



USAID | AFGHANISTAN

Regional Agricultural Development Program – West

Final Report

August 10, 2014 – September 27, 2016



RADP-WEST FINAL REPORT

AUGUST 10, 2014 – SEPTEMBER 27, 2016

Submission Date: October 4, 2016

Submitted to: Anafrida Bwenge, Contracting Officer's
Representative

Submitted by: Chemonics International Inc.
1717 H St., NW
Washington, D.C. 20006

Name of Prime Implementing Partner:

Chemonics International Inc.

Names of Subcontractors:

Agency for Rehabilitation and Energy
Conservation in Afghanistan

Coordination of Humanitarian Assistance

Dutch Committee for Afghanistan

Equal Access

Services International LLC

Afghan Public Protection Force

Activity Start Date: August 10, 2014

Activity End Date: September 27, 2016

Cover photo: RADP-West personnel work with farmers in Farah Center District to establish a pistachio orchard demonstration training center. Centers such as this one served as a forum for delivery of training programs. They will also prove useful for Directorate of Agriculture, Irrigation, and Livestock extension workers to provide capacity development instruction and extension services to farmer beneficiaries. (Credit: USAID/RADP-West)

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency For International Development or the United States government.

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ACRONYMS

AREA	Agency for Rehabilitation and Energy Conservation in Afghanistan
CHA	Coordination of Humanitarian Assistance
CLIN	contract line item number
DAIL	Directorate of Agriculture, Irrigation, and Livestock
DAP	diammonium phosphate
DCA	Dutch Committee for Afghanistan
DTC	demonstration training center
HVC	high-value crop
KIP	key implementing partner
LOP	life of project
MAIL	Ministry of Agriculture, Irrigation, and Livestock
PICS	Purdue improved crop storage
RADP-West	Regional Agricultural Development Program – West
VFU	veterinary field unit

EXECUTIVE SUMMARY

RADP-West and Afghanistan’s agriculture sector. USAID awarded the five-year Regional Agricultural Development Program (RADP) – West program to Chemonics International Inc. in August 2014. During its implementation and in partnership with the Ministry of Agriculture, Irrigation, and Livestock (MAIL), RADP-West worked to improve food and economic security for rural Afghans in 13 target districts in the western provinces of Herat, Badghis, and Farah. The program’s focus was to support MAIL in improving the productivity and profitability of targeted value chains in the wheat, high-value crops (HVCs), and livestock value chains. The purpose of this effort was to further sustainable agricultural development, fuel economic growth, and provide alternatives to poppy cultivation. In practice, this translated into direct assistance for rural subsistence farmers to better provide for their families, while expanding opportunities for male and female producers and entrepreneurs in the agribusiness sector to maximize their economic potential in the Afghan market and beyond.

Chemonics implemented RADP-West with the support of key implementing partners (KIPs). Beginning in Year 2, these KIPs included the Agency for Rehabilitation and Energy Conservation in Afghanistan (AREA); the Dutch Committee for Afghanistan (DCA); and Equal Access. The table below outlines RADP-West KIP’s geographic coverage and primary responsibilities.

EXHIBIT 1. KIP COVERAGE AREA AND RESPONSIBILITIES

KIP	GEOGRAPHIC COVERAGE	KEY RESPONSIBILITIES
AREA	Badghis	Wheat and high-value crop programming
Coordination of Humanitarian Assistance (CHA)*	Farah	Wheat and high-value crop programming
DCA	Herat, Badghis	Livestock value chain programming
Equal Access	Herat, Badghis, Farah	Communications and outreach programming

*Work was ended under CHA’s subcontract in August 2015. Discussions were ongoing with a replacement subcontractor when RADP-West received its termination for convenience notification on May 31, 2016.

RADP-West was built on the premise that sustainable agricultural development will support the consolidation of licit economies. RADP-West strived to support MAIL to promote investments leading to sustained long-term increases in farmer incomes and private sector growth. Throughout the program’s planning and implementation stages, the program exercised caution to ensure that RADP-West activities promoted the agricultural and alternative development strategies of USAID and the Afghanistan government, in harmony with Afghanistan’s National Agriculture Development Framework and MAIL’s priorities in addressing food security and the expansion of agribusinesses.

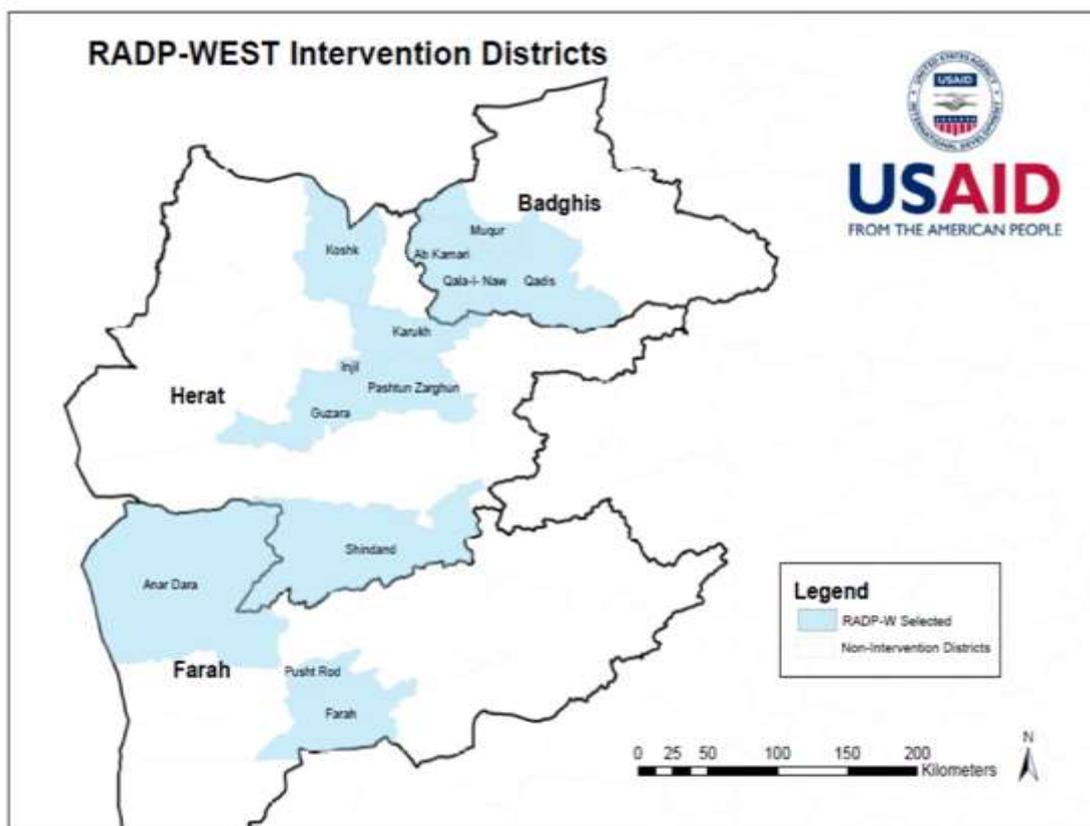
The program was designed around four primary programming components, consisting of Contract Line Item Numbers (CLIN) 1 - Wheat Value Chain, CLIN 2 - HVC Value Chain, CLIN 3 - Livestock Value Chain, and CLIN 4 - Enabling

Environment. Together, these components worked as an integrated whole within the provinces and target districts below.

EXHIBIT 2. TARGET PROVINCES AND DISTRICTS*

PROVINCE	DISTRICTS
Herat	Guzara, Karukh, Injil, Koshk, Pashtun Zarghun, Shindand
Badghis	Muqur-I, Ab Kamari, Qala-I-Naw, Qadis
Farah	Anar Dara, Farah, Pusht Rod

*Limited activities were implemented in Shindand District due to substantial insecurity. Muqur District in Badghis Province is referred to as “Muqur-I” in USAID’s multi-tiered monitoring capture tool and ArcGIS. RADP-West will refer to this district throughout the report as “Muqur.”



RADP-West was originally awarded as a five-year program. However, on May 31, 2016, USAID issued a termination for convenience notification, reducing the program’s duration to about 26 months. Due to a prolonged startup process and through the completion of activity implementation in July 2016, the active implementation period of the program spanned approximately 16 months (April 2015 – July 2016). This final report emphasizes activity implementation during this 16-month period, highlighting program accomplishments, challenges, and lessons learned. This report also offers recommendations for future interventions in the western region.

KEY ACCOMPLISHMENTS

- Benefitted 12,911 households through agriculture and alternative development interventions in targeted areas (wheat, 6,050; HVC, 4,955; livestock, 1,906). Households benefitted from activities that included input distribution (seed, pistachio, fertilizer, saplings, and tools), training on crop production, training on nutrition-related activities, training on business development services, and links to marketers.
- 11,130 farmers and other beneficiaries applied new technologies or management practices.
- 10,467 households benefitted from nutrition-sensitive agricultural activities.
- Trained 9,029 (male, 7,551; female, 1,478) farmers on new technologies and management practices for wheat, high-value crops, and livestock.
- Trained 936 farmer extension group members (male, 629; female, 307) on livestock disease prevention, control, and diagnosis; the importance of vaccines; and good feeding practices.
- Conducted training for 24 veterinary field unit (VFU) para-veterinarians focused on equipping them with improved skills in animal husbandry and disease prevention, control, and diagnosis.
- Engaged the private sector by awarding nine grants to private seed enterprises in target districts, reaching 4,249 farmers through a seed multiplication program in which 112.6 metric tons of improved/certified wheat seed and 170.35 metric tons of fertilizer were distributed. Farmers who received seed harvested and sold 3,012 metric tons of seed valued at \$882,126 to flour mills and seed companies.
- A total of 1,776 hectares of land were cultivated by program beneficiaries. Beneficiaries (farmers and agribusinesses) reported sales worth \$2.8 million.
- Promoted the inclusion of women across all program components (18% of beneficiaries were women). A total of 53.5% of female trainees reported percentage increases in self-efficacy.

INCREASING PRODUCTIVITY AND PROFITABILITY

RADP-West’s activities were organized into two categories: 1) Increasing agricultural and livestock productivity and profitability and 2) fostering an enabling environment. Chapter One explores progress achieved and encompasses activities across three distinct CLINs: CLIN 1 – Wheat Value Chain; CLIN 2 – High-Value Crops Value Chain; and CLIN 3 – Livestock Value Chain. Achievements under the program’s gender and nutrition programming, which spanned the three technical CLINs in addition to CLIN 4 – Enabling Environment, will also be highlighted.

CLIN 1 – WHEAT VALUE CHAIN PROGRAMMING

Overview. RADP-West’s wheat value chain was designed to benefit 60,000 farmers in the western region. At the onset of programming, it was observed that farmers in that region had been cultivating wheat varieties that produce low yields, typically, 500-600 kilograms/jerib on irrigated land. These average yield rates compare unfavorably with farmers in other regions of Afghanistan, who are producing 800-1,000 kilograms/jerib on irrigated land. Similarly, western region wheat farms were producing 250-300 kilograms/jerib on rainfed land, while farmers producing rainfed wheat in other regions of the country enjoyed yields of 400-500 kilograms/jerib. There are many reasons for this under-performance, including limited knowledge of modern agronomic production practices, lack of access to improved and high-yield wheat seed varieties, lack of knowledge of pest and disease control, limited irrigation resources, and weak market links. As a result, western region wheat growers frequently do not realize adequate economic returns and are forced to continue as subsistence farmers.

In response to these shortcomings and improve farmers’ financial prospects, RADP-West based its interventions on the value chain approach. Specifically, the program focused on the following activities:

- Encourage use and adoption of regionally produced improved and certified wheat seed
- Develop the capacity of farmers in improved production practices, including land preparation and cultivation techniques, improved irrigation practices, plant

ACCOMPLISHMENTS “AT A GLANCE”

CLIN 1 - Wheat

- Total beneficiaries: 6,050 (Target: 60,000)
- 12,000 Purdue improved crop storage (PICS) bags distributed
- 600 kilograms of mung bean, white bean, and clover seeds distributed for crop rotation
- 112.6 metric tons of wheat seed distributed; 3,012 metric tons of wheat seed harvested (Value: \$826,126)
- Value of sales: \$643,521 (Target: \$4 million)
- Land under cultivation: 1,423 hectares (Target: 6,800 hectares)
- Decrease in post-harvest losses: 8.16% (Target: 10%)

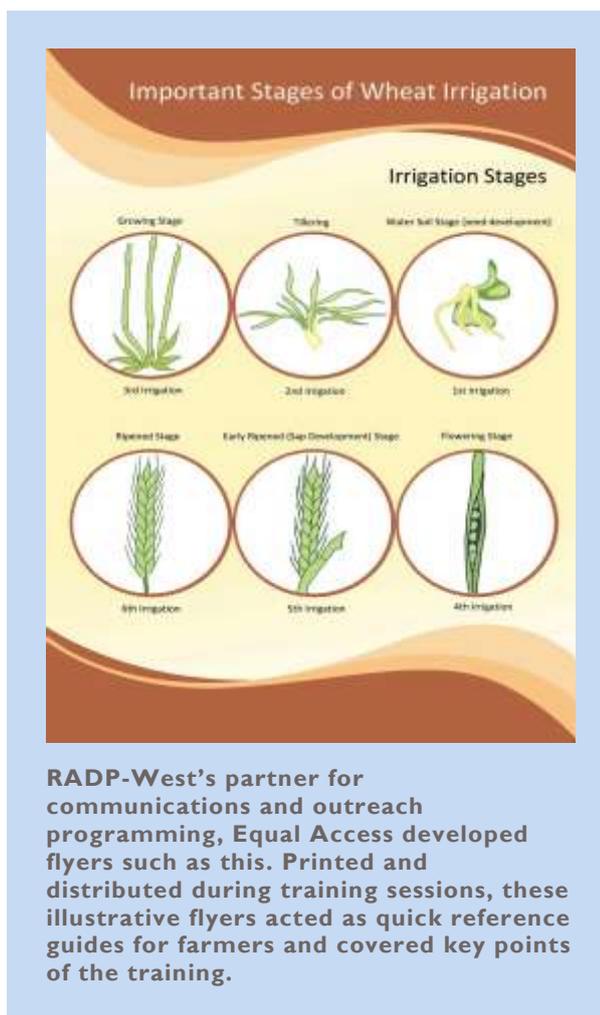
nutrition requirements, pest and disease management, harvesting approaches, post-harvest yield management, and storage and marketing

- Focus on maximizing soil health, environmental sustainability, and profitability using crop rotations
- Facilitate links to regional markets to enable contracting with private seed enterprises, commercial mills and traders, while enabling and encouraging investment in improved production and processing capacities

Notable achievements. RADP-West, through wheat value chain activities, worked with 6,050 beneficiaries (5,856 male and 194 female). In addition to the program's extensive training offerings delivered throughout the implementation period, the program's most significant

achievement under its wheat value chain programming was the implementation of a wheat seed multiplication program between October 2015 and July 2016. The program's wheat team, together with the enabling environment team (CLIN 4), awarded seed multiplication grants to nine private seed enterprises in November 2015 to help them expand the volume of certified wheat seed available to regional farmers. The seed grants enabled these seed enterprises to collectively reach 4,249 regional farmers in Herat, who each received 25 to 50 kilograms of foundation seed, 25 kilograms of ammophose fertilizer, and 16.5 kilograms of urea fertilizer. Ammophose and urea fertilizer were given in lieu of DAP fertilizer due to limited availability of DAP on the local market. The seed enterprises then purchased 25 kilograms of the certified seed from farmers following the wheat harvest, along with any excess seed that farmers had available. This collection process continued past the end date of the program. The price offered by the seed enterprises was up to 10 percent higher than the market price of wheat seed available in the region.

RADP-West also provided certified seed grants to the same nine private seed enterprises for seed containing a higher percentage of gluten and resistant against UG99, along with sufficient fertilizer to help 3,050 wheat farmers in Herat, Badghis, and Farah provinces improve their yields by using high-quality seed. To help farmers market their wheat and flour mills to expand their processing volumes, RADP-West, in collaboration with Directorate of Agriculture, Irrigation, and Livestock (DAIL)



representatives, facilitated meetings with two Herat flour mills — Barakat Hariwa and Aria. By creating these linkages, the program facilitated access for RADP-West lead farmers and beneficiaries interested in selling their excess wheat to the mills. RADP-West held meetings with the mills, and both mills were interested in purchasing seed from the wheat farmers. The farmers who benefited from foundation and certified seed from the seed enterprise grants harvested and



Farmers in Karukh District examine improved wheat seed (November 2015)

and sold 3,012 metric tons of wheat and wheat seed valued at \$882,126 to flour mills and seed companies. This quantity of high-quality wheat, directly resulting from the improved seed, will lead to improved gluten content in the flour produced by regional flour mills, increasing local community incomes, supporting the regional economy, and reducing the reliance on flour import substitution.

From November 2015 through the completion of RADP-West implementation, the wheat team worked with beneficiary farmers and DAIL representatives to provide significant assistance to wheat farmers in all three provinces. Specifically, RADP-West rolled out a comprehensive support program that included the following elements:

- *Cultivated wheat plot assessments.* After the November 2015 wheat seed distribution, RADP-West devised an assessment schedule to provide regular and timely guidance to farmers, capture each plot's GPS location, record dates of cultivation and germination, and ensure that plots had been irrigated 21 days after sowing, and subsequent key irrigation periods in line with wheat cultivation best practices.
- *Wheat cultivation, protection, harvest, post-harvest training.* In line with seasonal requirements, RADP-West rolled out a comprehensive training program covering a wide array of seasonally relevant training topics, including land preparation and irrigation, fertilizer application, protection from pests and diseases, and optimal harvesting and storage methods.
- *Wheat Demonstration Training Center (DTCs) Establishment.* RADP-W, in coordination with the Herat DAIL Department, selected 22 Wheat DTC locations in Herat Province, and three Wheat DTC locations in Farah Center District of Farah Province. All locations were part of the November 2015 Wheat Seed Multiplication Program. By the time of the termination of this activity, the DTCs were not fully established (i.e. with signed agreements between RADP-West and the farmers), and certain necessary tools (shovels, wheelbarrows, sickles for harvesting; etc.) had not yet been procured. However, these locations were used for the June/July post-harvest training

conducted by RADP-W Chemonics staff, and served as a valuable resource for demonstration and hands-on learning for RADP-W beneficiary farmers.



PICS bags distribution in Robot Sangi Sufia village, Koshk District.

- *Distribution of Purdue improved crop storage bags.* In an effort to reduce post-harvest wheat losses due to poor storage practices, RADP-West distributed 12,000 PICS bags to 3,000 farmers in Herat Province. During the distribution, the program provided guidance on the use and benefits of PICS bags and encouraged farmers to adopt this new technology aimed at reducing post-harvest losses, including stopping infiltration by pests and moisture.

Overall, RADP-West's wheat value chain programming laid vital groundwork in support of improving the financial prospects of wheat farmers in the western region. Program activities introduced a broad array of technologies, provided improved and certified wheat seed varieties, conducted in-depth training on modern production and crop management practices, and facilitated links to local and regional markets for the sale of surplus wheat, wheat seed, and flour.

CLIN 2 – HIGH-VALUE CROP VALUE CHAIN PROGRAMMING

Overview. RADP-West's HVC value chain was designed to benefit 16,000 farmers in the western region. RADP-West through its HVC value chain activities worked with 4,955 beneficiaries (3,458 male and 1,497 female) in selected fruit, nut, and vegetable activities across the three western provinces of Herat, Badghis, and Farah. The intent of RADP-West's CLIN 2 was to use a value chain approach to address the constraints that prevent farmers and agribusinesses from expanding their businesses, while improving the quality and marketability of their commodities.

Fruit and nuts. The strategic approach of the RADP-West fruit and nuts value chain programming was to improve the overall productivity of existing orchard production areas and expand areas under cultivation to maximize increased financial returns and net farm incomes. In turn, this approach would enhance farmers' ability to purchase

staple foods in the marketplace while reducing reliance on wheat crops as the main household food source. In collaboration with the Provincial Directorate of Agriculture, Irrigation, and Livestock and its partners in Herat, Badghis, and Farah provinces, RADP-West emphasized optimizing the use of existing land and water resources, coupled with high-quality inputs (for example, certified saplings) and farmer capacity development, which tied into the overall MAIL and national government objectives of increased productivity, crop production, and quality.

ACCOMPLISHMENTS “AT A GLANCE”

CLIN 2 – High-Value Crops

- Total trained: 3,921 (Target: 16,000)
- Total beneficiaries: 4,955 (Target: 16,000)
- Agriculture tools distributed to 503 farmers
- Vegetable seeds and saplings distributed to 1,200 farmers
- 9,201 orchard and vineyard saplings distributed to 41 farmers
- 4,120 pistachio scions distributed to 20 farmers
- Value of sales: \$773,743 (Target: \$50 million)
- Incremental sales (Agribusinesses): \$49,268 (Target: \$50 million)
- Land under cultivation: 353 hectares (Target: 1,200 hectares)
- Decrease in post-harvest losses: 8.3% (Target: 10%)

The RADP-West fruit and nuts value chain programming included the following key elements:

- Encourage use and adoption of regionally produced improved or certified fruit tree saplings and scions for orchards
- Establish orchard demonstration training centers (DTCs) to develop the capacity of fruit and nut farmers in orchard management, including site selection, layout, selection of cultivars, land preparation, pruning, pest and disease control, irrigation and fertilizer applications, weed control, improved harvesting and post-harvest techniques, cleaning, drying, sorting, and packing, family nutrition requirements, and other practices as they related to new technologies
- Facilitate links to local and regional markets and enable contracting between farmers and sapling/scion providers, agribusinesses, traders, wholesalers, and food processors

Notable achievements. RADP-West and its partners delivered a wide range of training programs to beneficiary farmers aimed at reducing production losses and increasing yields, reaching 1,158 farmers (1,128 male and 30 female). Topics covered during these trainings included pistachio budding, on-farm fresh fruit harvesting, integrated pest management, pruning, and orchard management. In addition, the program established six orchard DTCs in Herat Province, 18 pistachio DTCs in Badghis Province, and two pistachio DTCs in Farah Province. These DTCs served as a forum for delivery of some training programs before the program’s closure. They will also prove useful for DAIL extension workers to provide capacity development instruction and extension services to orchard farmer beneficiaries in the future. Another significant achievement was distribution and budding of certified pistachio scions. In Herat and Badghis provinces, pistachio farmers do not typically have access to certified scions, nor do they possess the technical knowledge necessary to properly bud pistachio saplings. Through RADP-West’s distribution and demonstration program, pistachio farmers gained access to certified scions to bud

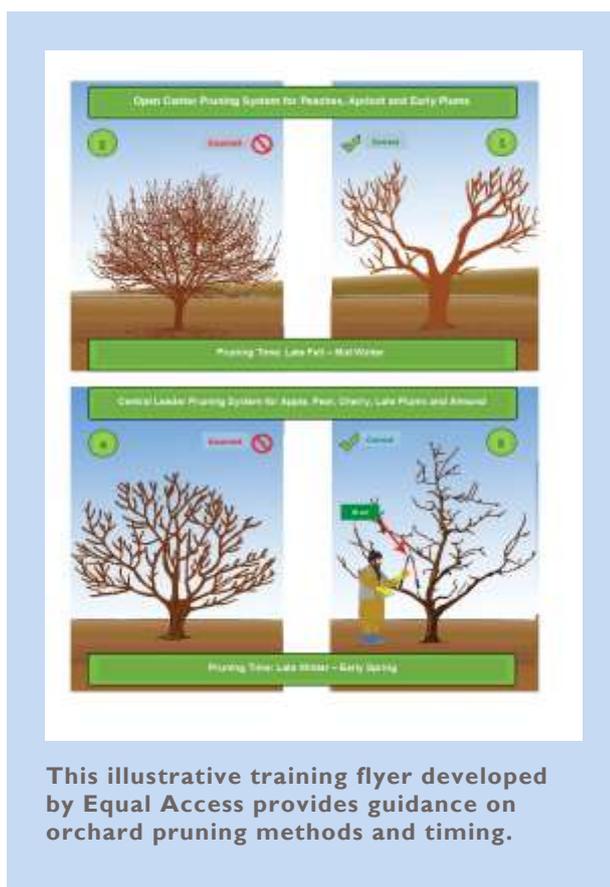
their saplings. If pistachio saplings are not budded, the first harvest may not occur until after 10 to 12 years. However, if the pistachio saplings are budded/grafted, the first harvest may take place in four or five years (five to seven years earlier than unbudded or ungrafted saplings).



RADP-West's pistachio budding program included the safe transport of scions in cool storage (left), demonstration of cutting methods to graft scions onto rootstock (center), and procedures for budding (right).

During April and May 2016, RADP-West selected saplings for distribution to beneficiaries according to the following criteria: taller than 70 centimeters and thicker than 1 centimeters in diameter (trunk section). RADP-West selected 10 male pistachio farmers in Injil (2), Guzara (2), Karukh (2), Pashtun Zarghun (3), and Koshk (1) districts in Herat Province, who collectively had 2,620 pistachio rootstocks that were proper for budding. The program also selected four male pistachio farmers in Qadis (2), Qala-I-Naw (1), and Ab Kamari (1) districts in Badghis Province who collectively had 500 pistachio rootstocks that were proper for budding. In total, 3,120 certified pistachio scions were distributed to these beneficiary pistachio farmers in Herat and Badghis provinces during June 2016. RADP-West worked with these farmers during the budding process and provided advice on staking new shoots to prevent breakage and damage from heavy wind. The survival rate of these scions was 52 percent (total planted/budded, 3,120; total survived, 1,612). This rate was considered to be satisfactory, particularly considering that under expert horticulturist care and ideal conditions, the average budding success rate is 68 percent.

Grapes. Despite growing potential and positive market trends, the



This illustrative training flyer developed by Equal Access provides guidance on orchard pruning methods and timing.

production, packaging, and shipping of fresh grapes and dried raisins within domestic markets and abroad to international markets continues to be stymied at the on-farm and off-farm levels.

The intent of RADP-West's grape value chain programming was to enable farmers in the program's target districts to expand cultivated area, improve production and quality, expand the use of certified and improved vine stock, introduce new cultivation technologies, and enhance the dietary intake of rural farming households. RADP-West invested in selected grape varieties identified and approved by DAIL programming partners. The program focused its activities in the following areas:

- Encourage the adoption and use of regionally-produced improved/certified vine stocks and varieties
- Establish and use vineyard DTCs to enhance capacity of grape farmers
- Stimulate links to regional markets, enabling contracting between farmers and agribusinesses, wholesalers and food processors, while also encouraging investment in improved production and processing capacities at the farm and commercial production levels

Notable achievements. RADP-West and its partners delivered a wide range of training programs to beneficiary farmers aimed at reducing losses and increasing yields, reaching 881 farmers (786 male and 95 female). Topics covered included vineyard irrigation and fertilization, canopy and vineyard management, and raisin post-harvest sorting, packaging, and storage. In addition, the program established two vineyard DTCs in Herat Province, five in Badghis Province, and five in Farah Province. These vineyards were established with Lal, Kishmishi, Shudo Khani, and Fakhri sapling varieties. These DTCs served as a forum for the delivery of some training programs before the program's closure. They will also prove useful for DAIL extension workers to provide capacity development instruction and extension services to vineyard farmer beneficiaries in the future.

Vegetables. Afghanistan's horticulture sector faces a range of on-farm challenges, to include poor seed varieties, absence of sufficient irrigation, poor horticultural practices, soil exhaustion and erosion, lack of high-quality inputs, limited knowledge of improved technologies among farmers, and failure to adopt improved harvesting and packaging techniques. There are many off-farm challenges as well, including unsanitary storage and shipment methods, inadequate drying approaches that limit farmers' ability to meet market requirements, inconsistent product quality, lack of established and recognizable quality standards, and an acute shortage of processing and storage facilities.

To address these identified constraints, the program selected several vegetable crops for support, in collaboration with DAIL programming partners in Herat, Badghis, and Farah provinces. Similar to the fruit and nuts and grapes sectors, RADP-West's vegetable value chain programming stressed the importance of the following:

- Promote adoption of regionally-produced improved or certified vegetable seed

- Develop the capacity of farmers in improved seed production
- Introduce new technologies, especially in harvesting and post-harvesting
- Facilitate links to local, regional, and international markets, enabling contracting between farmers and private seed enterprises/independent seed suppliers, agribusinesses, wholesalers, and food processors
- Enable and encourage investment in improved production and processing capacities at the farm and crop processing levels

This strategic approach was intended to assist vegetable farmers obtain substantially higher crop yields per unit of land cultivated to satisfy family dietary requirements and market demand. At the same time, the program sought to strengthen key points along the value chain, including plant propagation, enhanced production, improved quality, increased value-added processing, and trade promotion.

Notable achievements. Some of RADP-West’s achievements under its vegetable programming included comprehensive training programs and an aggressive vegetable seed and sapling distribution program in Herat and Badghis that enabled farmers to put into practice the improved technologies and management training they received. A total of 2,156 farmers (1,410 male and 746 female) participated in RADP-West’s vegetable training program, which covered topics including cultivation, pre- and post-harvest techniques, integrated pest management, and horticulture management. In addition, the program established 27 vegetable DTCs throughout Herat Province. These DTCs served as a forum for delivery of some training programs before the program’s closure. They will also prove useful for DAIL extension workers to provide capacity development instruction and extension services to vegetable farmer beneficiaries in the future.

CLIN 3 – LIVESTOCK VALUE CHAIN PROGRAMMING

Overview. RADP-West’s livestock value chain was designed to benefit 4,000 farmers in the western region. The program, through its livestock value chain activities, worked with 1,906 beneficiaries (1,208 male and 698 female). In general, the population of the western region has been on the rise since 2001, particularly with the return of refugees from Pakistan and Iran. However, the region’s livestock numbers have not kept pace with this population increase. Population growth has driven the increased call for meat products, to the point that demand in Afghanistan is

ACCOMPLISHMENTS “AT A GLANCE”

CLIN 3 – Livestock

- Total beneficiaries: 1,906 (Target: 4,000)
- Animals dewormed: 42,556
- Animals vaccinated: 215,079
- Animals treated: 126,203
- Value of sales: \$1,325,824 (Target: \$4 million)
- Incremental sales (Agribusinesses): \$437,835 (Target: \$4 million)
- Number of private and public veterinary service providers that applied new technologies or management practices as a result of U.S. government assistance: 24 (Target: 40)

no longer met through local livestock production. Production must substantially increase to meet demand, especially during religious holidays.

RADP-West’s livestock programming worked in five target districts in Herat Province and three target districts in Badghis Province throughout implementation. Programming was led by the Dutch Committee for Afghanistan (DCA), in collaboration with the enabling environment team (CLIN 4). RADP-West was satisfied with the quality of services provided by DCA under its subcontract. However, consistent feedback from USAID, prior to program termination, RADP-W and DCA planned to put a greater emphasis on value chain facilitation activities under the livestock component. During Year 2, RADP-West ramped up its efforts for livestock value chain facilitation, led by the program’s enabling environment team (CLIN 4).

Notable achievements. DCA undertook an ambitious training and service delivery program under CLIN 3, to include specialized programming for a range of livestock value chain actors, including veterinary field unit (VFU) paravets, local female extension workers, farmer extension groups, and self-help groups. In total, 16 existing VFUs, eight new VFUs (including two women), 33 local female extension workers, 1,307 farmer extension group members (800 male, 507 female), and 168 self-help group members (60 male, 108 female) participated in RADP-West livestock programming. Through targeted interactions with a variety of livestock actors, DCA was able to promote the improved productivity and health of livestock herds in target districts of the western region.

“It is a key principle in agriculture in Afghanistan to help our neighboring farmers expand their knowledge of livestock techniques through proper extension methods. This is one of the main reasons we are gathered here today—so that farmers can share their experiences and challenges with one another.”

— DEPUTY DAIL DIRECTOR,
HERAT PROVINCE

One activity that brought this range of livestock actors together, including representatives from DAIL, was a Livestock Farmer Field Day held on March 17, 2016. This field day took place in the Eshaq Sulaiman Village of Injil District and was attended by more than 140 livestock stakeholders from Injil, Guzara, Pashtun Zarghun, Karukh, and Koshk districts. Participants from across five districts in Herat Province shared best practices and lessons learned on caring for newborn lambs, vaccinating and deworming livestock, safely preparing dairy products, and preventing common diseases in livestock. RADP-West, VFU paravets, and livestock farmers themselves also led a number of demonstrations, including livestock deworming, preparing molasses feed blocks, and cashmere combing/harvesting, aimed at improving the health of livestock and the quality of livestock products, such as cashmere.

Overall, providing training for existing VFUs and coordinating the establishment of eight new VFUs was RADP-West's most notable contribution to livestock programming in the western region. By establishing new VFU paravets in targeted districts, it is expected that farmers will have better access to VFU veterinary and extension services and consequently, animal health and husbandry practices will improve. This improvement will lead to increased income for farmers. Additionally, with two new female VFUs, more women in the western region will benefit from livestock extension services.



A farmer extension group member demonstrates cashmere combing methods (March 2016)

Value chain facilitation. Although DCA did not substantially participate in livestock value chain facilitation activities, RADP-West, under the leadership of its enabling environment team, undertook several initiatives to expand farmers' access to markets and improve the livestock industry in the western region. Of particular note, RADP-West facilitated several cashmere demonstration and market linkage events and numerous assessments and conferences in support of improving the state of slaughterhouses and butcher shops in the western region.

- *Cashmere demonstration and market linkage events.* During Quarter 2, FY 2016, RADP-West facilitated cashmere demonstration and market linkage events in Herat and Badghis provinces, in coordination with the DAILs. The main purpose of these events was to ensure that livestock owners received input directly from cashmere processors on volume and quality requirements, in addition to the market prices for raw (greasy) cashmere. The events included demonstrations on how to improve the volume and quality of cashmere wool harvest and information on how to access regional markets. A total of 6,583 kilograms of cashmere was purchased by one cashmere processing company as a result of deals signed with RADP-West livestock beneficiary farmers during these events.



Female farmer extension group members discuss best practices for caring for newborn lambs (March 2016)

- *Meat value chain conferences.* Following provincial-level slaughterhouse (abattoir) assessments conducted in Herat, Badghis, and Farah provinces in early 2016,

RADP-West organized three meat value chain conferences in each of its target provinces. The purpose of these events was not only to raise awareness of the poor slaughterhouse conditions and improve hygienic practices in Herat, Badghis, and Farah, but also to provide an opportunity for government representatives to interact directly with butchers and other meat value chain actors to identify solutions and a way forward. During the conferences, DCA also conducted hygiene training for the participants, in which they learned about zoonotic diseases, damage caused by endo-parasites and ecto-parasites, and the public health benefits and qualities of hygienic slaughterhouses and butcher shops. At the conclusion of the event, RADP-West provided demonstration toolkits to each of the butchers and slaughterhouse employees and included simple first aid kits, protective glasses, and hygiene tools, including masks, rubber boots, soap, surgical gloves, bandages, an apron, protective clothing, and a robe.

GENDER AND NUTRITION PROGRAMMING

Overview. As referenced throughout the report, RADP-West’s gender and nutrition activities were incorporated under all program components. The program strived to maintain an average of 15 percent female beneficiaries across its four components, and exceeded this target in HVC and livestock value chains activities and actively engaged DAILs and provincial-level directorates of women affairs in planning and implementing activities.

In addition to technical and agricultural training conducted for female farmer beneficiaries under the wheat, HVC, and livestock components, RADP-West developed and delivered gender, nutrition, and business training to its female farmer and agribusiness beneficiaries. With the support of the program’s enabling environment team, training topics covered the following topics:

- *Gender.* Definition of gender, gender mainstreaming, and gender equality
- *Nutrition.* How to prevent Vitamin A and protein deficiencies, the importance of macro and micro-nutrients, and understanding nutritional content
- *Food safety.* General hygiene, food safety standards, good manufacturing practices, and good agricultural practices
- *Bookkeeping/accounting.* Importance of maintaining accurate sales records and how to record transactions

ACCOMPLISHMENTS “AT A GLANCE”

Gender and Nutrition

- Number of households benefitting from nutrition training: 10,467 (Target: 15,000)
- Total female beneficiaries: 2,351 (Target: 12,000)
- Vegetable seeds and saplings distributed to 396 female farmers
- Wheat seed distributed to 50 female farmers
- Grape sapling distributed to one female farmer
- Land under cultivation: 145 hectares
- 53.5% of women reported percentage increase in self-efficacy (Target: 75%)

- *Marketing and sales.* Importance and key objectives of marketing, relationships between producers and consumers, customer service best practices, and identifying market demand

Notable achievements. In addition to its training programs, RADP-West, led by its enabling environment team, strived to bring women’s issues and concerns to the attention of key government actors. To accomplish this, the program hosted numerous provincial-level workshops and preparatory events aimed at not only identifying key constraints faced by women in its target provinces, but also providing women with the tools and resources to confidently communicate their concerns and discuss potential solutions. One of RADP-West’s key activities during its final months was planning and hosting a regional conference on strengthening women’s engagement in agriculture technology and value chain access. In preparation for this event and in coordination with provincial DAILs and directorates of women affairs, RADP-West facilitated a preparatory workshop for 18 women from Herat, Badghis, and Farah provinces. These women (six from each province) represented a cross section of farmer, agribusiness, and government representatives from across the vegetable, fruit, wheat, and dairy sectors. These women were selected to serve as facilitators during the regional conference.

During the workshop, RADP-West provided crucial support and training for these women in meeting facilitation skills, presentation, and reporting. The facilitators used these skills during the regional conference to elicit and record feedback from participants. In addition, the women learned about the concept of value chains and discussed the benefits of modern agricultural production technologies. Each of the provincial representatives identified key constraints in their



The Badghis Department of Women’s Affairs representative presents constraints faced by women in Badghis Province (June 2016)



Participants take part in a mind-mapping exercise on women’s involvement in the fruit and nut value chain.



Participants review the final list of constraints developed during the workshop (June 2016)

provinces, which were further presented and elaborated during the conference. These constraints included 1) lack of investment in and professional training for woman-owned and/or operated agribusinesses, 2) lack of access to/availability of technology for packaging and storing agricultural products, 3) lack of access to education for girls and women, 4) lack of access to markets, 5) lack of access to credit, and 6) lack of management opportunities for women in government and agribusiness. During the two-day regional conference in July 2016, government and development partners had the opportunity to hear directly from these women and worked together to identify solutions and increase opportunities for women in the western region. At the end of the conference, the female participants prepared and presented a resolution, which called for more focus and attention by government and development partners alike to further engage and empower women in Afghanistan's agriculture and livestock sectors.

Overall, female participants in RADP-West's programming reported a marked increase in their feelings of confidence and self-esteem as a result of involvement in RADP-West activities. In a short period, participating female farmers were able to not only improve their family's diet and nutrition, but also to sell surplus vegetables in the market and supplement their family's income. Additionally, by contributing economically to the family unit, participants gained respect from their families.

FOSTERING AN ENABLING ENVIRONMENT

CLIN 4 – ENABLING ENVIRONMENT PROGRAMMING

Overview. One of the goals of RADP-West’s enabling environment programming was to promote dialogue between the Afghan government, local producers, processors, and traders to identify obstacles and opportunities to improve the quantity and quality of Afghan agricultural goods, as well as to facilitate market access and policies to better support farmers and agribusinesses in the western region.

ACCOMPLISHMENTS “AT A GLANCE”

CLIN 4 – Enabling Environment

- Number of private enterprises/producer organizations applying new technologies and management practices: 29
- Number of constraints analyzed: 20
- Number of public-private agriculture change agents trained on new techniques: 472

As a crosscutting group within RADP-West as a whole, the enabling environment team acted as a crucial link between the production-oriented CLINs, the private sector, and the government. As the lead facilitating body between buyers and suppliers, the enabling environment team helped to link opposite ends of the value chain by identifying and promoting mutually beneficial business opportunities. To achieve this, the team provided specific market-oriented and business development support to agribusinesses operating across the CLINs. Specifically, the team helped agribusinesses, farmer associations, and cooperatives apply improved production technologies and management practices, navigate the complexities of business registration, and understand domestic and international standards for product quality and export. The team also worked with the Afghanistan government and the DAILs to organize exhibitions and other events aimed at promoting locally produced goods.

Notable achievements. RADP-West’s enabling environment programming spanned a wide range of activities, from cooperative support and business plan training to organization of agriculture fairs and business-to-business matchmaking events. In addition to above mentioned achievements under CLINs 1, 2, and 3, the enabling environment team, with the support of subcontractor Sayara International and in collaboration with RADP-South, worked to identify, assess, analyze, and report on 20 market/regulatory constraints that impede MAIL’s ability to further develop the wheat, HVC, and livestock value chains in the western region. This activity included a comprehensive assessment of stakeholders including farmer’s associations, cooperatives, input suppliers, food processors, packing/cooling centers, wholesale and retail markets, traders, exporters/importers, and financial institutions.

A business-to-business matchmaking event on May 10, 2016 was another chief achievement of RADP-West’s enabling environment component. In collaboration with the Herat DAIL, this event provided a forum for regional buyers and suppliers to meet one another, discuss their product needs and specifications, and forge business deals for the 2016 harvest season. Forty-three producers/ cooperatives and

35 buyers/processors from Herat, Kabul, Badghis, and Farah provinces participated in the event, in addition to exporters, traders, and input suppliers. The range of value chains represented included wheat/cereals, fresh fruits, dried fruits and nuts, raisins/grapes, vegetables, and livestock (dairy and cashmere). During the event, participants were divided into 16 groups, composed of relevant buyers and suppliers. Buyers discussed their requirements in terms of product quality, quantity, standards, and delivery time, in addition to requirements regarding fruit drying methods and the importance of sorting and grading each product. Suppliers described their products, available volumes, and timing for delivery, and produced samples for the buyers' review. As a result of these discussions, 54 memoranda of understanding were signed between buyers and suppliers. In Quarter 4, RADP-West beneficiaries sold 166 tons of wheat after harvest. In addition, buyers and suppliers signed memoranda of understanding with RADP-West beneficiaries to receive the following products:

- Raisins and grapes: 7,098 metric tons
- Fresh fruits (pomegranates, peaches, apricot, apples): 445 metric tons
- Dried fruits and nuts (pistachios, walnuts, jujubes, senjeds): 245 metric tons
- Vegetables (peppers, onions, carrots, watermelons, cauliflowers, garlics, cucumbers, tomatoes, eggplants, cabbages): 414 metric tons
- Wheat: 2,060 metric tons
- Cashmere: 1 metric tons
- Milk: 5 metric tons

The Herat DAIL director thanked RADP-West for organizing this business-to-business event, stating that this was the first event of its kind in the western region that brought suppliers (farmers, cooperatives) and buyers (processors, traders, exporters) together before the harvest season to secure markets for farmers and produce for buyers.

Through its numerous activities—conducting constraints analyses, bringing together farmers and agriculture enterprises, and coordinating with the regional DAILs—RADP-West's enabling environment team worked to ensure that increased production received valued-added support and that increased output translated into increased sales in domestic and/or international markets. In tandem with its work to encourage policy reform, RADP-West set the stage for increased market access to better support farmers and agribusinesses operating in the western region.

CHALLENGES AND LESSONS LEARNED

RADP-West conducted site visits and produced field monitoring reports that captured the successes and limitations of various activities, as well as beneficiaries' feedback. In addition, in-person and phone surveys were conducted throughout the life of the program to inform management decisions and work plans. The following section summarizes the challenges and lessons learned derived from these reports and staff experience. Several of these insights are further expanded in Chapter Four: Recommendations for Future Interventions.

OVERALL OPERATIONAL CHALLENGES

Prolonged program startup period and deteriorating security situation. Several issues with regard to RADP-West's startup period hindered the program's ability to rapidly begin activity implementation in the western region. One of the more significant challenges was the need to adjust to a newly tumultuous security situation in and around Herat City. Previously regarded as one of the safer cities in Afghanistan, the deteriorating security situation called for a number of adjustments, including a more secure compound than initially anticipated at the proposal stage. This resulted in much higher security-related costs than anticipated, as well as delays in establishing adequate office space in Herat. Such insecurity also led to travel restrictions for expatriate members of staff, who were not permitted to travel to Badghis or Farah provinces and were only permitted to travel to limited districts in Herat Province — primarily in Herat City.

Although RADP-West initially pursued the original plan to house office space and expatriate living quarters within the city, due to the security situation, the project had to locate outside of the city. Thus, RADP-West identified the Sikander compound, an unfinished site in the industrial zone of the city near the airport. Unlike in Kabul and Kandahar, where staff work and reside in compounds that are already established and which were designed with security concerns in mind, a full-service, ready-constructed site that met security needs was not available. Unplanned upgrades to the site were required to meet security standards necessitated by the deteriorated security environment, and to provide life support needed for resident staff. Due to the fact that identifying and upgrading the compound took approximately nine months to complete, RADP-West was slowed in its ability to aggressively pursue technical deliverables and activities early in the program.

By March 2015, security concerns had increased for several districts in all three provinces, especially along the roads. These districts included Shindand and Pashtun Zarghun districts in Herat Province, Pusht Rod District in Farah Province, and Muqur District in Badghis Province. Travel to these areas was still possible during most of the program's implementation period, but contingency plans were developed to increase the number of local field staff and reduce the need for travel in these areas. Fortunately, no major security incidents involving or affecting RADP-West staff or its

KIPs/subcontractors occurred during the program's implementation period. Starting in Quarter 2, FY 2016 throughout the end of program implementation, two villages in Guzara District were under restriction due to security concerns. In addition, the road between Farah Center District and Anar Dara District in Farah Province became insecure during the same period. Pusht Rod District also became increasingly unstable during Quarter 2, FY 2016, with about 90 percent of villages under Taliban control. Although these security restrictions limited the program's ability to physically reach these areas, RADP-West was able to work with its partners and DAILs to ensure that beneficiaries received planned assistance to the extent feasible.

Toward the end of March 2015, Chemonics and its risk management company Services International LLC (SIL) experienced delays in the issuance of Afghanistan Investment Support Agency business licenses and weapons licenses. This delayed SIL's ability to sign a contract with the Afghan Public Protection Force (APPF), select candidates for static guards, and provide required training. These delays threatened to push back the schedule for moving the RADP-West team into the Sikander Compound in Herat. After several rounds of negotiations with the U.S. embassy and the Afghanistan government, the licenses were ultimately renewed and RADP-West relocated to the Sikander Compound in Herat on April 22, 2015.

A delay in the signing of the memorandum of understanding with MAIL, due to national elections and cabinet vacancies, further contributed to the program's prolonged startup period and hindered the program's ability to work with authorities at the district and village levels. Initial meetings and planning sessions were held during Quarter 2, FY 2015, but field operations could not and did not begin in earnest until the memorandum was signed on April 13, 2015.

Overall, this prolonged startup period hindered the program's ability to accomplish one of the pillars of its technical approach: quick execution to generate long-term development. One of the lessons derived from RADP-West's experience is the need for caution and flexibility in planning and implementing activities amid Afghanistan's ever-changing security landscape.

Signing contracts with the subcontractors identified in the proposal took seven months to complete, further delaying the startup of program activities in the areas in which RADP-West KIPs had agreed to work. A meeting was held on February 18, 2015 between the contracting officer, contracting officer's representative, RADP-West chief of party, and deputy chief of party to address concerns with product quality, delays in contracting the subcontractors, and the overall implementation of RADP-West. At this meeting, the chief of party agreed that there had been delays in signing the subcontracts and the project would work to quickly address these concerns.

Lack of management capacity and experience working with USAID among some KIPs and other subcontractors. Throughout the implementation period, several of RADP-West's KIPs and subcontractors exhibited a lack of capacity and experience with regard to developing plans, designing training materials, adhering to the terms and details of their subcontracts/task orders, and implementing activities. Notable deficiencies were observed with KIPs AREA, and CHA, in addition to the subcontractor for the

baseline data collection and survey, Afghanistan Holding Group (AHG). These deficiencies led to the discontinuation of work with CHA at the beginning of Year 2. The work completed by AHG was also placed under review. Although no formal action was initiated against AREA with regard to its performance, RADP-West held conversations and increased supervision and direct involvement during Year 2.

One of the more significant effects of poor subcontractor performance was lack of an approved baseline survey during the program period. Poor work quality prevented the program from establishing relevant, field-backed baseline data information before the program's termination for convenience. Another example of poor subcontractor performance was AREA's lack of adherence to crop cycle training schedules. The design of AREA's training program, as well as its content and scheduling, did not fully take into consideration the seasonal crop cycle of the value chains promoted by the program. A key lesson learned is that many firms operating in Afghanistan, particularly local firms, lack the level of managerial expertise required to implement and manage USAID contracts and may require significant oversight and capacity-building during implementation of activities. Close and direct supervision, particularly during the first year of a new program, is strongly advised to ensure subcontractor competency and timely performance.

Complexity of grants/subcontracts programming in an agricultural context. RADP-West's grants program was designed to accelerate change and reduce risk for Afghan farmers, organizations, and agribusinesses willing to undertake new activities or adopt technologies to increase productivity and profitability. However, due to the inherent complexity of an agricultural program, limited availability of local expertise, and severe security challenges, in practice, RADP-West's grants program did not progress as planned. Overall, RADP-West observed a critical need for a dedicated expatriate advisor to oversee its grants and subcontracts activities, at least for the first one to two years of the program. Although USAID did recognize this need and approved a short-term technical advisor to provide support and capacity building for this department, RADP-West acknowledges that it would have been beneficial for a long-term grants and subcontracts expatriate position to have been a part of its initial proposal and program planning.

RADP-West also observed a need for blanket waivers for the procurement and purchase of certain agricultural commodities, inclusive of seeds and approved fertilizers. Such waivers would allow for quicker procurement and distribution; although USAID approved such requests in a timely manner, blanket waivers would reduce administrative burdens and streamline processes.

By and large, the program needed a more robust grants program with structured cost-share components to ensure sustainability. In practice, the annual program statement used by the program for its grants program was too broad; due to the capacity constraints of local firms and the seasonality of the agriculture sector, these firms were unable to adequately respond to the requirements of the annual program statement process. As a result, a significant amount of time was spent conducting technical evaluations for concept notes that did not sufficiently support RADP-West's overall program goals. Ten grants were awarded during the program's implementation period: nine grants in support of the November 2015 wheat seed multiplication program and one grant for a food processing company (Morvarid Food

Industries) to improve packaging materials and purchase fruit from beneficiary farmers. However, this last grant was terminated for convenience effective June 23, 2016 due to the program's termination.

In November 2015, RADP-West experienced security challenges related to one of the nine wheat seed grants. As part of the grant program, Asim Salim Farahi Private Seed & Agricultural Services Company was in the process of distributing wheat seed and fertilizer to beneficiaries in Pusht Rod District. Unfortunately, the grantee was unable to complete the distribution of these commodities to beneficiaries due to the unstable security situation in the district. These challenges were brought to the attention of RADP-West staff. RADP-West coordinated with the grantee to eventually redistribute the seeds and fertilizer to the beneficiaries after the security risk associated with the grant had subsided in the region.

In addition to its grant activities and the work of its KIPs, RADP-West engaged additional Afghan and select international firms for niche activities, including assessments and training. Again, limited local expertise in the solicitation, evaluation, selection, and management of subcontractors resulted in only a few subcontracts being awarded. However, RADP-West did experience some success with the few subcontracts that were undertaken: two local firms selected for master trainer services, Green Afghanistan Agriculture and Livestock Organization (GAALO), and Dynamic Vision. Chosen for the delivery of training programs under CLIN 2 – HVC, both subcontractors demonstrated managerial and technical competence during the execution of training in Quarter 3, FY 2016.

Personnel challenges. Starting in January 2016, the RADP-West operations and technical teams experienced a shortage of personnel. RADP-West leadership identified 10 staff members, in various departments, who were not reporting to work and had not requested formal leave time. The absence of these staff members, including the HVC team leader and most of the human resources staff, significantly affected technical and operational activities on the project. Fortunately, RADP-West leadership was able to quickly identify other staff members to serve in an acting capacity during the prolonged absence of the 10 staff members in question. The RADP-West chief of party and remaining human resources personnel immediately sought guidance from legal experts from Chemonics' Kabul office and proceeded with legal notification procedures for the absent staff. Advertisements for the positions filled by these staff were posted by the third week of February 2016 to minimize disruption in technical activities and operations. Although the absence of these staff somewhat hindered the technical and operational activities of the project, RADP-West was able to minimize the disruption by responding quickly, coordinating with remaining staff members across departments to temporarily fill the positions and rapidly soliciting new long-term applicants. This incident further emphasizes the cultural and security-related challenges in the context of western Afghanistan faced by RADP-West.

OVERALL PROGRAMMATIC ISSUES

Suboptimal implementation of value chain concept. The value chain concept conceived during the design of the program focused on an interconnected implementation of program activities along the value chain, from production to marketing. The design

was based on a highly collaborative implementation approach among RADP-West technical teams, program partners, and beneficiaries across the value chains. Those working on the production side, subcontractors, and agribusinesses were expected to work together to realize progressive development in the agriculture sector. Although some progress was made, RADP-West's implementation approach, in practice, was not as coordinated as was envisioned in the project design and did not promote sufficient growth along the value chain. RADP-West's teams often worked in parallel for much of the program's implementation period. As such, proper links between buyers (agribusinesses) and suppliers (farmers and associations) were not strongly established as different program teams interacted with these groups independently. In line with the design, the program should have been implemented in a tripartite manner whereby farmers, agribusinesses, and implementers shared a platform during planning and implementation stages. Farmers should have been linked to agribusinesses to access markets and provide raw materials to these agribusinesses. The agribusinesses should have been encouraged and empowered to provide a market for the produce, participate in training to demonstrate their market needs, and suggest or even provide inputs that would accelerate productivity. This arrangement would have ensured sustainability for the agriculture sector past RADP-West's end date. Although RADP-West did begin to develop these linkages as the project progressed, a key lesson is that coordination from the start among the program's components and all market actors is vital to maximize the impact and sustainability of interventions.

Donor-driven models and distorted markets. Since the fall of the Taliban, the international donor community has committed hundreds of millions of dollars to rehabilitation and further development of Afghanistan's agriculture sector. This donor assistance has come in multiple forms, from the direct distribution of inputs such as seed, fertilizer, and agro-equipment to substantial training programs and coordinated activities among governments and donors, all geared toward establishing a robust agriculture sector in Afghanistan. The impact of this investment is substantial; through targeted efforts to increase agricultural production and profitability, address food scarcity and food security, and develop market opportunities, the lives of millions of Afghans have been transformed. However, these efforts have also had an unintended effect — creation of a distorted market whereby donors become market actors, providing inputs and services to participants all along the value chain. As a result, these parties have come to rely on, and sometimes even expect, provision of free goods and services. As donor funding in Afghanistan begins to contract, a key challenge faced by USAID, its implementing partners, and the donor community is the need to adjust this mindset and empower farmers, the private sector, and the Afghanistan government to own these initiatives and become self-reliant.

For example, during RADP-West's implementation, farmers said they had come to expect the distribution of free seeds and other inputs, such as fertilizer and agro-tools. During Year 1, RADP-West responded to these expectations with the distribution of seeds and agro-toolkits for farmers during training and demonstrations. It was openly communicated that if not for the distribution of these goods, farmers would not be interested in attending training or participating in other activities. Such a mindset undermines the goal of RADP-West and development programming in general and has adverse effects along the value chain. With farmers

expecting (and receiving) free inputs and equipment, they did not factor seed and equipment costs into the normal cost of production. Also, seed enterprises and other suppliers suffer, because they are unable to independently attract customers and maintain market-driven operations in what should be a fair, transparent, fee for services/products, and neutral market.

At the opposite end of the value chain, agribusinesses, too, have come to participate in this distorted market. Familiar with the landscape of donor programming and the potential to land large grants, some agribusinesses in Herat have marketed a skillset above their actual capacity to qualify for grant-based donor support. Such misrepresentation leads to poor outcomes for both the agribusiness and the donor. Gaps in knowledge and skills become apparent, with the donor/implementer eventually stepping in to substantially reduce or cancel activities. See Recommendations for Future Interventions for further comment on this subject.

Importance of effective extension service delivery. RADP-West was designed to reach farmers with training through engagement of private sector players and the government (district- and provincial-level DAILs). This mode of delivery was identified as the best way to reach farmers, given that agricultural players along the value chain could actively participate in farmer training. The cascading effect of capacity building involving RADP-West staff and extension agents has been identified as an ideal model for promoting extension services in Afghanistan. However, for RADP-West, implementation of this approach was not as effective as had been expected. The success of this extension service delivery approach can only be realized through identification of highly competent subcontractors, engagement of private sector players in program activities, effective participation of extension agents from the government (DAIL) in farmer training, and effective use of supervisory channels put in place by the program. Once the number of farmers targeted to be reached by programming activities is identified and beneficiaries are selected, it is only through a highly collaborative training approach that program objectives can be realized. In addition, continuous follow-up and reinforcement from DAIL extension agents is necessary to ensure sustainability.

RECOMMENDATIONS FOR FUTURE INTERVENTIONS

Expanding on some of the challenges and lessons learned included above, these recommendations aim to provide USAID with timely advice to inform the planning and execution of future programs.

Address market distortion. Following the discussion during Chapter Three with regard to the distorted market created by the donor community, the points below offer recommendations for future programs:

- Future solutions could include introduction of subsidy-based distribution programs, with graduated cost-share components, as have been implemented by other USAID partners with varying levels of success. However, to effectively introduce such a scheme, donors and governments must coordinate to reduce influence and eventually remove themselves as direct market actors. Otherwise, programs implementing such components will run the risk of losing beneficiaries to other donors and programs still providing free inputs.
- Another way to engage the private sector for true integration would be to link suppliers of agro-equipment with farmers directly. Through facilitated demonstration of equipment, new technologies would be promoted and links established between farmers (i.e., future customers) and suppliers. In such situations, future programs would act strictly as facilitators, with demonstrations and transactions being carried out by the farmers and suppliers. By taking this approach, farmers truly interested in learning and improving their farm practices would participate.
- Careful evaluation and analysis of each business entity eligible for support is critical before awarding grants. To accomplish this, stringent requirements must be upheld. A good initial step would be to require that businesses participate in business planning training encompassing basic aspects of human resources, finance, marketing, and administration. Such training would ensure that local businesses have the basic level of knowledge to appropriately and responsibly implement activities.

Increase availability and affordability of high-quality agricultural inputs. The availability of high-quality inputs is a cornerstone to the success of any agricultural program. In western Afghanistan, farmers and other stakeholders cite a lack of high-quality seed and fertilizer as key constraints that hamper their productivity in value chains. In cases where high-quality seed is available, farmers often doubt the quality of the seed. To ensure there is increased availability of high-quality seed, research institutes mandated to produce seed should work with DAIL to develop and release high-quality seed varieties for specific ecological zones. The introduction of community seed bulking will be of great value to the farmers. To realize this objective, a

stronger working relationship with the private sector, especially seed production companies, will be key.

Increase access to agricultural credit and financing. In terms of financing, USAID's investment in the Financial Access for Investing in the Development of Afghanistan and Agricultural Credit Enhancement programs and the Agricultural Development Fund have expanded overall access to agricultural credit, but minimum loan thresholds remain high and difficult to access by smallholders. Access to credit is continuously cited as a popular limitation for smallholder farmers in the western region, based on RADP-West's experience and more recent discussions with stakeholders and farming communities in western Afghanistan. Few farmers reported any access to formal credit for investment in farming during the last agricultural season. Although dependency on donors for the purchase of agricultural inputs is common and popular among farmers, it is not sustainable.

RADP-West undertook several preliminary activities in support of increasing access to finance and credit for rural farmers during its implementation period. Namely, the program established links with several financial and microfinance institutions in western Afghanistan — including Financial Access for Investing in the Development of Afghanistan, Agricultural Development Fund, the Mutahid Development Finance Institution, the Foundation for International Community Assistance, and the Afghanistan Microfinance Association — and facilitated meetings between these entities and farmers in its target districts. Based on these interactions, it was evident that most farmers lack knowledge and understanding of credit requirements, such as business plans and loan preparation procedures. In addition, a lack of viable agricultural loan products provided by financial institutions contributes to the lower number of farmers accessing formal credit. In response, some farmers depend on group savings and community loans to invest in farming, while most wait for donor handouts. Future programs can build on the work initiated by RADP-West to further engage financial institutions and processors in a tripartite arrangement through involvement in an out-grower scheme. Future programs should also encourage the private sector, in particular agribusinesses, to take more responsibility for provision of inputs for farmers from whom they plan to purchase produce.

To effectively support a more robust agricultural credit portfolio delivery mechanism, more training is required in the key areas of value chain transaction dynamics (commodities, loan tenor), risk management, and loan monitoring. Future agricultural programs should strive to consciously build the capacity of commercial bank staff on agricultural lending. However, the packaging of any loan is important with respect to the due diligence of a potential borrower and if necessary, collateral requirements to reduce risk.

Promote market-led approach to grow agriculture sector. Small- and large-scale agribusinesses are the lynchpins of value chain development activities. They provide the market for products produced by trained and supported farmers and groups. To ensure consistent supply of raw materials, farmers and agribusinesses need to understand that the relationship is mutually beneficial, because one cannot do without the other. The partners involved should strive to encourage stronger relationships between agribusinesses and out-growers (farmers). This may help to improve contract relations and reduce side-selling to alternative markets.

To strengthen the agriculture value chains and the sustainability of guaranteed markets for agribusinesses writ large, there is a need for intensification of training and expansion to new farmer groups, as well as development of mechanisms to provide access to agricultural machinery, including tractors, planters, harvesters, winnowers, and threshers, to increase efficiency at the farm level. Increased efficiency at the farm level ensures a consistent supply of raw materials for agribusinesses.

The following recommendations place a focus on strengthening gender programming in the western region:

- *Select value chains carefully.* Programs that focus primarily on production of wheat and high-value crops, both of which demonstrate high economic potential and are vital for ensuring food security, are primarily male-dominated. Women predominantly participate in low value-added value chain activities that frequently lack real decision-making roles. It is vital to recognize that a focus on these broader priorities will mean there is a near term trade-off in women continuing to contribute to low value-added activities of the value chain. Future effective gender mainstreaming interventions in Afghanistan should focus on activities and production systems in which women are already involved rather than imposing wholesale systematic changes, which run counter to the expectations of Afghanistan's patriarchal society.
- *Plan for security challenges.* In Afghanistan, security always poses a challenge, especially when it involves women. Afghans are apprehensive of the slow and gradual inching of extremist and insurgent activities into the western region of Afghanistan. Mobility of both men and women is severely restricted, especially in Farah and Badghis provinces, relative to Herat. Future programming in the western region should be creative and adaptive, and mirror the fluidity of the security situation to focus on provinces where women are more active and have relatively greater mobility and access. However, this should not preclude efforts to work with women in more remote and insecure areas.
- *Promote buy-in from male champions.* The key to positive cultural shifts in attitudes and behaviors is the engagement of Afghan men, including buy-in from male champions who advocate for enhanced women's rights. However, changes in this area will take time and require gradual sensitization of men and women on the value of women in society at large and their significance within the agriculture sector. As such, future programs should build a more robust and targeted strategic communications and outreach plan to actively educate, engage, and influence Afghans on the progressive roles that Afghan women can occupy.

CHAPTER FIVE

HIGHLIGHTING PARTNERSHIPS

RADP-West was implemented by a team of international and local development partners, including KIPs AREA, CHA, DCA, and Equal Access, in addition to subcontractors Rural Development Associate Services Organization, GAALO, Dynamic Vision, and Sayara Levant Seven Research Consultancy Services Company.

Although these partnerships greatly contributed to the program's overall impact, by far the program's most vital partnership was with the Afghanistan government through the MAIL. Before and during RADP-West's implementation, the program strived to develop and maintain strong relationships with district and provincial-level DAILs in Herat, Badghis, and Farah provinces. From the start, RADP-West invited DAIL directors from all three provinces to participate in crucial decision-making processes, including development of yearly work plans. The goal of this coordination was to ensure that program activities accurately reflected the Afghanistan government vision for agricultural development in the region and that program activities aligned with the strategic objectives of Afghanistan's National Agriculture Development Framework and the National Priority Program. This shared understanding and decision-making was viewed as crucial for ensuring long-term sustainability and that USAID investments continued to generate impact far after the end of the program.

RADP-West strived to maintain strong working relationships with each of the DAILs. Such coordination included joint inspections and assessments, coordinated selection and establishment of DTCs, and support during DAIL-led initiatives, to include agriculture fairs, conferences, and workshops. DAIL extension workers also regularly participated in RADP-West training throughout its target districts.

Given the continued importance of USAID's relationship with DAILs in the western region, a brief analysis of the strengths and weaknesses of each of the provincial DAILs is included below.

HERAT DAIL

Leadership. As of the publication date of this report, the Herat DAIL is being led by an acting director, who was previously the DAIL's livestock manager. MAIL is in the process of selecting a new full-time candidate for this position, with the goal of developing a clear vision of the department's direction for the next five to 10 years. Overall, DAIL leadership continues to work with donor-funded development programs to improve agriculture services. With permanent, long-term leadership, the Herat DAIL will be even more empowered to continue coordinating and implementing agricultural development programming in the region.

Resources. Out of 347 current employees, 10 are women. By increasing the proportion of female staff at MAIL, female farmers will have more access to

extension services at the district and community levels. At the moment, two extension staff are embedded in the District Governor's Compound for the purpose of increasing agricultural production and profitability. With continued support from USAID and other donor-funded development programs, these staff will be able to build the necessary logistical means to reach farmers at the community level and provide relevant technical assistance. Overall, DAIL should further cultivate the private sector development and marketing expertise needed to support farmers and agribusinesses at the provincial and district levels. Although the Herat DAIL has representatives in all districts (except for Koshki Kohna), district buildings could benefit from additional equipment and space to carry out activities and provide high-quality services to farmers. Unfortunately, DAIL staff seldom travel outside district centers due to security issues and lack of logistical support, which limits the overall impact of DAIL activities.

Findings. During the past few years, the Herat DAIL has faced numerous challenges, including a decline in livestock production and health services, reduced rangeland, limited water management, and insufficient marketing of grape and saffron products. Continued donor-funded programmatic support for agricultural services to farmers and communities under the leadership of the Herat DAIL will sustain and enhance performance and service delivery.

BADGHIS DAIL

Leadership. The Badghis DAIL director is an agriculture graduate and was appointed through the Independent Administrative Reform and Civil Service Commission's pay and grade reform system. He also participated in the capacity building for results recruitment process. He is a competent director equipped with technical agricultural knowledge, English language, and computer skills. He communicates with national and international organizations on a monthly basis to discuss priorities and challenges of the agriculture sector and works to attract funding to improve agricultural production and productivity. During implementation, RADP-West regularly communicated with and received useful feedback from the Badghis DAIL director.

Resources. The Badghis DAIL has 209 staff, including full-time employees and contracted staff. The Badghis DAIL has independent office buildings in all six districts of Badghis Province. Each district office holds three to six employees, who conduct extension activities, plant protection, forestry, agriculture services, and limited livestock activities.

Findings. Although the Badghis DAIL has stressed the importance of developing new pistachio orchards, the DAIL has experienced difficulty in providing mechanization services to farmers due to a frequent lack of fuel, high maintenance costs, and security concerns. Irrigation is another significant challenge for farmers because many pistachio orchards have been established on hillsides. Overall, the Badghis DAIL should continue to emphasize developing improvements in its irrigation and mechanization services.

FARAH DAIL

Leadership. The Farah DAIL director is an agriculture graduate and former employee of USAID-funded programs. He was appointed through the competitive capacity building for results process and is a dynamic leader capable of managing the DAIL's activities and staff. During RADP-West's implementation, he maintained regular communication with the program and provided feedback on planning and implementation of activities. He also brought CHA's performance and communication with the Farah DAIL to RADP-West's attention.

Resources. The Farah DAIL has 103 employees, most of whom operate from Farah Center District and five other secure districts. Unfortunately, this leaves five districts without DAIL representation, largely due to security and logistical challenges. The Farah DAIL director has assessed staff capacity and concluded that the majority of them required significant capacity building. In addition, the Farah DAIL's Planning Department could benefit from increased planning expertise to reach its full potential.

Findings. Challenges in Farah Province include a lack of irrigation water and increasing insecurity, which affects the DAIL's ability to maintain a presence in all districts. Farah Province also lacks sufficient power, which makes it difficult for the agribusiness industry to operate and flourish in the province.

SNAPSHOT

Private Markets Provide Economic Lifeline for Wheat Farmers

Farmers embrace contracting with seed companies to become seed multipliers



PHOTO: USAID/RADP-West

Wheat farmers review a flyer while receiving certified wheat seed under contract from a private company in Karukh District.

“This is a new design of seed program that is completely different from past wheat seed distribution programs. We expect that with the improved seeds you receive today, the resulting production increases will enable us to be more self-sufficient in the year ahead.”

— Naqibullah Arvin, Injil District Governor

Afghanistan’s western region has traditionally produced large volumes of wheat. However, during recent years, farmers have complained of the poorer yields being obtained from local seed varieties, which produce less grain and have a lower gluten content, limiting the sale of these grain harvests to regional flour mills and other agri-businesses, accepting lower prices for their yields, and remaining trapped in a cycle of subsistence farming.

In partnership with the Herat, Farah, and Badghis DAILs, RADP-West provided targeted grants to nine private seed enterprises, enabling them to contract with 4,249 regional farmers and provide each with 25-50 kilograms of improved/certified seed, which was produced by the MAIL-operated Urdu Khan Research Facility in Herat. Under contract, these farmers are designated as seed multipliers and required to plant the certified seed, sell back surplus 2nd generation seed to these enterprises, and increase the availability of improved/certified seed throughout the region.

Provision of the contracted seed took place in Herat, Farah, and Badghis during the first two weeks of November 2015, with private seed enterprises collaborating directly with the program’s provincial DAIL partners to distribute 112.6 metric tons, enough to cultivate 4,500 jeribs.

With continued support from the provincial DAILs, RADP-West, and private seed enterprises, the post-harvest wheat crop productivity for these farmers increased the productivity by 58%; enabled 2nd generation seeds were sold back to the enterprises and is expected to lead to an improved gluten content yields to the regional flour mills, increased local community incomes, support the regional economy and reduce the reliance on flour import substitution. Farmers who received seed harvested and sold 3,012 metric tons of seed valued at \$882,126 to flour mills and seed companies.

SNAPSHOT

Increasing Earnings and Empowerment

Women in Herat are improving their economic status and family's nutrition



PHOTO: USAID/RADP-West

A female farmer harvests chili peppers from her garden for consumption by her family and sale at the market.

“I feel I can work as a teacher, because for the first time, I am a leader of other women and every day I visit their gardens and guide them.”

— Anonymous

Traditionally, women in western Afghanistan have never had the opportunity to directly earn income for their families and instead, relied on income earned by their husbands and extended family.

But now, with support from RADP-West, women in Herat's Injil district are improving their economic status. As part of an initiative to develop agriculture training centers for women, RADP-West worked directly with 21 women farmers on a vegetable demonstration plot in Ghaizun Sanger village. Guided by one lead farmer, 20 neighboring farmers received 14 varieties of vegetable seeds and participated in RADP-West led training on preparing land, cultivating new vegetables, and managing common pests and diseases.

Before, these women could not afford to buy a variety of fresh vegetables to feed their families. Now, they are producing enough vegetables to prepare nutritious meals for their families and selling their surplus products at the market, earning the additional income they never had access to before. Participants are using this new income to contribute to their children's education by purchasing new school supplies and clothing.

Enjoying the success of their newfound earning power, these women are eagerly sharing their knowledge with other women in their community. One of the 20 female farmers shared, “I feel I can work as a teacher, because for the first time I am a leader of other women and every day I visit their gardens and guide them.”

The women are also receiving training on good nutrition practices, hygiene, and water sanitation. So far, RADP-West has expanded this initiative to three other districts in Herat Province.

SNAPSHOT

Local Community Supports New Female Paravet

A newly graduated female paravet enjoys success and support in her community



PHOTO: USAID/RADP-West

Using the eye drop method, Mrs. Abbasi administers a vaccination against Newcastle disease to a chick in Jaghara Village, Injil District, Herat Province. Newcastle disease is one of the most common diseases affecting poultry; it is highly contagious and has a high morbidity rate.

“This course totally changed my way of thinking. I became confident and started to believe in my abilities. I put myself in the role of the livestock farmer, and learned to communicate with male and female farmers and increased my knowledge and skills in animal husbandry practices.”

— Laila Abbasi, Herat

Faced with high rent prices and limited space, Laila Abbasi and her husband decided to move from their apartment in Herat City to a house in nearby Jaghara village two years ago. But, they never could have predicted how this one decision would change their lives. With a small piece of land in her new backyard — a luxury she could not enjoy in the crowded city — Mrs. Abbasi began to raise sheep, goats, and poultry to help earn more money for her family. She had a natural talent for livestock care, a skill that did not go unnoticed by her community. When the Dutch Committee for Afghanistan visited her village to recruit new students for its para-veterinarian training program under RADP-West, she was eagerly introduced by the community elders and village council. Mrs. Abbasi’s husband also encouraged her to join the training.

During the intensive six-month course, Mrs. Abbasi learned how to effectively care for the range of livestock that inhabit the western region. She practiced diagnosing diseases, administering medications and vaccines, and conducting minor surgical procedures alongside her classmates.

After graduating from the course at the end of April 2015, Mrs. Abbasi admitted that she was nervous to treat her first “patients.” But, with the support of her husband and community, she vaccinated 28 cows and 250 chicks during her first two months as a paravet. She also treated cows, sheep, and goats for different types of parasites.

With a new career, strong support from her community and an opportunity to earn more money for her family, Mrs. Abbasi’s life has changed dramatically. “This course totally changed my way of thinking. I became confident and started to believe in my abilities.”

ANNEX A. INDICATOR PERFORMANCE TABLE

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
A SUSTAINABLE, THRIVING AGRICULTURAL ECONOMY											
Custom: Number of households benefitted by agriculture and alternative development interventions in targeted areas	0	4,500	1,879	12,000	11,032	45	44	92%	80,000	12,911	16%
Province	0	4,500	1,879	12,000	11,032	45	44			12,911	
Herat	0	2,000	1,468	6,500	6,835	0	0			8,303	
Badgis	0	1,500	411	3,500	2,926	0	0			3,337	
Farah	0	1,000	0	2,000	1,271	45	44			1,271	
District	0	4,500	1,879	12,000	11,032	45	44			12,911	
Guzara		750	339	1,500	1,681	0	0			2,020	
Karukh		750	278	1,500	1,333	0	0			1,611	
Injil		950	586	1,500	1,837	0	0			2,423	
Koshk		300	203	1,000	943	0	0			1,146	
Pashtun Zarghun		200	55	1,000	922	0	0			977	
Shindand		0	7	0	85	0	0			92	
Herat		0	0	0	34	0	0			34	
Center		0	0	0	0	0	0			0	
Muqur-I		200	41	1,000	689	0	0			730	
Ab Kamari		250	69	1,000	626	0	0			695	
Qala-I-Naw		550	180	1,000	738	0	0			918	
Qadis		550	121	500	873	0	0			994	
Anar Dara		0	0	500	241	0	0			241	
Farah		0	0	1,400	996	45	44			996	
Pusht Rod		0	0	100	34	0	0			34	
Sex of Household Head	0	4,500	1,879	12,000	11,032	45	44			12,911	
Male		3,500	1,271	10,200	9,289	45	44			10,560	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Female		1,000	608	1,800	1,743	0	0			2,351	
Duration	0	4,500	1,879	12,000	11,032	45	44			12,911	
New		4,500	1,879	10,121	9,188	45	44			11,067	
Continuing		0		1,879	1,844	0	0			1,844	
Type of Value Chain	0	4,500	1,879	12,000	11,032					12,911	
Wheat		1,500	690	7,600	5,360	45	44			6,050	
HVCs		2,000	748	2,400	4,207	0	0			4,955	
Livestock		1,000	441	2,000	1,465	0	0			1,906	
Percentage increase in household income from licit agriculture in targeted areas – Custom Outcome				3%	2.31%			77%	20%	2.31%	12%
Percent (average)					2.31%					2.31%	
Wheat					2.98%					2.98%	
HVCs					2.48%					2.48%	
Livestock					1.47%					1.47%	
Percentage change in annual production of key crops by the target farmers, compared to non-beneficiary farmers - Impact	Percent		0	0	8.4%			0	23	8.4%	37%
Wheat					8.4					8.4%	
Number of farmers growing high-value crops as a result of U.S. government assistance - Outcome	0	300	358	2,400	4,207	400	390	175%	16,000	4,955	31%
Province	0	300	358	2,400	4,207	400	390			4,955	
Herat	0	300	358	1,300	2,755	175	171			3,284	
Badgis	0	0	0	800	1,234	180	173			1,407	
Farah	0	0	0	300	218	45	46			264	
District	0	0	358	2,400	4,207	400	390			4,955	
Guzara			46	400	843	75	77			966	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Karukh			43	200	392	10	10			445	
Injil			265	450	1,127	70	65			1,457	
Koshk			4	50	88	0	0			92	
Pashtun Zarghun				150	213	10	12			225	
Shindand				50	92	10	7			99	
Muqur-I				200	240	50	44			284	
Ab Kamari				200	310	30	31			341	
Qala-I-Naw				200	373	50	50			423	
Qadis				200	311	50	48			359	
Anar Dara				50	20	0	0			20	
Farah				200	194	45	46			240	
Pusht Rod				50	4	0	0			4	
Sex of Beneficiary	0	300	358	2,400	4,207	400	390	0		4,955	
Male		150	74	2,040	3,091	300	293			3,458	
Female		150	284	360	1,116	100	97			1,497	
Duration	0	0	358	2,400	4,207	400	390			4,955	
New			358	2,042	3,459	400	390			4,207	
Continuing				358	748	0	0			748	
Custom: Percentage decrease in post-harvest food losses in activity sites - Outcome	Percent			4%	8.23%			205%	10	8.23%	82%
Percent (average)											
Wheat					8.16%						
HVCs					8.3%						
Custom: Number of hectares of alternative crops targeted by U.S. government programs under cultivation in Afghanistan	0	0	46	1,600	1,730			108%	8,000	1,776	22%
Province	0	0	46	1,600	1,730					1,776	
Herat	0	0	46	800	1,026					1,072	
Badgis	0	0	0	400	436					436	
Farah	0	0	0	400	268					268	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
District	0	0	46	0	1,730					1,776	
Guzara			13		229					242	
Karukh			1		192					193	
Injil			32		255					287	
Koshk			1		168					169	
Pashtun Zarghun					175					175	
Shindand					7					7	
Muqur-I					142					142	
Ab Kamari					86					86	
Qala-I-Naw					83					83	
Qadis					125					125	
Anar Dara					61					61	
Farah					199					199	
Pusht Rod					8					8	
Type of Value Chain	0	0	46	0	1,730	0	0			1,776	
Wheat			30		1,393					1,423	
HVCs			16		337					353	
Sex	0	0	46	0	1,730	0	0	0		1,776	
Male	0		41		1,590					1,631	
Female	0		5		140					145	
GENDER											
GNDR (2): Percentage of female participants in U.S. government-assisted programs designed to increase access to productive economic resources (assets, credit, income, or employment)	0		32%	15%	16%			105%	15%	18%	20%
Numerator: Number of women of program participants	0		608	1,800	1,743				12,000	2,351	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Denominator: Number of male and female participants in the programs	0		1,879	12,000	11,032				80,000	12,911	
GNDR (3): Percentage of females who report increased self-efficacy at the conclusion of U.S. government-supported training/programming	0	15%	62%	50%	54%			107%	75%	54%	72%
Numerator: Number of women whose scores have improved over time	0		377	900	933					933	
Denominator: Number of women who participated in relevant training/programming	0		608	1,800	1,743					1,743	
ECONOMIC GROWTH											
4.5.2(5): Number of farmers and others who have applied improved technologies or management practices as a result of U.S. government assistance	0	1,000	668	6,000	10,462	0	0	174%	60,000	11,130	19%
Technology Type	0	1,000	668	6,000	10,462	0	0			11,130	
Crop genetics				4,500	8,213					8,213	
Cultural practices				4,800	9,154					9,154	
Pest management				5,400	6,874					6,874	
Disease management				5,100	6,874					6,874	
Soil-related				4,800	6,225					6,225	
Irrigation				1,500	5,963					5,963	
Water management				3,000	2,898					2,898	
Marketing and distribution				3,600	0					0	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Post-harvest handling and storage				4,500	7,847					7,847	
Value-added processing				3,600	3,609					3,609	
Duration	0	1,000	668	6,000	10,462					11,130	
New	0	1,000	668	5,332	9,794					10,462	
Continuing				668	668					668	
Sex	0	1,000	668	6,000	10,462					11,130	
Male	0	850	668	900	8,832					9,500	
Female	0	150		5,100	1,630					1,630	
4.5.2(2): Number of hectares under improved technologies or management practices as a result of U.S. government assistance	0	50.00	46	1,600	1,707			107%	12,000	1,753	15%
Technology Type	0	50.00	46	1,600	1,707					1,753	
Crop genetics	0			1,200	1,340					1,340	
Cultural practices	0			1,200	1,494					1,494	
Pest management	0			1,200	1,122					1,122	
Disease management	0			1,200	1,122					1,122	
Soil-related	0			1,200	1,016					1,016	
Irrigation	0			400	973					973	
Total with one or more improved technologies	0	50.00	46	1,600	1,707					1,753	
Duration	0	50.00	46	1,600	1,707					1,753	
New	0	50.00	46	1,600	1,661					1,707	
Continuing					46					46	
Sex	0	50.00	46	1,600	1,707					1,753	
Male	0	42.50	40	1,360	1,572					1,612	
Female	0	7.50	6	240	135					141	
Custom: Number of hectares with increased high-value crop production as a result of U.S. government programs	0	15	15	120	337			280%	1,200	352	29%

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Province	0	15	15	120	337					352	
Herat	0	15	15	60	220					235	
Badgis	0	0	0	30	99					99	
Farah	0	0	0	30	17					17	
District	0	0	15	0	337					352	
Guzara			3		67					70	
Karukh			3		31					34	
Injil			8		90					98	
Koshk			1		7					8	
Pashtun Zarghun					17					17	
Shindand					7					7	
Muqur-I					19					19	
Ab Kamari					25					25	
Qala-I-Naw					30					30	
Qadis					25					25	
Anar Dara					2					2	
Farah					16					16	
Pusht Rod					0					0	
Sex	0	15	15	120	337					352	
Male	0	8	10	102	247					257	
Female	0	8	5	18	90					95	
4.5.2 (42) Number of private enterprises, producer organizations, water user associations, women's groups, trade and business associations, and community-based organizations that applied new technologies or management practices as a result of U.S. government assistance	0	3	4	22	25			114%	110	29	26%
Duration	0	3	4	22	25					29	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
New		3	4	22	25					29	
Continuing					0					0	
Type of Organization	0	3	4	22	25					29	
Private enterprises (for profit)		3	4	11	0					4	
Producers organizations				11	25					25	
Water users associations					0					0	
Women's groups					0					0	
Trade and business associations					0					0	
Community-based organizations					0					0	
Number of target households and agribusinesses engaged in nutrition-sensitive agriculture activities - Outcome	0	675	347	10,000	10,120			101%	15,000	10,467	70%
Province	0	675	347	10,000	10,120					10,467	
Herat	0	675	347	5,350	6,093					6,440	
Badgis	0	0	0	3,500	2,873					2,873	
Farah	0	0	0	1,150	1,154					1,154	
District	0	675	347	10,000	10,120					10,467	
Guzara		75	41	1,500	1,512					1,553	
Karukh		100	42	1,000	1,194					1,236	
Injil		500	264	1,500	1,600					1,864	
Koshk				750	866					866	
Pashtun Zarghun				500	824					824	
Shindand				100	92					92	
Herat				100	5					5	
Muqur-I				1,000	626					626	
Ab Kamari				1,000	636					636	
Qala-I-Naw				750	695					695	
Qadis				750	916					916	
Anar Dara				200	237					237	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Farah				750	883					883	
Pusht Rod				200	34					34	
Type of Beneficiary	0	675	347	10,000	10,120					10,467	
Household		675	347	10,000	10,120					10,467	
Agribusinesses					0					0	
Duration	0	0	347	0	10,120					10,467	
New			347		9,188					9,535	
Continuing					932					932	
Custom: Value of incremental sales by agribusinesses as a result of U.S. government assistance		0	14,480	8,400,000	472,623			6%	58,000,000	487,103	1%
Total baseline sales	0	0	0	0	113,962					113,962	
Total reporting year sales	0	0	14,480	8,400,000	586,586					601,066	
Agribusinesses		0	0	8,400,000	472,623					472,623	
Baseline sales	0	0	0	0	113,962					113,962	
Reporting year sales	0	0	14,480	8,400,000	586,586					601,066	
Crop Agribusinesses		0	0	0	11,252					11,252	
Baseline sales					0					0	
Reporting year sales			14,480		11,252					25,732	
Livestock Agribusinesses		0	0	0	437,835					437,835	
Baseline sales					113,962					113,962	
Reporting year sales					551,798					551,798	
Domestic and Export		0	0	0	472,623					472,623	
Baseline sales	0	0	0	0	113,962					113,962	
Reporting year sales	0	0	0	0	586,586					586,586	
Domestic Sales		0	0	0	34,788					34,788	
Baseline sales					0					0	
Reporting year sales					34,788					34,788	
Export Sales		0	0	0	437,835					437,835	
Baseline sales					113,962					113,962	
Reporting year sales					551,798					551,798	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Custom: Value of sales of targeted commodities attributed to U.S. government assistance	0.00	0.00	14,480	8,400,000	2,777,876			33%	58,000,000	2,792,356	5%
Crops and Livestock (farmers)	0	0	14,480	8,400,000	2,191,290						
Crops (farmers)	0	0	14,480	7,000,000	1,417,264						
Wheat			0	2,000,000	643,521						
HVCs			14,480	5,000,000	773,743						
Livestock (farmers)	0	0	0	1,400,000	774,026						
Livestock				1,400,000	774,026						
Agribusiness Sales	0	0	0	8,400,000	586,586						
Domestic				6,400,000	34,788						
Export				2,000,000	551,798						
4.5.1-24: Number of policies /regulations/ administrative procedures in each of the following stages as a result of U.S. government assistance in each case: Stage 1: Analyzed Stage 2: Drafted and presented for public stakeholder consultation	0	0	0	2	0	0	0	0	8	0	0
Stage	0	0	0	2	0	0	0			0	
Stage 1: Analyzed				2	0						
Stage 2: Drafted and presented for public stakeholder consultation					0						
4.5.2-45: Number of firms (excluding farms) or civil society organizations engaged in agricultural and food security-related	0	0	0	2	0			0	8	0	0

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
manufacturing and services now operating more profitably (at or above cost) because of U.S. government assistance											
Type of Entity	0	0	0	2	0					0	
Firm				2	0					0	
Civil society organization					0					0	
4.5.2(7): Number of individuals who have received U.S. government supported short-term agricultural sector productivity or food security training	0	3,800	1,591	12,000	7,438	660	656	62%	80,000	9,029	11%
Type of Individual	0	3,800	1,591	12,000	7,438	660	656			9,029	
Producers	0	3,800	1,591	12,000	7,347	660	656			8,938	
People in government					91	0	0			91	
People in private sector firms					0	0	0			0	
People in civil society					0	0	0			0	
Sex	0	3,800	1,591	12,000	7,438	660	656			9,029	
Male	0	3,230	1,214	10,200	6,337	660	656			7,551	
Female	0	570	377	1,800	1,101	0	0			1,478	
Custom: Number of private and public veterinary service providers that applied new technologies or management practices as a result of U.S. government assistance	0	0	16	32	24			75%	40	24	60%
Technology Type	0	0	16	32	24					24	
Quality vaccines and medicines			16	16	24					24	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Dipping vats and knapsack sprayers, chemicals, and protective gear			16	16	24					24	
Urea treatment of crop residues (ammonization) to improve feed quality			16	16	24					24	
Appropriate management methods for short-term fattening programs			16	16	24					24	
Irrigated forages such as Sudan grass, pearl millet, and cow pea			16	16	24					24	
Province	0	0	16	32	24					24	
Herat	0	0	10	20	14					14	
Badgis	0	0	6	12	10					10	
Farah	0	0	0	0	0					0	
District	0	0	16	32	24					24	
Guzara			2	4	3					3	
Karukh			2	4	3					3	
Injil			2	4	3					3	
Koshk			2	4	3					3	
Pashtun Zarghun			2	4	2					2	
Shindand					0					0	
Muqur-I					0					0	
Ab Kamari			2	4	3					3	
Qala-I-Naw			2	4	4					4	
Qadis			2	4	3					3	
Anar Dara					0					0	
Farah					0					0	
Pusht Rod					0					0	
Type of Sector	0	16	16	32	24					24	
Public	0			0	0					0	
Private		16	16	32	24					24	

INDICATOR/ DISAGGREGATION	BASELINE VALUE	FY 2015		FY 2016		FY 2016			LOP		
		TARGET FY 2015	ACTUAL FY 2015 THRU Q4	TARGET FY 2016	ACTUAL FY 2016 THRU Q4	TARGET FY 2016 Q4	ACTUAL FY 2016 Q4	ANNUAL PERFORMANCE ACHIEVED (%)	TARGET	ACTUAL (AUG 2014 - FY 2016 THRU Q4)	LOP PERFORMANCE ACHIEVED (%)
Duration	0	16	16	32	24					24	
New	0	16	16	16	8					8	
Continuing				16	16					16	
Sex	0	16	16	32	24					24	
Male	0	16	16	28	22					22	
Female	0	0	0	4	2					2	
Custom: Number of public- private agriculture change agents trained on new techniques	0	0	146	1,200	326			27%	8,000	472	6%
Sex	0	150	146	1,200	326					472	
Male	0	150	146	1,040	281					427	
Female	0			160	45					45	

ANNEX B. LOP MONITORING AND EVALUATION NARRATIVE REPORT

Below are the project’s indicators and key results for FY 2015-FY 2016.

A SUSTAINABLE, THRIVING AGRICULTURAL ECONOMY

Custom: Number of Households Benefitted by Agriculture and Alternative Development Interventions in Targeted Areas

LOP Target: 80,000 Actual to Date: 12,911

RADP-West benefitted 12,911 households with its value chain activities. The beneficiaries in this period were reached through activities related to wheat (6,050), high-value crops (4,955), and livestock (1,906). Some of the households were also reached by crosscutting activities undertaken by the enabling environment unit across the value chains. Households benefitted from activities that included input distribution (seed, pistachio, fertilizer, saplings, and tools), training on crop production, training on nutrition-related activities, training on business development services, and links to marketers.

Custom: Percentage Increase in Household Income from Licit Agriculture in Targeted Areas – Custom Outcome

LOP Target: 20 percent Actual to Date: Wheat: 2.98 percent; HVC: 2.48 percent and Livestock: 1.47 percent

This is an annual indicator used to measure farmers’ income that can be attributed to the RADP-West interventions. This is to show the impact of the program on its beneficiaries and will be collected only from direct beneficiaries. In the period under review, RADP-West conducted an annual survey to estimate the increase in household income. From the baseline value of household income of \$1,842 reported for the western region, it has been estimated that wheat, livestock, and HVCs contribute to 78 percent of all household income (Afghanistan Opium Survey 2014, Socio-Economic Analysis report). The breakdown includes 46 percent wheat, 10 percent livestock, 16 percent HVCs (horticultural crops), and 6 percent other cereal crops. Based on this information, baseline income values per value chain included \$847.32 (wheat), \$294.7 (HVC), and \$184.2 (livestock). The survey found that farmers’ sales for the last year (July 2015-July 2016) were as follows: wheat (\$872.6), HVC (\$302), and livestock (\$186.9). These results show an increase of 2.98 percent for wheat, 2.48 percent for HVC, and 1.47 percent for livestock. In the case of livestock, income was derived from sale of sheep, goats, goat milk, and cashmere.

EXHIBIT I. HOUSEHOLD INCOME BY VALUE CHAIN

VALUE CHAIN	BASELINE	ACTUALS	PERCENT CHANGE
Wheat	847.3	872.6	2.98
HVC	294.7	302.0	2.48
Livestock	184.2	186.9	1.47

The increase in income can partially be attributed to activities undertaken by the project in the program areas. During implementation, RADP-West benefitted farmers by distributing improved seed, fertilizer, tools, and saplings, as well as

training. Through wheat intervention, 4,249 farmers received foundation or certified seed and fertilizer. During an assessment of the program, wheat farmers recorded wheat yields of 2.98 tons/hectare that was higher than the value reported for irrigated wheat farming by the UN Food and Agriculture Organization, translating into an 8 percent increase. At the same time, farmers who benefitted from seed recorded an increase from 450 kilograms/jerib (2.25 tons/hectare) to 709 kilograms/jerib (3.5 tons/hectare), translating into a 58 percent increase in yields compared to the previous year. The increase in productivity would eventually result into increased income at the household level, as well improved food security.

Custom: Percentage Change in Annual Production of Key Crops by Target Farmers, Compared to Non-beneficiary Farmers. Impact Indicator (Baseline, Mid-Term, End-Term)

LOP Target: 23 percent Actual to Date: Wheat: 8.4 percent

This is an outcome indicator showing the impact of the program on beneficiaries compared to non-beneficiaries. To show the impact of RADP-W, data are collected from direct and indirect beneficiaries during baseline, mid-line, and end-term survey activities. In this period, RADP-West carried out an annual survey to estimate the productivity and income through adoption of improved technologies and management practices. Results from the annual survey show that farmers who had cultivated wheat realized yields of 2.98 Tons/hectare during the last cropping season. Compared to average yields for irrigated wheat in Afghanistan of 2.75 tons/hectare (FAO 2005, *Food and Agriculture in Afghanistan: A Long-Term Outlook, 2005*), wheat farmers benefitting from project activities had recorded an increase of 8.4 percent. At the same time, farmers who benefitted from seed recorded an increase from 450 kilograms/jerib to 709 kilograms/jerib, translating into a 58 percent increase in yields from the previous year. These findings show that application of improved technologies and management practices would result in increased income through increased productivity.

Number of Farmers Growing High-Value Crops as a Result of U.S. Government Assistance

LOP Target: 16,000 Actual to Date: 4,955

The HVC team reached 4,955 households during FY 2015-FY 2016. HVC activities include commodities such as grapes, orchard trees, and vegetables. A total of 390 farmers who had benefitted from program activities in FY 2015 through training and were excluded as had not benefited from inputs, have been included in this indicator in Quarter 4, FY 2016.

Custom: Percent Decrease in Post-harvest Food Losses in Activity Sites

LOP Target: 10 percent FY 2016 Actual to Date: Wheat: 8.16 percent and HVC: 8.3 percent

This is an annual indicator used to measure the impact of RADP-W's training on minimization of post-harvest losses through adoption of our harvest and post-harvest technologies and management practices. To minimize post-harvest food losses, RADP-West promoted improved technologies and management practices for all value chains. The farmers were trained on proper product handling during and after harvesting, drying, winnowing and threshing techniques, proper storage methods, and homestead small-scale processing. Through a grant, RADP-West provided 12,000 PICS bags to wheat farmers to be used to store harvested wheat

grains. HVC farmers were also trained on post-harvest management practices. Under livestock, women were trained on small-scale milk processing, with an aim of reducing losses.

To assess the effect of this training and use of improved technologies, RADP-West carried out an annual survey to estimate the amount of post-harvest losses reported by beneficiaries. About 51 percent of HVC farmers interviewed and 25 percent of wheat farmers reported having used harvest and post-harvest improved technologies and management practices. Survey findings show that wheat farmers reported 8.16 percent in post-harvest losses during the last cropping cycle. Wheat farmers harvested 757 kilograms on average and lost 62 kilograms as waste, translating to 8.16 percent in post-harvest losses. HVCs posted post-harvest losses of 8.3 percent per household. As indicated in Exhibit 2 below, the post-harvest losses ranged from 4 percent to 23.1 percent for HVCs promoted by RADP-West.

EXHIBIT 2. POST-HARVEST LOSSES REPORTED BY HVC BENEFICIARIES BY TYPE OF CROP

NAME OF HVC (RADP-WEST CROPS)	QUANTITY PRODUCED (KG)	WASTE (KG)	PERCENT WASTE
Apricot	486.67	56.67	11.6
Carrot	580.00	62.92	10.8
Tomato	3,649.62	211.85	5.8
Cucumber	580.00	88.33	15.2
Eggplant	2,000.00	280.00	14.0
Grapes	1,415.00	182.50	12.9
Green beans	118.00	16.00	13.6
Onion	2,171.75	213.00	9.8
Pepper	4,000.00	160.00	4.0
Plum	2,000.00	200.00	10.0
Other HVCs			
Radish	240.64	25.00	10.4
Spinach	483.85	41.92	8.7
Parsley	96.67	10.00	10.3
Cress	93.00	21.50	23.1
Basil	35.00	5.00	14.3
Turnip	230.00	5.75	2.5

Custom: Number of Hectares of Alternative Crops Targeted by U.S. Government Programs Under Cultivation in Afghanistan

LOP Target: 8,000 Actual to Date: 1,776

This is an annual indicator used to measure the number of hectares that the program’s direct beneficiaries have used to cultivate alternative crops. This data is collected during our annual survey data collection. During this period, RADP-West carried out an annual survey to estimate the area of land under cultivation by wheat and HVC beneficiaries. The area under wheat and HVC cultivation was measured using GPS devices for plots that were verified by the data collection team. From the areas measured, it was found that wheat farmers had cultivated a mean area of 0.262 hectares during the last cropping cycle, while HVC had an average of 0.0756 hectares under cultivation. The average farm sizes from the sample of the beneficiaries were

extrapolated to generate the total number of hectares under cultivation by the beneficiaries. Based on the total number of wheat farmers (5,316) and HVC farmers (4,207), the total area under crops was found to be 1,730 hectares (Wheat, 1,393 hectares and HVC, 337 hectares). In FY 2015, 46 hectares were used by the farmers.

GENDER

Gndr (2): Percentage of Female Participants in U.S. Government-Assisted Programs Designed to Increase Access to Productive Economic Resources (Assets, Credit, Income, or Employment)

LOP Target: 15 percent (12,000) Actual to Date: 3.9 percent (2,351)

The program reached 2,351 women with its activities out of a target of 12,000 women beneficiaries. Women were reached with both value chain activities, in addition to other gender-related activities.

Gndr (3): Percentage of Women Who Report Increased Self-Efficacy at the Conclusion of U.S. Government-Supported Training/Programming

LOP Target: 75 percent Actual to Date: 54 percent

This is an annual indicator used to measure the degree to which women benefitting from RADP-West program have increased in self-confidence. In this quarter, RADP-West carried out a self-efficacy study to provide an overall assessment of the project's contribution in building the capacity of Afghanistan women and to critically evaluate how RADP-West has contributed in improving self-efficacy of its women beneficiaries. In FY 2015, 62 percent of women who benefitted from training recorded an increase in self-efficacy while in FY 2016, 53.5 percent of the women interviewed registered improved self-efficacy scores at the end of their training program provided by RADP-West compared to their scores at the beginning of the training. Results from the end of the training showed that respondents had a mean score of 9.13 out of the possible 16, translating to a 57.1 percent achievement of the possible total score against the beginning of the training value of 7.92 translating to 49.5 percent of the possible total score. The increase in mean score by women of 30 years of age and above was higher (19.4 percent) than the change reported by women who were below 30 years of age (10.9 percent). Self-confidence was exhibited as a result of improved household income through participating in project activities, capacity building on internal democracy in farmer organizations, group dynamics and leadership training, as well as women's inclusion in agricultural activities within the community. From the results of the self-efficacy statements, most women agreed/strongly agreed with statements that exhibit self-belief and confidence in handling issues and also disagreed/strongly disagreed with statements that exhibit weakness in them, as well as a lack of confidence in handling some of the challenges they face as women.

ECONOMIC GROWTH

4.5.2(5): Number of Farmers and Others Who Have Applied Improved Technologies or Management Practices as a Result of U.S. Government Assistance

LOP Target 60,000 Actual to Date: 11,130

This is an annual indicator used to measure the number of farmers who have applied improved technologies and management practices introduced by RADP-W during its interventions. To know farmers who have applied the new technologies and management practices, RADP-W conducted an annual survey during this quarter. In

summary, the study found that all wheat farmers interviewed had applied at least one of the technologies or management practices promoted, followed by 93 percent of HVC and 85.9 percent of livestock farmers. The survey found that most farmers (wheat and HVC) had used improved seed/vines/saplings, as reported by 78.5 percent of the respondents, with 81.9 percent of wheat farmers and 73.1 percent of HVC farmers reporting using them during the last cropping cycle. About 72 percent of the farmers interviewed had used fertilizer, with more wheat farmers (83.2 percent) using it compared to HVC farmers (53.8 percent). Another popular technology was irrigation, as indicated by 57 percent of respondents. More HVC farmers (71 percent) had irrigated their crops than wheat farmers (48.3 percent) during the last cropping cycle. Improved land preparation practices, agricultural mechanization, weed control, harvest and post-harvest practices, and crop rotation were reported by 54.5 percent, 42.6 percent, 37.6 percent, 34.7 percent, and 32.2 percent in that order among other practices.

EXHIBIT 3. FARMERS APPLYING IMPROVED TECHNOLOGIES AND MANAGEMENT PRACTICES BY VALUE CHAIN

TECHNOLOGY OR MANAGEMENT PRACTICES	WHEAT		HVC		TOTAL	
	FREQUENCY	PERCENT	FREQUENCY	PERCENT	FREQUENCY	PERCENT
Land preparation (seedbed/raised beds/rows)	63	42.3	69	74.2	132	54.5
Harvest and post-harvest practices	37	24.8	47	50.5	84	34.7
Fertilizer application	124	83.2	50	53.8	174	71.9
Irrigation	72	48.3	66	71.0	138	57.0
Recommended spacing (plant density)	23	15.4	18	19.4	41	16.9
Crop rotation	57	38.3	21	22.6	78	32.2
Water management	35	23.5	32	34.4	67	27.7
Integrated pest management	4	2.7	2	2.2	6	2.5
Weed control and orchard management	73	49.0	18	19.4	91	37.6
Agricultural mechanization	61	40.9	42	45.2	103	42.6
Certified seed/saplings/new vine and fruit varieties	122	81.9	68	73.1	190	78.5
Timely operations	9	6.0	7	7.5	16	6.6
Disease control and management	38	25.5	24	25.8	62	25.6
Site selection	10	6.7	13	14.0	23	9.5
Plastic cover/greenhouses	0	0	12	12.9	12	5.0
Budding	0	0	6	6.5	6	2.5
Plant nutrition	0	0	18	19.4	18	7.4
Staking	0	0	7	7.5	7	2.9
Soil health and conditions	0	0	12	12.9	12	5.0
Pruning	0	0	7	7.5	7	2.9

Different improved technologies and management practices were also introduced to livestock farmers benefitting from project interventions related to livestock activities. Survey results show that most livestock farmers used the following: improved animal

health and husbandry practices (85.5 percent), improved wool harvesting (70.9 percent), forage and fodder crop production (69.1 percent) and preparation and storage of animal feeds (56.4 percent). Other practices included rangeland management (43.6 percent), value addition for wool, meat, and dairy production (34.5 percent), pregnancy diagnosis (9.1 percent), and recordkeeping on livestock sales (3.6 percent). These proportions of farmers applying these technologies were extrapolated for all beneficiaries of the program to estimate the total number of beneficiaries applying new/improved technologies and management practices.

EXHIBIT 4. LIVESTOCK FARMERS APPLYING IMPROVED TECHNOLOGIES AND MANAGEMENT PRACTICES BY SEX

TECHNOLOGY OR MANAGEMENT PRACTICES	MALE		FEMALE		TOTAL	
	FREQUENCY	PERCENT	FREQUENCY	PERCENT	FREQUENCY	PERCENT
Forage and fodder crop production	13	44.8	25	96.2	38	69.1
Rangeland management	9	31.0	15	57.7	24	43.6
Improved wool (cashmere) harvesting	16	55.2	23	88.5	39	70.9
Animal health and husbandry	25	86.2	22	84.6	47	85.5
Preparation and storage of animal feeds	16	55.2	15	57.7	31	56.4
Value addition for wool, meat, and dairy production	8	27.6	11	42.3	19	34.5
Artificial insemination	0	0	0	0	0	0
Pregnancy diagnosis	5	17.2	0	0	5	9.1
Recordkeeping on livestock sales	1	3.4	1	3.8	2	3.6

Feed the Future 4.5.2-2: Number of Hectares under Improved Technologies or Management Practices as a Result of U.S. Government Assistance

LOP Target: 12,000 hectares Actual to Date: 1,753 hectares

This is an indicator used to measure the number of hectares that direct beneficiaries have cultivated during the year while using the program’s related technologies and management practices. This data is collected during our annual survey. Data from a sample of beneficiaries collected was then extrapolated to include all beneficiaries. The total hectares under improved technologies was estimated based on the percentage of farmers who reported having applied improved technologies and management practices on their farms during the last cropping cycle. In summary, the study found that all wheat farmers interviewed had applied at least one of the technologies or management practices being promoted in their wheat farms compared to 93 percent of HVC farmers. Technologies applied included improved seed, fertilizer application, pests and diseases control, irrigation, integrated pest management, and crop rotation.

Custom: Number of Hectares with Increased High-Value Crop Production as a Result of U.S. Government Programs

LOP Target: 1,200 hectares Actual to Date: 352 hectares

This is an annual indicator used to measure the number of hectares that the program's direct beneficiaries have used to cultivate high-value crops. The farming-related technologies and management practices are deployed by farmers in these farms during the year. During this period, RADP-West carried out an annual survey to estimate the area of land under cultivation by HVC beneficiaries. The area under HVC cultivation was measured using GPS devices for plots that were verified by the data collection team. From the areas measured, it was found that HVC farmers had cultivated a mean area of 0.0756 hectares under cultivation. Based on the total number of HVC farmers (4,207), the total area under crops was found to be 337 hectares. About 15 hectares was cultivated by HVC farmers in FY 2015.

4.5.2 (42) Number of Private Enterprises, Producer Organizations, Water User Associations, Women's Groups, Trade and Business Associations, and Community-Based Organizations That Applied New Technologies or Management Practices as a Result of U.S. Government Assistance
LOP Target: 110 Actual to Date: 29

This is an indicator used to measure the number of organizations that have applied new technologies and management practices introduced by RADP-West. RADP-W assessed the application of technologies and management practices for all farmer organizations working with the project. During FY 2016, RADP-W trained 14 cooperatives/farmer organizations on business planning and management, including 10 organizations focused on HVC activities. All seven self-help groups and 18 female extension groups were visited. From the assessment, all 25 groups had applied at least one of the new technologies or management practices promoted by the project. These included vaccination of animals, deworming, feed/fodder preparation, recordkeeping, animal health and husbandry practices, and pregnancy diagnosis. Four of the groups had applied improved technologies in FY 2015.

Number of Target Households and Agribusinesses Engaged in Nutrition-Sensitive Agriculture Activities

LOP Target: 15,000 Actual to Date: 10,467

A total of 10,467 households benefitted from nutrition-related activities through RADP-West intervention. These activities were embedded in all value chain activities to improve nutrition value at the household level. These activities include building the capacity of farmers to venture into commodities of high nutritional value, diversification of foods, proper food preparation and handling, and food hygiene.

Custom: Value of Incremental Sales by Agribusinesses as a Result of U.S. Government Assistance

LOP Target: \$58,000,000 Actual to Date: \$487,103

This indicator is used to measure the increase in sales realized by agribusinesses benefitting from RADP-West program activities. During this FY 2016, \$472,623 was realized as incremental sales by agribusinesses working with RADP-West, while in FY 2015, the agribusinesses realized \$14,480 as increase in sales. Agribusinesses recorded increased sales during trade fairs, agricultural trade shows, business-to-business meetings, and industrial exhibitions organized by the program to promote business-to-business links. For this indicator, RADP-West had planned to engage and support agribusinesses through provision of grants to enable them increase their sales to domestic and export markets. With the termination of the project, RADP-

West did not manage to roll out these activities to the agribusinesses, hence it failed to meet its target.

Custom: Value of Sales of Targeted Commodities as a Result of U.S. Government Assistance (Collected at Farm Level)

LOP Target: \$58,000,000 Actual to Date: \$2,792,356

During FY 2016, RADP-West engaged the private sector by awarding nine grants to private seed enterprises in target districts, reaching 4,249 farmers through a seed multiplication program in which 112.6 metric tons of improved/certified wheat seed and 170.35 metric tons of fertilizer were distributed. The farmers who received foundation and certified seed harvested 3,012 metric tons of high-quality seed valued at \$882,126, some of which was to be sold to flour mills and seed companies. The increased availability of this high-quality seed is expected to improve the accessibility to high-quality seed by wheat farmers in the districts. Through the program engagement and interventions in wheat, livestock, and HVC value chains, beneficiaries recorded produce worth \$6,588,296, while they sold produce worth \$2,792,356. The wheat farmers reported annual produce valued at \$227.97 and annual sales of \$121.05. For all wheat beneficiaries (5,316), this translates to \$643,521. During the annual survey for FY 2016, HVC farmers (4,207) reported annual sales of \$773,743 on RADP-West-promoted HVC crops, while sales of other HVCs not part of RADP-West value chain totaled \$131,873.

EXHIBIT 5. ANNUAL VALUE OF SALES FOR HVCS

NAME OF HVC	QUANTITY PRODUCED (KG)	QUANTITY CONSUMED (KG)	QUANTITY SOLD (KG)	PERCENT OF RESPONDENTS	RESPONDENTS	VALUE OF SALES PER FARMER (AFN)	VALUE OF SALES FOR ALL HVC FARMERS
Apricot	486.67	113.33	350.00	5.08 percent	214	7,333	\$22,968
Carrot	580.00	87.92	442.50	20.34 percent	856	7,216	\$90,404
Tomato	3,649.62	328.23	3,109.54	16.95 percent	713	22,005	\$229,534
Cucumber	580.00	38.33	486.67	5.08 percent	214	11,975	\$37,506
Eggplant	2,000.00	40.00	1,680.00	1.69 percent	71	12,600	\$13,154
Grapes	1,415.00	237.50	995.00	6.78 percent	285	25,000	\$104,400
Green beans	118.00	26.00	78.00	8.47 percent	357	8,460	\$44,161
Onion	2,171.75	168.88	1,809.88	27.12 percent	1141	12,202	\$203,820
Pepper	4,000.00	40.00	3,800.00	1.69 percent	71	14,625	\$15,268
Plum	2,000.00	600.00	1,200.00	1.69 percent	71	12,000	\$12,528
Subtotal for RADP-West crops							\$773,743
Radish	240.64	57.73	146.09	18.64 percent	784	1,564	\$17,962
Spinach	483.85	170.00	272.31	22.03 percent	927	4,996	\$67,808
Parsley	96.67	20.00	66.67	5.08 percent	214	1,417	\$4,437
Cress	93.00	22.00	74.57	23.73 percent	998	1,691	\$24,722
Basil	35.00	12.50	22.50	3.39 percent	143	290	\$606
Turnip	230.00	32.88	192.13	13.56 percent	570	1,956	\$16,339
Subtotal for other HVCs							\$131,873
Grand Total							\$905,616

Under the livestock value chain, agribusinesses that worked with the project recorded sales valued at \$551,798 through domestic and export sales. Livestock farmers recorded sales valued at \$774,026 as indicated in Exhibit 6. On average, livestock farmers sold livestock and products worth \$186.9 per household. During the FY 2016 survey, 73 percent of livestock farmers had sold sheep (\$304.49), 71 percent sold goats (\$319.03), 65.6 percent sold wool (\$25.23), and 49 percent sold milk (\$7.14) for the entire year. As much as the training was reported to have effects on cattle production and management practices, only activities related to sheep and goats were reported because these were the targeted areas of intervention under livestock value chain.

EXHIBIT 6. ANNUAL VALUE OF SALES FOR LIVESTOCK CROPS

PRODUCT SOLD	VALUE OF SALES PER FARMER	PERCENT OF RESPONDENTS	RESPONDENTS	TOTAL VALUE
Wool	\$25.23	65.6	1,084	\$27,354.41
Milk	\$7.14	49.0	809	\$5,774.34
Goats	\$319.03	71.0	1,172	\$373,907.47
Sheep	\$304.49	73.0	1,206	\$366,989.82
Total Sales				\$774,026.03

4.5.1-24: Number of Policies/Regulations/Administrative Procedures in Each of the Following Stages as a Result of U.S. Government Assistance in Each Case: Stage 1: Analyzed; Stage 2: Drafted and Presented for Public Stakeholder Consultation

LOP Target: 8 Actual to Date: 0

RADP-W planned to identify policies affecting the farmers through exhaustive constraint analysis in its area of intervention. Analysis of the constraints already identified are still ongoing in collaboration with RADP-South, RADP-North and MAIL. Once the analysis is complete, these projects and partners, in collaboration with MAIL, will assess if these constraints will require a change of policies, after which they will embark on intervention concerning the policies and regulations.

4.5.2-45: Number of Firms (Excluding Farms) or Civil Society Organizations Engaged in Agricultural and Food Security-Related Manufacturing and Services Now Operating More Profitably (at or above cost) Because of U.S. Government Assistance

LOP Target: 8 Actual to Date: 0

This is an annual indicator used to measure the number of firms or civil society organizations that are operating more profitably during the current year as a result of program interventions. Baseline data were collected and on an annual basis, data were to be collected for comparison purposes. By the time of this reporting, the program had not intervened on any of the partners, hence no data collection was undertaken.

4.5.2(7): Number of Individuals Who Have Received U.S. Government-Supported Short-Term Agricultural Sector Productivity or Food Security Training

LOP Target: 80,000 Actual to Date: 9,029

For FY 2015, 1,591 farmers benefitted from short-term agricultural productivity training. In FY 2016, 7,438 farmers were beneficiaries of short-term agricultural

productivity training. Female farmers trained totaled 1,478 (17 percent). Short-term agricultural productivity training included those on wheat, livestock, HVC, business development services, and nutrition. Training provided to wheat farmers included land preparation, production, cultivation, harvest and post-harvest technologies, and management practices. HVC farmers were trained on cultivation techniques, harvest and post-harvest techniques, pruning, and plastic tonal installation. Training provided to livestock farmers included deworming, cashmere harvesting, feeding and watering, pests and disease control, and animal husbandry.

Custom: Number of Private and Public Veterinary Service Providers That Applied New Technologies or Management Practices as a Result of U.S. Government Assistance

LOP Target: 40 Actual to Date: 24

The 16 private veterinary service providers that were trained in FY 2015 continued to apply new technologies and management practices during this reporting period. Eight newly trained paravets, including two women, finalized their training and were using the new technologies and management practices in their regions. When these service providers were visited, it was found that they were applying various aspects of management practices promoted by the project. These included use of high-quality vaccines and medicines, proper disposal of chemical containers, use of protective clothing, and use of urea treatment on crop residues.

Custom: Number of Public-Private Agriculture Change Agents Trained on New Techniques

LOP Target: 8,000 Actual to Date: 472

The change agents under RADP-W include DAIL staff, lead farmers, heads of cooperative unions, heads of private companies, local female extension workers, and veterinary field units. RADP-West trained 146 change agents in FY 2015 and 326 change agents in FY 2016 to assist in disseminating its technologies to the farmers. These change agents were trained by the program to further train other farmers on our interventions, technologies, and management practices.

ANNEX C. QUARTER 4, FY 2016 SUMMARY REPORT

EXECUTIVE SUMMARY

The quarterly progress report serves to meet the reporting requirement for the final report, as per discussions with USAID. This section serves as a discrete component and provides a brief synopsis of major activities and achievements completed during the program's last active month of implementation: July 2016.

In line with its termination for convenience notification and approved phase-out work plan, during Quarter 4, RADP-West completed wheat, HVC, and enabling environment activities across selected districts in Herat, Badghis, and Farah provinces. All livestock programming activities were completed during Quarter 3. Technical implementation programming was completed in July 2016. The program will complete final closeout activities and permanently close at the end of September 2016.

SUMMARY OF KEY ACCOMPLISHMENTS DURING THE QUARTER

WHEAT PRODUCTION AND VALUE CHAIN PROGRAMMING

- Completed wheat harvest and post-harvest training for 656 male farmer beneficiaries (596 in Pashtun Zarghun District and 60 in Koshk District). Topics covered included 1) wheat harvest, 2) timing of harvest, 3) methods of harvest, 4) threshing methods, 5) cleaning methods, 6) wheat storage practices, 7) benefits of PICS bags, and 8) wheat loss factors. See Exhibit I below.
- Participated in distribution of wheat seed collection bags to farmers in Guzara District; the Hambastagi Seed Enterprise distributed 560 bags to 28 farmers for collection and purchase of about 28 metric tons of foundation wheat seed at 10 percent above the current market price. In addition, the Shaikhul Islam Seed Enterprise collected 27 metric tons of foundation wheat seed from villages in Injil District, the Shaikh Marouf Karukhi Seed Enterprise collected 32 metric tons of foundation wheat seed from villages in Karukh District, the Dorokshan Seed Enterprise collected 29 metric tons of foundation wheat seed from villages in Koshk District, and the Khaja Mohammad Sabz Posh Seed Enterprise collected 50 metric tons of foundation wheat seed from villages in Pashtun Zarghun District. Overall, 166 metric tons of foundation wheat seed was purchased by these seed enterprises. In total, farmers who benefited from foundation and certified seed from the seed companies harvested and sold 3,012 metric tons of seed valued at \$882,126 to flour mills and seed companies. This quantity of high-quality wheat seed will be sold to farmers and is expected to increase wheat yields in western provinces.
- Oversaw distribution of the 45 remaining wheat seed/fertilizer packages in Farah Center District of Farah Province.

- Conducted a meeting with the Barakat Hariwa Flour Mill Company and provided a list of 150 lead farmers for the purchase of certified wheat seed. Barakat Hariwa plans to distribute bags to individual farmers and purchase wheat seed from farmers to produce flour.

EXHIBIT I. FARMERS TRAINED ON WHEAT HARVEST/POST-HARVEST METHODS

NO.	PROVINCE	DISTRICT	VILLAGE	NO. OF FARMERS TRAINED	TRAINING DATE	
1	Herat	Koshk	Dizwari	30	July 3, 2016	
2			Qanat Wakil	30	July 3, 2016	
3		Pashtun Zarghun		Gulmeer	30	July 10, 2016
4				Manzel	30	July 10, 2016
5				Qasr Nasir	30	July 11, 2016
6				Shah Abad	30	July 11, 2016
7				Qala Yousof Khan	30	July 12, 2016
8				Dogh Abad	30	July 12, 2016
9				Mamora	30	July 13, 2016
10				Safidan Sufila	30	July 13, 2016
11				Safidan Ulya	30	July 14, 2016
12				Balkhiyan	30	July 14, 2016
13				Gulmeer	30	July 17, 2016
14				Manzel	29	July 17, 2016
15				Qasr Nasir	30	July 18, 2016
16				Shah Abad	30	July 18, 2016
17				Qala Yousof Khan	30	July 19, 2016
18				Dogh Abad	30	July 19, 2016
19				Mamora	30	July 20, 2016
20				Safidan Sufila	27	July 20, 2016
21				Safidan Ulya	30	July 21, 2016
22				Balkhiyan	30	July 21, 2016
Total				656		

HIGH-VALUE CROPS PRODUCTION AND VALUE CHAIN PROGRAMMING

- Conducted inspections and provided technical advice and assistance on irrigation, fertilization, and weeding to farmers at 10 vegetable DTCs and 192 cultivated vegetable plots in Karukh District. The farmers in this district received tomato, eggplant, onion, and okra seeds from RADP-West.
- Inspected budded pistachio saplings from the June 2016 pistachio budding program, providing technical advice for new shoots growing from the bud unions, pruning methods for saplings, staking new shoots to prevent breakage and damage from heavy winds, and irrigation.
- Met with the National Horticulture and Livestock Program to discuss linking RADP-West beneficiaries for potential trellis system support on three established vineyards in Injil (1) and Guzara (2) districts. The National Horticulture and Livestock Program is interested in supporting these farmers

through a cost-share contribution program, in which farmers contribute 35 percent of the total cost.

ENABLING ENVIRONMENT PROGRAMMING

- Conducted a two-day regional conference on July 20-21, 2016 on Women's Engagement in Agriculture Technology and Value Chain Access. A total of 70 women attended the conference in Herat City (30 from Herat, 20 from Badghis, and 20 from Farah). During the first day, the women were divided into 10 groups to discuss provincial-specific constraints. On the second day, the director of women's affairs for Herat and the acting Herat DAIL director provided remarks focused on the important role played by women in the region's agriculture sector and overall economic development. A total of 120 government representatives, council members, development partners, and women's representatives participated in the second day of the event, in which women from each province presented constraints to the audience, a panel composed of government actors discussed policies and strategies for women's empowerment in the region, and USAID-funded development partners discussed their programs and potential opportunities. At the end of the conference, the female participants prepared and presented a resolution, which called for more focus and attention by government and development partners alike to further engage and empower women in Afghanistan's agriculture and livestock sectors.
- Provided support during a three-day, DAIL-led Agriculture Fair in Herat, which brought together lead farmers and agribusinesses operating in Herat, Badghis, and Farah provinces. Through the publication and communication committee, RADP-West supported the committee to prepare the brochures, radio and TV spots, banners, sign boards and agenda for the opening ceremony. At the same time, RADP-West leased the booths from Herat Chamber of Commerce and Industry for the Agriculture Fair. Booths were provided to farmers and agribusinesses and cooperatives to exhibit agriculture products including fresh and dried fruits and vegetables, wheat and flours, livestock products and Agricultural machinery. Through the procurement committee, RADP-West extended logistical support including hotel, meals, transportation, and packaging materials, for the three days. The fair was held August 26-28, 2016, and was attended by thousands of participants from throughout the region.
- As a result of assessments conducted during April, RADP-West, in collaboration with the Herat DAIL, developed and delivered a distribution and demonstration program for Herat-based raisin houses in support of improving their future sales and profitability in the local market. On July 28, 2016, RADP-West distributed support packages for 10 raisin houses consisting of scissors for harvesting grapes, crates, wheelbarrows, tarpaulins, water tanks for washing the grapes, ladders, raisin cleaning screens, and cartons. DAIL extension workers led a demonstration of the distributed tools, explaining the use and practical objective of each item.

SUBCONTRACTOR HIGHLIGHTS

In compliance with the terms of the termination for convenience notification issued by USAID on May 31, 2016, RADP-West worked with each of its subcontractors

during July to finalize settlements. The estimated subcontractor settlements for AREA, Green Afghanistan Agriculture and Livestock Organization, Sayara, Dynamic Vision, DCA, and Equal Access were submitted to USAID on July 29, 2016, along with RADP-West's overall proposed estimated settlement.

ANNEX D. RADP-W CONTRIBUTION TO PROJECT OBJECTIVES

RADP-WEST ACHIEVEMENTS AGAINST DEVELOPMENT OBJECTIVE INDICATORS

PERFORMANCE INDICATORS	TARGET	COMPLETION	
		ACTUAL	PERCENT
CLIN 1: Wheat Value Chain			
Number of farmers for whom wheat productivity has increased by a minimum of 20%	60,000	4,004	7%
Number of farmers using improved post-harvest techniques	8,000	6,006	75%
Value of sales of targeted commodities as a result of U.S. government assistance; wheat sales (producers and agribusinesses) increased	\$4,000,000	\$643,521	16%
Provide technical assistance and improved management capacity of existing small, medium, and large agribusinesses related to the approved value chains to improve financial returns by a minimum of 20%	25	0	0%
At least 15% of beneficiaries are women (LOP)	15	3	20%
CLIN 2: High-Value Crops			
Number of farmers with a minimum increase in productivity of 35% in each of the high-value crops	16,000	1,343	8%
Number of farmer organizations with improved management capacity	60	10	17%
Number of farmers using post-harvesting techniques	16,000	3,921	25%
Value of sales of targeted commodities as a result of U.S. government assistance; high-value crop sales (producers and agribusinesses) increased	\$50,000,000	\$823,011	2%
Provide technical assistance and improved management capacity of existing small, medium, and large agribusinesses related to the approved value chains to improve financial returns by a minimum of 20%	30	23	77%
Mentor at least 35 lead farmers in each value chain who serve as an example of good agricultural practices and farm management	35	139	397%
Each lead farmer provides mentoring to at least 10 neighboring farmers to influence land use and/or agricultural practices to improve productivity and links to markets (LOP)	350	2,780	794%
CLIN 3: Livestock			
Provide technical assistance and improved management capacity of small, medium, and large existing agribusinesses related to the approved value chains to improve financial returns by a minimum of 20% (vet services)	20	0	0%
Value of sales of targeted commodities as a result of U.S. government assistance; livestock sales (producers and agribusinesses) increased	\$4,000,000	\$1,325,824	33%
Develop the capacity of private and public veterinary service providers	40	24	60%
Local organization has managerial and technical capacity strengthened such that it has the capacity to pass a USAID pre-award assessment and receive a grant directly from USAID or another donor	1	0	0%
Develop and implement a plan to increase the availability and quality of feed/fodder sustainably available for 4,000 livestock farmers	4,000	1,906	48%

PERFORMANCE INDICATORS	TARGET	COMPLETION	
		ACTUAL	PERCENT
A minimum of 15%, or percentage proposed, of beneficiaries of program activities under this component will be women. (LOP)	15	18	120%
CLIN 4: Enabling Environment			
Completion of constraints analysis	30	20	67%
A minimum of eight of these obstacles will focus on women's participation	8	2	25%
Rollout of at least eight new or improved policies, procedures, regulations, or administrative procedures at the local level	8	0	0%
At least two local organizations have managerial and technical capacity strengthened such that they have the capacity to pass a USAID pre-award assessment and receive a grant directly from USAID or another donor	2	0	0%
Support data management, analysis, and distribution to farmers, DAIL, and MAILs through (at a minimum) monthly market and production updates	60	0	0%
CROSCUTTING THEMES			
Number of targeted households involved in nutrition-sensitive agriculture activities	15,000	10,467	70%

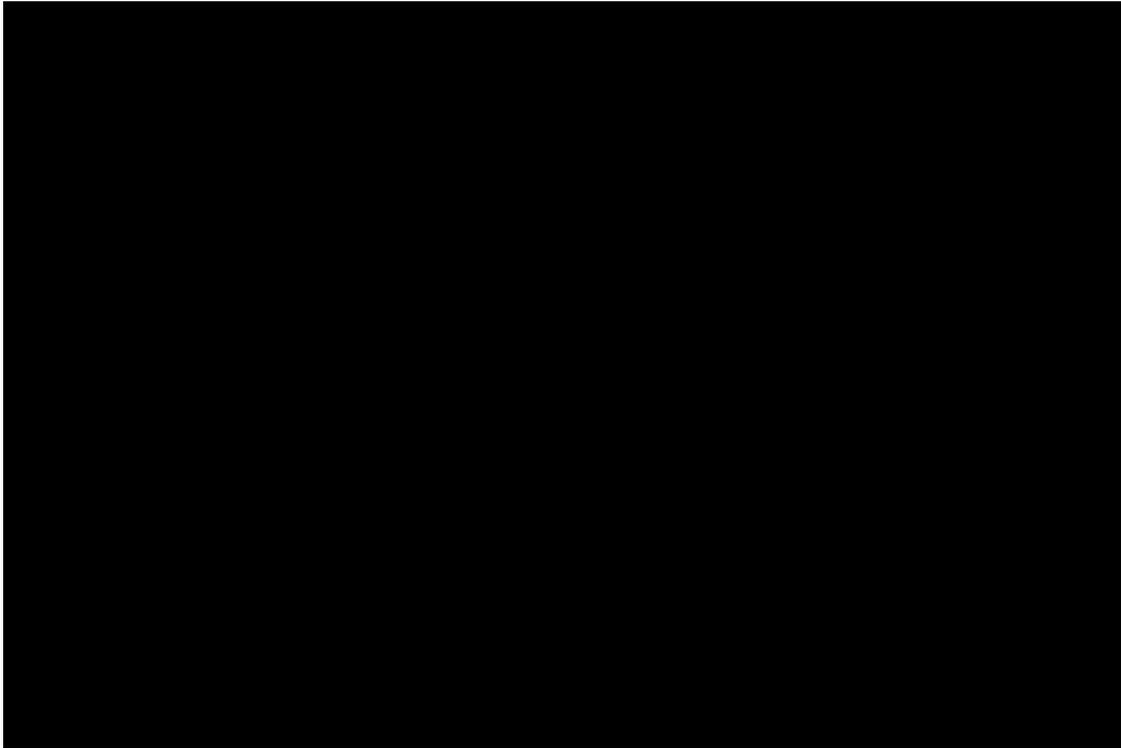
ANNEX E. INDEX OF REPORTS

The following reports were submitted to USAID during the LOP.

RADP-W LOP REPORTS	DESCRIPTION
FY 2015 Year 1 Work Plan	RADP-W's approved work plan, which outlined project activities to be conducted to achieve program targets and objectives in the fiscal year.
M&E Plan	RADP-W's monitoring and evaluation plan for the contractor's performance and in assessing achievement of objectives, results, and deliverables.
Environmental Mitigation and Monitoring Plan	RADP-W's approved plan for each activity with a potential adverse impact on the physical and natural environment.
Grants Under Contract Manual	RADP-W's approved manual of objectives, target beneficiaries, procedures for approval, dispersal process, and monitoring mechanisms for using available grant funds.
FY 2015 Year 1 Quarter 1 Progress Report*	For FY 2015, these reports discussed progress made during the previous quarter and how contract objectives were achieved during the quarter.
FY 2015 Year 1 Quarter 2 Progress Report*	
FY 2015 Year 1 Quarter 3 Progress Report*	
FY 2015 Year 1 Annual Report*	A comprehensive narrative report summarizing Year 1's activities and accomplishments against the annual work plan indicators. This annual report was submitted in lieu of the fourth quarterly report in accordance with the contract.
FY 2016 Year 2 Quarter 1 Progress Report*	For FY 2016, these reports discussed progress made during the previous quarter and how the contract objectives were achieved during the quarter.
FY 2016 Year 2 Quarter 2 Progress Report*	
FY 2016 Year 2 Quarter 3 Progress Report*	
Demobilization Plan	The overall project closeout and disposition plan currently under review by the contracting officer.
Value Chain Strategies	Strategies to improve farmer productivity and agribusiness profitability for development and coordination with MAIL and the DAILs, including strategies for wheat, vegetables, grapes, fruit and nuts, and livestock.
Constraints Analysis	Identification and analysis of obstacles during the life of the program, including women's access and participation, to doing business in the region that may be addressed through adjustment of policies or regulations enacted at the national level.
Ad-hoc Reports	RADP-W's special reporting includes: <ul style="list-style-type: none"> • Irrigation review • Monthly reports from October 2015 to May 2016 • Gender analysis report • Self-efficacy report • Beneficiary trackers • Quarterly program fact sheets • Improved technologies report
FY 2016 Final Program Report*	This final program report, including annexes, is being submitted electronically to the contracting officer's representative and will be submitted to the Development Experience Clearinghouse upon approval by the contracting officer's representative.

* These items were submitted or are to be submitted to the USAID Development Experience Clearinghouse after the contracting officer's representative's approval of the final versions.

ANNEX F. FINANCIAL REPORT





U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, D.C. 20523
Tel.: (202) 712-0000
Fax: (202) 216-3524 www.usaid.gov