

# Striking a Balance: Rangeland Evaluation and Monitoring in the 4-Corners Region

## Final Report for EW02-010

Project Type: Professional Development Program

Funds awarded in 2002: \$100,000.00

Projected End Date: 12/31/2006

Matching Federal Funds: \$100,000.00

Region: Western

State: Arizona

Principal Investigator:

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Navajo Nation Department of Agriculture

Co-Investigators:

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Navajo Nation Department of Agriculture

## Project Information

### Abstract:

This project began on July 1, 2002, and the deadline for completion was December 31, 2003. However, the recipient was granted its first no-cost extension with expectation that the project would be completed by December 2004. Consequently, a second request for a no-cost extension was granted with a completion date of December 31, 2005.

In Fiscal Year 2005 there was a change-over concerning the project coordinator. While the project was incomplete based on these discrepancies the final co-cost extension was again granted. The funds were earmarked for the education component of monitoring of rangeland resources on the Navajo Reservation. Navajo Nation Agriculture department would like to summarize the end of WSARE Grant year.

Significant educational accomplishment on rangeland monitoring include: completion of four mini walkabouts specific to Navajo producers, technical people and interested individuals. The walkabout activities were set-up to look at four items of concern.

1. Rangeland resources and livestock
2. Water resources
3. Wildlife
4. Ranch Enterprising for Profit

During the rangeland walkabout events the participants learned to assess the lands used by livestock to determine whether the moisture was effectively utilized by examining the ground cover, amount of litter being broken down, and amount of

water runoff. Participants worked together to determine what effective water and mineral uses are and how diversity of the ground cover aids toward good rangeland and water resources. We found out that solar energy also plays a role in the growth of the grass plant — more grass cover on the ground.

Wildlife is just as important as the grazing of the livestock because managing wildlife lead right into the ranch enterprises for profit.

Water resource is a major element that helps determine whether the ranchers will yield a productive and profitable return.

During the monitoring training session the participants learned how to choose the right monitoring program, measuring against our objectives, and coordinating with agencies, i.e. read soil types, identify local grasses, determine precipitation base on forage production, evaluate pastures between grazing, help a ranch crew to understand rangeland health, and make better decisions for moving livestock across the landscape.

We've had excellent turnout to the training workshop to learn to apply practices, methods, and using the evaluation tool using the brand new "The Land Monitoring Handbook." Five Handbooks were printed and another three thousand (300) copies are pending publication at Cortez Copy & Print Shop, in Cortez, Colorado.

Cindy Dvergsten of Whole New Concept, LLC, played a major role as an advisor, trainer, facilitator, and technical field assistance while we performed the walkabouts; teaching the land monitoring method, hands-on practices, and demonstrating real life situations where land monitoring is used and illustrated and proven profitable returns on ranches that applied the schemes.

Another educational video on land monitoring specifically for community people is currently being integrated into the Navajo Nation Department of Agriculture's extension education program. The Department's goal is still to produce and market "Navajo Beef"; the concept is to produce quality beef and sheep to market the product locally and nationally with the label "Navajo Beef/Sheep." Our technical staff learned a great deal and is teaching the rangeland monitoring concept to Navajo producers to manage ranches that are sound and profitable and sustain as enterprises.

#### Project Objectives:

The objectives are generally the same as previous years, and we believed we've accomplished the goals and objectives we intended to achieve.

1. Learn how to evaluate, monitor, and record the health of the rangelands and adjacent woodlands so that we can, in turn, teach others how to do the same.

Secondary Objective — Show the value of rangeland "walkabouts" as a primary monitoring and evaluation tool at the sites selected by collaborators.

Secondary Objective — Show the value of keeping a photographic record of our observations.

2. Create a network of individuals and organizations that transcends the complicated political and philosophical boundaries of the 4 Corners region so that as professionals we can find each other and so that the grassroots folks can find us.

Optional Secondary Objects — Develop a website on which to place our handbook/range conservation training program and links to our network in Fiscal Year 2007.

## Cooperators

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## Education & Outreach Initiatives

Objective:

Description:

### B. Evaluation

Applying for and receiving time extension has really made a tremendous impact on our Navajo producers. The program brought about a holistic way of monitoring land based on alternative range management. Navajo producers have been forced to grapple with the conventional scientific land management that the Bureau of Indian Affairs' rigid and outdate science. As mentioned in the previous report in 2005, the USDA Cooperative Extension Services method of range management scheme will be used to compare to the alternative results of rangeland health that our participants have learned thus far.

The participants have been introduced to a range monitoring application that is different; looking, listening, and hands-on activity to enhance the health of land. The use of hands-on tools and activities is fun, meaningful, and participatory. Some of our students are applying the concepts on their own ranches and sheep camps.

The Department of Agriculture staff have first hand applied hands-on methods, observe and discover style of assessing land, and have develop a more holistic approach to land management using the land monitoring concepts that our forefathers' used while tending to their livestock, and can be used by farmers too. The Staff have attained and combine existing knowledge and those of our forefather to Navajo ranchers so they can bring about successful results. It is still the mission of the Department of Agriculture to approach ranching operation to return profits with flexible method.

Outcomes and impacts:

Scope of Work/Work Plan

D. Scope of Work/Work Plan

The FY 05 and 06 Scope of work remains much the same as originally planned. The request for a no-cost extension is granted bringing our deadline to November 31, 2006. The budget has been revised to accommodate the activities to publish "The Land Monitoring Handbook" and attain successful training workshops for Navajo Producers and Department staff.

1. Navajo Nation department of Agriculture continue to oversee the entire project.
2. Financial administration of the grant will be overseen by Navajo RC&D. Supplemental salary is set aside and paid to Navajo RC&D to oversee the WSARE Grant Contract Number C029545.
3. Four mini walkabouts were conducted in FY 06 due to the necessity to conduct assessment and carry out hands-on activities.
4. A Land Monitoring handbook and an audio-visual tool are published in FY 05/06 coupled with training for the Department of Agriculture staff, Navajo Producers and local Grazing Officials to successfully carry out the outreach program of the monitoring program as stated as well as achieve the goals and priorities of Department of Agriculture "Navajo Beef" project.

## Project Outcomes

Project outcomes:

The Navajo Nation Department of Agriculture has successfully implemented on the ground the land monitoring program of their choosing with Navajo Grazing Associations. Again, the goal of the Grazing Associations is to promote "Navajo Beef"; a concept of limited Liability Corporations. Several Association members attended workshop; Land Health Monitoring, Ranching for Profits school and Record Management trainings. The educational component is an essential on-going education beyond 2006.

Recommendations:

## Potential Contributions

In conclusion, the final product; The Land Monitoring Handbook and the Bilingual Monitoring Video are the base education component of Rangeland monitoring program. The products are user-friendly allowing participatory activities for the Navajo ranchers, farmers, and interested parties to learn and carry out monitoring of natural resources on Navajo Nation. The Department of Agriculture is well equipped to teach the monitoring courses on soil and water conservation program.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or SARE.



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