY18 Q3 REPORT

APRIL – JUNE 2018

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CONTENTS

EXECUTIVE SUMMARY	6
A. INTRODUCTION	7
B. COLLABORATION	7
COLLABORATION WITH THE MINISTRY OF FOOD AND AGRICULTURE	7
COLLABORATION WITH OTHER PARTNERS	7
C. KEY RESULTS	9
DIRECT BENEFICIARIES	9
GROSS MARGINS.....	9
APPLICATION OF TECHNOLOGY AND MANAGEMENT PRACTICES	15
D. PROGRESS WITH TECHNICAL DELIVERY	16
SUB-PURPOSE 1: INCREASED AGRICULTURAL PRODUCTIVITY IN TARGETED COMMODITIES	16
SUB-PURPOSE 2: INCREASED MARKET ACCESS AND TRADE OF TARGETED COMMODITIES.....	24
SUB-PURPOSE 3: STRENGTHENED CAPACITY FOR ADVOCACY AND ACTIVITY IMPLEMENTATION.....	29
E. PROGRAM SUPPORT	34
GENDER PROGRAM	34
ENVIRONMENT SUPPORT.....	34
GRANTS PROGRAM.....	35
MONITORING AND EVALUATION.....	35
PUBLIC RELATIONS AND COMMUNICATION.....	39
ANNEX 1: INDICATOR TABLE	41
ANNEX 2 : SUCCESS STORIES	44
POSITIONING FARMER BASED ENTERPRISES AS KEY AGENTS OF CHANGE IN AGRICULTURAL VALUE CHAIN	48

ACRONYM LIST

ACDEP	Association of Church-Based Development Projects
ADVANCE	Agricultural Development and Value Chain Enhancement
AEA	Agriculture Extension Agent
APO	Agricultural Production Officer
ATT	Agricultural Technology Transfer
BDS	Business Development Services
CSA	Climate Smart Agriculture
CREMA	Community Resource Management Areas
DAIP	District Agricultural Investment Plan
EPA	Environmental Protection Agency
FaaB	Farming as a Business
FBE	Farmer-Based Enterprise
FBO	Farmer-Based Organization
FI	Financial Institution
FTF	Feed the Future
FY	Fiscal Year
GAIP	Ghana Agricultural Insurance Pool
GAP	Good Agronomic Practice
GIS	Geographic Information System
GIZ	Gesundheits-Informationen-Zentrum
GPRTU	Ghana Private Road Transport Union
GPS	Global Positioning System
GRIB	Ghana Rice Inter-Professional Body
GSA	Ghana Standards Authority
I-3	Innovation and Investment Incentive Grants
ICT	Information and Communication Technology
IDRW	International Day of Rural Women
IITA	International Institute of Tropical Agriculture
IP	Implementing Partner
KML	Knowledge Management and Learning
MMDAs	Metropolitan Municipal and District Assemblies
MOFA	Ministry of Food and Agriculture
MoU	Memorandum of Understanding
(M)SME	(Medium) Small and Micro Enterprise
NADMO	National Disaster Management Organization
NF	Nucleus Farmer
NGO	Nongovernmental Organization
NORTHCO DE	Northern Region Western Corridor Development
NR	Northern Region
NRGP	Northern Rural Growth Programme
NSAICU	Northern Sector Agriculture Investment Coordination Unit
OB	Outgrower Business
OBM	Outgrower Business Management
OG	Outgrower
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PFI	Partner Financial Institution
PFJ	Planting for Food and Jobs
PHH	Post-Harvest Handling
PPE	Personal Protection Equipment
PRC	Public Relations and Communication

RMG	Regional Marketing Group Concept Limited
SEG	Small Equipment Grant
SHF	Smallholder Farmers
SOW	Scope of Work
SRID	The Statistics Research and Information Directorate
SSP	Spray Services Providers
STTA	Short-Term Technical Assistance
TNS	TechnoServe
UDS	University of Development Studies
UER	Upper East Region
USAID	United States Agency for International Development
UWR	Upper West Region
VSLA	Village Savings and Loan Association
WIAD	Women in Agriculture Department
ZOI	Zone of Influence

EXECUTIVE SUMMARY

This report presents the main achievements and key activities implemented by the USAID Agricultural Development and Value Chain Enhancement (USAID ADVANCE) project during the third quarter of fiscal year 2018 (FY18 Q3).

This quarter, **26,344** smallholder farmers, out of whom **14,028 (53%)** were women, benefitted from project interventions. A total of 2,512 (10%) smallholder farmers joined the project through village savings and loan associations during the reporting quarter, of which the majority (56%) were from the Northern Region. This brings the total number of project beneficiaries in FY18 to 71,897 smallholders, 96% of the FY18 project target. The project has reached 131,134 smallholder farmers (of which 63,144 or 48% are women) since its inception. A total of 24,689 households, out of which 21,048 (85%) are vulnerable, benefitted from the project during the reporting period.

The project trained 26,458 individuals (including 14,023 or 53% women) in good agronomic practices (GAPs), produce quality standards, farming as a business (FaaB), fall armyworm preventive measures, soybean utilization and nutrition, among others. The total number of project beneficiaries trained in FY18 reached 60,436 smallholders, which is 80% of the FY18 project target of 75,000. Since its inception in 2014, the project has trained 123,845 smallholders (3% higher than the LOP target of 120,000).

In addition, the project supported 538 producer-based and private enterprises during the quarter. These enterprises received support on organizational management capacity building, linkages to financial institutions, trade missions, linkages to buyers to engage in outgrower schemes and linkages to new markets among others. Also, a total of 22,714 medium, small and micro enterprises (MSMEs) including farmers, out of which 11,762 (52%) are women owned or led, received business development services from the project during the quarter. These services include financial literacy training, business planning support, and facilitating access to loans. The project also facilitated \$15,881 worth of loans to four beneficiary lead actors. Six actors also invested \$53,370 in capital equipment during the reporting period.

In total, 73,873 ha of land area cultivated by 91,223 farmers are under improved land-based technologies. The total number of beneficiaries who applied improved land based and non-land-based technologies and management practices is 93,784, which is 130% of the FY18 target. In addition, the number of hectares under improved technologies cultivated by men is almost one and half times higher than the women's. Women plant smaller land and apply improved technologies on a smaller portion of land. In addition, the 2017 survey shows that gross margins per hectare were \$670 for maize, \$853 for rice and \$750 for soya1, compared to \$289, \$278 and \$255 respectively at baseline. Female farmers achieved significantly higher margins than their male counterparts.

Actor-led demonstration sites continued to be one of the main strategies in making promotion and adoption of innovative technologies among project beneficiaries sustainable. A key achievement in this quarter is increasing leadership of input dealers and OBs in setting up demonstrations without project's facilitation. During this quarter, ten input companies and 94 OBs through the support of the project sponsored 289 field demonstrations on maize and soy.

Both outgrower businesses (OBs) and farmer-based organizations (FBOs) have embraced the concept of VSLAs as an important vehicle for rural savings and loans. During the third quarter of FY18, project-supported OBs and FBOs promoted and established 21 new VSLA in 7 communities with 525 members (178 men and 347 women), bringing the overall number of VSLAs to 1,128 groups with 15,307 female members and 9,150 male members with expanded access to financial services. The OBs and FBOs bore the initial cost of start-up items such as the savings box, the association's record books and individual record books. To date, VSLAs have saved a total of GHS5,766,878 (\$1,293,022) of which they have given GHS 1,855,632 (416,061) to members as loans.

Finally, 171 OBs and farmer groups hosted two end-market buyers through eight trade missions. Seven of them offered buyers and farmers the opportunity to negotiate outgrower contracts amounting to GHS 4,396,064 (\$985,665) for the 2018 crop season.

¹¹ These are provisional figures based on first round of sales data. Second round of sales data is likely to increase sales values with increased gross margins

INTRODUCTION

USAID ADVANCE's goal is to increase the competitiveness of the maize, rice and soya value chains (VCs) in Ghana. The project is implemented by ACDI/VOCA and its sub-awardees, Association of Church-Based Development Projects (ACDEP), PAB Consult, and TechnoServe. This report presents the main activities and accomplishments of the project against its goal and indicators during the third quarter of FY2018 (FY18 Q3). The report is organized along the project's intermediate results as follows:

- Increased agricultural productivity in targeted commodities
- Increased market access and trade of targeted commodities
- Strengthened capacity for advocacy and activity implementation

The report starts with USAID ADVANCE's collaboration with other organizations, projects, and the Ministry of Food and Agriculture (MOFA), followed by a summary of key results. It also covers the project's cross-cutting activities including gender, environment, grants, and monitoring, evaluation and learning activities and outcomes.

COLLABORATION

Collaboration with the Ministry of Food and Agriculture

During the reporting period, the project continued to collaborate with the Ministry of Food and Agriculture (MOFA) as a member of the fall armyworm (FAW) national task force. Dr. Dan McGrath, USAID ADVANCE's consultant led the training, with facilitation from the project staff for 20 MOFA supervisors and 35 field staff, on deployment of pheromone traps and general control of the FAW. USAID ADVANCE is also a member of the national FAW monitoring team responsible for the Upper West Region and visited the region in June 2018. The monitoring team inspected the distribution of insecticides to farmers, undertook FAW sensitization programs, and formed the "Nnoboia" FAW spray service group, as well as regional and district task forces that implement activities to control and mitigate the FAW menace.

The project also worked with the Department of Agriculture's field extension officers to make smallholder farmers aware of the government's flagship input support program "Planting for Food and Jobs" and how they can access subsidized inputs. Safe spray service providers, community input agents, input dealers, outgrower businesses and smallholder farmers attended similar fora.

District MOFA staff participated in training labeled "Under-Tree Training in GAPs" and setting up and running field demonstrations. Project staff also collaborated with MOFA's Women in Agriculture Department (WIAD) officers to train members of village savings and loan associations (VSLAs) on soy utilization.

Collaboration with Other Partners

Alliance for a Green Revolution in Africa (AGRA)

AGRA invited USAID ADVANCE's Upper West Regional team and outgrower businesses (OBs) to the launch of an AGRA-funded project on smallholder farmers' mechanization implemented by AgroAfrica and Trotro Tractor Ltd. The project seeks to improve farmers' access to mechanization services such as ploughing, harrowing, and planting, using a digital platform developed

by Trotro Tractor Ltd. The project targets 15,000 farmers in the Upper West Region in three years. The project will collaborate with AGRA to ensure that ADVANCE beneficiaries access this service.

Centre for No-Till Agriculture (CNTA)

The project collaborated with the Centre for No-Till Agriculture, a conservation agriculture institution based in Zebilla in the Bawku West District of the Upper East Region to train seven tractor operators and five OBs on tractor operations and maintenance with special emphasis on the use of ripper.

GRAMEEN Foundation

Grameen Foundation continues to provide technical and troubleshooting support for the SmartEx application being used by the OBs and field agents who provide technical support to smallholder farmers. The SmartEx application is an android based application which enables OBs and their field agents provide extension services which are tailored to the needs of farmers.

International Institute for Tropical Agriculture (IITA)

During this quarter, USAID ADVANCE collaborated with IITA to organize two trainings for key VC stakeholders and actors in Tamale and Bolgatanga on managing aflatoxins using Aflasafe. Aflasafe is a fungus-based biological control formula developed by IITA and commercialized in collaboration with Macrofertil Ghana Ltd.

MTN/VODAFONE Ghana/Airtel-Tigo

USAID ADVANCE continued to work with the three main telecom companies, MTN, Airtel-Tigo and VODAFONE to train and set up spraying service providers (SSPs), input dealers, OBs, smallholders and aggregators on mobile money. During the quarter, 1,482 project beneficiaries (including 692 women) were trained to become mobile money subscribers. Since its inception in 2014; the project has linked 4,756 VC actors to mobile money.

Northern Sector Agriculture Investment Coordination Unit and Resiliency in Northern Ghana

On June 20, the Resiliency in Northern Ghana project (RING), in partnership with the Northern Sector Agriculture Investment Coordination Unit (NSAICU) and the Canadian Feed the Children, organized a VSLA coordination forum in Tamale, and invited USAID ADVANCE to share their experience in implementing VSLA activities. The VSLA concept has become an important component of most projects in the Northern Region, as it helps project beneficiaries mobilize funds through savings and lending. This forum aimed at ensuring harmonization and promotion of the VSLA principles.

RMG

The Regional Marketing Group Concept Ltd. (RMG) collaborates with USAID ADVANCE to provide good quality seed for OBs to conduct demonstrations and for their farms as well as that of their outgrowers. During this quarter, RMG's regional representatives worked with USAID ADVANCE's regional coordinators to ensure access to good quality maize seeds.

University for Development Studies

The project, in collaboration with the University for Development Studies (UDS) engaged 66 students between the age of 18 and 29 in an internship program to support field activities related to 49 OBs' business activities, 13 FBOs, 15 VSLAs and 15 SSPS. These interns assist the VC actors on record keeping and field activities.

Yara Ghana Ltd.

Yara Ghana trained the project's OBs using 250 field crop demonstrations. The company provides fertilizers for maize and soya cultivation while the OBs provide prepared land and organize the smallholders for the training.

KEY RESULTS

Direct Beneficiaries

This quarter, the project reached **26,344** smallholder farmers, of whom **14,028 (53%)** were women, with various interventions. A total of 2,512 (10%) smallholder beneficiaries joined the project during the reporting quarter. Of the total smallholder farmer beneficiaries reached, the majority (56%) was from the Northern Region. This achievement brings the total number of beneficiaries in FY18 to 71,897 smallholders, which is 96% of the FY18 project target of 75,000. The project has reached 131,134 smallholder farmers (of which 63,144 or 48% are women) since its inception in 2014. A total of 24,689 households, out of which 21,048 (85%) are vulnerable, received support from the project during the reporting period.

The project trained 26,458 individuals (including 14,023 or 53% women) in good agronomic practices (GAPs), produce quality standards, farming as a business (FaaB), fall armyworm (FAW) preventive measures, soybean utilization and nutrition, among others. The total number of beneficiaries trained by the project in FY18 amounts to 60,436 smallholders, which is 80% of the FY18 project target. Since its inception in 2014, the project has trained 123,845 smallholders, which is 3% over the LOP target of 120,000.

The project also supported 538 producer-based and private enterprises during the quarter. These enterprises were supported with capacity building for organizational management, linkages to financial institutions, trade missions, linkages to buyers to engage in outgrower schemes and linkages to new markets among others. Also, 22,714 medium, small and micro enterprises (MSMEs), out of which 11,762 (52%) are women owned or led, were supported in business development services during the quarter. The services include financial literacy training, business planning support, and facilitating access to loans. The project also facilitated \$15,881 worth of loans to four beneficiary lead actors. Six actors also invested \$53,370 in capital equipment during the reporting period.

Gross Margins

As per USAID's definition, gross margin is the difference between the total production value and cost of an agricultural commodity divided by the total number of production hectares. Gross margin is presented per hectare and is a measure of the gross income from a farm. The five data points required to calculate the gross margin are area planted, volume of production, total recurrent cash input costs, total quantity sold and value of sales.

USAID ADVANCE conducted the 2017 gross margins survey between May 2017 and June 2018 (field data collection from May to December 2017 and phone sales survey from January to June 2018) in both ADVANCE north and south. The figures presented in the subsequent sections were extrapolated from the survey respondents to the total number of beneficiaries (Table 1), as required by the USAID Feed the Future Indicators' handbook.

Table 1: Number of smallholder farmer direct beneficiaries by crop planted and gender² in 2017

Gender	Maize	Rice	Soy	Total
Female	29,599	8,509	12,227	50,335
Male	38,117	7,715	7,517	53,349
Total	67,716	16,224	19,744	103,684

Hectares planted

During the 2017 crop season, 103,684 project smallholder farmers cultivated of 113,053 hectares, of which 44% were planted by women. About 77% of land was planted with maize, 11% with rice and 12% with soya (Table 2).

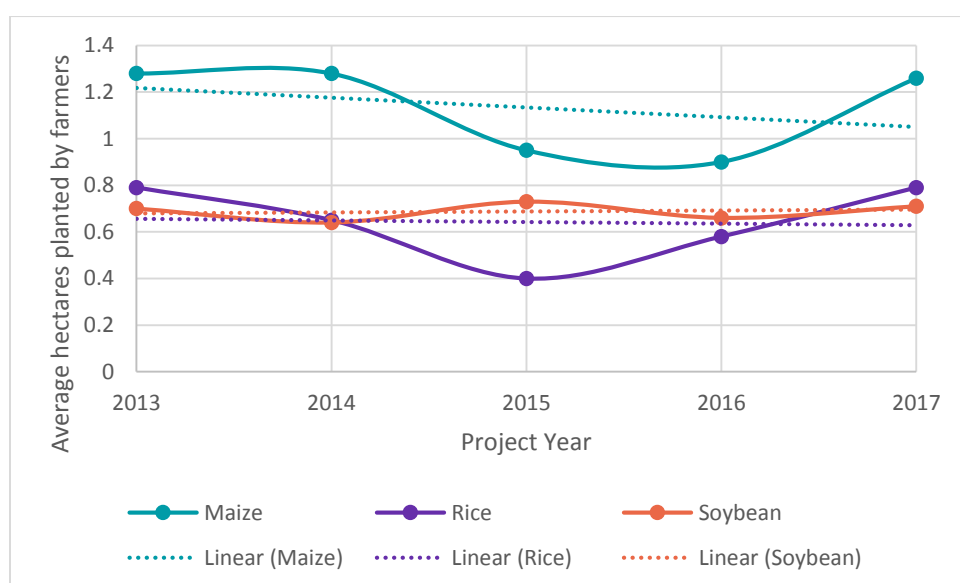
² Some farmers plant more than one crop at a time. In such cases, the farmer is counted under each planted crop.

Table 2: Hectares planted in 2017 by crop and by gender

Gender	Maize	Rice	Soya	Total
Female	34,140	7,028	8,316	49,485
Male	52,265	5,725	5,578	63,567
Total	86,405	12,753	13,894	113,052

On average, the area planted by each farmer in 2017 was 1.28 ha for maize, 0.79 ha for rice and 0.70 ha for soya. Female maize and soybean farmers planted smaller area as compared to their male counterpart (19% less for maize and 9% less for soya) whilst rice female farmers planted bigger area than male rice farmers (Figure 1). Overall, the average hectares planted by rice farmers continue to increase each year from 2015 to 2017, whilst soybean farmers seemingly maintain their average farm sizes over the three-year period. Maize farmers reduced their average farm size in 2016 whilst increasing their average farm size in 2017.

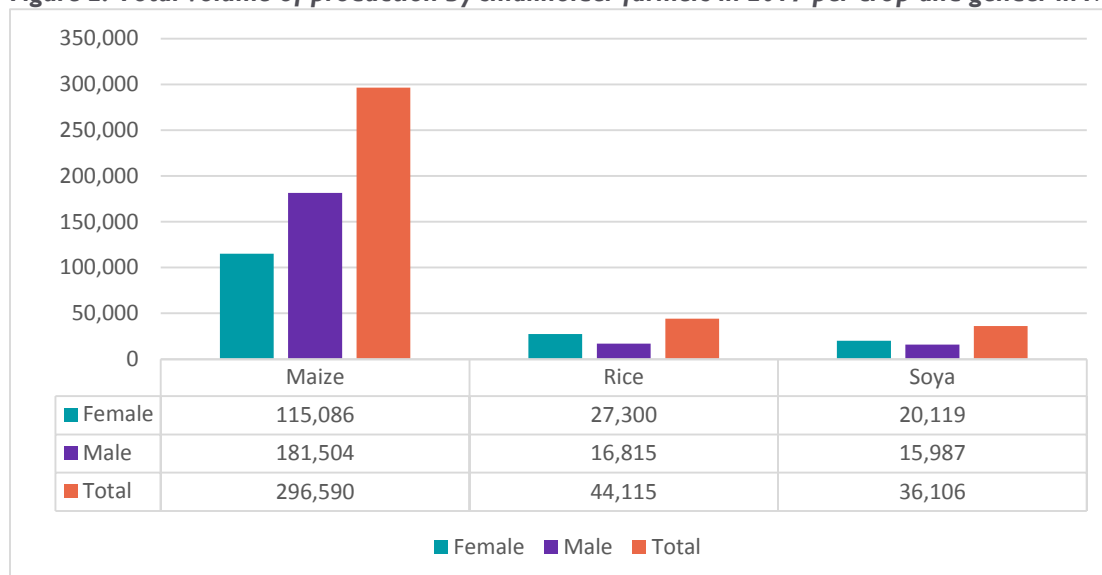
Figure 1: Average hectares planted per farmer from baseline (2013) to 2017 by crop and gender



Production

Total production in 2017 from all crop farmers was estimated at 376,812 MT (Figure 2) as compared with 231,688 MT in 2016 and 182,376 MT in 2015. In FY17, maize farmers produced 296,590 MT of maize, whilst rice and soybean farmers produced 44,115.27MT and 36,106.59MT of rice and soybean respectively. Except for maize, female farmers produced more than male farmers. Overall, total quantity produced by male farmers is 1.32 times higher than that of their female counterpart.

Figure 2: Total volume of production by smallholder farmers in 2017 per crop and gender in MT



On average, a maize farmer produced 4.32 MT, a rice farmer 2.69 MT, and soya farmer 1.89MT (Table 3). A male farmer produced 3.02MT whilst a female farmer produced 2.91 MT on average. The difference is found to be higher for maize farmers where a male farmer produces 0.87 MT more than a female farmer, whilst the male rice farmer produced as low as 1.03MT less than a female rice farmer.

Table 3: Average production per farmer in MT in 2017

Gender	Maize	Rice	Soya	Total
Female	3.89	3.21	1.65	2.91
Male	4.76	2.18	2.13	3.02
Average	4.32	2.69	1.89	2.97

Average yields for maize, rice and soya in 2017 were 3.43 Mt/ha, 3.46 MT/ha and 2.60MT/ha respectively. FAW and floods caused a reduction in maize and rice production during the 2016 production season, therefore, the 2017 yields may be attributed to the success of project interventions against FAW in 2017. In Table 4, even though lower than 2015, yields for both male and female maize farmers were higher in the 2017 production season compared to 2016 season. Similar trends were observed in rice production where the yields for 2017 were higher than those of 2016 but lower than those of 2015. The difference in yields between 2017 and 2016 can be attributed to more rice farmers shifting from broadcasting to planting in rows and using less seed in 2017 than in 2016. Soy yields consistently increased from 2015 to 2017.

Table 4: Yields by year, gender and crop in MT/ha

Gender	Maize			Rice			Soya		
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Female	3.37	3.14	3.59	3.88	2.71	3.81	2.42	2.06	1.80
Male	3.47	3.41	3.64	2.94	2.94	4.07	2.87	2.34	1.86
Average	3.43	3.34	3.63	3.46	2.84	3.98	2.60	2.17	1.83

Volume sold and value of sales

Smallholder farmers sold a total of 283,241 MT, which is 75% of total production, during the reporting period. About 81% (229,257 MT) of sales was maize, 11% (or 32,223 MT) rice and 8% (21,761 MT) soya (Figure 3).

Total sales amounted to \$65,906,099, with 79% (or \$51,951,028) being maize, 13% (\$8,807,061.79) rice and 8% (\$6,983,531) soya (Figure 4)³.

Figure 3: Quantity sold smallholder in 2017 by crop and gender (MT)

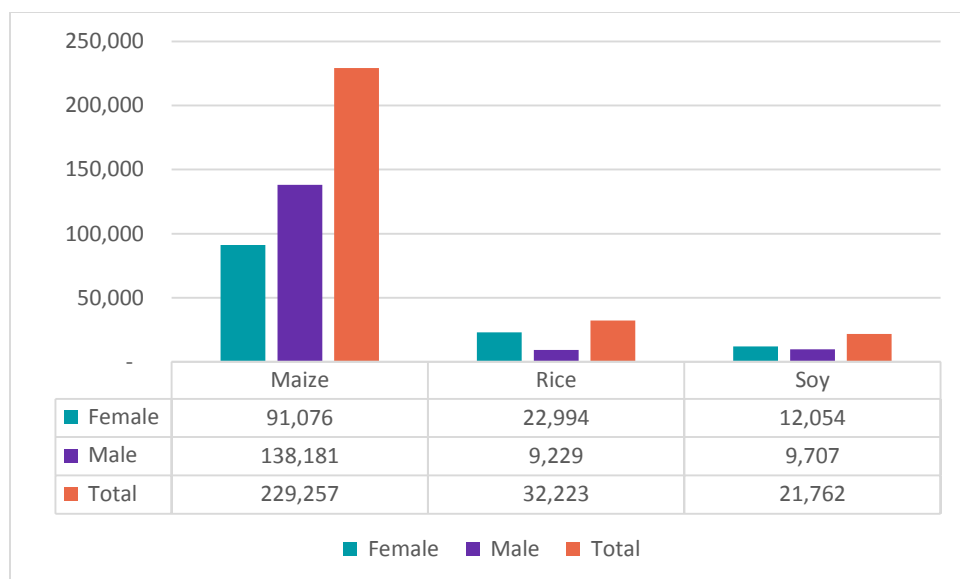


Figure 4: Amount of sales in 2017 by crop and gender

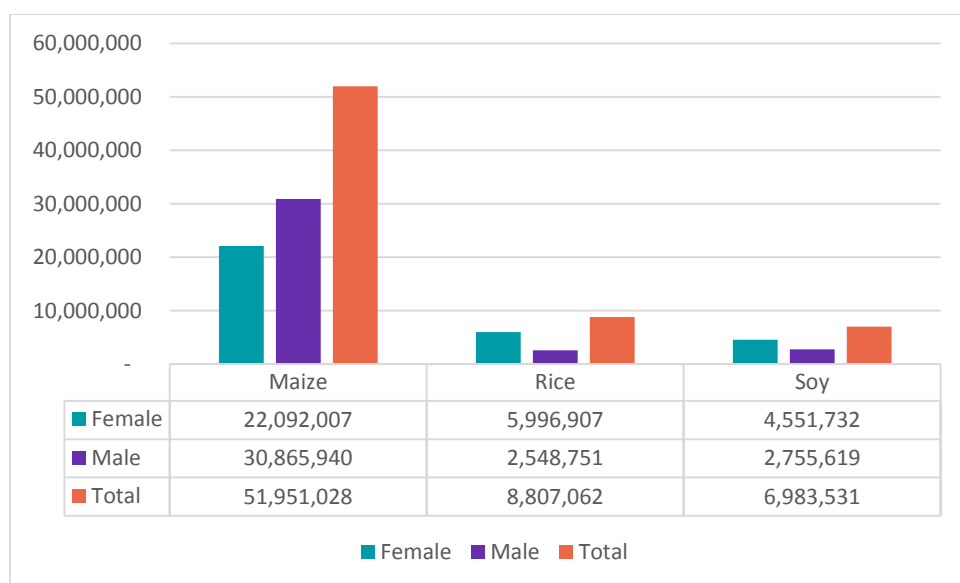


Table 5 shows that on average, sales per beneficiary totaled \$499.81. Maize farmers sold \$560.65 while rice and soya farmers sold \$452.94 and \$353.49 respectively, which is consistent with the volume of sales for those commodities (Table 5). Except for

³ Figures reported here are provisional and will be updated with July sales data.

maize, average sales for female farmers were higher than their male counterparts corroborating the high volumes sold by women farmers.

Table 5: Average 2017 sales per farmer by crop and gender

Gender	Maize	Rice	Soy	Grand Total
Female	\$ 529.15	\$ 582.39	\$ 372.09	\$ 492.77
Male	\$ 606.26	\$ 278.64	\$ 366.29	\$ 531.85
Grand Total	\$ 560.65	\$ 452.94	\$ 353.49	\$ 499.81

A female rice farmer earned almost twice the revenues as much as their male counterpart (Table 5). Both male and female maize farmers earned almost 1.6 times as much as what they earned at baseline. A female soya farmer earned 1.5 times as much in 2017 as what she earned at baseline. However, male rice and soya farmers sold more at baseline.

The data reveals that on average farmers planted 1.28 ha of maize, 0.79 ha of rice, and 0.70 ha of soya during the 2017 production season. At baseline, maize farmers planted 1.42 ha on average, rice farmers planted 1.2 ha and soya farmers planted 1.27. For maize, the significant reduction of plot size enabled farmers to manage the farms well and apply more improved technologies and increased their yields. This compensated for the reduction in plot sizes. For rice and soya farmers, the plot size decreased more significantly; on average, rice plots decreased by 0.41ha from 1.2ha at baseline to 0.79ha in 2017, however, the rice farmers produced more than at baseline (from 1.61 MT to 3.43 MT).

Except for maize, male farmers on average sold smaller quantities than their female counterparts. In addition, the average rice selling price in USD was significantly reduced, from \$439/MT (Figure 5) at baseline to \$273/MT in 2017. This was due primarily to currency exchange rate, which went from GHS 2.66/\$1 at baseline to GHS 4.42/\$1 2017 production season, representing a depreciation of the Ghana cedi by 66%. These changes led to negative incremental sales of \$1,362,260 for rice male farmers. The soya selling price decreased from \$414/MT to \$321/MT but did not lead to a reduction in the incremental sales of soya. Because of the increase in quantity sold, incremental sales for maize, rice and soybean rose to \$35,430,895, \$1,505,571 and \$1,357,336 respectively. The high overall 2018 incremental sales \$38,293,803 enabled the project to exceed its annual incremental sales target of \$16,940,000 by 226%, (Table 6).

Figure 5: Average Prices (\$/MT) of maize, rice and soya from baseline (2013) to 2017

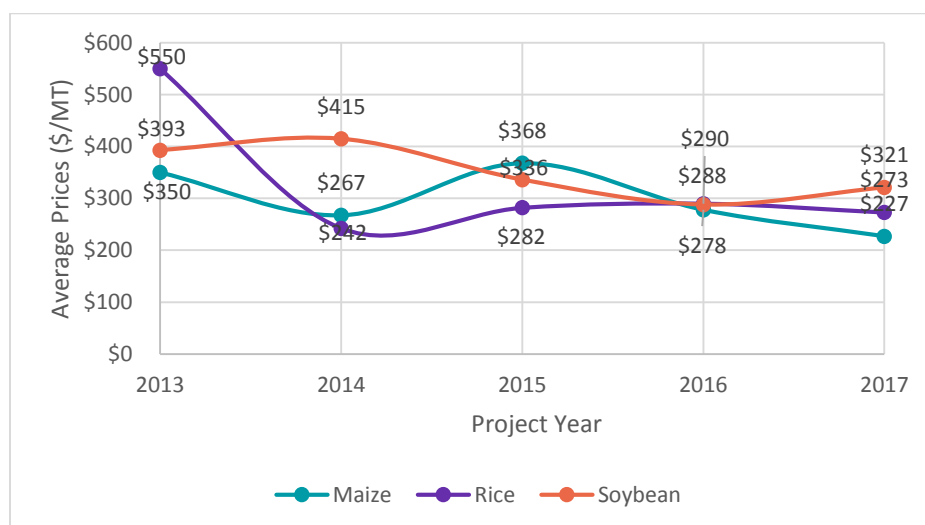


Table 6: 2017 Incremental sales by crop and gender

Gender	Maize	Rice	Soya	Total
Female	\$14,430,846	\$2,304,593	\$867,026	\$17,602,465
Male	\$21,000,049	(\$799,022)	\$490,310	\$20,691,337
Total	\$35,430,895	\$1,505,571	\$1,357,336	\$38,293,802

Gross margins

The 2017 gross margins per hectare⁴ totaled \$669.71 for maize, \$852.50 for rice and \$750.16 for soya⁵(Figure 6). Female farmers achieved significantly higher margins than their male counterparts. This is primarily due to the higher average selling price of soya (33% higher) by female farmers, higher yields by female rice farmers (31% higher) (

Table 4), and lower inputs costs for female farmers (4% lower) for all crops.

Figure 6: Gross margins per hectare by crop and gender

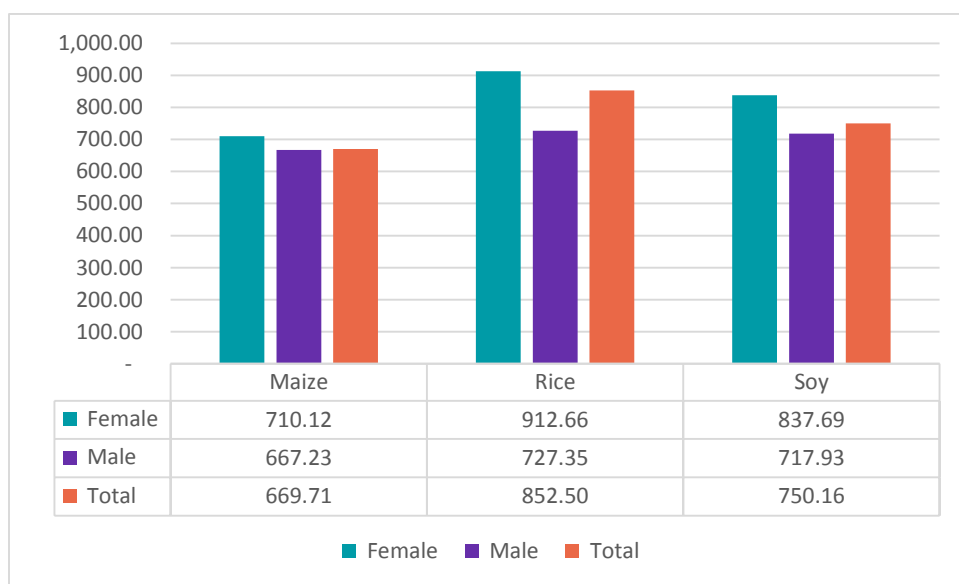
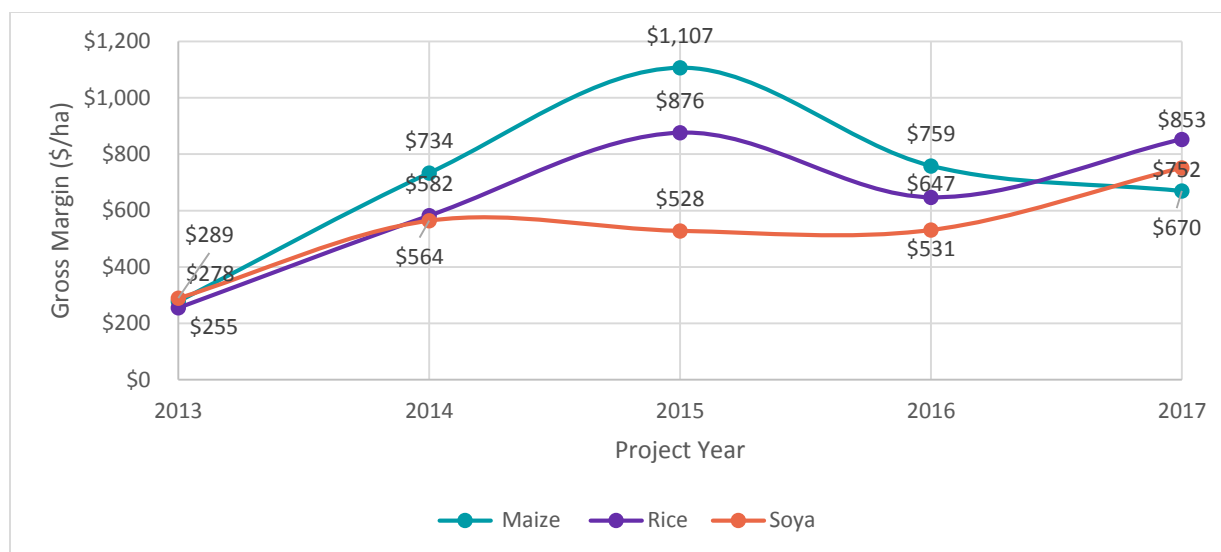


Figure 5 presents gross margin results for all crops from baseline (2013) to 2017 production season. The 2017 crop season ended with lower maize gross margins than the 2014, 2015 and 2016 production seasons because the maize average price decreased by 15% (\$368/MT in 2016 to \$227/MT in 2017). In Ghana Cedi terms, the price decreased slightly lower (5% from GHS 1259/MT in 2016 to GHS1194/MT in 2017). The depreciation of the Cedi caused a higher percentage depreciation on year on year basis. However, the significant increase in yields by female rice farmers (43%) from 2.71MT/ha to 3.88MT/ha resulted in an overall high gross margin of \$853/ha, an achievement comparable to the 2015 results. High soya yields and a stable average price in 2017 ensured the continuous higher gross margin for soya in 2017 than the 2 previous years. Nevertheless, the project exceeded its gross margin per hectare targets for rice and soya \$813/ha and \$700/ha respectively and fell short of the \$776/ha target for maize.

⁴ Gross margins are provisional. Final values will be determined after the second phase of selling prices are collected in Q4.

⁵⁵ These are provisional figures based on first round of sales data. Second round of sales data is likely to increase sales values with increased gross margins

Figure 7: Gross margins per hectare from Baseline to 2017



The 2017 gross margins are significantly higher than at baseline (Figure 7). Despite lower sales, farmers ended up achieving higher margins per hectare as every dollar was invested in a more optimal and effective way.

Application of Technology And Management Practices

The project collects data on application of improved technologies and management practices during both phases of the gross margin surveys.

Table 7 below presents the main findings. Almost all project beneficiaries applied one or more improved technologies and management practices. Crop genetics, soil management, pest management, cultural practices, climate mitigation, ICT, etc. were some of the technologies and management practices promoted by the project during the 2017 production season. However, the application rates vary across technologies and gender. In FY17, pest management was the most applied technology. It includes integrated pest management, improved insecticides and pesticides, improved and environmentally sustainable use of insecticides and pesticides. This is not surprising as farmers invested additional costs in insecticides to control fall armyworm. For most technologies, female application rates were higher than the males’.

The biggest gaps are seen on application of information and communication technologies (ICT), crop genetics and climate management. In addition, the number of hectares under improved technologies cultivated by men is almost 50% higher than the women’s. Women plant smaller plots and apply improved technologies on a smaller portion of that land. A study financed by USAID ADVANCE and conducted by the University of Cape Coast in 2017 reveals that women’s application of improved technologies is low because women, unlike men, do not control productive resources (land, labor, capital) and do not make decisions on the time they can allocate to apply those technologies; they lack access to fund and inputs; and are culturally intimidated during trainings to ask questions in front of men.

In total, 91,233 farmers cultivated 73,873 ha under improved land-based technologies. The total number of beneficiaries that applied improved land based and non-land-based technologies and management practices is 93,784, which is 130.26% of the FY17 target (Table 7).

Table 7: Application of technologies by men and women farmers

Technology Type	Application Rate Women	Application Rate Men	# of Women Applying	# of Men Applying	Hectares Women	Hectares Men	Hectares Total
Crop genetics	38.78%	34.00%	19,422	22,858	13,802.70	19,906.81	33,709.51
Soil related	54.54%	53.91%	27,455	28,759	19,741.77	26,864.09	46,605.86
Cultural practices	70.83%	66.01%	35,651	35,214	25,368.63	32,707.18	58,075.81
Pest management	72.74%	77.62%	36,613	41,409	37,412.27	48,673.38	86,085.65
One or more land based	89.71%	86.37%	45,155	46,078	32,469.10	41,403.78	73,872.88
ICT	39.96%	50.58%	20,113	26,986			
Climate mitigation	38.78%	34.00%	19,522	18,141			
One or more tech.	91.91%	89.07%	46,264	47,520			

Pest management and cultural practices were the most popular among women and farmers while ICT, climate mitigation and crop genetics, were the least preferred. Unlike, agro-chemicals such as insecticides and pesticides, accessing improved seeds by farmers continues to be a major concern at the community level as there are limited sales point in rural communities. The project continues to encourage OBs, aggregators and larger buyers to continue providing support to outgrowers through outgrower schemes to enable farmers have access to improved seeds, fertilizers and agro-chemicals. In addition, more farmers seeing the benefits of cultural practices such as row planting, mulching, growing of cover crops, and controlling erosion on USAID ADVANCE crop demonstration yields have applied these technologies on their own farm.

PROGRESS WITH TECHNICAL DELIVERY

This section is organized broadly under the three-main project sub-purposes where the major activities and results are presented.

Sub-Purpose I: Increased Agricultural Productivity in Targeted Commodities

During the reporting period, the project focused on the following key activities to increase maize, rice and soybean productivity:

- Scaling up actor- led demonstrations
- Facilitating the use of ICT in service provision by OBs and learning by smallholders
- Improving access to agricultural inputs at the community level

- Improving OB office setup and Business management
- Improving OB business development services
- Nutrition sensitive agriculture
- Controlling FAW incidence and infestation

SCALING UP ACTOR LED DEMONSTRATIONS

Actor supported demo sites

The project continued to use actor-led demonstration sites as the main sustainable strategy to promote innovative technologies among project beneficiaries. The input dealers and OBs took the lead in setting up demonstrations without project's facilitation. During the quarter, ten input companies and 94 OBs sponsored field demonstrations with fertilizers, seeds, field preparation, and herbicides. The major sponsors of inputs and services are Yara, RMG Ltd, Heritage Seeds, Louis Dreyfus and Rainbow Chemicals, M&B Company Ltd (seeds) and Farmers Hope Company Ltd (organic fertilizer). With the project's technical support, the OBs and sponsors established 289 demonstration sites on maize and soy to showcase the effect and value of:

- New fertilizer formulations on hybrid and open pollinated maize,
- New phosphate fertilizers on soybean,
- Land preparation using rippers, and
- Inoculants for soybean production

During the quarter, the project trained 3,690 smallholders (including 2,207 women) on sites selection, seed germination test, proper field preparation and planting. In addition to the actor-led technology demonstration, 35 actors established 130 model farms to showcase best practices for land preparation; seed, soil and water management; and the use of organic and inorganic fertilizers on commercial plots.



An officer of AFGRI teaching operators how to hitch and set ripper on the tractor during a practical session at Tugu



A tractor operator demonstrating ripping after the practical training in Tugu



A basin model farm completed and ready for planting in Billaw in the Lambusie Karnie district



Ripping of model farm completed and ready for planting in Bugubelle in the Sissala East district

USAID ADVANCE continued to collaborate with 31 radio stations to broadcast information on GAPs and other farming related information to farmers. The project also engaged ten radio stations in the FAW radio campaign. The FAW campaign includes FAW awareness and preventive messages through radio jingles and live presenter mentions (LPMs) in English and seven Ghanaian local languages. The project conducted a survey to assess the impact of the FAW awareness on farmers' activities in the ADVANCE South area. Thirty-three farmers (17 females and 16 males) in five communities were interviewed and the results shows that the FAW infestation is low this year due to increased awareness and timely control practices. Over 42% of respondents attributed the increased awareness to education through MOFA/USAID ADVANCE radio programs and posters. They indicated that the various forms of education led particularly to enhanced knowledge on types of pesticides and timing of application.

Radio Stations

The project successfully organized a radio planning and gender sensitization meeting for the northern regional partner radio stations, stakeholders and beneficiary farmers in Tamale this quarter. The meeting was for partners to deliberate on issues related to the delivery of agricultural information to farmers through radio stations. Participants included representatives from radio stations, input dealers, Environmental Protection Agency (EPA), Ghana National Fire Service (GNFS), USAID ADVANCE listenership groups and MOFA. MOFA led the team to develop agricultural content for radio stations to broadcast. To make the radio agricultural programs sustainable, EPA agreed to merge this program with an existing EPA program so that funding can also be allocated to it. All stakeholders understood their roles as resource partners to make this radio program sustainable. The meeting concluded with radio stations tasked to monitor and manage the listenership groups and the project tasked to provide agricultural information to enhance content.

INCREASED ACCESS TO INPUTS AND EQUIPMENT

Strengthening relationships between existing agents and input dealers

Over 80 community input agents (CIAs) established relationships with dealers/suppliers, which includes local dealers such as Mumuni Enterprise, Yahaya Enterprise, Wumpuni, Givah and Hadiola agrochemicals.

Community input promotions organized in the Northern Region resulted in sales of \$33,112.58 worth of inputs by input dealers as these agents mobilized and aggregated demands from smallholders in their communities and linked up with dealers.

Formation of Spray Service Providers Networks

USAID ADVANCE helped form three SSP networks in Builsa North, Builsa South and Mamprugu Moaduri Districts in the Upper East Region. The networks are charged to plan for and manage all SSPs' activities in their respective areas. These networks will engage various district offices of the Department of Agriculture and other regulatory bodies to seek formal recognition and certification.

"You see my store is empty? More agents from the communities patronize my products everyday throughout the districts and this has dramatically increase my sales.
- Rep, Yahaya Enterprise, Gushegu, Northern Region

Outgrower Business Management

Outgrower Business Management Training

The OB management training aims to equip OBs and agents to improve business practices including record keeping and efficient utilization of assets. Using the OB curriculum, the project trained 58 OBs (all males) and their agents on efficient management of outgrower business. Facilitators used case study discussions and experience sharing by high performing OBs to deliver the training.

The training also included managing input credit, and strategies for efficient credit recovery such as following community entry protocol, assessing lead farmers, investing in transport facility to ensure efficient monitoring by field agent, keeping adequate contact hours with OGs, using OB networks and establishing remuneration packages for field agents and community lead farmers. Also, the training focused on OBs' profits through developing a comprehensive package of services for their outgrowers.



A cross section of OBs and agents during the OBM Training

OB Office Program

The OB office program aims at encouraging OBs to set up physical business presence in the community. During the reporting period, OB Yussif Bunbas in the ADVANCE South zone invested in an office (see image) after being mentored by OB Kwabena Sarfo.

In collaboration with the University for Development Studies, the project hired 66 student interns between the age of 18 and 29 to assist OBs with record keeping. Records cover investments and services including ploughing, seeds, fertilizer, tractor maintenance (fuel, maintenance and general servicing), debtor's records and sales.

OB Categorization – Benchmarking performance

USAID ADVANCE developed a tool for diagnosing OB businesses and performance to categorize them. The benchmark is based on nine indicators:





1. End market linkage and development
2. Record keeping systems
3. Accounting systems
4. Access to financial services
5. Service provision to outgrowers
6. Value of investment in production inputs to their OGs
7. Outgrower management
8. Asset acquisition, utilization and management
9. Organization of field demonstrations and equitable participation



New office under construction by OB Bunbas for business operations

The project assigned weights to these areas, to form four categories (stars). The tool was used on 373 OBs in April 2018 and 16% of OBs were categorized as four-star, 24% three stars, 32% two stars, and 38% one star. The project assigned high performing OBs (four stars) to mentor the weaker ones through a peer-to-peer learning program.

Table 8: Categorization of OBs into Stars

Category (star)	No. of OBs	Indicative support from the project to help OBs move upward
	61	These OBs are at a stage where their businesses are profitable and sustainable. The project will provide occasional support when they approach the project for specific assistance.
	89	This category of OBs will be supported to: <ul style="list-style-type: none"> • Maintain or improve the efficiency of their management systems; • Provide extension services to their OGs through community agents/lead farmers; • Adopt improved technology on their own farms and be a role models.
	119	Train and mentor OBs to: <ul style="list-style-type: none"> • Expand service provision (tractor ploughing services with either shelling or threshing to OGs); • Establish systems to regularly update information on basic accounting system; • Open and operate bank accounts under owner's name; • Encourage OGs to save through VSLA or traditional savings with FI.
	104	Train and mentor them to build capacity to: <ul style="list-style-type: none"> • Formalize relationship with outgrowers, end markets and financial institution; • Expand services to OGs beyond tractor services; • Set up basic accounting and record keeping system.

Business Development Services

Farm Business Planning

USAID ADVANCE supports OBs, aggregators and similar entities to develop two types of plans; (i) annual business plans, (ii) strategic plans, especially towards reaching financial viability. During this quarter, the project helped OBs develop four business plans. Project staff continued to monitor the implementation of previously prepared plans, especially those that were used to access credit.

Financial Services

Financial Services with Financial Institutions

USAID ADVANCE worked with OBs to identify investment gaps and used this information to facilitate loans totaling **\$31,984** from financial institutions for production (Table 9).

Table 9: Status of financial transactions facilitated between OBs and Financial institutions based on priority gaps identified.

Item No.	# of Beneficiaries	Purpose	Amount (\$)	Status	Financial Institution
1	Five (5) OBs	To purchase a corn sheller	6,786.98	Disbursed	OISL
2	An OB – Imoro Tijani	To purchase a tractor	8,918.37	Disbursed	OISL
3	Smallholder out grower groups (2) – 39 farmers	Input credit	5,644.59	Approved	OISL
4	Smallholder group – 12 SHFs	Input credit	701.99	Approved	Tizaa Rural Bank
5	Johnson Kyere	Inputs	4,415.00	Disbursed	Opportunity International
6	James Amoateng	Inputs	4,635.00	Disbursed	Opportunity International
7	Mang Song Sem group	Inputs	883.00	Disbursed	BACCSOD
Total			31,983.95		

“Since USAID/ADVANCE introduced us to Opportunity International three years ago our relationship has deepened to the extent that getting loans for production activities has become easy; to sustain that trust for future engagement we always ensure members honor their repayments on time”
- Johnson Kyere, OB, Nsoatre, Brong Ahafo Region

Village Savings and Loans Association (VSLA)

The VSLAs remain an important vehicle for rural savings and loans. During FY18 Q3, staff promoted and established 21 new VSLAs in seven communities with 525 members (178 men and 347 women) bringing overall number of VSLAs to 1,128 with 15,307 females and 9150 males. The OBs and FBOs bore the initial cost of the start-up items such as the savings box, the association’s record books and individual record books. The introduction of VSLA concept to FBOs led to the rapid expansion of groups.

“How on earth could I have saved this amount of money by myself if it weren’t for this box? I have had enough benefits from it because I at one point needed money to solve an urgent situation. I had nowhere to go rather than here. I was treated like family and I am happy I paid off my debt in due time and I still have this much to buy some inputs for my farm” - Kwaku Ayaa after a share out in Jakpa in the Chereponi District.

VSLA Share-out

Value of savings is increasing rapidly along with growth in the number of groups and members. During the reporting period, 530 VSLA groups with more than 10,754 members completed share-outs in the Northern, Upper West and Upper East Regions. The groups (mainly women) mobilized \$448,777 in savings with a social fund of \$22,839. Their records show that over the cycle, they disbursed \$70,299 as loans to 1,661 farmers (1,155 females and 506 males) which generated an interest of \$7,082. Interactions with group members shows that such loans are used for aggregation of produce for sale, payment of school fees, medical bills and other needs. For many farmers, it would have been impossible to obtain loans without their VSLA. To date, VSLAs have saved a total of GHS5,766,878 (\$1,293,022) of which they have given GHS 1,855,632 (416,061) to members as loans.

Linkage of VSLAs to financial institutions

In FY18 Q3, the project supported 17 VSLAs to conclude arrangements with the Yendi branch of National Investment Bank, Kintampo Rural Bank, and Tizaa Rural Bank (Karaga in the Northern region) in which these financial partners collected an amount of \$8,900 to invest in government Treasury bills.

Digital Finance

The project's digital finance activities aim to establish business relationships between digital financial service providers, OBs, and smallholder farmers; and promote the setup and use of digital financial services between OBs and their smallholders. Three telecommunication companies, MTN, Vodafone and Airtel/Tigo participate in this program. The target set for the year is 5,000 smallholders registered for mobile money. At the end of FY18 Q3; 1,334 project supported individuals (594 male and 614 female) OBs, SSPs, community input agents, input dealers and OGs registered as subscribers. Because the number of OGs who subscribed as mobile money users was low due to lack of mobile phones, the project organized



An MTN officer taking OB agent Mbanti Dgbanja through the use of large transaction merchant in Dgbanjado in the Northern Region



Share out by VSLA group in Yamah community in West Mamprusi with support from Sung Foundation

"I prepare porridge and appapransa for my children using only corn flour, it is exciting to learn today that blending corn and soy flours in the ratio 4:1 will make these meals richer and make my children grow better". - Memunatu Tontie

events to promote the purchase of phones. Mobile phone merchants, conducted promotional sales at the events and 104 low cost phones were purchased. The number and value of digital transactions also rose. For example, ten OBs in the Upper West Region conducted 2,285 cash-in transaction (1359 males, 1528 females) with a value of \$15,510 and 3,974 cash-out transactions (2218 males, 1,757 females) of \$14,311. The value of digital transactions in the quarter was \$69,072. The project is also working with First Allied Bank to set up Agency banking in rural communities on a pilot in the Upper East region. The bank sensitized 30 OBs on agency banking using Point of Sale device (POS). The bank subsequently screened and selected 12 OBs and set them up on the platform.

Nutrition Sensitive Agriculture

During this quarter, the project collaborated with the Directorate of Women in Agricultural Development (WIAD) at MOFA to undertake nutrition education and training on soybean utilization, especially for women. The aim is to improve households' nutritional status and food security. The OBs and their smallholder farmers provided soybeans and maize for cooking demonstrations. In total, the project trained 1,611 smallholder farmers (1,396 females and 215 males). The farmers were taught how to process soybean into flour, and the ease with which it blended with different local recipes. They learned how to prepare different dishes (Tubani, soy khebab, soy-fortified banku, soy porridge or tombrown, soy milk and Aprapransa).

Fall Army Worm Control

Education and Awareness

Between April and May this year, USAID ADVANCE, in collaboration with MOFA, organized FAW training in Sunyani and Tamale. There were 35 AEAs (32 males and 3 females), 21 lead farmers/OBs, and 37 USAID ADVANCE staff (6 females and

31 males). The training focused on scouting fields and monitoring pheromone traps to inform integrated pest management decisions. Topics discussed include FAW biology, scouting for signs of early infestation, when and how to take decisions on spraying, calibration of knapsack sprayer, how to set and read rain gauges, setting pheromone traps, using least toxic pesticides, and general safe use of agrochemicals.

The training also integrated the android-based mobile application and FAW monitoring and early warning system (FAMEWS) developed by the Food and Agriculture Organization (FAO) to guide farmers and extension workers on FAW's real time detection and management. This was the second test in Africa of the new mobile app for FAW surveillance.

The training program leads to rollout of the FAW monitoring program developed under USAID ADVANCE into the national monitoring setup managed by MOFA, FAO, and the National FAW Task Force.



Dan McGrath (first from left), FAW expert and training consultant, interacting with participants on standard field scouting at Botanga irrigation

Fall Armyworm Symposium

USAID ADVANCE participated in the Entomology Society of Ghana's (ESG) one-day symposium on FAW. The theme was "Distribution, Biology, Damage and Management". This brought together entomologists, MOFA staff, NGOs, development partners, students, and other interest groups. USAID ADVANCE submitted an abstract on FAW management and made a poster presentation. The project's call center data results caught the interest of the company Henson Geodata Technologies that expressed interest in future collaboration with USAID ADVANCE in e-extension. Henson Geodata Technologies is an IT firm that specializes in software development for smallholder farmers. The company is shortlisted for a USAID FAW Tech prize.

Awareness Campaign

During the quarter, the project distributed 536 FAW picture-based clips to the National Disaster Management Organization (NADMO), agricultural extension officers, district assemblies, volunteer groups and smallholder farmers to sensitize and educate the public on FAW control. With the Project's FAW call center, farmers call and report any incidence of the presence of FAW or any kind of worms in their farms and obtained immediate advice and technical support. Some farmers also called to enquire about the locations of certified inputs such as seed, fertilizer and pesticide to buy. Forty-seven FAW cases were recorded from April to June but none was severe.

Field Observation

The project established a complete randomized block of maize plot in Kintampo to test two and three spray programs applied at different time for FAW control. One effective active ingredient (emamectin benzoate) was used by varying the timing and the number of applications. The project will collect data on pheromone trap, standard field scouting, scheduled insecticide applications, rainfall and other events that may affect the treatments on FAW damage. The project will analyze the data evaluate cob damage, yield and action threshold.

"USAID ADVANCE's FAW trainings equipped our extension agents with the skills and knowledge necessary to make IPM decisions based on an action threshold. This is a paradigm shift from the "identify, panic, and spray!" mindset that leads to excessive pesticide use and ultimately loss of profits. As we move beyond the initial FAW invasion phase, IPM will provide a sustainable solution to farmers".

- Mr. Ebenezer Aboagye, Deputy Director of PPRSD in charge of crop pest and disease management dissemination

Regional FAW field monitoring:

USAID ADVANCE's representative on national FAW task force carried out field monitoring activities in Upper West Region. They visited nine districts and monitored the status of insecticide distribution, sensitization programs, formation of the "Nnoboa" group (a spray service provider), step-down trainings organized by the district directorate, as well as formation of regional and district task forces. The project also carried out field monitoring in the Northern, Upper East, Ashanti and Brong Ahafo Regions and observed that FAW prevalence this year is almost as high as that of last year. However, farmers' awareness and preparedness made a significant impact in managing the pest.



Taskforce Team interacting with a farmer on an infested maize field at Busa, in Wa Municipality

Pest management using PERSUAP Approved Pesticide

USAID ADVANCE developed a FAW protocol and pesticide chart, in compliance with the project's approved PERSUAP. The protocol was designed using Integrated Pest Management (IPM) approach for both commercial and smallholder farmers.

Important lessons learned

Most of the earlier interventions focused more on the growth stages of the maize crops but this now includes the reproductive stages of the crop to minimize infestation of the maize ears.

Farmers undertake mitigation actions when FAW infestation is detected on their farms. However, because FAW infestation can spread rapidly, by the time farmers are able to mobilize for action, the infestation has advanced. Therefore, early detection is important to forewarn farmers to start mobilizing.

On-farm research helped to build the confidence and skills of agriculture professionals in making informed decisions. Field training is essential for effective FAW management.

During the off-season some moths were caught in the traps, which indicates that there might be FAW presence throughout the year.

Sub-purpose 2: Increased Market Access and Trade of Targeted Commodities

The project continued with the following strategies during the quarter:

- Developing market linkages between OBs and large buyers
- Expanding markets
- Reinforcing lead firms' competitiveness
- Supporting trade associations
- Upgrading North Ghana processing

Market Linkage Development

Activities undertaken in Q3 were the following:

- Expanding the size of market available to OBs
- Promoting sustainable relationships among buyers and OBs,
- Improving the capacity to use market intelligence
- Facilitating the use of market quality standards

Two-way trade missions

Two end-market buyers hosted 171 OBs and farmer groups through eight trade missions. Seven of them offered buyers and farmers the opportunity to negotiate outgrower contracts amounting to GHS 4,396,064 (\$985,665) for the 2018 crop season. For the first time, the “resident” OB networks in the regions that hosted the missions covered expenses for the venue, projector hire, and meals. USAID ADVANCE had discussed and agreed on it with the networks to ensure that trade missions become a sustainable activity after the end of the project.

Table 10: Trade missions facilitated during the quarter

Name of Buyer	Region of Buyer	No. of Trade Missions	No. of Participating OBs or FBOs	Regional Coverage of OBs	Commodity of Interest
Agricare Ltd	Ashanti	5	139	South, Upper West, Upper East, Northern	Maize
Crop Care Ltd	Ashanti	3	32	Upper West, Upper East, Northern	Maize
Total		8	171		

In addition to these trade missions, four OBs (Emmanuel Yobo, John Dimah, Ibrahim Bilal from the UWR and Inusah Abdulai from UER) embarked on trade missions to meet buyers and input dealers in the south of Ghana to discuss input credit for the 2018 crop season. Earlier on, Agricare had undertaken a trade mission to the Upper East region which also involved following up on credit to farmers supported under their 2017 outgrower scheme.

Contract Facilitation

One Hundred and Two contracts covering 6,442 MT of maize, worth \$1,036,940 (GHS4,977,314) were recorded.

Table 11: Contracts facilitated during the quarter

Type of Contract	Number of Contracts	Contract Volume (MT)	Contract Value (GHS)
Closed Sale without Formal Contract	9	426	581,250
Outgrower	93	6,016	4,396,064
Grand Total	102	6,442	4,977,314

Collaboration with Nestle Ghana on Supply Chain Development and Food Safety Improvement

Sahel Grains, a Techiman based maize aggregator and processor, enrolled in the Nestlé program in March 2018, and successfully passed the grain sample tests for Nestlé.

Kharma Farms, another aggregator in Karaga in the Northern Region, narrowly failed the Nestlé sample test. Except for Fumonisms⁶, they passed all other parameters (4 ppm - Aflatoxin B+G; 1 ppm - Aflatoxin B1, 0.5 ppm for Ochratoxin, 6.7 ppm for aluminium, passed pesticides). Notwithstanding the setback with Nestle, Kharma Farms sold the maize at a premium price to Trade Aid (a commodity trader based in Accra) at GHS 1,440 (\$317.25) per ton at warehouse gate in Karaga in the Northern Region. The Nestlé contract price was GHS 1,540 (\$345.29) delivered in Tema.

⁶ The result on Fumonism (a group of mycotoxins derived from Fusarium, fungi found in soils and plants) was 959 ppm for yellow maize and 854 ppm for white maize as against a maximum requirement of 800 ppm. Nestle’s assessment is that improved sorting by Kharma will bring it within acceptable limits.

“I sold my maize at a price higher than the season’s best price of GHS 1,300 in Tamale market because of the premium quality of the maize. Secondly, my family now consume high quality maize free of aflatoxin, just like many of my smallholder farmers who benefited from the Nestlé mycotoxins control training. The partnership is good for me and I will continue to clean and sort my maize for the market and engage with Nestle until I meet their standard”

~ Alhaji Hussein Muhib, OB, Karaga, NR

Training of farmers in produce quality requirements and standards

The project trained 4,960 (2,708 females) smallholder farmers on grain quality standards, during this quarter. The training is based on the Ghana national standards for maize (GSS 211: 2013: Specification for Maize), paddy (DGS 1122:2016: Specification for paddy), and soybean (GSS 1039: 2013: Specification for Soybean).

Key Market Developments

In this section we report developments from the key markets that USAID ADVANCE monitors.

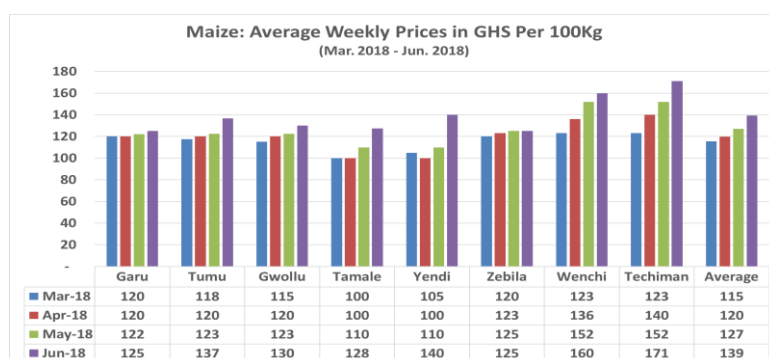
Maize

Maize prices monitored in eight selected big markets showed an average increase of 21% between March and June 2018, compared to an average increase of 23% for the same period last year. On average, maize prices at the end of June 2018 are 40% higher than those of June 2017.

“Before the training, I used to thresh my soybeans on the ground and collect them with the stones for the market. I learnt that good quality grains sell better. I improved the quality by threshing my soybeans on a cemented floor and sold it at a premium price for GHS 396.00 per ton compared to the open market price of GHS 375.40”.

~Brammah Dalabra, Nakoli, Gushegu, Northern Region

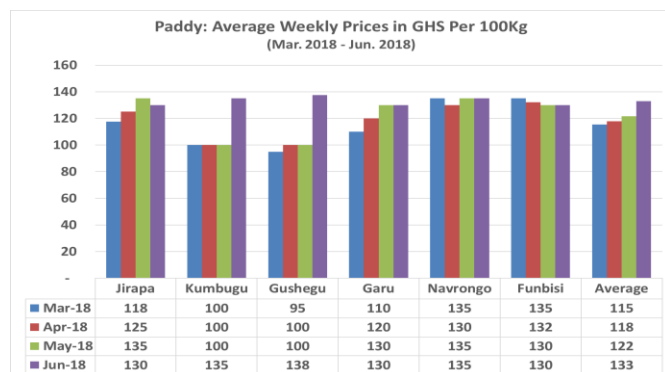
Figure 8: Maize prices in GHS



Source: USAID ADVANCE market monitoring

Monthly prices, during this quarter, continuously increased in most markets because of supply shortfall over demand. Supply shortfall in local markets is aggravated by sales to cross-border aggregators, especially in the Upper West Region. Farmers’ statements and field observations in the Brong Ahafo Region also indicated that some maize farms were converted into cashew farms because cashew prices are rising.

Paddy



Source: USAID ADVANCE market monitoring

Monitored paddy prices in six key markets in the north showed an average increase of 15% between March and June 2018. This compares to 5% increase for the same period last year. On average, paddy rice prices at the end of June 2018 are 51% higher than those of June 2017.

Even though the paddy available in most of northern Ghana is not the preferred grade for milling, demand for paddy from millers like AVNASH, Shinkaafa Buni Rice Farmers Association and other medium scale millers remained stable.

The aggregators who purchase paddy for the schools' canteens in Tumu, Wa and Jirapa in the Upper West Region and trade across borders with Togo and Nigeria also contributed to demand.

Soybeans

On average, soybean's prices in the six key monitored markets increased by 8% between March and June 2018. This compares to 11% increase for the same period last year. The average price at the end of June 2018 was 53% higher than that of June 2017. During this quarter, soybean supply was low because of low yields from the 2017 harvest due primarily to bad weather.

It also appears that farmers dedicated more land to cultivation of maize, and less for soybean, because of the availability of subsidized fertilizer under the government's PFJ program.

Soybean demand was high because of aggregators who bought to export to Turkey, processors who increased their plant capacity, and cross-border trade to Nigeria, Burkina Faso and Togo from the Northern and Upper East Regions.

The high soybeans price and depleted stocks compelled large domestic processors to import soybeans under US Department of Agriculture's monetization program.

Lead Firm Competitiveness

Support for Buyer Outgrower Development

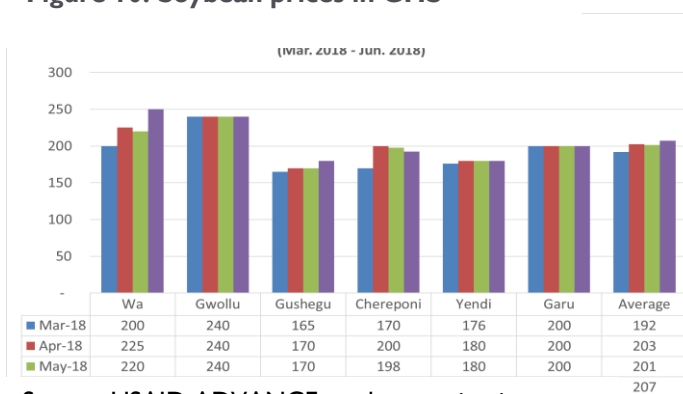
The project facilitated five outgrower schemes, during the quarter (see table below). All schemes, except for the Premium Foods and Masara schemes, provided beneficiaries with the Pioneer 30Y87 yellow maize hybrid seed that has become popular with farmers. Crop Care Ltd provided their beneficiaries with Lake and Premier hybrid seeds (white and yellow maize varieties respectively) to make up for the limited supply of Pioneer seeds.

Table 12: Value of outgrower support and expected recovery

Scheme Sponsor	Input credit provided	No. of OB Beneficiaries	Value of Input Support (\$)	Expected Recovery (MT)
Agricare Ltd	Seed, Fertilizer, Agro-chemicals ⁷ , Crop Insurance	72	567,072	3,215

⁷ Agrochemicals provided for outgrower scheme support are for weed and Fall Army Worm (FAW) control

Figure 10: Soybean prices in GHS



Source: USAID ADVANCE market monitoring

RMG	Seed, Fertilizer, Agro-chemicals, Crop Insurance	1	92,605	450
Masara	Seed, Fertilizer, Agro-chemicals,	1	7,152	108
Premium Foods Ltd	Seed, Fertilizer, Crop Insurance	4	17,660	113
Crop Care Ltd	Seed, Fertilizer, Agro-chemicals, Crop Insurance	15	285,944	2,131
Grand Total		93	970,434	6,016

The 2018 outgrower schemes' strategy is to assist both farmers and buyers in building systems and competencies to make the schemes sustainable after USAID ADVANCE exits. Therefore, the project assisted Agricare Ltd. and Crop Care Ltd., the two largest scheme sponsors, to recruit and train field officers to develop and manage their schemes. These field officers distributed inputs to beneficiary OBs with guidance from USAID ADVANCE's technical staff. The OB networks in the beneficiary regions, recognizing the benefit of outgrower schemes, organized and financed the cost of meetings (venue, projector and food) to review last year's outgrower schemes and negotiate the input credit for this year.

BDS Support to buyers

USAID ADVANCE provided the business development services to buyers as listed in the table below:

Table 13: BDS support to market lead firms

Name of Firm/ Organization	Location of Firm	Type of Technical Assistance	Status of Engagement
Agricare Ltd, Kumasi, Processor Feed Mill	Ashanti	Negotiated supply of inputs on credit from CHEMICO and RMG under the Government of Ghana Youth in Agriculture Program; and crop insurance coverage from GAIP to support the 2018 outgrower scheme.	Completed
		Facilitated draw-down of \$300,000 on \$800,000 working capital financing from Injaro Agricultural Capital Holdings Ltd, an existing shareholder in the company.	Completed
Crop Care Ltd, Kumasi, Aggregator	Ashanti	Assisted in recruiting field officers to manage Crop Care's own outgrower scheme	Completed
Vester Oil Mills Ltd, Soybean processor	Ashanti	Assisted in applying for working capital financing from Root Capital	Ongoing

Trade Association Support *Promotion of Structured Trade with Southern Maize Traders*

USAID ADVANCE continued to promote structured grain trade with 14 maize traders' associations in 11 major maize markets in the Ashanti and Brong Ahafo Regions. Executives of the Southern Maize Traders Network visited the Wenchi, Odumase I and Odumase II maize markets, and sensitized 189 (48 females, 141 males) traders on the use of weights and measures to ensure quality and standardization.

Executives from the Badu Maize Traders' Association visited the Kintampo market to share their experiences on the use of weights and measures, governance and association's management with 6 executives of the Kintampo Maize Traders' Association. The project will organize a similar learning visit for other maize traders.

Consultative Workshop with Partners

USAID ADVANCE partnered with the World Food Programme, GIZ Green Innovation Centre, United Purpose, German Institute of Metrology and Ghana Standards Authority to organize a “Consultative Workshop for Planning a Food Safety, Quality Control and Standard Weights and Measures Creation Campaign” on June 28 in Techiman, Brong Ahafo Region. The workshop developed proposals to improve food safety for grains and promote the use of weights and measures in open markets. A total of 151 (16 females, 135 males) stakeholders participated in the workshop including a representative of the Paramount Chief of the Techiman Traditional Area, the Municipal Chief Executive of Techiman, farmers, traders, aggregators, transporters, porters, officials from the Brong Ahafo Regional Coordinating Council, and selected district assemblies from the Brong Ahafo and Ashanti Regions. The Southern Maize Traders Network was formally launched at the event. In a keynote statement delivered on his behalf, the Paramount Chief of the Techiman Traditional Area (who is the owner of the Techiman market) pledged full support for the use of weights and measures in the Techiman market. The Municipal Chief Executive (MCE) for the Techiman Municipality made a similar pledge.



Representative of Paramount Chief of Techiman Traditional Area, Municipal Chief Executive of Techiman, Partners and Workshop Participants

Sub-purpose 3: Strengthened Capacity for Advocacy and Activity Implementation

Under sub-purpose three, the project focused on:

- Developing advocacy groups
- Monitoring the progress of CREMA Societies
- Supporting trade associations to undertake advocacy actions
- Building the capacity of OBs and FBOs on policy and advocacy
- Strengthening capacity for activity implementation

Development of Advocacy Groups

The project provided grants to four local NGOs to undertake advocacy actions. They made significant progress during the period. The NGOs are:

- Youth Harvest Foundation Ghana,
- Community Development Alliance,
- Northern Region Western Corridor Development (NORTHCODE)
- URBANET

Youth Harvest Foundation Ghana Advocacy on Safe Disposal of Agrochemical Containers

As part of USAID ADVANCE’s advocacy activities, the project is collaborating with the Youth Harvest Foundation, a local non-governmental organization in the Upper East Region, to run a campaign on safe disposal of agrochemical containers in the Bolgatanga Municipal, Kassena Nankana Municipal, Bongo, and Bawku West Districts. Since March 2018, the Youth Harvest Foundation has studied the dynamics and effects of agrochemical use and handling of containers in the four districts.

The findings of the study will enable Youth Harvest Foundation to develop a policy paper to engage the four local assemblies and the EPA to review and enforce appropriate environmental by-laws and establish sites for the disposal of used agrochemical containers, including options for recycling. USAID ADVANCE funded the launch of the advocacy action on April 6, 2018 under the theme “*Unsafe Disposal of Agrochemical Containers, A Concern for All.*”

Participants included MOFA representatives, the regional coordinating directorate, the regional NGO network and students for selected schools in the Upper East Region. USAID ADVANCE Upper East Regional Coordinator stressed the dangers of misusing agrochemicals and unsafely disposing of them.



Community members and students holding placards and banner to join the advocacy for safe disposal of agrochemical wastes and containers

The stakeholders assured Youth Harvest Foundation of their support in scaling up training on this topic. The Regional MOFA Director praised USAID ADVANCE for collaborating with the foundation on this advocacy action.

NORTHCODE Advocacy Action on Women Access to Land

During this quarter, the project has advocated NORTHCODE’s advocacy actions which resulted in communities allocating 264 acres of land to 264 farmers (261 females and 3 males) in seven out of the sixteen land bank beneficiary communities for cultivation in the 2018 crop season.

URBANET Advocacy Action On Increased Access To Agriculture Extension Agents (AEAs)

URBANET developed community scorecards, district self-evaluation scorecards, and inputs tracking scorecards through a series of dialogues between URBANET, selected communities, and the departments of food and agriculture in Mion, Yendi, Gushegu and Chereponi Districts. The three sets of scorecards measure the performance of AEAs with respect to extension service delivery and provision of appropriate inputs to farmers. Overall, each of the four districts scored 25% based on assessment by 5 communities in each district using the community scorecard. The four district departments of food and agriculture’s self-evaluation scorecards, however, showed higher results; i.e. Chereponi scored 42%, Gushegu 46%, Mion 46% and Yendi 67%.

In the next quarter, meetings will be organized between communities, the departments of food and agriculture, and district assemblies to harmonize the scorecards and develop action plans to address the gaps in extension service delivery and inputs provision to farmers in the four selected districts.

Monitoring Progress of CREMA Societies

During FY18 Q3, the project concluded the four Community Resource Management Areas’ (CREMAs) advocacy actions, which are aimed at influencing district assemblies to pass, gazette and enforce CREMA by-laws to control bush fires with the following results:

- The two district assemblies passed and gazetted by-laws for two communities, Mamprugu Moagduri District (Moagduri Wuntamluuri Kouwamsaasi) and Builsa South District (Builsa Yenning). Also, joint agreements **between** committing chiefs, assembly representatives, and the CREMA Executive Committees (CECs) to enforce those by-laws were signed,
- The Wa East District assembly passed the CREMA by-laws for Chakali Sumaalu, pending approval by the Regional Coordinating Council. In addition, the Chakali Sumaalu CREMA Society and the Wa East District Assembly signed a Memorandum of Understanding (MoU) to ensure the by-laws are gazetted.

- The Sawla/Tuna/Kalba District assembly’s executive committee passed the CREMA by-laws for the Kunlog community. The Kunlog CREMA Society and the Sawla/Tuna/Kalba District Assembly also signed an MoU, which commits the district assembly to ensure the by-laws’ gazettelement.

Support Trade Associations to Undertake Advocacy Actions

Two consultants hired by USAID ADVANCE supported four traders’ associations in Techiman, Badu, Wenchi and Ejura to undertake advocacy actions to upgrade market infrastructure and revise market toll/fee-fixing processes. The Techiman Municipal Assembly agreed to upgrade washroom facilities at the Techiman market. The new facility will contain 30 washrooms with modern facilities and will be completed by the end of the next quarter. The Chairman of the Techiman Maize Traders Association, said:

“I have no doubt this has happened because of the advocacy action we took and as you can see this is the result. We are much grateful to USAID.”



Chairman and secretary of the Techiman Maize traders’ association at the construction site of the on-going washroom facility construction at Techiman



Men at washroom construction site in Techiman

The other two market associations, Badu and Wenchi, require that the market grounds be paved to avoid waterlogging and unsanitary conditions during rains. Research by the Consultant revealed that the association and its members made significant contributions to the revenues of their respective assemblies. The Badu maize market alone generated about \$26,534 in revenues from market tolls to the Tain Municipal Assembly in the past 5 years, while Wenchi makes annual contribution of about \$16,556.

The Consultants shared the research results at meetings in Badu and Wenchi, with 97 maize traders (25 females and 72 males) and representatives from two traditional councils and municipal assemblies. The MCE and the traders’ association agreed to secure a loan to pave the market, which will be repaid with levies from members of the association. The Tain District Assembly committed to commence the paving work in August 2018. Both parties also agreed to sign an MoU after obtaining the quote for pavement from the district engineer.

Build Capacity of OBs and FBOs on Policy and Advocacy

The project facilitated zonal meetings with members of eight Zonal OBs' Networks in Upper West Region (3) and Upper East Region (5) as part of ensuring the sustainability of zonal OB networks after the project. Some of the zonal OB networks made significant progress as shown below:

Bawku Zonal OBs Network

- A WhatsApp Platform was created for network members to share information.
- A welfare fund was created with members' contributions to support members in times of difficulty.
- The network put in place measures to sponsor all network's meetings and activities.
- Plans to establish OB network's demonstration farms at Tilli (Bawku West), Garu Tempene and Gentiga (Bawku Central) were developed. In view of this, an OB, Awintoma Akande, provided a 5-acre land at Tilli for the Bawku OB network. OBS intend to rip the land and use it as a model farm to teach other farmers the benefits of climate smart agriculture and serve as the network's way to generate income.



MCE (female) in a group picture with trade association executives after the dialogue

Wa Zonal OBs Network

The Network:

- Set up its own office, located opposite the Wa School for the Blind
- Created a WhatsApp Platform
- Organized meetings with the Upper West Regional Minister and the Regional MOFA office on agriculture issues
- Sponsored its own demonstration farms

Support to Zonal OBs networks to identify specific advocacy issues and develop advocacy plans

The project presented a policy action paper to the Upper West regional department of agriculture that showcased OB networks activities in the region and possible collaboration areas between RDA and OB networks to promote agriculture in the region. The regional extension officer, who chaired the meeting on behalf of the regional director, indicated their commitment to work with these networks to implement some of their activities. Notable areas of collaboration include distribution of the government's subsidized fertilizer through the Planting for Food and Jobs program, spraying services program, and soy utilization trainings for smallholder farmers.

Capacity Development for Program Implementation

Numeracy Trainings

In FY18 Q3, the project trained 1,253 SHF (627 females and 719 males) on numeracy, bringing the number of individuals trained in the year to 7,883 (3,954 females, 3,929 males).

Farming as a Business Trainings

During the quarter, the project trained 1,719 SHF (886 males; 833 females) on FAAB. The main topics included setting production goals, record keeping, contract farming, savings and the credit and farm family business model. These trainings were conducted by local trainers who continue to monitor and mentor the trainees in their operations.

Facilitating linkages between potential FBEs and other actors

The project linked FBOs/FBEs to service providers, as follows:

- Six (mainly women) FBOs in UER, five in NR, and an FBO network in the UWR established first-time business relationship with tractor ploughing service providers. The service providers ploughed about 1500 acres of land at a value of over \$20,000.
- Twenty-five FBOs established first-time business relationships with input dealers. Five groups purchased inputs for \$2,892 in cash. Others made various credit arrangements.
- Nine groups established business transactions through various financial institutions. The transactions included
 - VSLA groups in Sonzele and Kruye made first-time deposits and opened accounts at the Kintampo Rural Bank and deposited about \$600 and \$1,000 respectively at Opportunity International Savings and Loans.
 - Five FBOs accessed credit of about \$2,000 from the Bimbilla Credit Union, Tizaa Rural Bank in Kpandai and Bonzali Rural Bank in Yendi and BACCSOD in Kintampo.

Support FBOs to establish and sponsor demos

In this quarter, 64 FBOs declared their intention to establish demonstration farms to serve a dual purpose of training members and raising funds for financing group activities. The chairman of the Golinga Farmers Association recounted how they started with USAID ADVANCE and how far the project has gone into introducing new activities. He said:

“At the beginning, we resisted the idea of nursing and transplanting in rows but today, due to the knowledge gained from ADVANCE, we produced quality rice seed for SARI and host other farmers on learning visits to our community. So, ADVANCE trying to introduce us to maize farming through demonstration establishment is in the right direction. We accept and welcome it because we know ADVANCE have never failed us.”

Train potential FBE leaders on sustainability, group dynamics and other thematic areas

In the reporting period, FBO and FBE groups, their leadership, and members received the following support to strengthen their operations:

- Business registration
- Business planning
- Bookkeeping
- Asset management and utilization

Interns from University for Development Studies (UDS) and the University for Natural and Environmental Resources assisted FBOs and FBEs particularly with bookkeeping and implementation of their business plans. At the end of the quarter, those monitored had implemented between 20% and 60% of their business plans. The project also encouraged mentoring sessions between leadership of well-developed groups and other groups with lower capacity.

Bookkeeping

Interns showed FBOs and FBEs how to regularly make accounting records as activities or transactions are conducted. They also showed them how they could do simple estimation of profitability based on accounting data. The FBOs and FBEs made improvements in bookkeeping practices, especially pertaining to purchases and sales. However, only a few were keeping records on tractor maintenance.

PROGRAM SUPPORT

Gender program

In addition to the gender interventions already mentioned in section D through VSLAs, access to information, nutrition and other trainings for women, the project continued to mainstream and integrate gender in the following activities:

- Building women's business, leadership, and entrepreneurship skills
- Increasing women's access to land for production
- Supporting participation in international women's day celebration
- Increasing women's access to financial services and improved technologies



Female value chains leaders at Leadership and Entrepreneurship training in the south

Building Women's Business, Leadership and Entrepreneurship Skills

In FY18 Q3, the project undertook gender, mentorships, female leadership and entrepreneurship trainings for 832 (including 506 female) VC leaders. The main objective was to build the capacity of female VC leaders in outgrower business and management of their farms as enterprises. The trainings created awareness on gender issues, including gender sensitization, female leadership, and entrepreneurship.

Increased Access to Land for Women Producers

USAID ADVANCE adopted three strategies to improve women's access to farmland:

1. Use of existing OB networks to influence traditional custodians to make land available to female farmers. The OBs took the initiative to raise awareness on the economic opportunities of women farmers to produce and obtain high yields.
2. Collaboration with other Feed the Future projects (Ghana Commercial Agricultural Project) that awards grants to OBs for land development. Through USAID ADVANCE's collaboration with GCAP, over 40% of such land development grants were awarded to women producers.
3. Working with advocacy groups such as the Coalition for the Development of Western Corridor of Northern Region (NORTHCODE) to persuade traditional leaders and land owners in northern Ghana to allocate land to women.

Environment Support

USAID ADVANCE mainstreams due diligence on environmental and social safeguards to ensure general compliance with Title 22 of the Code of Federal Regulation part 216, and the relevant environmental regulations of Ghana.

General Environmental Compliance

At the beginning of this quarter, the project compiled a list of pesticides from approved PERSUAP and EPA's revised register for use in the 2018 farming season and to combat Fall Armyworm infestation. The list of recommended 30 active ingredients and 83 commercial products are used by all field staff for guidance and compliance.

The recommended pesticides include 29 insecticides with 11 active ingredients, 6 fungicides with 3 active ingredients, and 48 herbicides with 16 active ingredients. These recommendations also took into consideration the latest information on these active ingredients and their commercial products. The essence of compiling these pesticide lists is to ensure the use of least toxic but effective pesticides while adhering to safety measures.

Grants Program

During this quarter, no new grants were awarded but the project worked on completing documentation and delivery of outstanding grant equipment awarded earlier. Tamale Implement factory delivered 43 more dibblers to farmers in the three regions of the north, bringing the total number of dibblers to 142 valued at \$19,748 to support them in planting activities.

Grant Monitoring

The project also embarked on some grantees' monitoring activities to ensure that the beneficiaries comply with the terms and conditions incorporated in their various grant agreements.

The visits showed that the in-kind grants had many positive outcomes such as increases in production, business expansion (though proceeds received from equipment services, many OBs were able to expand their business by acquiring additional equipment), increased technology adoption, reduction in production cost, increased revenue, and improved cost recovery rates from OGs.

Local Partnership Grants (LPG)

A total amount of \$54,069 was disbursed to four local organizations with whom the project signed fixed amount grant agreements in previous years.

1. NORTHCODE delivered on its last milestone where 1,600 acres of productive land was demarcated for 1,000 women in 16 communities in the Northern Region.
2. Urbanet and Community Development Alliance (CDA) received their disbursements following the achievement of their second milestones.
3. The CDA organized planning and consultative meetings and conducted research on the fertilizer subsidy program Planting for Food and Jobs in the Upper West Region.
4. URBANET developed input tracking scorecards to evaluate performance of AEAs with respect to extension service delivery and provision to farmers in four districts and conducted the scoring.
5. SUNG Foundation reached its grant agreement's second milestone by conducting a refresher training for 315 VSLAs and 50 village agents who will monitor the groups' performance in selected districts and communities in the Northern Region.

Monitoring And Evaluation

This quarter, the project focused on identifying outcome level activities that are resulting in systemic changes in the way the various value chains operate. The project organized an M&E review meeting, enterprise profitability workshop and the quarterly technical review meeting to improve the capacity of M&E staffs and project technical leads to track outcome levels results that show signs of systemic change and sustainability. In addition, the project organized Knowledge Management and Learning (KML) fora in the Upper West and Northern Regions to share project learnings with beneficiary actors and stakeholders and learn from their experiences as well. The quarterly data verification exercise for activities in all project implementation offices also took place during the quarter.

Quarterly Technical Review Meeting

The project's technical team leaders held a three-day workshop in Tamale during the quarter to review progress and develop strategies to identify outcome level results that are showing signs of systemic change and sustainability. During the sessions, the teams shared results and findings from five learning studies implemented in FY17 by the Directorate of Research, Innovation and Consultancy DRIC of the University of Cape Coast (UCC), and identified learning topics for FY18 studies. The team revised FY18 activities and approaches accordingly.

M&E Quarterly Review Meeting and Capacity Building

USAID ADVANCE's M&E staff met in Tamale to review progress with achievements of the project's indicators, data collection, data processing, data analysis and reporting processes. The team reviewed project performance and results to date during the three-day period. The project COP, DCOP and M&E Manager took the M&E team through the concept of systemic change and sustainability and research methodologies such as outcome harvesting, social network analysis (SNA) SenseMaker and most significant change (MSC) to help the team better identify and track activities and results that are showing signs of systemic change and sustainability.

Enterprise Profitability Workshop

Each year, USAID ADVANCE embarks on the enterprise profitability survey to collect data on profitability, application of technologies and management practices by beneficiary organizations. This quarter, a workshop was organized for project staff working in the business services, monitoring and evaluation, and trade and marketing units to discuss the results of the 2017 enterprise profitability survey and plan for the 2018 survey.

Knowledge Management and Learning Fora

On June 11, USAID ADVANCE held a knowledge management and learning (KM&L) forum in the Northern Region to share project results, lessons learned, and sustainability strategies with key stakeholders and received their feedback. Forty-five individuals participated, including agrochemical and equipment dealers, representatives from other USAID implementing partners, financial institutions, OBs, and project staff. The forum had three panel discussions: 1) Ensuring access to equipment and mechanization for sustainable outgrower service provision, 2) Provision of financial services to maize and soya VCs: The experience of OBs, financial institutions and VSLAs in the Northern Region, 3) Smallholder farmers' access to and adoption of improved seeds for increased productivity in the Northern Region: challenges and prospects. The panelists discussed challenges and suggested ways to improve access to machinery, financing, and seeds. Key takeaways include the following:

1. Financing should be based on the borrower's ability to utilize the facility and ability to pay back on time. It is better when the borrower himself or herself is a farmer.
2. Appropriate mechanization solutions, not necessarily the use of tractors, should be tailored for smallholder farmers.
3. Equipment dealers were urged to set up mechanization centers to provide services to the smallholder farmers.
4. Seed producers were urged to increase distribution outlets to reach more farmers.
5. Lack of policy direction accounts for most of the challenges in the agricultural sector and should be targeted through advocacy.
6. Financial institutions are unwilling to give loans to farmers due to insufficient documentation of their financial viability.
7. VSLAs have become high source of finance to rural farmers. VSLA members/beneficiaries have more women than men, yet fewer women spend on agricultural inputs during community input promotions. Culture and use of money for other livelihood activities may account for the low patronage.

Data Quality Assessment and Data Verification

USAID ADVANCE conducted monthly data verification exercises to authenticate the data submitted by the technical teams during the period. Challenges such as poor recording of VSLA share contributions were highlighted and discussed with staff involved in data collection, analysis and filing. Also, the team conducted an internal data quality assessment on the M&E systems and procedures implemented at the regional offices. Findings were shared with the staff and action plans put in place to further strengthen the system.

Gross margin survey in USAID ADVANCE's southern zone of influence

During the quarter, the project conducted the first phase of the 2018 gross margin survey in USAID ADVANCE's southern zone of influence. The survey entails collecting data on production (types of input, agronomic practices and farm expenditures), on relationship between OBs and their OGs, field mapping, crop cut, and women's contributions in household decision making in health and economic activities. About 300 smallholder farmers (200 males, 100 females) from the Sunyani, Ejura, Techiman and Kintampo zones were interviewed. The second phase of the survey in the south and first phase in the north will take place in August.

Geographic Information System and Mapping

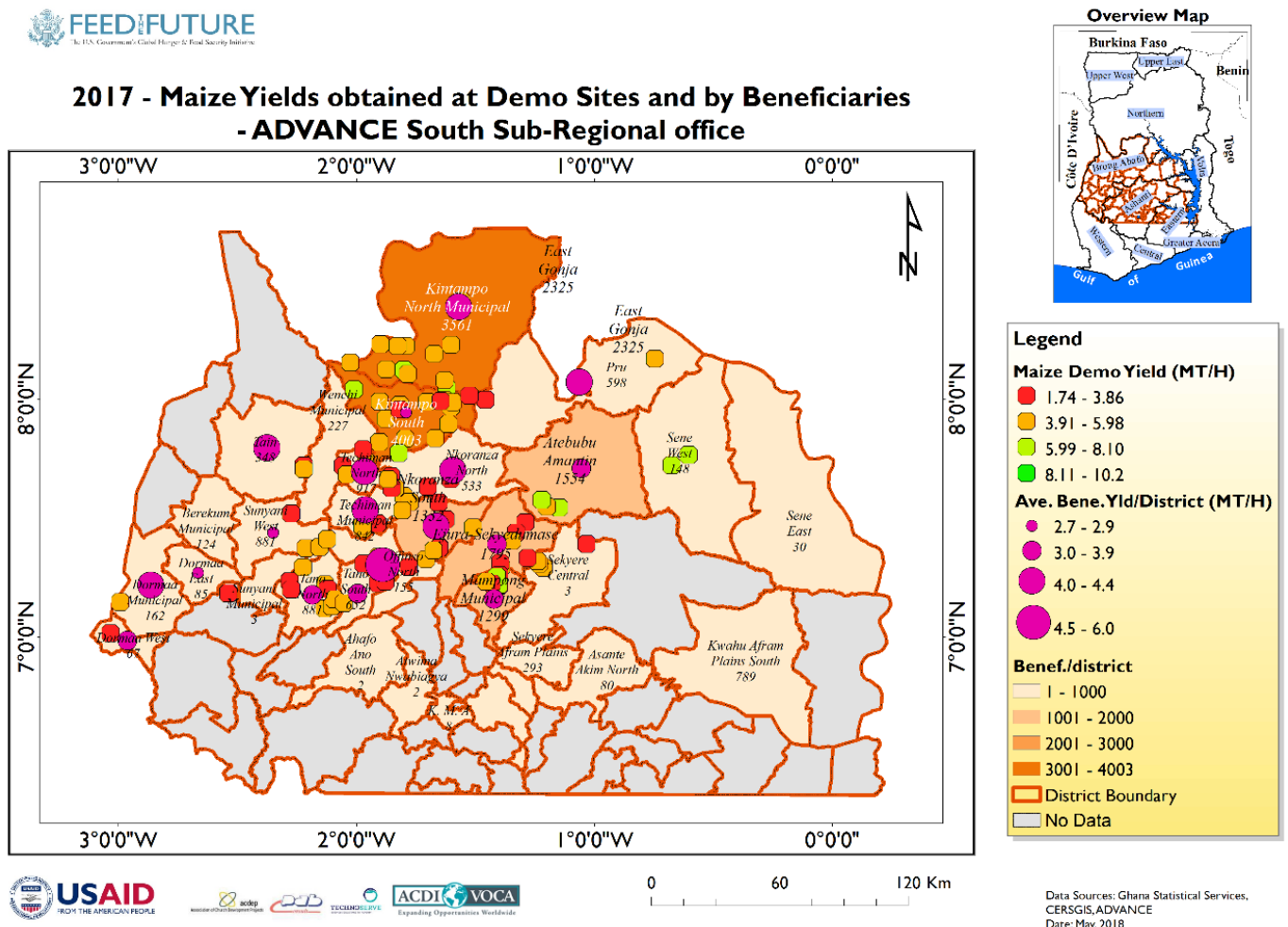
The application of geographic information systems (GIS) to agriculture helps not only on viewing topography and crop health but also solving wider economic issues that may stem from rural farming practices. During FY18 Q3, the GPS technology was used to map beneficiaries' farms to analyze their yields. The project trained six enumerators to map farm areas.

Some maps produced during the period include but not limited to:

1. VSLA maps for Upper East and West offices
2. Combined VSLA map for the project area
3. Change detection map of area of fires overlaid with campaign-held districts
4. 2017 gross margins farm boundary map
5. Crop yield maps by region – 10maps
6. Actor update maps.

Examples of maps are displayed below:

Figure 11: A comparison of demo yields with that of beneficiaries

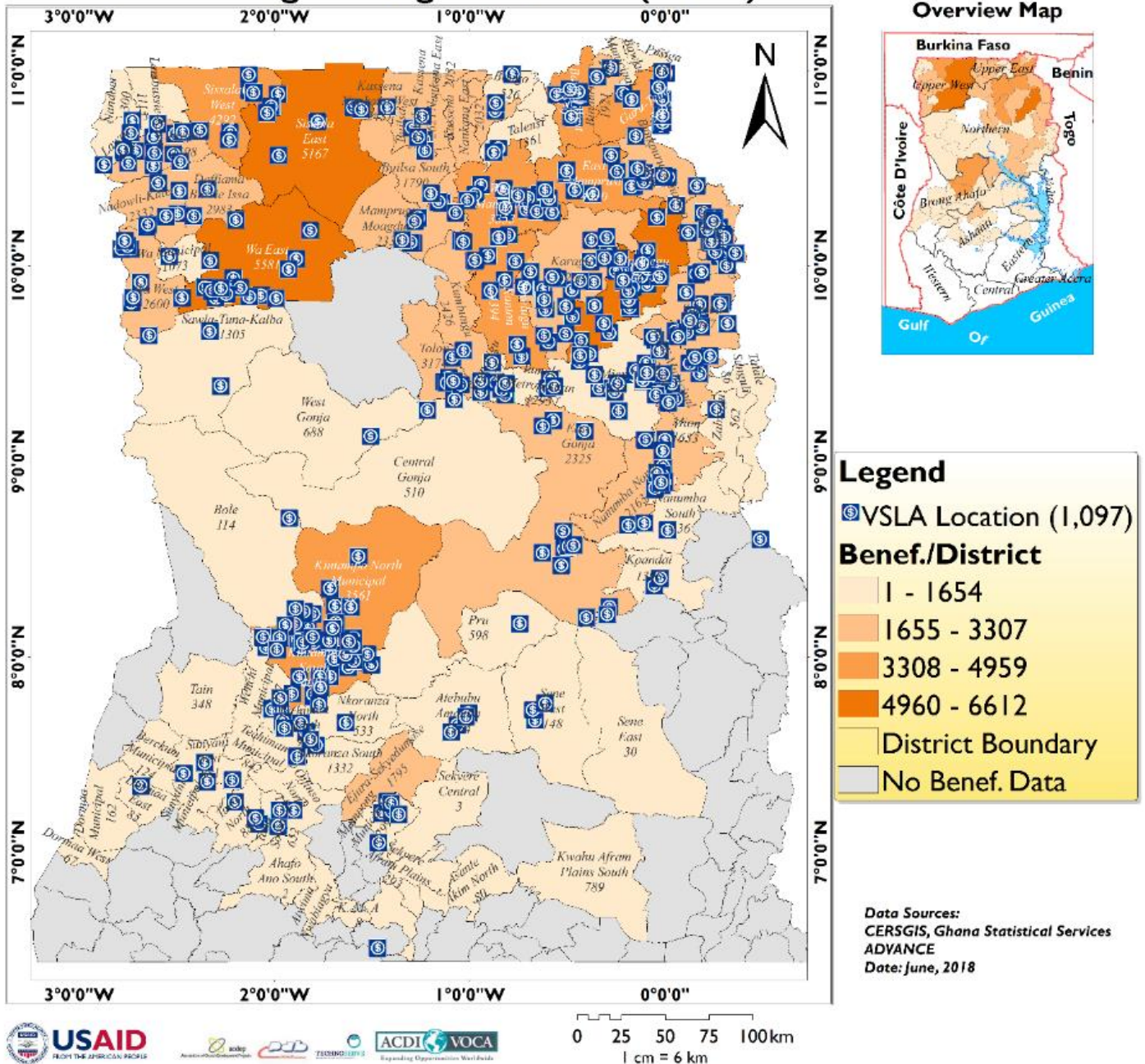


The project produced a comparative demo map by averaging the beneficiaries' yields from the gross margins over districts and overlaying with the beneficiary information. Yields obtained from demos were overlaid directly for comparison. From the above map, most demos did better in yields than the averaged beneficiary yield by district which indicates there is room for improvement of yields of smallholder beneficiaries.

Figure 12: A combined Village Savings and Loans Associations (VSLA) map for the project area



ADVANCE - Village Savings and Loans (VSLA) Sites



The project produced the VSLA map by selecting locations of every group and the number of members per group, their communities, and amounts contributed by the groups. These locations were overlaid with beneficiary information to see the general spatial spread of the VSLAs in the districts compared to the beneficiary population.

Public Relations and Communication

The project continued to ensure its visibility and communicate its results through the following communications channels.

Bi-weekly Updates

During the quarter, the project submitted six bi-weekly updates to USAID. The bullets outlined project success and results in areas of innovation with the planting basin technology, service delivery by OB's to outgrowers, training of farmers on tractor operations and maintenance, and the gross margin survey. They also covered how the project facilitated visits of USAID officials, implemented interventions to control Aflatoxin, increased access to agricultural inputs at community level, and registered mobile money subscribers to enhance digital financial services.

Quarterly Newsletter

The project published and distributed the April-June 2018 edition of USAID ADVANCE Newsletter and distributed it to over 1,000 stakeholders including partners, clients and actors involved in the project, in both electronic and printed forms. Major highlights in the newsletter were profiles of three senior technical staff, a success story on the youngest OB working with the project, report on gross margins survey Ghana and a story on USAID ADVANCE's handing over of the organization of pre-harvest agribusiness event to Agrihouse, a private event organizer.

Video Production

- **VSLA:** the project produced a video to illustrate results in the project's village savings and loans (VSLA) concept. <https://youtu.be/1tsb2cSULH0>
- **CREMA:** The project developed two videos to show our advocacy action in conserving and managing natural resources for sustainable livelihoods in Wa East and Sawla-Tuna-Kabal Districts in northern Ghana through Community Resource Management Activity (CREMA).
https://youtu.be/hq8dg_cX6ug
<https://youtu.be/ADJ87c1pw5M>

Events and Field Visits

- **Launch of eighth pre-harvest agribusiness event:** The project supported Agrihouse to launch the eighth pre-harvest agribusiness on April 24 at Best Western Premier hotel in Accra. The main event will happen in Tamale from October 3 to 5.

Links to stories published by media houses on the launch are below:

- <https://www.myjoyonline.com/news/2018/april-27th/8th-pre-harvest-agribusiness-conference-exhibition-launched-in-accra.php>
- <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/8th-Pre-Harvest-Agribusiness-Conference-and-Exhibition-launched-646405>
- <http://ghananewsonline.com.gh/agrihouse-foundation-launches-pre-harvest-agribusiness-conference-and-exhibitions/>
- **USAID Feed the Future Implementing Partners' Meeting:** The COP, DCOP, Technical Director and M&E Manager attended USAID Feed the Future implementing partners' meeting on May 10 and 11 and were part of technical



A group photo of dignitaries who were present during the launch, including the Minister of State for Food and Agriculture (middle)

panel discussions about fall armyworms, engaging women in agriculture, attracting youth to agriculture, and identifying the drivers of sustainability.

- **Field Visit by USAID Officials:** During the reporting period, the project facilitated visit of USAID officials which included Pearl Coleman Ackah, (the project’s agreement officer’s representative); Jenna Tajchman, USAID agricultural team lead; and Plato Hieronimus, private enterprise foreign service officer, to project sites and OBs in the in the southern ZOI. The team interacted with OBs, smallholder farmers, field agents, SSPs and visited OGs’ demonstration fields to observe how they had adopted GAPs and improved technologies to improve their productivity.



Group photo of sponsors, MOFA directors and traders' executives with the "Omanbene" (chief) and municipal chief executive officer of Techiman in the Brong Ahafo Region

- **Consultative Workshop to Promote Structured Trade** On June 28, USAID ADVANCE collaborated with the World Food Program, GIZ and other partners to organize a consultative workshop under the theme, “Planning of food safety, quality control and standard weights and measures awareness creation campaign” in Techiman in the Brong Ahafo Region. One hundred and fifty-one (16 female, 135 male) stakeholders including traditional authorities, municipal and district assembly representatives, farmers, traders and transporters from the Brong Ahafo and Ashanti Regions participated in the meeting. Three officials from USAID also participated in the workshop.

The Chief of Party encouraged all stakeholders to collaborate effectively to ensure increased use of weights and measures for the benefit of all market actors including farmers, traders and transporters. The participants pledged their full support to scale up and make the achievements sustainable. The Southern Maize Traders Network (SMTN) was launched as part of the workshop.

Annex I: Indicator Table

Indicator Source	Indicator Type	Indicator/Disaggregation	FY18 Target	FY18 Q3 Actuals	% FY18 Achievement so far	Comments
CI	OP1	Number of direct project beneficiaries	75,000	26,344	95.9%	The achievement so far means that project will achieve the target for the FY
		Male	41,250	14,028		
		Female	33,750	12,316		
FTF	OP2	Number of private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	450	538	218%	The overachievement is due to the project targeting more producer enterprises and training them on product quality standards
FTF	OP3	Number of individuals who have received USG supported short-term agricultural sector productivity or food security trainings	48,375	26,302	80.12%	More smallholder farmers will receive trainings in GAPs, FAW preventive measures, product quality standards as the production season continues
		Male	26,607	12,289		
		Female	21,784	14,013		
FTF	OP4	Value of agricultural and rural loans	\$800,000	15,881	10.07%	A loan deal of \$800,000 has been sealed with Agricare Company Ltd which should be disbursed in Q4.
		Male				
		Female				
FTF	OP5	Value of new private sector investment in agricultural sector or value chains (USD)	\$800,000	53,370	22.02%	In the coming quarter, Agricare will be making investment into capital asset
FTF	OP6	Number of MSME including farmers receiving USG assistance to access loans	37,500	3047	8.1%	As the production season continues, more farmers will receive loans from their producer organization in the form of improved seed, fertilizer, inoculants, agro-chemicals, land preparation services on credit
FTF	OC1	Gross margins per hectare for selected crops US Dollar under marketing arrangements fostered by the activity (USD/ha)				
		Maize	\$800	\$670 ⁸		

⁸ These are provisional figures based on first round of sales data. Second round of sales data is likely to increase sales values with increased gross margins

Indicator Source	Indicator Type	Indicator/Disaggregation	FY18 Target	FY18 Q3 Actuals	% FY18 Achievement so far	Comments
		Male	\$790	\$667		
		Female	\$840	\$710		
		Rice	\$1,350	\$852		
		Male	\$1,400	\$727		
		Female	\$1,250	\$913		
		Soy	\$650	\$751		
		Male	\$700	\$838		
		Female	\$600	\$718		
FTF	OC2	Number of hectares under improved technologies or management practices as a result of USG assistance	72,000	73,872.86	102.60%	The overachievement is due to more farmers applying improved technologies such as row planting, fertilizers, improved seed on their farm
FTF	OC3	Number of farmers and others who have applied new technologies or management practices as a result of USG assistance	72,000	93,784	130.25%	More farmers were encouraged to use improve technologies which leads to increase yield and gross margins. This overachievement was due to many farmers applying technologies shared with them on their farms
		Male	38,610	47,520		
		Female	31,590	46,264		
FTF	OC4	Number of private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance	338	NA		Enterprise Profitability is underway, and data will be reported in Q4
FTF	OC5	Value of incremental sales (collected at farm-level) attributed to FTF implementation	\$17,880,000	\$38,393,802.67	214.73%	Most farmers increased their plot sizes and applied more improved technologies that enabled them increase yield. Also farmers sold more produce during the season
		Maize	\$14,940,000	\$35,430,895.31	237.15%	
		Rice	\$2,130,000	\$1,505,571.31	70.68%	
		Soy	\$810,000	\$1,357,336.18	167.57%	

Indicator Source	Indicator Type	Indicator/Disaggregation	FY18 Target	FY18 Q3 Actuals	% FY18 Achievement so far	Comments
FTF	OC6	Number of firms (excluding farms) or Civil Society Organizations (CSOs) engaged in agricultural and food security-related manufacturing and services now operating more profitably (at or above cost) because of USG assistance	75	NA		Enterprise Profitability is underway, and results will be reported in Q4
CI	OC8	Number of organizations/enterprises identified as high potential for future awards	7	0		
CI	OP8	Number of organizations/enterprises receiving capacity building support against key milestones	50	11		11 Trade Associations continue to receive capacity building on market performance, weights and negotiations, contracts and measures
F	OP9	Number of awards made directly to local organizations by USAID	5	0		No new award was made to any grantee as this indicator has been achieved and the closure of USAID ADVANCE grant program
FTF	OP10	Number of Households benefiting directly from USG Assistance		24,689		
FTF	OP13	Number of members of producer organizations and community-based organizations receiving USG assistance	6,750	5007	196.95%	The over achievement was due to the project targeting more members of FBOs and providing them with capacity building on FaaB and product quality standards
FTF	OP14	Number of MSMEs including farmers, receiving Business Development Services as result of USG assistance	30,000	22,714	176.84%	The over achievement was due to more farmers receiving capacity building on savings through the VSLA schemes
CI	OC9	Value chain actors accessing finance	225	4	4.5%	As the production season continues, more lead actors will access loans from FIs

Annex 2: Success Stories

COMMERCIALIZING AND MAKING SPRAY SERVICE PROVISION SUSTAINABLE FOR CLIMATE SMART AGRICULTURE

Spill over results of spray service lead SSPs to form networks on their own initiative

USAID ADVANCE introduced the spraying service provision program in 2016. The project works with OBs to equip selected farmers with personal protective equipment (PPE) to provide safe pesticide application services to other farmers. These service providers are called spraying service providers (SSPs). The SSPs train other smallholder farmers in their communities on safe use and handling of pesticides and spray farmers' fields with pesticides at an agreed fee.

As of December 2017, the project had trained and equipped 711 SSPs (all males) with PPE across the zone of influence. Out of this number, 564 sprayed 12,433 hectares of land for over 12,518 smallholder farmers; and realized GHC 263,014 (US\$54,795). In addition to educating and providing services to the farmers, SSPs are contributing towards the reduction of farmers' exposure to health hazards from improper application, handling and storage of pesticides. *"Being an SSP is not only about spraying people's farms but educating the farmers on safer use and handling of pesticides. Dressing in my PPE is enough education to the farmers in Prima as they mostly learn through visualization. I thank USAID ADVANCE for helping me to impact my community positively through this SSP program,"* Adam Wahab, a service provider in the Upper East Region said.



Kwame Akponjabil, an SSP, taking other SSPs through active ingredient identification and recording during an SSP training at Naadema in the Builsa South District

The benefits and interest in SSP participating in the program have spilled over beyond the project's involvement. Without project's support, SSPs trained 32 smallholder farmers in the Upper East Region in April-May. Further, the newly trained SSPs acquired their own PPE and sprayed a total of 26.2 hectares as of June 2018.

The SSPs' results have led them to form networks to make the intervention sustainable beyond USAID ADVANCE. In June 2018, with the project's support, SSPs in the Upper East Region formed networks in Builsa North, Builsa South and Mamprugu Moaduri Districts to oversee their activities. The Department of Food and Agriculture in the region has recognized the networks as functioning groups in the district. The networks will be supported to formally register with the Plant Protection and Regulatory Services Directorate (PPRSD) of the Ministry of Food and Agriculture (MoFA) and Environmental Protection Agency (EPA). The networks will plan and manage all SSPs' activities in their respective areas. They will engage various district offices of Department of Agriculture and other regulatory bodies in their activities for SSP business certification and trainings and reach more communities.

The success of these three networks has become a model for replication in other regions. USAID ADVANCE will guide all SSPs to form networks in their districts to make their activities sustainable.



SUCCESS STORY

EMPOWERING WOMEN FOR AGRICULTURAL PRODUCTION AND LIVELIHOOD

“Providing land to women can help increase families’ livelihoods”, a male farmer and husband states

By collaborating with NGOs such as the Coalition for the Development of Western Corridor of Northern Region (NORTHCODE) and other projects, USAID ADVANCE is facilitating access to land by women for farming activities. As of March 2018, the project helped secure tenure rights for 1,600 acres of farm lands to 1,000 women over a 10-year lease period. The success of a female farmer, Asibobo Alhassan, in Kongo in Garu-Tempene District in the Upper East Region has urged her husband and community leaders to release more farming land to women in the upcoming 2018 production season.



A smallholder farmer in Garu-Tempene District engaged in winnowing activity

Asibobo’s husband, Alhassan Yakubu, cultivated 3.2 hectares of maize and harvested 0.45 MT on average in 2015 and 2016, earning an average of GHC 400 (US\$ 89) each year. In the 2017 production season, Asibobo requested 1.6 hectares of land from her husband to complement his efforts. Through USAID ADVANCE’s plea, Alhassan reluctantly released the land to his wife. She used 1.2 hectares for maize farming and the remaining for groundnut production. USAID ADVANCE linked her to an outgrower business (OB), Abdul Rahman Mohammed, who trained her on good agronomic practices, including row planting, fertilizer application, and pest management. After adopting these practices, she harvested 3.2 MT of maize and sold 2.5 MT, which generated income of GHC 2,500 (US\$558).

Asibobo’s husband stated: *“I was not so sure my wife could farm so I was reluctant to give her the land. Adopting USAID ADVANCE’s GAPs, she proved me and other men wrong. I now know that providing land to women can help increase families’ income.”*

Because of Asibobo’s success, the men in the community have expressed their willingness to release land to their wives to farm during the upcoming production season. Other women, upon witnessing the respect she gained from her husband and other men in the community, consult her on good agronomic practices. The couple intends to cultivate seven hectares in 2018. USAID ADVANCE’s OB will continue to provide them with the necessary training and help them access inputs. The project will strengthen its advocacy interventions for more land to be released to women.





INCREASING THE PRODUCTIVITY OF SMALLHOLDER FARMERS THROUGH OUTGROWER SCHEMES

Buyer outgrower schemes improve yields and profits of smallholder maize farmers in Janga

Abdulai Sayibu is a smallholder farmer based in Janga in the West Mamprusi District of the Northern Region. He has been cultivating maize for 15 years, as well as groundnuts and cowpea. Like many smallholder farmers in Northern Region, he faced challenges with accessing improved seeds, he neither applied fertilizer nor adopted most improved farming practices. *“I started farming maize since I was 15 years old and I am now in my mid-thirties. For all these years, I never purchased certified seeds nor adopted adequate fertilizer application and row planting. My harvest was usually between 0.5mt to 0.8mt on two acres,”* Abdulai Sayibu recounted.

Abdulai Sayibu became a USAID ADVANCE’s outgrower beneficiary in 2015 and worked with Mahama Yakubu Tiah, an OB in Janga. He has since benefitted from training in good agronomic practices and quality standards. In 2017, he received input credit through the project’s facilitated Agricare outgrower scheme⁹; specifically, eight bags of fertilizer and 30Y87 pioneer maize seeds to cultivate a two-acre land. With skills acquired through project’s trainings and the application of the certified seeds and fertilizer, Abdulai harvested 6.8MT of maize from the two acres. Compared to his initial average production volume, the 6.8MT represents over 1,000 percent increase in his production volume because of USAID ADVANCE’s support.

With the 6.8MT of maize harvested, he paid 1.6MT to Agricare for the inputs and sold the surplus for GHS 2,300 (US\$479). He used some of the profit to purchase a motorbike to facilitate visits to his buyers and other farmers. In preparation for the 2018 farming season, Abdulai acquired additional land and expanded his farm to four acres with support from USAID ADVANCE’s outgrower scheme.

“I thank the OB and the USAID project for the support. I got high yields and profit from maize farming because I had access to improved seeds and fertilizer, timely ploughing and threshing service from my OB. With the new motor, I intend to acquire a new land away from the community where the fertility is high to expand my farm and increase my yield next season,” – Abdulai Sayibu

The project has linked 5009 smallholder farmers to the outgrower schemes and will continue to support outgrowers through OBs to increase production and gross margins.



Abdulai Sayibu, on his new motor bike purchased from profit realized after repaying Agricare for input credit



⁹ Linkage to Agricare allows him to access high quality inputs and guarantees markets to sell his maize produce.

POSITIONING FARMER BASED ENTERPRISES AS KEY AGENTS OF CHANGE IN AGRICULTURAL VALUE CHAIN

USAID ADVANCE strengthens the capacity of a farmer group for improved service delivery

Adam Aminu and Adam Abdullah, lead farmers in the Buipe District of the Northern Region, formed the Samakuse Farmers Group in 2010 to enable them participate in outgrower schemes and access production inputs such as seed, fertilizer, herbicides and insecticides to improve their productivity. For four years, the group struggled with business registration, record keeping, and access to agricultural inputs and end markets.

The group became a farmer-based organization (FBO) under USAID ADVANCE in August 2014 and has since received project support. Through USAID ADVANCE's facilitation, the group leaders developed a constitution to guide their operations and registered the group with the Department of Cooperatives in Buipe District. The project trained group members in leadership and agricultural production activities such as: management of group dynamics, records keeping, numeracy, farming as a business (FaaB), Sell More Fore More (SMFM) and good agronomic practices (GAPs). To expand their marketing outlets, the project introduced group members to mechanized practices such as shelling, spraying service provision for business, large buyers, and financial institutions such and Abosokotre Rural Bank.



A 200-MT capacity warehouse under construction by the Samakuse Farmers Group

These interventions have enabled the group to graduate from an FBO to a farmer-based enterprise (FBE). Members operate with formal administrative structures, engage with the open market, and conduct collective purchases and sales of inputs and produce. They purchased two tractors, two shellers, two trailers, warehouse (under construction), tricycles, motorbikes, power tiller, knapsack sprayers, tarpaulins, weighing scales and manual planters. By adopting improved agricultural technologies, yields of individual FBE members improved from an average of 0.15 MT to 1.0 MT of maize per acre, with corresponding profits rising from GHC150 to GHC700 (US\$31 to US\$149) for the 2017 farming season. Their bank account balance is GHC 32,000 (US\$6,667) as of May 2018.

Samakuse Farmers Group has become exemplary to other organizations. They trained 11 FBO executives in four districts in FBO management. They oversee 13 smaller community groups with membership of 45 each, who serve as their outgrowers. The group not only advances loans to its members for production, aggregation and trade but also allows the members to leverage the group's assets as collateral to access loans from Abosokotre Rural Bank in Buipe. The rural bank has acknowledged the farmer group as their major partner in the district.

Out of the project's 148 FBOs, 52 have graduated to become FBEs as at March 2018. The project is working with the remaining FBOs to enhance their progression to FBE status to make them profitable in the agricultural value chain.

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