Experiential Learning for a Combat Deployment

Cheryl Wachenheim
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 Team

- 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, Mascal, 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

Rural Villages

Farmer → Middlemen → Local Trans. → Local Markets → Regional Trans. → Storage/Processing/Packaging → Markets

Urban Areas

Lashkar Gah, Gereshk, Kandahar City

Export Hubs

Spin Boldak, Kabul, Herat, Pakistan

Extension
Demo/Training
Vouchers
Cash for Work
Irrigation
Co-ops/Assoc.
Low-cost Val-Add
Contract Prod.
Local Roads
Cash for Work
Secondary Roads
Contract Prod.
Primary Roads
Power
Value-Add
Warehousing
Regional Roads
Airports
Contract Prod.
Trade Zone Dev.
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.
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<th>Time</th>
<th>Topic</th>
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<tr>
<td>0810-1000</td>
<td>Beef Production</td>
<td>Dr. Carl Dahlen Dr. Kendal Swanson</td>
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<td>1030-1215</td>
<td>Garden Vegetables and Fruits</td>
<td>Dr. Chiwon Lee</td>
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<td>1315-1515</td>
<td>Sheep / Goat Production</td>
<td>Dr. Reid Redden</td>
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<td>Weeds</td>
<td>Mr. Scott Anderson (COL, retired), DowAgroSciences</td>
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<td>0800-0815</td>
<td>Welcome</td>
<td>Dr. Ken Grafton, Dean</td>
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<td>0815-1015</td>
<td>Alfalfa Production</td>
<td>Dr. Marisol Berti</td>
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<td>1315-1500</td>
<td>Soils</td>
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<td>Dr. Thomas Scherer</td>
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<tr>
<td>0800-1000</td>
<td>Plant Pathology</td>
<td>Dr. Gary Secor</td>
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<td>Animal Health</td>
<td>Dr. Neil Dyer</td>
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<td>1300-1500</td>
<td>Entomology</td>
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<td>1515-1700</td>
<td>Bee Keeping</td>
<td>Dr. Gary Goreham</td>
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<td>0800-0900</td>
<td>Ag Development in Developing Countries</td>
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<tr>
<td>1000-1215</td>
<td>Poultry Operations</td>
<td>Amon Baer</td>
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<td>1400-1500</td>
<td>Camel and hoof stock</td>
<td>Erin Teravskis</td>
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North Dakota State University, with friends, provided four days of training for the team.
Common insects

Soils

Legumes

Plant pathology

Wheat
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.
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

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

Tony Hunter
December 23, 2011
Can gibberellin be used to produce seedless 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_Insect...
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.”
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