

Quarterly Report

October 1 –December 31, 2006

For

**Sustainable Development of Dry Lands in Asia and the Middle East
Funded by USAID in cooperation with the**

**International Arid Lands Consortium
Arid Land Study Center
University of Arizona
Tucson, Arizona**

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Technology Learning and Teaching Center in Nangarhar University, College of Agriculture.

Project Overview

To support ongoing efforts to revitalize the overall agricultural education program in higher education institutions in Afghanistan, this preliminary project, supported by the IALC, has created the first Agriculture Electronic Library (AEL) in the Faculty of Agriculture at Kabul University (Inaugurate in the spring of 2004). The second such facility was established in December 2006 in Nangarhar University's faculty of agriculture. It is intended that this facility be expanded to a fully functional technology teaching and learning center in addition to AEL.

Project Name: Establishment of Teaching and Learning Technology Center for Nangarhar University, Faculty of Agriculture, Jalalabad, Nangarhar, Afghanistan.

Overall Project Goals:

The objective was to establish an information resource center for the development of modern agriculture in Eastern Afghanistan. This was accomplished by creating a fully equipped and operational Agriculture Electronic Library and technology teaching and learning center at Nangarhar University in Jalalabad, Afghanistan. The center is housed and managed by the faculty of Agriculture.

Current quarter (October 1- December 31, 2006)

Introduction

The higher education system in Afghanistan has been damaged during the past 28 years and is in need of complete rehabilitation. In 2002, the US government started a "back to school" program after the fall of Taliban to initiate the rehabilitation process. The program has a long way to go with many obstacles in the way. The ministry of higher education has also suffered greatly and is in need of help to educate its students. The IALC Sustainable Development of Drylands in Asia and the Middle East has focused on the rehabilitation of the agricultural sector in Afghanistan. The first objective of this project was the establishment of an electronic library (TEEAL) at the faculty of agriculture in Kabul in 2004; details were reported earlier by Dr. Atifa Rawan. In December 2006, it was decided to establish a similar facility in Jalalabad, Afghanistan at Nangarhar University's faculty of agriculture.

Observations:

The teaching facilities at the faculty of agriculture were far from desirable. The lecture rooms were cold, and window and window frames, chairs and desks were broken. There were no functional lavatory facilities by the lecture rooms or faculty building. Electricity was not available at either location. The whole faculty did not have any electronic teaching devices i.e. overhead or power point projectors. There were no photocopying facilities and the professors wrote each examination for distribution by hand. I traveled to Jalalabad during the peak winter season and the cold forced the students to take exams only when sunlight provided a minimal amount of warmth;

however, the wind still shuffled their papers. There were no laboratories for teaching or any facilities for field work for applied research in field crops or horticulture.

When I spoke to the faculty, I explained my intentions to purchase a photocopy machine. I was slightly short on funds in the allocated budget so a faculty member, Prof. Asem, contributed \$250 and a copier was purchased. There is still a need for a generator and operating funds, however these specifications were not part of our budget. I found that security was the highest risk factor so I requested the dean hire a security guard. I allocated the remainder of the contingency fund to pay for the center's security. Furthermore, considerations for the establishment of the English language and computer literacy programs should be investigated to allow the faculty and students to fully benefit from the Agricultural Electronic Library (AEL).

Another major concern is the lack of communication networking throughout the university. The computer facility still lacks internet capabilities, inhibiting university staff access to online databases, e-mails, etc.

Currently the faculty does not have a library, and there are no resources of any kind (primary, secondary or tertiary) available at this time. The students relied completely on verbal dictation and notes provided by faculty members. There is no way for determining validity of the information or possibilities for updating educational levels. Lack of such vital resources results in the loss the free thinking capabilities, spirit of investigation and experimental studies.

Achievements:

In a short period of time, the old teaching laboratory was painted, the windows and the door were fixed, a new security door was installed, and mosquito screens and wrought iron fences were securely fixed to all widows. Curtain rods and curtains were hung and the floor was carpeted. An electricity cable was extended to the building and laboratory, wiring was completed and 15 outlets were fixed to the walls all around the laboratory. Nine work stations complete with computers, printers, surge protectors and networking were placed in this center. Eight computers were purchased and networked together and one computer was assigned to the coordinator and faculty if they wanted to use it for word processing. Three printers, one power point projector, a photocopy machine, projector screen, a 10,000 watts stabilizer, 8 desks and 16 chairs were purchased and placed in the center. All doors and windows were secured to reduce the chance of vandalism. Teachers with proficiency in English and numerous computer programs were hired for this facility. In addition to this, Lan-TEEAL (The Essential Electronic Agricultural Library) 1993-2005 – on 209 GB hard drive a collection of 115 major journals in agriculture was installed. TEEAL is produced through a cooperative effort between the Rockefeller Foundation, Cornell University's Albert R. Mann Library, and leading science publishers. CAB International CD-ROM full-text products: Crop Protection Compendium, Animal Health and Production Compendium, Forestry Compendium, and 20 electronic volumes of IDRC books were provided to the center. Stationary supplies were also purchased. Passwords for free access to the Access to

Global Online Research in Agriculture (AGORA) system were provided by Dr. Atifa Rawan in the training program. This web resource provides full-text for over 400 journals from major scientific publishers in the fields of food, agriculture, environmental science and related social sciences. Two faculty members were trained in the use of TEEAL and AGORA and they will train faculty and students in the use of TEEAL.

Following quarter: (January 1-March 30, 2007)

Recommendations:

1. Work with the faculty and administration to find funds for the rehabilitation of the teaching facilities and faculty offices.
2. Identify resources to be used for the teaching of English language and computer literacy and facilitation of research on campus.
3. Identify potential donors for the expansion of this center.
4. Look into sustainable alternative sources of electricity (solar panels or generators)
5. Work with other organizations to facilitate internet in order to enable the faculty and students to access online information.
6. Assist in curriculum development and help locate textbook for faculty and students.
7. Help coordinate faculty to establish contacts with local and international resources in attaining international research grants.
8. Provide faculty with training and teaching resources to encourage field experiments on campus and on farmers' fields.



Figure 1. Workstations in Nangarhar's University college of agriculture Technology Learning and Teaching Center and AEL.



Figure 2. President of Nangarhar University Prof. Dr. Amanullah Hamedzai in the ribbon cutting ceremony of the new Technology Learning and Teaching center.



Figure 3. Prof. Mohammad Asif Bawary dean of college of agriculture, and Prof. Hukum Khan Habibi using the TEEAL, in Nangarhar University.