Afghanistan PEACE Project
Reducing Risk for the Kuchi People

Afghanistan
Pastoral Engagement, Adaptation and Capacity Enhancement (PEACE) Project

Quarterly Report

January 1, 2010 through March 31, 2010

Submitted By:
University of California at Davis

In Collaboration With:
Texas A&M University System

A USAID-funded Project
Cooperative Agreement No. 306-A-00-06-00521-00

March 31, 2010
Introduction

Three departments within the Ministry of Agriculture, Irrigation and Livestock (MAIL) are fully engaged with our livestock production-focused programs; the Department of Natural Resource Management with the Livestock Early Warning System (LEWS), Department of Animal Health with the Rangeland Quality System (NIRS), and, the Department of Statistics with the Livestock Market Information System (LMIS).

In addition, we have continued to promote skill development and facilitate a forum for the Kuchi leaders to resolve their land tenure/access issues peacefully. We have done this in collaboration with government entities like the Independent Department of Kuchi (IDK) and the President’s Commission on Peace, as well as with an Afghan NGO, Sanayee Development Organization.

During the past quarter there have been several exciting developments for the PEACE Project. We have started our 4th field season and although security concerns will make moving around the provinces more challenging than in previous years, we expect to monitor most of our rangeland survey sites. The NIRS laboratory is now capable of estimating diet quality on Afghanistan’s rangelands for sheep and goats and will be doing so through the summer. For three months Livestock Market Prices, particularly for sheep and goats, have been collected in Mazar, Kabul and Jalalabad and this information is available by “sms” to anyone that has a phone. On the conflict resolution front, Kuchi and Hazara leaders have resolved a major land tenure issue in Behsud. This issue was responsible for many deaths over the last several years. We have been assisting these leaders for a full year to address this and many other smaller issues in Wardak Province. Now, together with the President’s Peace Commission, the Hazara have agreed to move off a large piece of land that legally belonged to the Kuchi (Kokozai’s land).

Summary - Activities conducted this quarter

- Restoration of the National Herbarium Collection completed. Over 22,500 plant specimens have been cleaned, tagged, and catalogued into an electronic database, and re-shelved
- Livestock Early Warning System training held for MAIL NRM staff from 3 Provinces.
- First Draft of the Rangeland Classification Map nearly complete
- Training program for Nutritional Profiling of rangelands was delivered to 10 MAIL staff by Texas A&M University Expert
- Kuchi shuras in 13 Provinces reporting monthly to PEACE and the Independent Dept. of Kuchi
- Conflict Resolution workshops delivered to Kuchi and Village leaders by Kuchi trainers in Takhar and Badakhshan.
- Final report from Risk Management Pilot Project finalized
- Livestock Market Information System supported by the MAIL is capable of providing live animal prices from 3 major markets by sms messaging.
- Peace Ambassadors continue their work in Wardak Province
Major Implementation Activities conducted this Quarter

A. Infusion of the Forage Monitoring System

Restoration of herbarium at Kabul University

Kabul University’s herbarium, located in the Biology Department, is beginning to look like a functioning herbarium. Restoration work is nearing completion. Over 22,500 specimens have been cleaned, catalogued, and shelved. This work has been accomplished through the diligent effort of 3 Afghan technicians and 9 university students.

The potential impact of the restored herbarium is enormous. Researchers in Afghanistan will now be able to implement environmental impact assessments not previously possible due to a lack of data. Specialists will be able to design natural resources management and rehabilitation measures using data specific to the areas for which they are planned. Afghanistan will be able to better meet its obligations under international environmental conventions. The identification and preservation of protected areas will be improved due to the increased ability to identify sites with unique, rare, or endemic specie assemblages. Finally, international research on Afghanistan’s flora will be enhanced. What makes the Biology Department truly proud, however, is that for the first time in several decades, Kabul University faculty and students will be able to use the herbarium for training, teaching, and research – the purposes for which it was originally intended.

Livestock Early Warning System Training 20-27 February 2010

Food security has increasingly become a chronic issue for Afghanistan due to decades of conflict, political instability, drought, human population increases and changing land use and land tenure policies. The Afghanistan PEACE Project has been working to institutionalize a Livestock Early Warning System (LEWS) Program within the Ministry of Agriculture, Irrigation and Livestock (MAIL) in an effort to provide the Afghan Government with a mechanism to improve livestock production which in and of itself is a means of alleviating poverty. LEWS also provides opportunities for improving range management, managing Afghanistan’s wealth of biodiversity and promoting economic stability.

In continuation of the efforts by the PEACE project to institutionalize a Livestock Early Warning System (LEWS) Program in Afghanistan, PEACE staff members conducted a 6-day training for Ministry of Agriculture, Irrigation and Livestock staff on data entry and plant modeling via web-based programs owned and managed by Texas A&M University (TAMU). This training follows extensive field training exercises over the last 3 years (2007-2009), with all trainees having participated in the field training exercises.

The training involved data entry into PHYGROW and PHYWEB programs, two interactive programs developed and maintained by TAMU for the benefit of LEWS users around the world. The data entry exercises covered site, soils, plants, plant communities, grazer preference and grazing profile data specific to sites surveyed in 2009. To facilitate this effort, a training manual was developed for Afghanistan and translated into Dari. The manual was accompanied by a range of data compiled from the 2009 field survey sheets, web research, and downloaded from TAMU’s new interactive web site for Afghanistan. The team entered the data in teams of two,
with each team member sharing in the data entry and data reading responsibilities. The data specific to plant species involved further training in plant parameterization. Plant parameterization entails entering data specific to the individual growing requirements of each species, such as temperature (base, suppression, optimum), leaf area index, rooting depth, above ground biomass and seasonal growth behavior.

Given the lack of adequate training in the past, specifically in the area of plant biology, this portion of the training took significantly longer than anticipated. Understanding TAMUs new interactive website took some time as well given the trainees limited experience with using web-based technology. The trainees did succeed in completing the data entry training portion with an adequate understanding of the process and methods used. It is expected that with further guidance, they will be able to follow the data entry process with little difficulty.

The part on plant modeling also went well, despite the difficulties encountered. These included a lack of understanding in modeling in general due to the lack of training in this area in the past; again, a lack of understanding of plant biology which lead to confusion on how to adjust certain parameters in order to better fit the model; and a lack of understanding of soil science which also facilitates an understanding of how and where to make adjustments in order to better fit the model.

To date, there are approximately 67 survey sites used to forecast forage conditions in 14 Provinces in Afghanistan. Forecasts for these sites are now available in 2010. The forecasts were a result of modeling by TAMU modelers until such time that MAIL staff have the capability to undertake this responsibility themselves. Given the difficulties encountered during this training, it is clear that further capacity building is required before the MAIL can be fully expected to execute this program on their own.

In total, there were 4 participants from three provinces, with all representing the Rangeland Department within the Ministry of Agriculture, Irrigation and Livestock.

Photos: LEWS training participants and PEACE Trainer.
To assist the MAIL in the management of rangelands, a country-wide classification map near completion. This classification is based on the field work we have been able to accomplish in 15 central and northern provinces and an extensive review of satellite images for the remainder of the country. Rangelands are being classified according to their plant species composition, elevation, and, moisture and temperature regime. One of the major benefits of the classification is that it will help policy-makers to prioritize rangelands that should be considered for closer management such as restoration or access control.

**B. Infusion of the NIRS Nutritional Management System**

*NIRS Calibration Equation Development Using GRAMS Software 13-17 February 2010*

In continuation of the efforts by the Afghanistan PEACE project to implement nutritional profiling of free ranging livestock via NIRS technology applications, the Afghanistan Peace project conducted a 5-day training on NIRS calibration equation development using the GRAMS software. This training was the third of three trainings in the use of NIRS technology for predicting dietary composition of rangeland forages for free ranging livestock. All of the participants had either attended the previous training in 2008 or participated in an interactive E-learning training exercise given in January 2009 by PEACE and MAIL staff.

The training covered all aspects of calibration development including: 1) importing NIR spectral data and laboratory chemical data into the GRAMS software to be paired together to create calibration data sets; 2) experimental design and applications; 3) statistical review; and 4) development of fecal NIRS nutritional profiling equations. The participants first worked in groups and then on an individual basis to create and test the efficacy of the equations. The strongest calibration equations were chosen and used to predict unknown samples. The predicted results were evaluated and found to be within acceptable ranges of the calibration data and a control measure.

Upon completion of the equation development and evaluation portion of the training, participants discussed and covered topics on nutrition and how to apply the results to decision making and risk management for livestock production. The participants seemed eager to continue on in the study of this technology and the consensus was that this application will be a very useful tool to improve the management of livestock and rangelands in Afghanistan. The participants also expressed much interest in the other applications of the technology as it relates to the evaluation of quality characteristics of forages and feedstuffs such as hays, legumes, concentrates, and mixed rations for both livestock and poultry. Another area of interest was the use of the technology to evaluate commodities, dairy products, eggs, and meat intended for human consumption. It was explained that the technology could be used for all of these applications as well and, that the same procedures and steps learned for fecal nutritional profiling can be applied to the other areas of interest. The technology is widely used to evaluate products in both the human and livestock food and feed agro-industry all over the world. What is lacking currently in Afghanistan, however, is the ability to generate the chemistry required for equation development due to the lack of a wet chemistry lab.

In total, there were 10 participants at the NIRS training, representing 5 different departments within the Ministry of Agriculture, Irrigation and Livestock.
C. Outreach and Linking the Technology with Herder Alliances

Facilitating Kuchi Shuras

Facilitating provincial Kuchi shuras held by provincial directors of the Independent Department of Kuchi (IDK) has been a very important effort related to conflict resolution and the development of a vertical communication network that ties the government to the people. We would like to continue with this effort throughout the summer and hope to find funding to expand it to include all provincial Kuchi shuras. An example of the kinds of conflicts and issues the shuras are dealing with on a monthly basis was tabulated from their monthly reports in Table 1 and 2. Monthly reports from shuras are submitted to the IDK and the PEACE Project. They help IDK and us to gain a better understanding of the issues faced by extensive livestock producers and to help evaluate the effectiveness of specific Provincial Directors.

Table 1

<table>
<thead>
<tr>
<th>Conflicts Solved in Provincial Shuras in last 12 months</th>
<th>Individual</th>
<th>Family</th>
<th>Clan</th>
<th>Inter-Ethnic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>75</td>
<td>3</td>
<td>34</td>
<td>11</td>
</tr>
<tr>
<td>Land Access</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Land Tenure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Rangeland conversion</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>3</td>
<td>53</td>
<td>42</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th></th>
<th>Individual</th>
<th>Family</th>
<th>Clan</th>
<th>Inter-Ethnic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building schools</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Consensus Building</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td>Elections</td>
<td>39</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>H1NI Virus</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>0</td>
<td>41</td>
<td>90</td>
</tr>
</tbody>
</table>

D. Building Capacity within the IDK and Kuchi leaders

Expanded Capacity for Kuchi Leaders

Kuchi leaders trained to deliver peace-building and conflict resolution workshops were busy again this past quarter in Kunduz, Takhar and Badakhshan. Kuchi and village leaders were organized for two workshops to attempt to address the migration route issues faced by Kuchi that winter in Kunduz and summer in Badakhshan. The first workshop was held in Takhar and included villagers from around the Taluqan area. The second meeting was held in Badakhshan and included villagers from the Kishim region. The outcomes of the workshops were very positive. Villagers were surprised and very appreciative that the Kuchi leaders came to them to discuss the issue beforehand. In Takhar they were able to make agreements with several farmers to allow Kuchi animals to pass through land owned by the villagers. In Badakhshan too, an agreement was reached between villagers and Kuchi herders to allow for the movement to occur smoothly through Amani and Sangi this year.

Risk Management

Collective action groups (CAG) were formed from 3 Kuchi communities located in Jawzjan, Balkh and Kunduz last summer and fall. The final report for this risk management project has undergone its final edit. Unfortunately security concerns prematurely ended this work. Some valuable lessons were learned, however, and when security improves we would like to continue.

Two distinct messages emerged from the Community Based Risk Management Program (CBRMP) trainings and discussions: (1) Kuchi participation in development programs in Afghanistan was not genuine; and (2) partnership formation to promote development in Afghanistan is uncommon. Participants agreed that development facilitators and managers need more training and practice in these development models, though the adoption of this community-based and participatory philosophy will require major changes in attitude along with a paradigm shift in the thinking of development facilitators. All three Kuchi groups identified a degree of commonality in the types of problems associated with risk, with water shortages, lack of human and animal health services, transportation issues, and animal feed shortages all reported as the most prominent and persistent problems. Progress was made in CAG development among the three groups, with founding members receiving in-depth training on CAG formation, and the role CAGs can play in empowering communities and increasing community self-reliance. All three CAGs have established organizational structures, identified areas of emphasis, and initiated savings activities among members.
Based on the successes of the initial CBRMP activities, it is advisable to plan additional trainings for other provinces where the Kuchi are active, and to begin a planned expansion of the pilot phase. It is recommended that the trained Collective Action Group (CAG) members receive more training in the participatory rural appraisal (PRA) process to better enable their use of the tools for generating more gains in community empowerment. In addition, it is clear that development facilitators with the intention of working with the Kuchi receive proper training in the concepts and application of PRAs, to ensure that the beginnings of truly participatory partnerships initiated during this pilot phase are further encouraged. The CBRMP trainings helped the Kuchi develop a greater sense of collective self-confidence and self-reliance, attributes critical for continued development and problem solving. In addition, through the trainings, considerable gains have been made in risk education: the Kuchi have expressed a desire to develop the capacity to protect their pastoral livelihoods against a crisis situation, while also diversifying this livelihood to greater non-livestock based economic activities to minimize their vulnerability to risk thereby becoming more resilient to shocks. The CAG process begun by this pilot is a step in this direction. With well-planned capacity building assistance from either the PEACE project or another donor, these newly formed Collective Action Groups can achieve most if not all of the activities they have identified as group priorities. As a result of the training and subsequent capacity building interactions the groups have had with the PEACE team, the momentum for continued progress has been created. We hope that security and finding will improve so that we can begin again where we left off.

E. Livestock Market Information System

Livestock Market Information System

Live animal prices for sheep and goats have been collected in Mazar, Jalalabad and Kabul for the last 3 months. We can now produce reports and analyze trends graphically with the LMIS software. You can visit http://afghanmarketprices.org to check out the latest trends in the sheep and goat markets. Some examples of how the data can be displayed with the LMIS software are given below.

![Livestock Market Information Report](image)

Summary of the volume and prices of various sheep and goat breeds in the three Afghan markets.
Volume Composition of sheep and goat breeds sold at the Jalalabad Market from January 2 through March 30, 2010.

Market Prices for the various breeds of sheep and goats from one of the Kabul markets over the last quarter.

Market Prices for the various breeds of sheep and goats in the Mazar market over the last quarter.
The MAIL has developed a new office that will assist in collecting and disseminating market information. MAIL’s Market Information System Department (MIS) will work together with the Statistics Department to implement the LMIS in the near future. The LMIS hardware and software will be maintained by the MIS staff. The livestock market prices will be collected and analyzed by the Statistics Department. We are planning to hand-over the equipment sometime in June and continue support for the LMIS through September. The establishment of the MAIL MIS will ensure that the LMIS will be institutionalized because there will be at least one person in each District responsible for collecting commodity and live animal prices.

F. Other Achievements

Hazara and Kuchi Peace Ambassadors Continue to Work for Peace

This quarter marked the end of a full year of Kuchi and Hazara Peace Ambassador (PA) support. The PA’s have discussed peace with their people and have tackled one of the biggest land tenure issues in Behsud, which is the conflict over Kakozai’s land. After numerous meetings with Hazara and Kuchi leaders, the Hazara have agreed to move off of Kakozai’s land and allow the Kuchi that own the land to return. Although the resolution to this issue will not stop Kuchi and Hazara problems throughout Afghanistan, it is still a huge victory for the Afghans the peacefully resolved a very serious conflict. Resolution of this issue exhibits that agreements can be made at the grass-roots level. Table 3 summarizes the categories conflicts that were solved by the Peace Ambassadors over the last year.

Table 3

<table>
<thead>
<tr>
<th>Conflicts solved by Peace Ambassadors during the last 12 months</th>
<th>Individual</th>
<th>Family</th>
<th>Clan</th>
<th>Inter-Ethnic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>36</td>
<td>12</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Land Access</td>
<td>0</td>
<td>7</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Land Tenure</td>
<td>0</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Rangeland conversion</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>24</td>
<td>24</td>
<td>37</td>
</tr>
</tbody>
</table>