Partnership Title: Decision Support of Ruminant Livestock Systems in the Gulf Region of Mexico

Development Area: Economic growth and competitiveness through animal agriculture

Lead U.S. Institution(s): Cornell University

U.S. Partnership Director(s): Robert W. Blake
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Partnership Website Address: (in planning stage)

Period Covered by this Report: June 17, 2004 through September 30, 2004

1 Revised September 30, 2004
PARTNERSHIP PROFILE (Executive Summary)

This partnership seeks improvement of productivity, profitability and rural incomes in the Gulf region through a systems-oriented program of training and decision support to the ruminant livestock industry. A primary goal is to increase the ability of decision-makers to respond to changes in technologies, markets, or trade policies. Focusing on two UADY graduate programs, our efforts integrate learning and knowledge-generating activities from problem definition to producer decision support. Four short courses now underway involve all university partners, farmers and government organizations. These courses facilitate team-building and identification of research priorities. Concurrently, there has been joint planning of new teaching platforms. Increased flexibility under the joint teaching platforms will assist UADY’s transition to a new curriculum. Fieldwork began in June with rapid appraisal of constraints and opportunities for sheep-owning households in five locations. Analogous appraisal of beef systems will begin soon. Other outreach activities also include a November 6 field day in Veracruz involving hundreds of farmers, researchers and others. Successes include the survey of sheep producers, courses well-received by participants, active discussions by all partners to plan research and teaching platforms, and establishment of an undergraduate exchange between UADY and Cornell. Challenges overcome include a delay in announcement of the Master’s degree training program for timely recruitment of qualified Mexicans and discovery mechanisms to integrate joint teaching with UADY’s new curriculum. Expected impacts include greater capacity of partner institutions to address relevant development issues for ruminant livestock systems, a skilled cadre of systems-oriented researchers and extensionists, and broad dissemination of information to the livestock sector.

QUALITATIVE ANALYSIS

1. State the overall objective of this higher education partnership and intended development results.

This partnership seeks improvement of productivity, profitability and rural incomes in the Gulf region through a systems-oriented program of training and decision support to the ruminant livestock industry. A primary goal is to increase the ability of decision-makers to respond to changes in technologies, markets, or trade policies.
2. What activities have the partner institutions undertaken during this reporting period to achieve the stated partnership objectives and development outcomes? (chronologically)

- **March 18-28.** Prior to the executed subagreement, graduate student David Parsons conducted exploratory visits with TIES partners in the states of Yucatán and Veracruz (with Cornell funding). These explorations led to a collaborative research proposal to rapidly survey and evaluate Yucatecan sheep systems. Product of a TIES teaching platform course, *Livestock in Tropical Farming Systems*, a Powerpoint presentation of Parson’s proposal is at [http://www.anisci.cornell.edu/courses/as400/student_reports/parsons.html](http://www.anisci.cornell.edu/courses/as400/student_reports/parsons.html) (see attached CD).

- **June 18-August 31.** Rapid appraisal of constraints and opportunities for 63 sheep-owning households in 5 Yucatán locations. Led by D. Parsons and guided by R. Blake, C. Nicholson and T. Tucker, this appraisal was conducted by a Cornell-UADY research team including two students (Claudia López, Andrés Calderón) and two faculty members (Guillermo Ríos, Felipe Torres).

- **July 15.** Cornell Partnership Director, Robert Blake, began a 12-mo sabbatical leave and TIES project assignment as visiting professor at the UADY. Several organizational meetings ensued with UADY administrators, faculty and students.

- **August-September.** Nationwide announcement was made of our TIES Master degree program and call for applications by qualified Mexicans. A copy of this announcement is found at this UADY web site, [http://www.uady.mx/eventos/convocavete.html](http://www.uady.mx/eventos/convocavete.html) (view in CD).

- **August 17-21.** R. Blake traveled to Veracruz (Cornell funded) to work directly with TIES colleagues (Francisco Juárez, Bertha Rueda, Eduardo Canudas, Rubén Loeza) in planning first two (of four) short courses and to discuss potential research collaborations.

- **September 13-16.** Short course #1, *Evaluación Nutricional de Forrajes en la Región del Golfo de México* (Nutritional Evaluation of Forrages in the Gulf Region of Mexico) was conducted at UADY by Francisco Juárez Lagunes, Veracruz TIES partner. This course, coordinated by R. Blake and J. Ku, served 22 participants (UADY graduate students and faculty, undergraduates, and one representative of a regional cattle producers association), and was videographed. Participants received a booklet and CD-ROM of supporting literature (17 articles, all in Spanish).

- **September 20-23.** TIES program visit by Cornell’s Bonnie Shelley, Study Abroad Advisor and Exchange Coordinator, and Terry Tucker, Director of Academic Programs, International Programs, College of Agriculture and Life Sciences. Discussions focused on two program elements: undergraduate academic exchange and TIES joint teaching activities (platform of core courses). A Memorandum of Agreement to launch undergraduate exchanges was signed by Fernando Herrera, Dean of the School of Veterinary Medicine and Animal Science, and witnessed by UADY Rector Raúl Godoy Montañez.

- **September 27-30.** The UADY Steering Committee, chaired by Guillermo Ríos, was formed to discuss and plan UADY implementations of TIES teaching/research platform elements. The UADY leadership team was invigorated to ensure effective implementation by establishing Drs. Ku and Ríos as UADY Co-Directors of our TIES Partnership.
3. How have these activities strengthened (or will they ultimately strengthen) the capacity of the lead Mexican higher education institution(s) and/or the local Mexican community?

These activities have initiated serious thinking and interactions about how best to capitalize on this partnership. The short course series is helping to better define and understand problems affecting farmers. The expectation is that livestock owners and other professionals will benefit from a functional partnership focusing on decision support of the systems they manage.

4. How have these activities benefited (or will ultimately benefit) the lead U.S. institution(s) and/or the local U.S. community?

Personal interactions and communication have been strengthened, which enhances the potentials for achievement on both sides. Through this process Cornell is learning how to tailor its offerings to Mexican needs and demands.

5. Describe the extent and nature of engagement of other collaborating U.S. and Mexican institutions in partnership activities.

List these institutions (include NGOs, community-based organizations, government agencies, the private sector, other higher education institutions, etc.) and fully describe their involvement during this reporting period:

- Universidad Veracruzana (UV). Partnership colleagues Francisco Juárez and Eduardo Canudas made key contributions in planning the first two short courses (see #2, August 17-21). In addition, Prof. Juárez taught the first short course and will co-teach the second one in October. Prof. Canudas will participate in the third short course in November. Each short course also provides opportunities for discussion and collaborative research planning involving faculty from UADY, UV and Cornell.

- INIFAP-La Posta. Just as described above, partnership colleagues Bertha Rueda and F. Juárez (joint employee with UV) were intimately involved in short course planning. Dr. Rueda will co-teach short courses #2 and #3. She also is responsible for planning the Día del Ganadero 2004 (field day), a joint TIES event at the La Posta experiment station scheduled for November 6.

- UGROY (Unión Ganadera Regional del Oriente de Yucatán). Antonio Díaz, one of the most active participants in short course #1, represented this important farmer organization. Dr. Díaz has helped recruit interest and farmer and government participation for subsequent courses. We also expect him to facilitate collaboration between UGROY and our TIES research and outreach activities, including rapid appraisal of beef production systems in Yucatán.

6. How has your partnership contributed to Mexico’s competitiveness? Please fully describe the partnership’s contribution.

It is premature yet to have made any significant contribution, either in action or strategy, at this early stage. Our goal is to improve understanding of decision support tools and to effectively and appropriately apply them to assist farmers (and professionals trained to advise them) to achieve objectives (e.g., increase productivity and profit).
7. How have these activities developed new programs that relate to the U.S.-Mexico Common Development Agenda (CDA)?

Our activities are directly aimed at improving agricultural productivity and profitability for livestock farmers as a primary means for improving the welfare of households in rural communities of southeastern Mexico. This objective is also consistent with USAID’s agriculture strategy (2004).

8. What have been your partnership’s greatest successes during this reporting period? Has your partnership also experienced any unanticipated successes? Yes.

- Completion of a 63-household survey of sheep producers, which, in addition to providing fundamental information about constraints and opportunities, has fostered much interest among producers, students and faculty members.

- A short course series now underway that is well-received by participants. Participants conclude each course with their own priority recommendations (video graphed) about research, technical assistance and extension (outreach) under each course topic.

- Active discussions by all partners to plan research and teaching platforms.

- Establishment of an undergraduate exchange program between UADY and Cornell.

Our rapid appraisal of Yucatán sheep producers fostered interaction and possibly first-time collaboration between UADY’s Schools of Veterinary Medicine and Animal Science and Anthropology (home to the Department of Communication). With School of Anthropology support and assistance by animal science students C. López and A. Calderón and Prof. G. Ríos, a group of students in Prof. Elvira Sánchez’ course, Análisis y Producción de Medios (Media Analysis and Production), is conducting a journalistic investigation of four rural households (and their communities near Mérida) that participated in our survey. A brief video documentary is expected.

9. Has your partnership encountered any challenges during this reporting period? Yes.

There was significant delay in nationwide announcement of our TIES Master’s degree training program. This problem was remedied by assembling the necessary lists for electronic mailing to key institutions. In addition, it has taken some time to identify the issues affecting UADY implementation of joint courses and how they might be addressed. Formation of the UADY Steering Committee of interested faculty members is a valuable mechanism for brainstorming and planning our teaching platform “experiment”.
10. Has your partnership adapted *curricula* or introduced methods of instruction relevant to Mexico’s development needs during this reporting period?

Alternative methods of learning for the UADY curriculum are under discussion by the Steering Committee. (These discussions are yet to be held with UV colleagues.) The UADY is currently in transition in revising its teaching program to add flexibility and diversity of methods. Some of those used by Cornell constitute part of a menu of options for UADY consideration. In this regard, and others, our project is an opportunity to experiment and to test alternatives for each institution’s future portfolio. One learning activity in short course #1 that was considered a success by UADY leaders was the teaming of students and faculty to develop consensus recommendations about priorities for research, technical assistance and outreach. Side-by-side presentations by students and faculty were enthusiastically received and hailed as a valuable achievement.

11. Has your partnership conducted collaborative *research* to address a development problem in Mexico? Yes.

As described in #2, a rapid appraisal of constraints and opportunities was conducted in June-August for 63 sheep-owning households in 5 Yucatán locations. Led by Cornell’s D. Parsons (with R. Blake, C. Nicholson and T. Tucker), this appraisal was carried out by a Cornell-UADY research team including two UADY students (Claudia López, Andrés Calderón) and two UADY faculty members (Guillermo Ríos, Felipe Torres). Claudia López and Andrés Calderón reported results from this activity in short course #1. Information from this survey is a basic input to the evaluation of sheep system potentials for Yucatecan farmers.

12. Has your partnership undertaken activities to prepare individuals for participation in Mexico’s *workforce*?

Yes, in the sense that our project focus is to help develop a better skilled cadre of systems-oriented researchers and extensionists. Students (and faculty members) come from a wide range of socioeconomic strata.

13. Has your partnership been involved in *community outreach* activities in Mexico during this reporting period?

No, except in the way described in #8 (above).

14. Has your partnership been involved in building Mexico’s *trade capacity* during this reporting period? No.

15. Has your partnership informed *policy* at the institutional, community or national levels through policy relevant research consultations, analysis, advice and/or direct assistance (e.g. helped increase the enrollment or participation of underserved students, adopted a policy of service to the community etc.)?

The partnership has not. However, the Cornell Partnership Director participated as an external evaluator of INIFAP’s livestock research centers and programs.
16. How has information about your partnership been disseminated during this reporting period?

- Nationwide announcement of Master’s program (see attachment: convocatoria versión final 2005-06.doc) and UADY web site [http://www.uady.mx/eventos/convocavete.html](http://www.uady.mx/eventos/convocavete.html)
- Photographs of sheep systems, short course #1, MOA signing (under separate cover: CD-ROM with high resolution images).
- A brief press release about short course #1 appeared on the UADY website.

17. Outline your partnership’s planned activities for the next six months, paying particular attention to achieving stated objectives. **(Expected chronology)**

- **Conduct short course #2, Uso de un Modelo Computacional para el Manejo Nutricional de Bovinos y Ovinos** (Use of a Computational Model to Manage Nutrition of Cattle and Sheep). Dates: October 11-15.
- **Conduct a rapid appraisal of beef production systems in eastern and southern Yucatán (Tizimín and Peto).** This effort will be led by Guillermo Ríos, Claudia López and Andrés Calderón. Dates: October-December.
- **Día del Ganadero 2004** (field day) to be held at the INIFAP-La Posta Experiment Station. Two UADY colleagues and the Cornell Partnership Director will participate in this event. Date: November 6.
- **Conduct short course #3, Análisis Bio-económico de Alternativas Tecnológicas y la Dinámica de Sistemas Agropecuarios** (Bioeconomic Analysis of Technological Alternatives and the Dynamics of Agricultural Systems). Dates: November 15-19.
- **Conduct short course #4, La Aplicación de Esquemas Nucleares para el Mejoramiento Genético de Ganado de Carne y de Ganado Ovino** (Application of Nuclear Schemes to Genetic Improvement of Cattle and Sheep). Dates: February 7-11, 2005.
- **Establish partnership web site.**
- **Summarize data from rapid field appraisals of constraints on sheep and cattle systems.**
- **Develop curriculum of core courses for the joint teaching platform in collaboration with the UADY Steering Committee.**
- **Make arrangements for short term training at Cornell of UADY Professor Armín Ayala. Target period for 20-d visit: April-May 2005.**
## QUANTITATIVE ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>For the period</th>
<th>Since the beginning of ALO funding</th>
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<tbody>
<tr>
<td></td>
<td>June 17, 2004-September 30, 2004</td>
<td>Graduate Male: Graduate Female:</td>
</tr>
<tr>
<td>1.</td>
<td>How many scholarships for Mexicans of two or more semesters does this partnership support?</td>
<td>None this period</td>
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<tr>
<td></td>
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<td>Graduate Male: Graduate Female:</td>
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<td></td>
<td>Provide estimated total cost.</td>
<td></td>
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<td>2.</td>
<td>How many other scholarships for Mexicans of fewer than two semesters does this partnership support?</td>
<td>None this period</td>
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<tr>
<td></td>
<td></td>
<td>Graduate Male: Graduate Female:</td>
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<td></td>
<td>Fully describe the nature and duration of the scholarship(s)</td>
<td></td>
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<td>3.</td>
<td>How many exchanges for Mexicans does this partnership support?</td>
<td>None this period</td>
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<td></td>
<td>Fully describe the nature and duration of the exchange(s):</td>
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<td>4.</td>
<td>How many internships for Mexicans does this partnership support?</td>
<td>None this period</td>
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<td>Fully describe the internship(s) and give location(s):</td>
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<td>5.</td>
<td>Approximately how many Mexicans have received short-term training (workshops, seminars, professional training) and follow-on training or participated in student research, projects, distance education, observation trips, outreach, coordination and technical meetings?</td>
<td>Males: 16 Females: 10 Total: 26</td>
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<tr>
<td></td>
<td>Males: 16 Females: 10 Total: 26</td>
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<td></td>
<td>Fully describe the nature, location, and duration of the training for each:</td>
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<td></td>
<td>• Rapid appraisal of input use and constraints affecting rural households owning sheep in five Yucatán locations, June-August. One male and one female in an undergraduate research team (see #2 in Qualitative Analysis)</td>
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<td>• Short course #1 at UADY, September 13-16, focusing on nutritional quality and evaluation of forages. 16 men and 6 women (see #2 in Qualitative Analysis)</td>
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<td>• Journalistic investigation of four rural households (and their communities) that participated in our rapid appraisal of farming systems with sheep. This activity was planned in September, will be conducted in October, and completed by December. Four undergraduate women from the UADY School of Anthropology. This will be the first, eye-opening farm experience for these students, and their first visit to UADY’s School of Veterinary Medicine and Animal Science.</td>
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<td><strong>For the period</strong></td>
<td><strong>Since the beginning of ALO</strong></td>
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<td></td>
<td><strong>June 17, 2004-</strong></td>
<td><strong>funding</strong></td>
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<td><strong>September 30,</strong></td>
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<td></td>
<td><strong>2004</strong></td>
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<td>6.</td>
<td>How many Mexicans are participating in degree programs? Indicate by institution(s). Give the type of degree (e.g., AAs, BAs, MAs, MSs) and field of study.</td>
<td>None this period</td>
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<tr>
<td>7.</td>
<td>Has your partnership contributed or leveraged contributions other than cost share, beyond what was originally proposed, to strengthen the capacity of Mexican higher education institutions? <strong>Yes</strong></td>
<td>Estimated total dollar amount: 13,700</td>
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<td>List separately and estimate dollar amounts</td>
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<td></td>
<td>Exploratory research planning visit by D. Parsons</td>
<td>1,000.</td>
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<td></td>
<td>Rapid appraisal sheep system research by D. Parsons</td>
<td>2,000.</td>
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<td></td>
<td>Computer, communications and office equipment, vehicle for Cornell Partnership Director (at UADY)</td>
<td>10,000.</td>
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<td>Travel: Merida to Veracruz, Cornell Partnership Director</td>
<td>700.</td>
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<td>8.</td>
<td>How many times has your partnership consulted/collaborated with a Mexican government entity/organization?</td>
<td>None this period</td>
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<td>List and describe the nature of these consultations/collaborations:</td>
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<tr>
<td>9.</td>
<td>How many times has your partnership participated in a Mexican government-sponsored panel or other initiative to inform policy?</td>
<td>None this period</td>
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<td></td>
<td>List and describe the nature of participation in the panels and/or initiative:</td>
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