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# Afghan Agricultural Research & Extension Development (AGRED)



## February Monthly Report

Submitted: March 15, 2014

*This report is made possible by support provided by the United States Agency for International Development (Contract No. AID-306-C-12-00006). The opinions expressed herein do not reflect the views of the U.S. Agency for International Development (USAID).*

# Roots of Peace

Implementing Partner for:

## **Afghan Agricultural Research and Extension Development (AGRED)**

<b>Contract Award</b>	AID-306-C-12-00006
<b>Contract Recipient</b>	Roots of Peace (ROP)
<b>Period of Contract</b>	July 17, 2012 – July 16, 2017
<b>Amount of Contract</b>	\$23,638,611
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Cover photo: Farmers work with DAIL staff in Kunar province to learn the importance of proper pruning and applying new techniques through an on-farm training (February, 2014)

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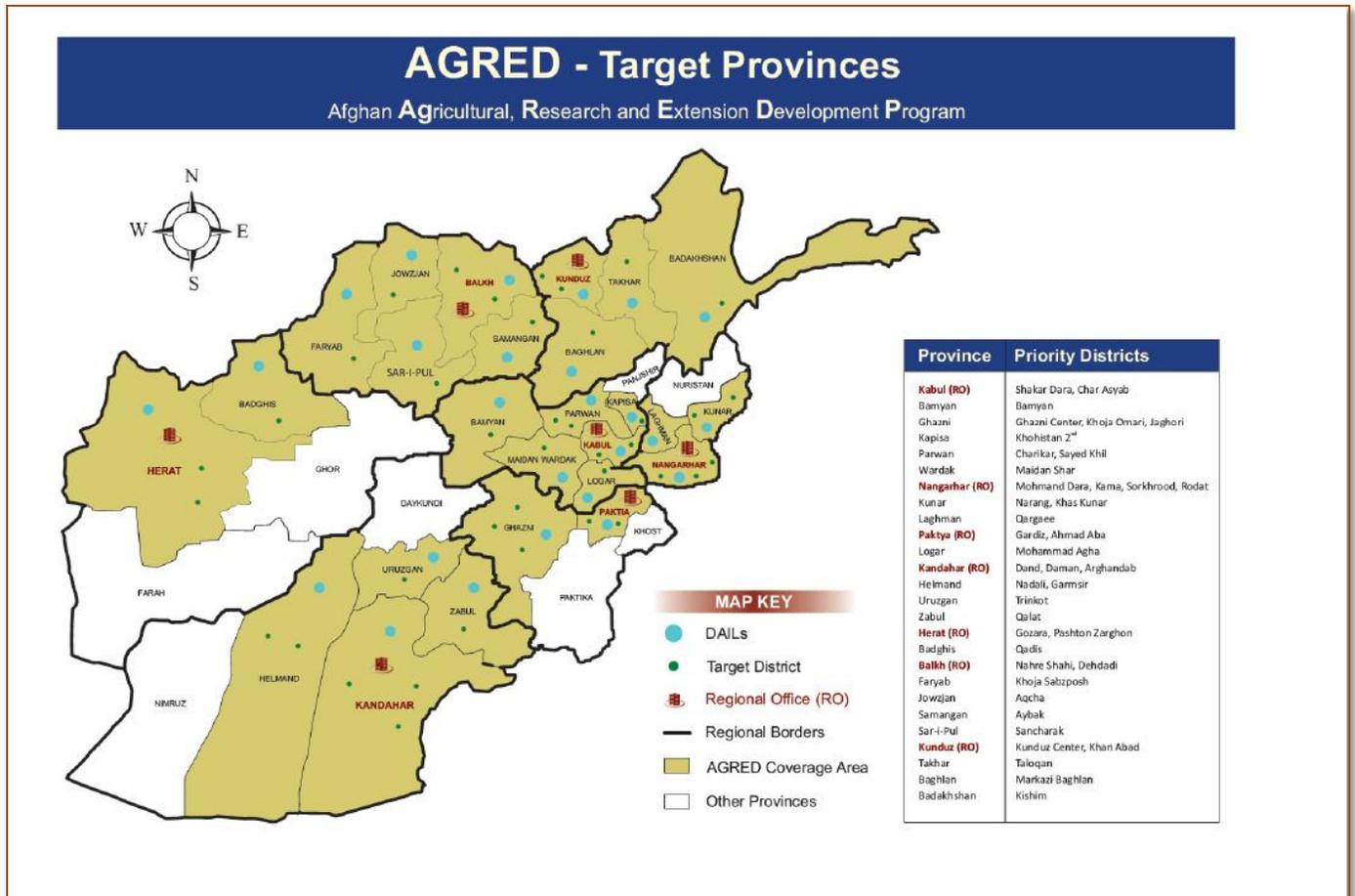
## Program Overview

Roots of Peace is the lead implementing partner for USAID’s Afghan Agricultural Research and Extension Development (AGRED) program. AGRED is a five-year program in partnership with the Afghan Ministry of Agriculture, Irrigation and Livestock (MAIL) and provincial-level Directorates of Agriculture, Irrigation and Livestock (DAILs). Currently in its second year, AGRED will build enduring and effective research and extension systems to attain the overarching objective of increasing agricultural productivity and income through the application of science and technology.

Working towards its objective, AGRED’s is directed by two general results which 1) deliver services directly to Afghan farmers through improved research and extensions efforts and 2) build institutional and human capacities within MAIL and DAILs to help improve their ability to respond to farmers’ and herders’ needs. Within these broad guidelines, AGRED seeks to improve farmer awareness and access to improve technologies, knowledge, and education; improve research and extension infrastructure within MAIL and DAILs; improve training capacity within MAIL and DAILs to deliver to farmers; and institutionalize a bottom-up, consultative approach to identifying and addressing farmers’ needs.

AGRED’s services are delivered through its Research, Extension, Training, and Gender technical departments. The technical teams are supported by Monitoring and Evaluation (M&E), Communications, Human Resources, Information Technology (IT), and Senior Management departments.

**Figure 1- AGRED target provinces and districts**



### *Modified field reporting templates and systems*

AGRED's reporting has now completely transitioned away from the On- / Off- Budget structure and will continue to report activities against Expected Results (ER). AGRED has introduced a revised field reporting template and system for collecting field-level data. The purpose of the revised templates is to better standardize, isolate, and polish information for presentation to USAID and other stakeholders.

This month's report reflects the first month in which AGRED has used the newly introduced field-reporting template. Though, the structure of this report has remained largely the same. The most significant difference is that AGRED has standardized its definitions for activities reported in the *Technical Support Delivered* section. The aim is to package and present more aggregated information that AGRED believes better captures the full extent of AGRED's progress.

As part of improving its reporting capabilities, AGRED has procured the equipment necessary to collect GPS points. However, this data is not available for this month's report. AGRED is working with field staff on the technical facets of collecting GPS data, which is anticipated to be introduced in next month's report.

## Highlight of February Achievements

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### **Key figures: February 2014**

AGRED's new internal field reporting system allows for greater standardization of its activities and also offers more opportunities to present aggregate information. This section highlights a sample of key figures for February.

#### **ER 1 (farmer engagement with DAIL Extension Agents)**

##### Demo plot (established)

- ✓ 12 new plots established

##### Demo plots (maintenance & monitoring)

- ✓ 71 research and demonstration plots visited

##### Extension visit

- ✓ 82 visits / engaged with 466 farmers

##### On farm training

- ✓ 43 trainings / engaged with 453 farmers

##### Farmer Field School

- ✓ 3 events / 66 participants

#### **ER 3 (MAIL / DAIL capacity building)**

##### On the job training (DAIL staff)

- ✓ 39 trainings / 173 DAIL staff

##### Coordination meeting (field level)

- ✓ 103 field-level meetings with DAIL staff and other stakeholders

##### Formal training

- ✓ 1 livestock management / 15 DAIL staff

*Note: the body of the report provides detailed definitions of these and other AGRED activities.*

For all highlights, more detailed explanations can be found in subsequent sections of the report.

**'Big picture' factors.** February progressed with little disruption. The biggest overarching factor is that the AGRED Work Plan remains under review for formal approval by USAID. Additionally, the winter season continues to limit growing activities. Nevertheless, AGRED and MAIL / DAILs have continued activities as planned and do not see these factors as an impediment to implementation.

**Collaboration meetings.** AGRED's collaboration efforts for February focused on moving closer to formalizing relationships through MOUs with the Japan International Cooperation Agency (JICA), International Maize and Wheat Improvement Center (CIMMYT), and making initial steps with Mercy Corps, Plantwise, and Afghanistan Institutional Development (AFID) project. Additionally, AGRED ensured that MAIL management teams were updated on the status of its Work Plan and reiterated its commitment to keeping them informed as the approval process progresses.

**Services Delivered.** AGRED's technical teams remained busy across the seven targeted regions as the winter season nears an end and preparation for spring begins. There was a concerted effort for more field-level implementation; for more direct contact, through DAILs, with Afghan farmers. This effort resulted in more on site trainings, extension visits, and on-the-job trainings. These efforts also reflect a diversification of AGRED services which move away from the mini-project concept and address beneficiary needs from different angles. AGRED seeks to continue increased activity and impact as the spring season nears and newly proposed initiatives are approved in the Work Plan.

**Program Support.** The M&E department continued to respond to USAID monitoring and environmental requirements while also working within AGRED to build

stronger reporting templates and systems. In parallel, the Communications department launched a new reporting template which seeks to help standardize information in order to better package and disseminate program impact to stakeholders.

## Greater Impact through Collaboration and Strategic Linkages

Collaborating with agricultural-based actors to improve services and facilitate greater field-level impact is an area AGRED is committed to building upon as the program progresses.

### AGRED collaboration meetings

AGRED continues to meet with potential collaborators and MAIL leadership team to keep them apprised on program progress, particularly in light of its revised Work Plan. AGRED has also continued to move forward on key collaborations to support overall service delivery. The following table provides details on key meetings in these areas.

**Table 1-** AGRED collaboration and coordination meetings, February 2014

Collaborator	Person(s) involved	Date	Purpose	Main Outcome / decisions made
Japan International Cooperation Agency (JICA) Rice Improvement Projects-Afghanistan	AGRED DCOP -COP	Feb 2	Collaboration	JICA and AGRED agree that they should have a MOU to formalize their partnership. The MOU will be formalized after JICA has completed their first round of training for extension agents in Iran.
International Maize and Wheat Improvement Center (CIMMYT)	AGRED COP, DCOP, and National Extension Coordinator	Feb 11	Follow up on collaboration discussion	CIMMYT will share its list of newly released seed varieties. AGRED also raised the need for drafting MOU and the two parties discussed next steps on the matter. Both will continue meeting in March to define the relationship.
RADP-S, KFZ, FAIDA, ABADE, ADF, CHAMP	AGRED COP, National Extension Coordinator and Regional Extension Coordinator/Kandahar	Feb 13	RADP-S organized a collaboration meeting for USAID IP operating in the south	There are several areas of collaboration between RADP-S around introducing new technologies and improved practices. In March, definitive plans will be worked out. There is some potential areas to collaborate with the other projects as well that will be explored in the future.
Mercy Corps	AGRED DCOP-Programs	Feb 19	Coordination of activities- capacity building for the DAIL staff	AGRED will share their training program with Mercy Corps to avoid any duplication. The two parties will continue defining ways to reduce duplication.
Plantwise program	AGRED DCOP-Programs	Feb 19	Collaboration	The two parties met to learn more about each other's programs. The two parties agreed that a follow up meeting should be conducted to further explore areas of coordination.
Afghanistan Institutional Development (AFIDS) Project	AGRED COP and DCOP	Feb 24	Collaboration	Both parties agreed to share program documents with each other to develop a common understanding of each other's work. The two parties will continue to explore areas of potential collaboration.
eAfghan Ag	AGRED COP	Feb 25	To discuss the Digital Green Pilot and Knowledge Center	It does not appear that eAfghan Ag will be able to negotiate a pilot with Digital Green. Therefore AGRED will proceed alone. There plans are still underway to contribute on the Knowledge Center. Namely eAA will proceed at the MAIL level and AGRED will focus on improving access at the DAILs.
Afghanistan Agricultural Extension Project (AAEP)	AGRED COP, DCOP, NEC, NWC and 7 Regional Extension Coordinators	Feb 24 to 26	To support and learn about AAEP's National Extension Conference	As AGRED will be organizing the conference starting next year, it was important to learn from AAEP about their successes and how to improve it for next year.

<b>Collaborator</b>	<b>Person(s) involved</b>	<b>Date</b>	<b>Purpose</b>	<b>Main Outcome / decisions made</b>
Afghanistan Institutional Development (AFIDS) Project	AGRED COP and DCOP	Feb. 24	To learn about the goals and objectives of each other's projects and lay the foundation for future collaboration.	AFIDS and AGRED have a lot of similarities and overlap. The decision was made to work collaboratively together so that there is not duplication. Fortunately AFIDS has a lot of flexibility in their activities. Since this meeting there have already been discussions on a pertinent issues and the sharing of project documents.
<b>MAIL</b>				
<i>Director General Extension</i>	AGRED DCOP and AGRED Institutional Strengthening Advisor	Feb12	Updating on AGRED Work Plan	AGRED updated the Director General on the status of the AGRED Work Plan and committed to future updates as appropriate. The Director was content with the update and looked forward to an approved Work Plan.
<i>Director of General Planning Policy &amp; Programs and the Strategic Planning Director</i>	AGRED COP	Feb 18	Update on the AGRED Work Plan and brief introduction of the TAM system	AGRED updated the Director on the status of the AGRED Work Plan and committed to future updates as appropriate. AGRED also provided an overview of the proposed TAM system. . The Director was content with the update and looked forward to an approved Work Plan.
<i>Deputy Minister, Agricultural Affairs</i>	AGRED COP	Feb 18	Update on the AGRED Work Plan and brief introduction of the TAM system	AGRED updated the Director on the status of the AGRED Work Plan and committed to future updates as appropriate. AGRED also provided an overview of the proposed TAM system. . The Director was content with the update and looked forward to an approved Work Plan.
<i>DAIL Directors</i>	AGRED COP and DCOP	Feb 26	Introduction of COP to DAIL Directors	During the AAEP Conference, the COP was able to meet with the DAIL Directors for Balkh, Nangarhar and Laghman Province. Turns out that the COP and the Nangarhar DAIL Director know each other favorably from the past. The Nangarhar and Laghman Directors spoke favorably of AGRED. The Balkh Director and COP discussed the false expectations of AGRED that were created in the beginning and the plans to improve the impact of AGRED in his province.

## Technical Support Delivered

This section reports on AGRED’s technical support delivered directly to MAIL, DAILs, and farmers and is organized by the four Expected Results outlined in the contract. For each activity, AGRED has introduced a brief definition and statement of its value in the overall process.

### *Expected result 1- more effective communication with Afghan farmers (farmer engagement by DAIL agents)*

This sub-section provides details of the services delivered directly to Afghan farmers. A majority of these services are delivered through provincial-level DAILs, with oversight by AGRED teams. In some instances, DAIL staff may receive the services (i.e. a training), which also modestly contributes to ER 3 (MAIL / DAIL capacity building).

#### **Demo plots (established)**

<i>Defining the activity</i>	This activity includes farmer outreach, land selection, initial preparation, and tools / input distribution to begin either a mini-project or individual demonstration plot.
<i>Why it's important</i>	Establishing the demonstration plot formally initiates the implementation stage of AGRED and DAILs’ work. It is the first stages of facilitating farmer impact and greater interaction between DAIL staff and farmers.

*Get to know an AGRED lead farmer:  
Mr. Haji Said Rasool*

With over 20 years of experience working in Saudi Arabia— including establishing greenhouses— Mr. Rasool is committed to helping train fellow farmers on the benefits and management of greenhouses for vegetable farming in Paktya province. He is very happy to lead this effort and thankful for DAIL and AGRED for their part in facilitating the opportunity.



*Mr. Rasool (right) takes a moment with the AGRED Regional Extension Coordinator during a busy day establishing a greenhouse demo plot*

In February, DAILS established twelve total demonstration plots.

Balkh-DAIL, with oversight of AGRED’s Gender staff, selected ten plots / ten female farmers in Dehdade and Nahreshahe villages and made initial decisions on lay-out and required equipment. The purpose of the demonstration plots is to facilitate farmers’ practical application of greenhouse / high plastic tunnel skills related to off-season vegetable growing (i.e., tomato and cucumber). The next steps are to prepare the land using the raised bed method and to procure required equipment (i.e., greenhouse materials, inputs, seeds).

Paktya-DAIL also established two new demonstration plots under the supervision of AGRED Extension staff. The plots were established to show the effectiveness of high plastics tunnels (greenhouses) for off-season vegetable production (i.e., tomato, cucumber). Specifically, AGRED extension staff trained DAIL staff on how to lay-out the plot using the raised bed method which helps maximize space and promote greater growth efficiency, and provided financial support for the equipment and greenhouse materials. DAIL staff subsequently led direct farmer training and implementation in setting up the demonstration plots. The next steps are irrigation and ongoing monitoring of the vegetables through the growing cycle. This will be led by DAIL staff.

### Demo plots (maintenance & monitoring)

<i>Defining the activity</i>	Established demo plots require additional up-keep activities by AGRED and DAIL staff. This includes basic maintenance of the site, cleaning, and irrigation. This activity should not be confused with AGRED M&E-level monitoring activities.
<i>Why it's important</i>	This is an essential component of the demo plot approach as it ensures the proper management of the plot and facilitates continued relationship building between DAIL staff and farmers.

DAIL and AGRED staff visited 71 extension and research demonstration plots in February. The visits were primarily used to assess how crops had fared through the cold weather and what steps would be needed in preparation for warmer temperatures. The following table provides details on each of the visits.

**Table 2-** Demo plots visited by DAIL and AGRED for monitoring / maintenance purposes, February 2014

Date	Province / District	# plots	Purpose / findings	Next steps
Feb. 3 & 10	Herat province / Guzara district	6 (extension)	DAIL staff led the visit with AGRED staff present to assess the wheat growth during the cold season and follow up with farmers to determine to what level they had followed DAIL advice from previous visits. As expected, they found that growth during the month was minimal due to the cold temperatures, but that farmers had applied techniques on applying fertilizer, and mitigating damage during the winter season.	DAIL and AGRED will visit the demonstration plots again in March to continue monitoring growth and address any challenges faced by the farmers.
Feb. 12	Herat province / Pashtun Zarghun	4 (extension)		
Multiple dates	Nangarhar / Jalalabad city / Shesham Bagh research center	1 (research)	AGRED and DAIL research staff made multiple visits to the center for a tomato trial site selection (which is based on a pre-defined set of criteria), purchase of inputs (5 hybrid tomato seed varieties and peat moss), and initial plowing of the selected site. The demonstration plot will be used for a research trial which compares the improved seeds with local varieties. The details of the trial will be reported on in a subsequent section.	DAIL and AGRED will staff will follow up to finish land plowing, apply fertilizer, transplant tomato seedlings, irrigate, and begin collecting data.
Feb 8	Balk / Nahreshahi	3 (extension)	The visits were held to conduct a general assessment of the crop (wheat) situation and troubleshoot any issues arising. The visit was also used to collect ongoing information and provide advice to plot owners.	These include continued cleaning of plot, application of fertilizer, continued irrigation, weeding, and ongoing farmer training / advising led by DAIL staff.
Feb 9	Balkh / Dehdadi	3 (extension)		
Multiple dates	Balkh / Zohrabi	5 (extension)	AGRED and DAIL visited the plots on multiple occasions throughout the month to monitor wheat growth, prepare land for seeding, advising on technical issues, and coordinate next steps.	AGRED will continue to oversee ongoing DAIL staff monitoring of the sites.
Multiple dates	Balk / Khwajasabzposh	4 (extension)		
Feb 1	Kabul / Badam Bagh Farm	1 (extension)	DAIL and AGRED staff jointly visited the farm to assess grape plots and develop a strategy to combat pest attacks on the existing grapes.	DAIL and AGRED have coordinated a planned training on lime sulfur application for famers to mitigate pest attacks.
Feb 10	Kandahar / Arghandab	2 (extension)	DAIL and AGRED staff provided advice and technical direction to two wheat farmers related to irrigation, weed control, and urea application.	DAIL and AGRED staff will make follow up visits in March to provide additional advice.
Multiple dates	Badakhshan / Kishem	6 (extension)	DAIL and AGRED staff provided technical direction and advice on on-going wheat seed	DAIL and AGRED staff will subsequently provide training on

Date	Province / District	# plots	Purpose / findings	Next steps
			germination.	fertilizer application and irrigation techniques.
Multiple dates	Takhar / Sarisang	10 (extension)	DAIL and AGRED staff provided technical advice to farmers on cultivation methods of wheat and weed control. They also facilitated an open discussion amongst farmers and will continue to organize farmers in the area to address common challenges and develop solutions.	DAIL and AGRED staff will continue monitoring the plots and provide weeding, irrigation, and fertilizer technical advice.
Feb 19	Paktya / Chashma Maran farm	24 (extension)	DAIL and AGRED staff checked all 24 sites to determine germination conditions of wheat. Results were limited as snow continued to cover the ground and minimize data collection.	AGRED and DAIL staff will find a more opportune time in March when conditions are more conducive for data collection.
Feb 10	Herat / Gozara (female farmers)	1 (extension)	DAIL and AGRED Gender field teams followed-up with the female farmer to check on the performance of wheat growth and assist in solving any immediate troubles. The farmer had no major troubles and will follow through with advice by DAIL staff.	The next steps are application of fertilizer and continued irrigation.
Feb 18	Herat / Gozara (female farmers)	1 (extension)	DAIL and AGRED Gender field teams followed-up with the female farmer to check on the performance of wheat growth and assist in solving any immediate troubles. The farmer had no major troubles and will follow through with advice by DAIL staff.	The next steps are application of fertilizer and continued irrigation.
	<b>TOTAL</b>	<b>71</b>		

### Farmer Field School

<i>Defining the activity</i>	This activity is a participatory and interactive approach to increasing farmers' knowledge on better farming practices to be able to increase their income and profitability. It is a step-by-step approach that systematically enhances farmers' abilities to investigate, analyze, innovate, and learn improved farming practices so that they can immediately replicate new techniques on their own farms.
<i>Why it's important</i>	The FFS is typically comprised of 20 to 30 farmers who congregate frequently over a period of several months to engage in the participatory learning process.

In February DAIL and AGRED led three Farmer Field School events in Baghlan province (Kunduz region) covering pest management and fruit tree pruning. These two topics are important as farmers emerge from the winter season and begin to prepare for the spring growth season. There were 60 farmers and six DAIL agents who participated in the three events. At each event, the National Horticulture and Livestock Project (NHLP) led the technical training, with DAIL agents supporting the logistics and facilitation of the events. The following table provides the details of these events.

**Table 3-** Farmer Field School events, February 2014

Date	Province / District	# participants	Field school topic	Notes
Feb 1, 28	Baghlan / Baghlan e Jaded	25 (farmers, DAIL staff, NHLP staff)	Pest Management: mitigating crop loss through preventative pest control and maintenance (use of lime sulfur and Bordeaux mixtures)	AGRED and DAIL collaborated with NHLP, who led the technical training on pest management. DAIL staff (2) provided logistical and event facilitation support and participated in the training in order to conduct similar trainings in the future.

Feb 11	Baghlan / Central Baghlan	22 (farmers, DAIL staff, NHLP staff)	Improved pruning of fruit trees in order to extend tree life, reduce diseases / pests, and increase growth and quality of fruits.	AGRED and DAIL collaborated with NHLP, who led the technical training on pruning. DAIL staff (2) provided logistical and event facilitation support and participated in the training in order to conduct similar trainings in the future.
Feb 26	Baghlan / Baghlan e Jaded	19 (farmers, DAIL staff, NHLP staff)	Improved pruning of fruit trees in order to extend tree life, reduce diseases / pests, and increase growth and quality of fruits.	AGRED and DAIL collaborated with NHLP, who led the technical training on pruning. DAIL staff (2) provided logistical and event facilitation support and participated in the training in order to conduct similar trainings in the future.
	<b>TOTAL</b>	<b>66 (60 farmers / 6 DAIL staff)</b>		



Farmers participate in one of three Farmer Field School events in February (Baghlan province)

*I really enjoyed and learned about pest management and it will help me to reduce losses in my orchard*

*-Mr. Ahmad Wali (farmer field school participant)*

*I was always paying others for pruning, but they never let me learn from them. The pruning methods...were not standard. Now I am happy and learned pruning techniques.*

*-Mr. Sharifullah (DAIL extension agent)*

### **Exposure visit**

*Defining the activity*

The purpose of an exposure visit is to introduce a farmer to a new technique, crop or technology that is proving to be a success in other areas. The main objective of an exposure visit is to see if a new intervention is something that the farmer would want to introduce in his own fields. The exposure visit can be as close as a neighboring district or as far as a neighboring country. In some instances, these exposure visits are coordinated / organized by other collaborators.

*Why it's important*

If the exposure visit is successful, a demo plot in their area will be considered as the next step. The value of the visit is that new technologies are demonstrated without farmers having to commit to an unknown outcome.

In February, AGRED and DAIL staff participated in one exposure visit in Baghlan province on a non-AGRED demonstration plot. The exposure event was sponsored, planned and conducted by NHLP. AGRED staff coordinated with NHLP in order for two DAIL staff to join the event, which was held to share experiences, challenges, and solutions on onion cultivation, proper application of Bordeaux mixture, and efficient orchard layouts.

*It was very good that we learned new topics regarding onion and horticulture; also, it was great that we heard from other farmers. It will be great if AGRED facilitates exposure visits to other provinces*

*-Mr. Sharifullah (DAIL extension agent)*

DAIL and AGRED's field Gender team also facilitated an exposure visit in Nangarhar province (Kama district) which included ten female farmers. The purpose of the visit was to organize and expose the farmers to a no till method which promotes more effective land preparation which promotes greater wheat growth. This exposure visit is an example of collaboration in which AGRED leveraged an AAEP demonstration plot and their technical expertise on the topic. DAIL coordinated and organized the farmers and logistics. The farmers and DAIL staff recommended that AGRED launch a Farmer Field School out of this visit.

DAIL and AGRED facilitated two exposure visits in Balkh province (Sheberghan and Samangan villages). The purpose of the visits were to expose the combined 22 female farmers and DAIL staff to the process and techniques associated with establishing low plastic tunnel / greenhouses (reported in the previous section). NHLP staff also participated; AGRED provided the technical guidance and facilitated the visit.

### **Extension visit**

*Defining the activity* | AGRED extension staff work with DAIL Extension agents to visit individual or small groups of farmers. Ideally the visits take place on farmers' land. These visits differ from demo plot monitoring visits because they are less task oriented (i.e. to collect information or to help set up an irrigation system) and more focused on discussions with farmers about challenges and possible solutions.

*Why it's important* | These visits will allow the DAIL agents to build rapport with local farmers, gain insights into problems, and receive practice in engaging farmers in informal teachable moments.

In February, AGRED and DAIL staff conducted 82 extension visits across the seven regions, engaging 466 farmers (416 male / 50 female). In a majority of these visits, DAIL agents coordinated the visits and led the conversations with farmers. DAIL staff will continue to develop rapport with farmers as they follow up on farmers' input and requests. Overall, farmers were appreciative of the visits and looked forward to working with DAIL extension agents. The following table provides aggregated summaries of these visits.

**Table 4-** Extension visits by region, February 2014

<b>Target region</b>	<b># visits</b>	<b># farmers engaged</b>	<b>Examples of topics discussed</b>
Balkh	12	<b>70 (total)</b> 65 (male) 5 (female)	-Weed management (wheat) -Irrigation techniques -Pruning for almond and cherry trees -Plot designation, land selection, fertilizer application
Herat	7	<b>63 (total)</b> 49 (male) 14 (female)	-Pest and disease control -Harvesting techniques -Weeding -Fertilizer application
Kabul	20	78 (male)	-Livestock feeding -Poultry disease control -Irrigation (drip system) -Mildew control
Kandahar	6	<b>39 (total)</b> 29 (male) 10 (female)	-Irrigation -Urea application -Weed control
Kunduz	31	<b>163 (total)</b> 142 (male) 21 (female)	-Disease management -Lime sulfur application -Vegetable cultivation techniques -Grape management using trellis system
Nangarhar	3	19 (male)	-Cucumber cultivation under high plastic tunnel -Planting distances -Weed control -Raised bed system

Target region	# visits	# farmers engaged	Examples of topics discussed
Paktya	3	34 (male)	-Off season vegetable cultivation -Apple pruning
<b>TOTALS</b>	<b>82</b>	<b>466 ( 416 male / 50 female)</b>	



*We learned practically how much lime and how much sulfur we need for making the correct amount. We were also showed pictures and examples of [grape] diseases so that we know what to look for. It was very useful.*

-Male farmer who participated in an extension visit (Takhar province)

Farmers during an extension visit explore challenges around lime sulfur (Takhar province)

### **On-farm training**

<i>Defining the activity</i>	These trainings are less formal and are held on-site for DAIL staff, farmers, and sometimes university students. The information is practical, allowing trainees to familiarize themselves with farm management practices. In this kind of trainings the farmer has the opportunity to see how things are done, practically apply lessons learned, and receive immediate feedback from facilitators. The trainings differ from extension visits in that they are more structured and focused on a specific topic (as opposed to more open conversations with farmers during an extension visit). In some instances, the same farmers may be counted in both on-farm training and extension visits (i.e. training needs identified during an extension visit and followed up with the focused training on a separate visit).
<i>Why it's important</i>	These trainings are an important part of the learning process in which DAIL staff can react quickly to farmers' field needs without having to be slowed down by formal trainings restrictions (i.e. budget, curriculum development). For DAIL staff, this type of practical training is crucial for relationship building and transfer of technical knowledge.

In February, AGRED and DAIL staff conducted 39 on-farm training visits in six of the targeted regions, engaging with 453 (363 male / 90 female) farmers. The on-farm training topics covered a range of technical areas that reflect different crop needs as farmers transition from winter to spring (i.e., pruning, , land preparation, setting up irrigation systems, etc.). The trainings offer a critical link between DAIL staff in building their own skills and developing relationships with local farmers. The following table provides details on these visits.

**Table 5-** On farm trainings by region, February 2014

Target region	# visits	# farmers engaged	Examples of topics discussed
Balkh	7	<b>62 total</b> 58 (male) 4 (female)	-Cherry tree design / lay out -Apple pruning -Fruit tree pruning -Lime sulfur application for grape orchard
Herat	6	<b>166 total</b> 80 (male) 86 (female)	-Lime sulfur preparation -Fruity tree pruning
Kabul	4	30 (male)	-Pruning techniques -Grafting techniques -Fertilizer application

Target region	# visits	# farmers engaged	Examples of topics discussed
Kandahar	2	9 (male)	-Drip irrigation system -Tomato cultivation using raised bed method -Greenhouse management
Kunduz	13	118 (male)	-Watermelon mulching -Vegetable seed selection and planting -Design of orchards -Application of Bordeaux mixture -Pruning
Nangarhar	11	68 (male)	-Application of fertilizer for cabbage -Orchard pruning -Five tomato variety trial (research) -Encouraging farmers on orchards -Cultivation of vegetables using raised bed method -Raised bed method for cabbage
<b>TOTALS</b>	<b>43</b>	<b>453 (363 male / 90 female)</b>	



Logar province farmers don't mind a little climbing during an on farm training in which they learned proper pruning techniques



Farmers and DAIL staff get practical experience in establishing a raised bed nursery for vegetables (Nangarhar province)

### **Farmer Field Day**

*Defining the activity*

Farmer Field Days are associated with demo plots and other types of demonstrations. They are used as an awareness tool to show specific techniques or methods as a crop progresses through the growth cycle. The typical length of a field day event can be from two hours to an entire day. The field days are largely planned out to coincide with important stages of the farming calendar. These events are identified by DAIL staff in most mini-project proposals.

*Why it's important*

Field days provide an additional opportunity for exchanging information about improved varieties and new techniques and facilities greater DAIL agents and farmers engagement. Farmers can also share common challenges and discuss potential solutions to be applied to their own plots.

In February, DAIL and AGRED Gender staff conducted three field days for 41 female farmers. Two of the field days took place in the Nangarhar region on February 24 (Khas Kunar) and February 25 (Narang village) where a total of 28 female farmers convened to learn about the raised bed method for vegetable production (i.e., cabbage, tomato, cucumbers). For both days, DAIL staff coordinated with IDEA NEW, who offered their demonstration plots to host the field days. AGRED staff led the technical training at each of the

events. The topics included: reasons for low production of vegetables, definition and demonstration of a good raised bed, planting, and protection of the vegetable seeds using the raised bed method.



Female farmers learn about the raised bed method to improve vegetable production (Nangarhar province)

AGRED and DAIL gender teams also sponsored a field day in Kandahar region (Dand district), which included 13 female farmers. The scope of the field day was on wheat irrigation for demonstration plots, proper weeding techniques, and other pre-harvesting preparation considerations (namely, fertilizer application). DAIL agents were responsible for coordinating logistics with demo plot owner, while AGRED provided the technical expertise to both farmers and DAIL staff.

*This is the first time that any organization has come to arrange a field day for woman farmer. There are so many women farmers, but no attention has been given to them in the past.*

-Female farmer who participated in the Khas Kunar farmer field day

### **Research trial**

<i>Defining the activity</i>	These trials can take place on a laboratory research plot or a research station. These are largely activities carried out by the Research agents and refer to implementation activities such as planting, collecting data, analysis, and reporting.
<i>Why it's important</i>	The results and lessons learned from research trials inform future extension activities conducted by AGRED and DAILs. Extension efforts show farmers through on-site demonstration plots, as one example, of how an improved technology from a research trial can be applied on a larger scale.

In a previous section, *Demo plots (maintenance and monitoring)*, AGRED reported on tasks associated with a research trial. These tasks were the commencement of a planned *Trial on five hybrid tomato varieties* (Dolor, Golden, Yaqui4, Kama F1 and Rolex) in the Shesham Bagh research center. The objectives of the trial are to:

- ✓ Determine the best performing hybrid tomato varieties under irrigation to recommend to the growers in Nangarhar.
- ✓ Introduce the best hybrid varieties to tomatoes growers in the region.
- ✓ Strengthen trust amongst DAIL agents and farmers.
- ✓ Establish linkages between DAIL, farmers, and private seed companies.

The trial findings will inform future AGRED and DAIL extension services. For example: DAIL can establish an extension demonstration plot which shows how one, or several of the best performing improved tomato varieties can be grown on a larger scale and shared amongst the farming community.

DAIL staff is responsible for all aspects of the project, with oversight by AGRED, including: arranging field days, data collection, daily / weekly supervision, and reporting. The DAIL team for this particular trial consists of seven male Nangarhar DAIL Research staff. The next major steps for the trial are to finish plowing, apply fertilizer, transplant tomato saplings, irrigation, and begin collecting data.

### *Expected result 2- improved applied research and extension infrastructure*

The AGRED ISS team initiated a formal assessment of DAIL infrastructure in February, pursuant to contract section- *C.6.2 Infrastructure-1*. The purpose of the assessment is to conduct a functional review of the infrastructure at the seven targeted Research Stations and up to 50 targeted districts. This review builds upon the assessment done one year ago under AGRED. In addition to what was previously done, the review will take a deeper look at the needs and what is available nearby.

For example, an agricultural university in a province may have a well-equipped laboratory that would be sufficient to meet the needs of the province. The DAIL Research Station would not be required to maintain the same equipment at this point in time. The activity began with a two day training including one full day at the Badam Bagh Research Station in Kabul. The review began at the seven targeted Research Stations with AGRED's Regional Extension Coordinators and their DAIL counterparts. Once this portion is completed in March, the functional reviews will continue at the district level. The final report on the seven Research Stations will be shared with USAID in March.

### *Expected result 3- training and capacity building of MAIL / DAIL extension staff*

This sub-section reports on activities that specifically target MAIL and DAIL staff with the aim of building long-term capacity to deliver services directly to Afghan farmers. Many of the services targeting farmers under the ER 1 section also includes DAIL staff, which contributes modestly to ER 3. This section reports on services which target primarily MAIL and DAIL staff.

#### **On-the-job training**

*Defining the activity* | This activity refers to any DAIL training that is conducted in the office or in the classroom, but would not be considered an official training done by the AGRED Training department. Examples of these activities include working with DAIL staff on proposal / concept development, computer training, setting up administrative systems within the office, or classroom-based technical trainings.

*Why it's important* | Just as it's important to provide direct, on-site training to farmers, so too is important to assist DAILs to set up adequate administrative systems and transfer skills to design and implement projects. Self-ownership of these systems and capabilities is an important indicator of long-term sustainability in the DAILs.



Logar DAIL staff are oriented with a new AGRED-supported computer lab which will help them manage projects and build administrative capacity (Logar province)

In February, AGRED staff responded to DAIL-identified training needs by conducting 39 on-the-job trainings across the targeted regions, engaging 173 DAIL staff (116 male / 57 female). These trainings generally covered building capacity on administrative skills and systems such as computer skills, report writing, and project management. As the farming season slows in the winter, this time of the year is optimal for training and system development. The following table offers details about on-the-job training.

**Table 6-** On the job trainings to DAIL staff by region, February 2014

Target region	# visits	# DAIL staff engaged	Examples of training topics
Balkh	13	<b>60 total</b> 26 (male) 34 (female)	-General orientation on AGRED and its purpose -MS Word training -Improve digital and physical filing system
Herat	4	9 (male)	-Proposal writing -Budgeting

Target region	# visits	# DAIL staff engaged	Examples of training topics
Kabul	12	<b>51 total</b> 50 (male) 1 (female)	-Work Plan development -Establish computer lab -Proposal development -Women-focused mini-project proposal development -Project management skills -Report writing
Kandahar	2	<b>13 total</b> 3 (male) 10 (female)	-Proposal writing (raisin house)
Kunduz	6	<b>24 total</b> 22 (male) 2 (female)	-Proposal writing -Annual planning -Reporting -MS Office skills
Nangarhar	1	10 (female)	-Annual planning -Reporting
Patkya	1	6 (male)	-Concept development -Proposal writing
<b>TOTALS</b>	<b>39</b>	<b>173 (116 male / 57 female)</b>	

### Working group & other coordination meetings

<i>Defining the activity</i>	These are necessary meetings for AGRED field staff to coordinate with parties involved in AGRED and DAIL implementation. Most commonly these meetings are with DAIL agents, DAIL senior management teams, or DAIL working groups. They may also include field-level meetings with outside collaborators.
<i>Why it's important</i>	While it's AGRED's intention to concentrate its efforts on on-site field work, periodic coordination with DAIL staff and internal AGRED teams is necessary to ensure proper planning, implementation and ongoing management.

In February, field teams conducted 103 coordination or working group meetings across the seven targeted regions. A majority of these meetings were held between AGRED field staff and DAIL agents at the provincial and regional levels. Generally, the purpose of these meetings was to make decisions and coordinate logistics related the above mentioned activities. Given the number of the meetings held in February, the specific details are not reported in this document.

### Institutional Strengthening

<i>Defining the activity</i>	This activity focuses on building stronger internal systems, tools, and policies at the MAIL level which ultimately supports how the ministry designs, manages, and delivers services to farmers. Currently, IS efforts assist MAIL to formalize a more systematic approach to assess staff training needs. However, AGRED will expand its IS services to MAIL throughout the year in other areas such as IT infrastructure, staff productivity, staff allocation, and other human resource areas.
<i>Why it's important</i>	IS efforts ensure that capacity building is also being built at the MAIL level which direct DAIL-level implementation. In particular, the ability of MAIL to formally assess and take ownership of staff training needs is a strong indicator of institutional maturity towards long-term sustainability.

The ISS held a two-day training on the Training Assessment Matrix (TAM) for MAIL staff, which also included representatives from JICA and AAEP. The TAM allows management teams to formally compare the number of qualified staff against the number of total staff required to effectively carry out a single activity / service. The calculation indicates where additional training may be needed and how to reorganize staff to maximize service delivery to farmers.

AGRED's training provided an overview of how the tool can be used as well as a practical session in which participants created their own MS Excel TAM template. The AGRED IS team will continue to work with MAIL in implementing the tool.

**Expected result 4- applied research and extension grants**

AGRED has placed activities towards this ER on hold, pending formal adoption of the AGRED Work Plan.

**Cross-cutting: Gender**

AGRED Gender department's contributions to February activities are incorporated in the above figures. This section provides a summary of Gender department contributions:

- ✓ 10 green house / high plastic tunnels established
- ✓ 2 demo plots visited for monitoring / maintenance purposes
- ✓ 3 farmer field days / 41 female participants
- ✓ 3 exposure visits / 34 female participants
- ✓ 5 extension visits / 36 female participants
- ✓ 7 on the job trainings / 56 female DAIL staff participants
- ✓ 4 on farm trainings / 90 female farmers

**Cross-cutting: Formal Training**

**Formal training**

<i>Defining the activity</i>	These trainings are generally broader in scope and requires more structure in the preparation and planning (i.e., more in depth curriculum, training materials, more defined outcomes, etc.). They often will mix on-site and classroom training. These training are largely carried out by the AGRED Training department which coordinates training information from within AGRED and MAIL / DAILs and in some instances, may source information externally (i.e., from a collaborator).
<i>Why it's important</i>	These trainings complement on farm trainings with more in-depth, structured curricula which generally include a budget and allow for more resources to theoretically and practically learn new technologies and techniques.

In February, AGRED facilitated three formal trainings, covering lime sulfur application, livestock management, and wheat cultivation. These trainings target both DAIL staff and farmers, which means they are contributing to both ER 1 and ER 3. The following table provides details on the trainings

**Table 7- Formal trainings, February 2014**

Date	Region / district	Topic	# participants	Purpose of training	Contributing to...
Feb 9	Badambag / Kabul	Lime Sulfur application	13 farmers (male)	To teach farmer on how to prepare, apply, and manage lime sulfur in order to mitigate pest and disease damage to crops. AGRED and DAIL delivered additional training on best times of usage, materials needed, and the effect on the environment.	ER 1
Feb 16 – 18	Kabul / Kapisa province	Livestock Management	15 DAIL agents (13 male / 2 female)	AGRED delivered a training on all aspects of livestock management in order for DAIL staff to deepen their understanding of best practices and technologies in this area. Specific areas included: Animal husbandry; Water and feed; Milking; Breeding management; Marketing	ER 3
Feb 23	Kandahar / Zabul	Wheat Cultivation	30 farmers and DAIL	The training was intended to teach both farmers and DAIL extension agents on improved	ER 1 & ER 3

	province		staff (27 male / 3 female)	techniques for wheat cultivation. The curriculum focused included: Plot designation; Seed selection; Seed treatment by fungicides; Most effective fertilizers; Wheat diseases mitigation; Basic harvesting preparation	
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## **Administrative Support**

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AGRED is committed to reporting on notable progress from its support departments.

### *Monitoring and Evaluation*

#### **Demonstration plots and yield verification**

The AGRED M&E department received the final report for the mungbean, rice, and corn mini projects – demo plots. The AGRED M&E department is in the process of organizing the backup documents to support project findings. In the future, the M&E department will randomly select plots during harvest time and calculate yield per unit of square meter.

#### **Environmental Review Form (ERF) and Environmental Review (ERR) for new project**

The ERF forms were written for 18 new AGRED projects. Before implementing an activity, it's necessary to have an ERF completed and signed. If the ERF determines the project “high risk” or “very low risk” an ERR must be performed and submitted to USAID for environmental compliance.

#### **Presentation to Regional Research and Extension staff**

The ERR and ERF were explained to new AGRED research staff. The Regional Extension Coordinators are also familiar with old documents such as the environmental mitigation measure and its associated check list.

#### **District-level data collection on main crops and extension workers**

During the reporting month, the AGRED M&E department received information of main crops and the number of farmers for 16 districts (Shakardara, Charasyab, Gardiz, Ahmad Aba, Dehdadi, Nahar Shahi, Kwaja Sabz Posh, Aqcha, Aybak, Sari pul Center, Sancharak, Dan, Daman, Arghandab, Gramsir, and Nad-e-Ali). This information will be organized, analyzed, and will inform future M&E and reporting approaches.

#### **Template and backup documents**

The AGRED M&E department updated tracking templates for collecting data on AGRED's results. The department also produced backup documents for continued verification purposes. The AGRED Extension Coordinators were oriented to these templates and the data collection process. The next step is to continue orienting program staff on the use of these templates and ongoing backup document collection. These documents are part of M&E manual in development.

#### **Update of indicators according to USAID instructions**

The AGRED M&E department updated indicators according to USAID instructions. A total of 13 performance indicators are proposed: one indicator is for impact level, three new gender indicators, and the remaining indicators are derived from the contract between ROP and USAID. The next step is to set targets for each indicator in coordination with each AGRED department.

#### **Annual Work Plan**

AGRED received comments from USAID on the AGRED Work Plan. The M&E department addressed all questions related to M&E and environmental compliance. The department remains available for further clarification.

### *Communications*

The Communications department used February to begin updating its Communications, Public Relation, and Outreach strategy as well as update its Branding and Marking Plan. The Department also led the development of the new field-reporting template, updated the AGRED website, and drafted several articles educating the public on AGRED's impact.

## **Annex 1- Complete list of AGRED mini-projects**

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This document is available as an Excel file and has been attached with the report submission

## **Annex 2- Complete list of AGRED trainings**

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This document is available as an Excel file and has been attached with the report submission.