

Experiential Learning for a Combat Deployment

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North Dakota State University



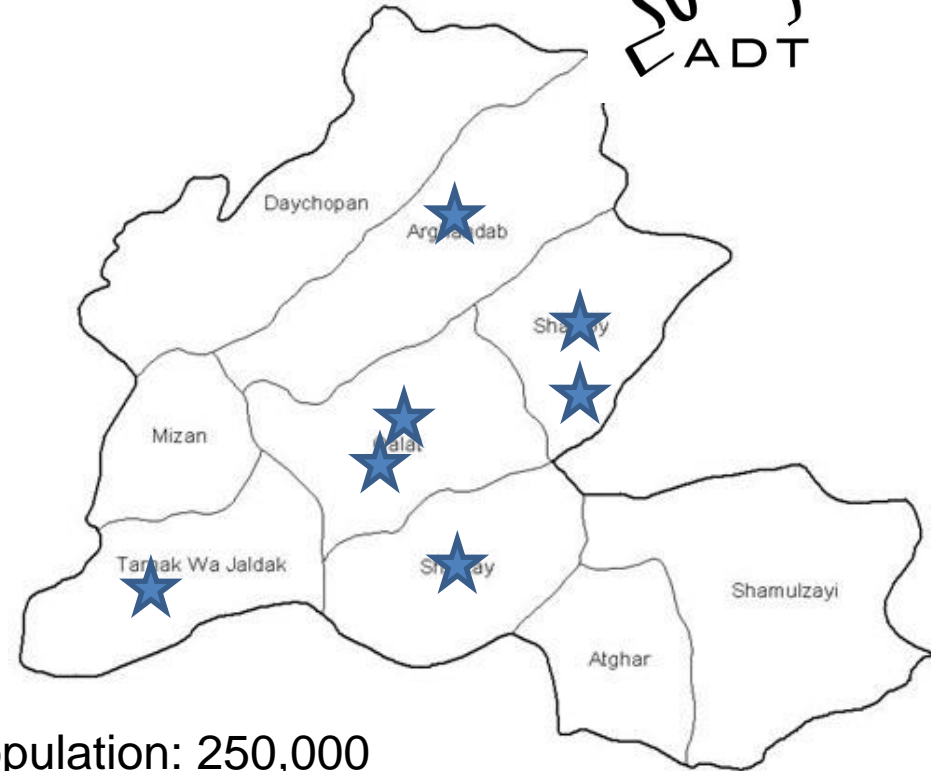
Agribusiness Development Teams (ADT) were created within the National Guard to mentor Directors of Agriculture at the provincial level, their staff, and extension agents, cooperative leadership, farmers, and agribusiness entrepreneurs.



Zabul Agribusiness Development 1



- Minnesota National Guard Joint Force HQ and Mississippi National Guard, 1/155 Combined Arms BN.
- October 2011 to September 2012
- Kandahar Air Force Base; Forward Operating Bases Apache, Bullard, Lane, Mascall, Sweeny, and Viper; and Combat Outpost Mizan
- Over 800 missions



Population: 250,000

95% rural

Varied ethnic composition

Language: Pashto

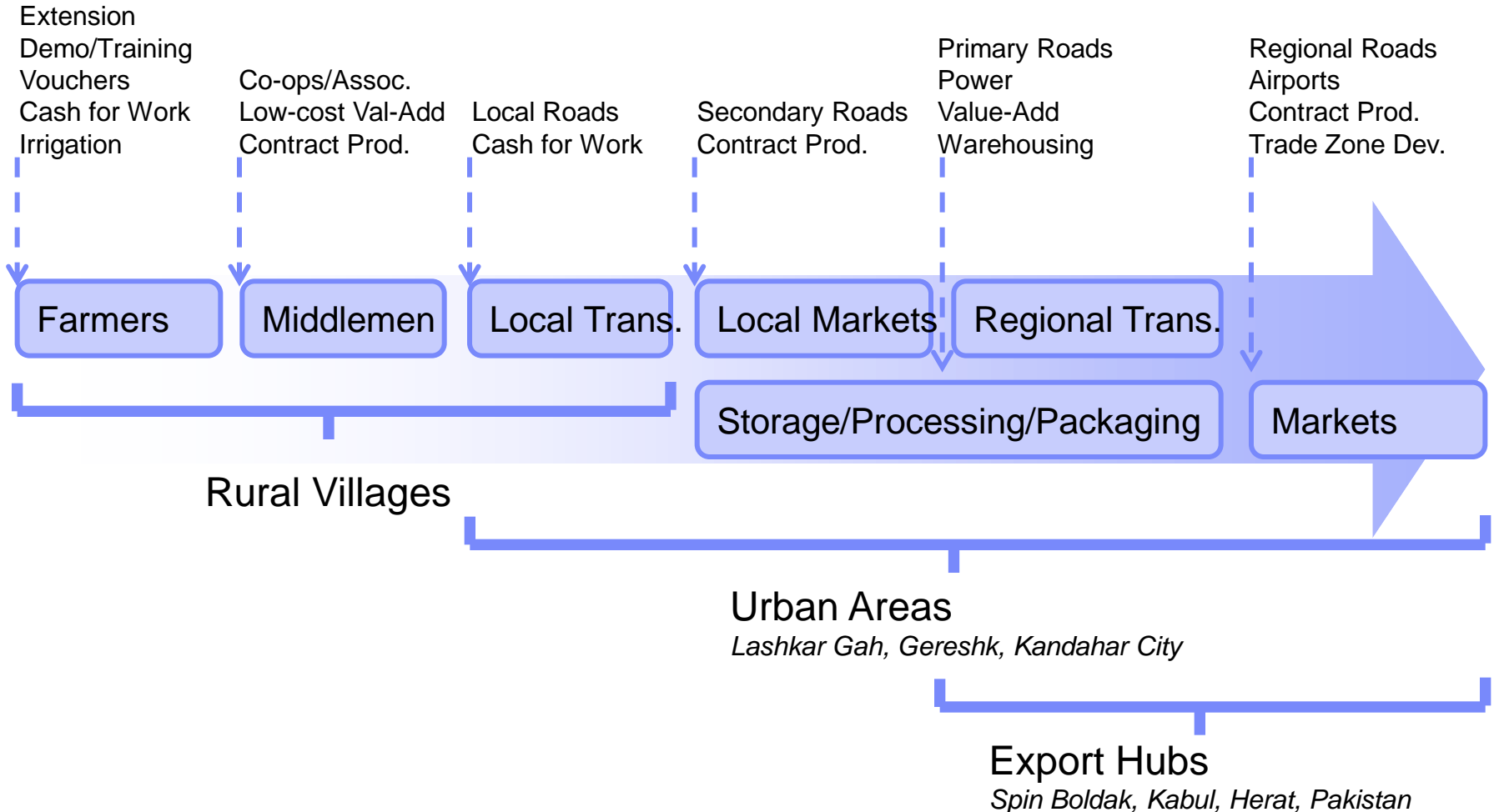
Mainly Sunni

Literacy rate: 10%

We had a clear objective

Provide agribusiness development operations in Zabul, Afghanistan by promoting agricultural support, developing locally supportable agribusiness projects while fostering sustainable and legal economic growth in order to strengthen the connection between the Government of the Islamic Republic of Afghanistan (GIROA) and the people of the province.

Phased Value Chain Development



Irrespective of the combat environment, mentoring would take place in a region without supporting infrastructure and modern farming technologies.

The ADT was unfamiliar with many of the crops grown, livestock breeds raised, and current technologies employed in the assigned province including hand tillage, hand seeding, and trench water holding combined with drip irrigation.



Experience is the worst teacher; she gives the test first, the lesson afterwards.

Vernon Law

Learn from Past Mistakes



The ADT also planned an innovative approach to train including experiential learning, networking, and reach-back capability.

Key partners included industry, non-profit agencies, government agencies, and universities. The plan included:

- Week-long training session at a regional university (North Dakota State University)
- Four-day training at a university in California, which has a climate and tree and vine crops like those grown in the target province.
- Three days in an Amish Community to learn more about farming without modern technology.
- Instruction and resources from an engineering non-profit devoted to work without modern technology.
- Instruction from a large cooperative headquartered locally provided the team with three days of education on strategic planning, cooperatives, and development programming in agriculture.

We did our regular Army training



Some new army training (e.g., biometrics; language)



We had plenty of cultural training.



Ghafar Lakanwal

October 24, 2011

when Afghan share bread with you, automatically you are "Ab wa Namak" (Ab-water and Namak-salt) with the Afghan means you are inside the circle of friends or family. If you violate friendship norms you become "Namak Haram" and you are out.



North Dakota State University, with friends, provided four days of training for the team.

Monday June 27, 2011		
0810-1000	Beef Production	Dr. Carl Dahlen Dr. Kendal Swanson
1030-1215	Garden Vegetables and Fruits	Dr. Chiwon Lee
1315-1515	Sheep / Goat Production	Dr. Reid Redden
1530-1730	Weeds	Mr. Scott Anderson (COL, retired), DowAgroSciences
Tuesday June 28, 2011		
0800-0815	Welcome	Dr. Ken Grafton, Dean
0815-1015	Alfalfa Production	Dr. Marisol Berti
1030-1230	Wheat Production	Dr. Burton Johnson
1315-1500	Soils	Dr. R. Jay Goos
1515-1730	Water	Dr. Thomas Scherer
Wednesday June 29, 2011		
0800-1000	Plant Pathology	Dr. Gary Secor
1015-1200	Animal Health	Dr. Neil Dyer
1300-1500	Entomology	Dr. Janet Knodel
1515-1700	Bee Keeping	Dr. Gary Goreham
Thursday June 30, 2011		
0800-0900	Ag Development in Developing Countries	Vern Hofman
1000-1215	Poultry Operations	Amon Baer
1400-1500	Camel and hoof stock	Erin Teravskis



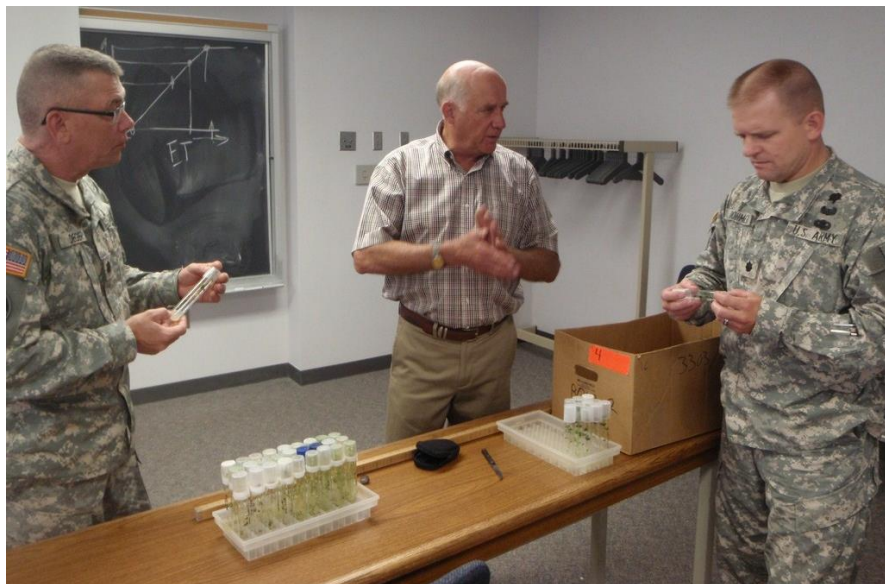
Common insects



Soils



Legumes



Plant pathology



Wheat

Sheep



Poultry



Goats



We learned the arts of hive making and bee-keeping.





Four-day training at a university in California, which has a climate and tree and vine crops like those grown in the target province.



We leveraged the training with reach-back capacity.

[Like](#) · [Comment](#) · [Get Notifications](#)



Joseph P. Berube In eastern Zabul Province the farmers are having a problem with their white grapes...after harvesting, the grapes are hung in the kishmish and they turn to mush, with all the water leaking out of them. Any thoughts or (solutions)on this issue?

November 12, 2011 at 2:51am · [Like](#)



Ghafar Lakanwal I don't get it. "Grapes are hung in the kishmish". After harvest, the grapes are dried to become "Kishmish". The best resource will be Parwan province PRT experinces.

November 15, 2011 at 1:51pm · [Like](#)



Joseph P. Berube ah, I was told the building structure is a kishmish. MSG Doten is explaining to me that a kishmish is a raisen. Thank you.

November 16, 2011 at 2:08am · [Like](#)



Ghafar Lakanwal Yes, Kishmish is the Dari(Farsi) name for raisen. Mameez is the Pashtu name for raisen.

November 17, 2011 at 3:50pm · [Like](#)



Curran Hughes Joseph, if you have any photos of inside of the drying house, or of the grapes at harvest and the raisins after harvest, we can forward them to post harvest specialists at UC Davis.

November 18, 2011 at 6:33pm · [Like](#)



Joseph P. Berube Unfortunately, we only had the stories from the farmers and since it is well past harvest season, we'll have to wait until next harvest to get pictures of the actual grapes. I don't know the next time we are traveling in the direction of the drying house.

November 18, 2011 at 9:01pm · [Like](#)



Curran Hughes Sounds good. If you any questions in the future, feel free to contact me in any direction.

November 22, 2011 at 6:45pm · [Like](#)



Joseph P. Berube Thanks Curran and Ghafar.

November 22, 2011 at 9:08pm · [Like](#)





Kenneth DeGier

January 2, 2012

We are trying to control moths this year in the pomegranates, almonds, apples and apricots. We believe the moth is called carob, the Afghan's call it taj. We have done some research on how to control it and chemical insecticides don't work because they have biological and behavioral traits. We have also researched that the plant asafoetida or devils dung gives off a scent that keep the moths from entering the orchard. The only problem with this is the plant does not like shade. Does anybody have anyother solutions? Thanks, LTC Ken DeGier

Like · Comment

✓ Seen by 10



Curran Hughes Below is a link to the UC Davis, eAfghanAg information site on pomegranates. There are information sheets in English and Pashto under Section 6: Pest Management: http://eafghanag.ucdavis.edu/a_h.../fruits-trees/pomegranate



Pomegranate — Afghan Agriculture

Afghan Agriculture

EAFGHANAG.UCDAVIS.EDU

January 3, 2012 at 9:53pm · Like · Remove Preview



Curran Hughes We just uploaded a new fact sheet with alternative controls for Carob moth on the eAfghanAg Website: http://afghanag.ucdavis.edu/.../FS_Insect_Carob_moth.pdf

http://afghanag.ucdavis.edu/a_horticulture/fruits-trees/pomegranate/pomegranate-fact-sheets/FS_Insec

AFGHANAG.UCDAVIS.EDU

January 23, 2012 at 4:36pm · Like · Remove Preview



Ghafar Lakanwal

January 3, 2012

Probably you already know about this.



Codling Moths: How to Safely Control This Fruit Tree Pest - Sustainable Farming - MOTHER EARTH NEWS

How a California scientist and an apple farmer...

MOTHEREARTHNEWS.COM

Like · Comment · Share



Tony Hunter

December 23, 2011

Can gibberellin be used to produce seedless pomegranate?

Like · Comment

✓ Seen by 11



Curran Hughes Sorry it took us a few weeks to get a reply to this. We asked some horticultural and pomology experts at UC Davis. They said that at this time, no research has shown that the application of gibberellins can be used to produce seedless pomegranate.

January 3, 2012 at 2:11pm · Like



Curran Hughes As a follow up, there is one variety of pomegranate that is "seedless". The Khog Sedana variety of pomegranate grown in Kapisa Province has very small and soft seeds and is therefore considered seedless. It is yellowish red in color with sweet flavor... [See More](#)



Afghanistan In-Situ Germplasm Collection

The project has started to make a national collection of fruit and nut varieties in the country. The project will...

AFGHANISTANHORTICULTURE.ORG

January 8, 2012 at 5:05pm · Like · Remove Preview

Three days in an Amish Community to learn more about farming without modern technology.



“There’s also very little mechanization over in the agriculture in Afghanistan; everything is done with wooden plows and animals yet,” Kuehl added. “That’s one reason we’ll be going to Amish communities in southeast Iowa. ... We will be stepping back in time.”



Photo Credit: Staff Sgt. James McDonnough
Sgt. 1st Class Randy Wright, a pest management specialist with the Illinois Army National Guard's 1-14th Agribusiness Development Team, takes the reins on a team of draft horses during a visit to an Amish farm Sept. 13, 2011. The 1-14th ADT visited multiple farms in the Amish community to assess agricultural practices and technologies, which could be implemented during their upcoming deployment to Kunar Province, Afghanistan.

Iowa ADT trains with Amish, at Living History Farms

Posted 6/21/2010 Updated 6/21/2010

[Email story](#) [Print story](#)



by Capt. Peter Shinn
734th Agri-Business Development Team

6/21/2010 - **Camp Dodge, Iowa** -- It was an unlikely scene Wednesday, 18 June, in northeast Iowa Amish country. The uniforms of the Iowa Army and Air National Guardsmen who make up the Iowa National Guard's 734th Agri-Business Development Team (ADT) were quite a contrast with the Amish farmers who opened their mostly unmechanized operations to the military personnel.

The ADT aims to protect Afghanistan's population by helping Afghan farmers improve their production and economic well-being. But Maj. Duane Eden, an Iowa farmer and agricultural specialist for the ADT, discovered bringing Afghan ag production up to the standards of Amish farms won't be easy.

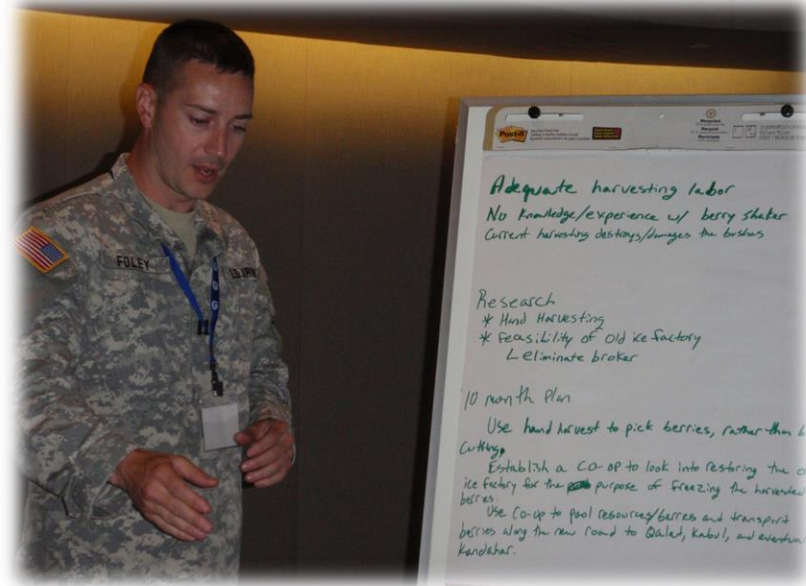
"I was very impressed with the Amish operations," Eden said. "And, you know, hopefully we can get the Afghans up to a level somewhat like the Amish even, which I would guess is probably a hundred years ahead of where they currently they are at."

The Amish farmers agreed to be photographed only if their faces did not appear in the images. Only one of them, Ura Gingrich, who has been farming for decades much as his forbears, have, agreed to let a recording of his voice be made. Gingrich pledged his support for what the Iowa ADT is attempting to do in Afghanistan and wished the team success.

Instruction and resources from an engineering non-profit devoted to work without modern technology.



Instruction from a large cooperative headquartered locally provided the team with three days of education on strategic planning, cooperatives, and development programming in agriculture.









Classes for DAIL staff during and after Ramadan

- Office Management
- Report Writing
- Communication Skills
- Monitoring & Evaluation
- Professional Email Writing
- HR Management
- Project Management
- Grant Proposal Writing
- Water Management
- Soils / Water Management
- Bee Training
- Seed preservation
- Grading Sorting high value products



This innovative model of partnering with industry, universities, communities and non-profits to receive low and no-cost educational opportunities set the ADT up for a successful mission.





We made a tangible difference for
some

For others, we planted the seeds for change

