

Quarterly Activity Report: October 1 through December 31 2008
IALC Sustainable Development of Drylands in Asia and the Middle East Project
Jordan Component: “Business and Socioeconomic Assessment of Water and
Products for Community-Based Projects in the Badia Region”

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Quarterly Activities:

The main outcomes from the October through December quarter’s activities were;

- ✓ Submitting a paper with the results of the econometric analyses of the Mafrqa agricultural water use survey data for publication in a peer-reviewed water resources journal.
- ✓ Continuing with the econometric analyses of the data and publish a report on the farmer’s willingness to accept compensation for giving up their water rights in the Mafrqa aquifer.
- ✓ Disseminate training materials using the Anaqeed al Khair and the Tal-Rimah cooperatives as examples to train individuals involved in similar projects throughout Jordan on how to analyze their economic and financial feasibility and how to use the results from to improve a cooperatives’ business performance.
- ✓ Work continued on the feasibility study of starting a fiber arts crafts business that is mainly producing handmade products using natural dyes primarily for export markets as a means of providing employment to women in the Badia. Preliminary recommendations
 - Since women are the predominant buyers of gifts and fashion items it is recommended to focus on fashion bags, market bags and laptop carriers. To create a different product with brand recognition when so many traditional weaving designs are similar around the world, we are suggesting updating some of the traditional Bedouin patterns using local artists as a resource. While we will be including local patterns, it was also decided to research and develop designs from traditional Bedouin weavings. Motifs adapted from the geometric designs and mosaics that exist at the historic sites in Jordan such as in Madaba could also be used
 - Needlepoint designs created from these sites and others such as Petra could appeal to the tourist trade and easily be adapted for worldwide export.
 - There are two cooperatives in the **Badia** region that we believe would be suitable for this project. They were the **Al-Sadaqa Village and Cooperative** and the **Jordanian Women’s Qualifying and Training Society** in Udreh.
 - Neither of these groups currently have a marketing representative thus any representative hired would need to be paid from the money earned in the projects. The Jordanian women we met were very receptive to working on this project with us. These groups already spin the native sheep breed, but their methods are very time consuming. They do not card, which

leads to wool full of plant fiber and dander. This affects the quality of their finished product. They are using hand drop spindles instead of spinning wheels. By using wheels they could greatly speed up their wool processing time and give them more design versatility. The cooperatives still weave on the traditional ground looms that Bedouins have been using for centuries. While these looms are perfect for long rugs, they weave very slowly and require two women to work each. A couple of 4 harness floor looms would be easier on the women, increase production speed and the versatility of designs.

- It is our conclusion there is a definite need to increase the quality and marketability of the current status of Jordanian handicrafts. There are problems that have to be solved in order to please the US market. Among them are wool cleanliness and softness, product quality, cost of heating water for dyeing, design limitations and speed of production due to their antique methods. There is also a need to create an identifiable market brand. Research into historic Bedouin hand-woven products, exploiting the popularity of Petra, and the mosaics of Madaba provide a wealth of source material.
 - A sample of the Awassii wool fiber was carried to the US for processing and to see if the quality could be improved. By careful carding and using Borax and vinegar, both inexpensive and readily available, it was possible to soften the yarn. The fiber wasn't suitable for fine wearables even with this level of processing. However, it will work well for bags, pillows, rugs, and needlepoint.
 - Bedouin designs are being adapted for use in the project. Once the samples are made and warp designs drawn they can be given to the weavers to copy. With the existing skills the Jordanian women have in combination with the new equipment they will be trained to use, these women will be able to develop their own designs in the future to reflect market demand.
 - The website for marking their products is still in development, but is currently complete enough to put on the Internet at anytime.
- ✓ Completed preliminary cost of production budgets of growing selected organic natural dye plants as a possible high-value but low water use crop by community groups in the Badia. The crops would be a native source of supply for the proposed fiber arts activities.
 - ✓ On the basis of the results of the economic analysis of the community based water harvesting and range restoration activity, continue work to encourage others to initiate similar range restoration activities throughout the Badia region of Jordan.
 - ✓ Expand and formalize the data analysis to evaluate and identify superior shrub and perennial grass species from seeding evaluation study initiated in December 2007 for use in future restoration activities.
 - ✓ Continue with field research to evaluate the impact of controlled grazing and stocking rates on the study site, and the economic implications of these treatments. Continue to monitor existing rangeland rehabilitation project and to investigate potential future sites.
 - ✓ Completed preliminary analysis of data collected through the agricultural water use survey in the Al-Shamia area and prepared a draft report for internal review.

- ✓ The NMSU team members responsible for the different activities were in frequent long-distance communication with their BRDC counterparts.
- ✓ Libbin and Bailey completed plans for a working field trip to Jordan during January 2 through 12, 2009. They will establish new experiments, conduct evaluations, and plan public presentations of work progress at both the Tal Ramah and Ghrain (Al Muraygha) sites. During this visit, Libbin and Bailey plan to meet with BRDC, Royal Botanical Gardens, Al al- Bayt University, and University of Jordan. .

Activities Planned for the January 1 – March 31, 2009 Quarter

- ✓ A list of equipment needed for the **Al-Sadaqa Village and Cooperative** and the **Jordanian Women’s Qualifying and Training Society in Udreh** will be prepared and purchased. This equipment will be either shipped to Jordan or hand carried.
- ✓ Work will continue on preparing designs that are most likely to sell in the US market
- ✓ Work will continue on locating retail stores in the US that would be interested in selling the Bedouin products and establishing a cost effective shipping and distribution network.
- ✓ Work will continue on refining the proposed website for the fiber arts products.
- ✓ Establish two new field experiments at both the northern (Tal Rimah) and southern site (Ghrain). One study will examine the efficacy of water harvesting with directing seeding of forage kochia and other species. The second study will evaluate broadcast seeding of forage kochia and arid –adapted perennial grasses in Jordanian rangelands and determine if prescribed use of livestock can facilitate establishment of seeded species.
- ✓ Submit a proceedings paper describing the results of the forage variety evaluation study that was initiated in December 2007 to the International Farm Managers Association conference which will be presented during July 2009.
- ✓ Submit a refereed scientific journal paper summarizing the results of the forage variety evaluation study initiated in December 2007 to International Society for Range Management journal, Rangeland Ecology and Management.
- ✓ Complete the analysis of the data collected through the agricultural water use survey in the Al-Shamia area and publish the findings as Report Number 8.