

The Association Liaison Office for University Cooperation in Development
Promoting Global Development through Higher Education



U.S.-Mexico
Training, Internships, Exchanges & Scholarships
Progress Report¹
Due April 30, 2005



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

Development Area: Rural development: Economic growth and competitiveness through animal agriculture

Lead U.S. Institution: Cornell University

U.S. Partnership Director: Robert W. Blake
Department of Animal Science, 131 Morrison Hall
Cornell University
Ithaca, NY 14853
Telephone: 607-255-2858, FAX: 607-255-9829
Email: rwb5@cornell.edu

Lead Mexican Partner Institution: Universidad Autónoma de Yucatán

Mexican Partnership co-Directors: Juan Ku Vera and Guillermo Ríos Arjona
Facultad de Medicina Veterinaria y Zootecnia (FMVZ)
Apartado Postal 4-116 Itzimná, CP 97100 Mérida, Yucatán
Telephone: 52-(999)-942-3204, FAX: 52-(999)-942-3205
Email: gschan@tunku.uady.mx, rarjona@tunku.uady.mx

USAID/Mexico Contact: Nora Pinzón, Participant Training Specialist and TIES Manager
Tel: (52 55) 5080-2835
Fax: (52 55) 5080-2574
Email: npinzon@usaid.gov

Partnership Website Address: (in planning)

Period Covered by this Report: October 1, 2004 through March 31, 2005

¹ Revised April 2005

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 UADY graduate programs, our efforts integrate learning and knowledge-generating activities from problem definition to producer decision support. Five short courses involving all university partners, farmers and government organizations were conducted in the first 10 mo of the project, one more than originally planned. These courses facilitated team-building and identification of research priorities and enhanced skills. Concurrently, there has been joint planning of TIES teaching platforms; the needs for increased flexibility identified to assist UADY's transition to a new curriculum have been identified. Rapid appraisals of constraints and opportunities involving more than 120 sheep-owning and beef cattle-owning households in Yucatán have been conducted. These activities yielded valuable data to better frame research priorities and to design student research projects at both universities. Two students from Yucatan and Veracruz have been admitted to the Cornell University Graduate School beginning 2005. Other outreach activities included a field day in Veracruz involving about one thousand farmers, researchers and others. A student-produced video-documentary about farmer needs and our TIES project resulted from novel collaboration between UADY's Schools of Anthropology and Veterinary Medicine and Animal Science. The partnership has faced challenges in determination of decision-making authority, assignment of administrative responsibilities, and the extent of individual UADY faculty participation in project activities. Agreement was reached on needed adjustments during a recent UADY-FMVZ review. Expected project 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.	<p>State the overall objective of this higher education partnership and intended development results.</p> <p>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.</p>
----	---

2. What activities have the partner institutions undertaken during this reporting period to achieve the stated partnership objectives and development outcomes? (**chronologically**)

Consensus-building activities in this period continued with a focus on research, training and outreach priorities:

- *October 11-15.* 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). Principal instructors: Luis O. Tedeschi with Francisco I. Juarez and Bertha L. Rueda. This event served 21 male and 6 female participants (UADY graduate students, UADY and Veracruz faculty, undergraduates, and representatives of governmental and regional cattle producers organizations) and was videotaped. Participants received a booklet and CD-ROM of supporting literature (9 articles, 8 in Spanish).
- *October-December.* Planned and conducted a rapid appraisal of 60 beef production systems in eastern and southern Yucatán (Tizimín, Panabá and Peto). This effort complements our previous inquiry of sheep producers and was coordinated by Guillermo Ríos and R. Blake and conducted by Claudia López and Andrés Calderón.
- *October-February.* Five UADY Steering Committee meetings were convened by co-director Guillermo Ríos to discuss implementation of the joint teaching and research platform. Through this process, including the short course series, UADY graduate students have been identified as probable TIES platform contributors. Doctoral students include Valentín Cárdenas, Fernando Duarte (also an INIFAP scientist) and Raciél Estrada; Master's students include Miguel Huchín, Timoteo Bautista, Ildelfonso Aranda, Gonzalo Martínez, Gabriela González and Carlos Medina (latter two are currently finishing undergraduate degree programs).
- *November 6.* Guillermo Ríos, Juan Magaña and R. Blake participated in the **Día del Ganadero 2004** (field day) at the INIFAP-La Posta Experiment Station in Veracruz. Primary objectives were to evaluate how a similar event could serve producers and other livestock industry players in Yucatán. A follow-up report and recommendations were submitted by Drs. Magaña and Ríos to Dr. Fernando Herrera, Director of UADY's School of Veterinary and Animal Sciences (FMVZ).
- *November 11.* Invited workshop speakers (A. Ayala, R. W. Blake, J. Ku). **Como estructurar una propuesta para obtener financiamiento. Taller—Preparación de Propuestas Científicas para Solicitar Financiamiento.** (How to Structure a Grant Proposal. Workshop on the Preparation of Science Proposals for Funding.) Universidad Autónoma de Yucatán, Dirección General de Desarrollo Académico, Coordinación General de Investigación y Relaciones Interinstitucionales.
- *November 15-19.* 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). Principal instructors: C. F. Nicholson with R. Blake, Bertha Rueda and Eduardo Canudas. This event served 19 male and 8 female participants (graduate students from UADY and Germany, faculty from

2. What activities ? (*continued*)

UADY and Universidad Veracruzana, UADY undergraduates, and representatives of governmental and regional cattle producers organizations) and was videotaped. Participants received a booklet and CD-ROM of supporting literature (17 articles, 13 in Spanish).

- *November 24-26.* Invited symposium speaker (R. Blake). **Perspectivas de la Investigación Pecuaria en el Mundo Tropical: El caso de la respuesta en leche en ambientes difíciles.** Pages 108-127 in *Simposium Situación Actual y Perspectivas de la Investigación Pecuaria en el Mundo.* XL Reunión Nacional de Investigación Pecuaria Yucatán 2004, Mérida.
- *December 9.* Invited speaker (R. Blake). **Ecological impacts of land use for livestock production in the tropics.** Workshop entitled, “Function of Tropical Ecosystems”, (Funcionamiento de Ecosistemas Tropicales. University of Göttingen-Autonomous University of Yucatán (UADY; Germany-Mexico). In Spanish.
- *December.* Planned and obtained funding for an additional TIES course on the dynamics of agricultural systems with livestock. (This activity substituted for teaching a Yucatán version of Cornell’s Livestock in Tropical Farming Systems for UADY students.) The resulting **short course #5**, *Aplicación de la Dinámica de Sistemas al Entorno Agropecuario en la Región del Golfo de México* (Application of System Dynamics to Agricultural Systems of the Gulf Region of Mexico) and held April 8-13 at the Universidad Veracruzana, came in response to demand from participants in short course #3 (see attached newspaper article from *El Dictámen*). It was jointly financed by all TIES partners and an external donor (Mr. Allen Boorstein, a Cornell alumnus who supports educational efforts in System Dynamics).
- *December.* Initiated arrangements for a 20-day short term training visit at Cornell by UADY Professor Armín Ayala on April 18-May 6.
- *December.* **“Yucatán” Bienestar del hombre en el campo** (Rural Human Welfare (“Yucatan”), a 9-min video-documentary, was a student project in the UADY School of Anthropology course, *Media Analysis and Production*. Subjects were four families (and their communities) who participated in our rapid appraisal of farming systems with sheep. Four undergraduate women wrote the script and produced this video based on their eye-opening, first-ever, rural experiences through our TIES project. This product came from novel collaboration between UADY’s Schools of Anthropology and Veterinary Medicine and Animal Science.
- *December-March.* Data from two rapid appraisals of constraints and opportunities in Yucatán farming systems with sheep and beef cattle were coded by Claudia López and Andrés Calderón (supervised by R. Blake and C. Nicholson). These data will be available to Cornell and UADY student research projects. Two Cornell students (David Parsons, Australian, and Kotaro Baba, Japanese) will utilize them in contributions to the TIES research platform. These students will also conduct further research activities in Yucatán in summer 2005.

2. What activities ? (*continued*)

- *February 16-18.* Short course #4 (workshop format), *Evaluación del Potencial para Progreso Genético en Poblaciones de Ganado Rumiante en la Región del Golfo.* (Evaluation of the Potencial for Genetic Progress in Ruminant Livestock Populations in the Gulf Region)
 1. *Estructuras de las bases de datos y estrategias analíticas.* (Database structures and analytical strategies)
 2. *La Aplicación de Esquemas Nucleares para el Mejoramiento Genético* (Application of Nuclear Schemes for Genetic Improvement)

This event was organized by the TIES lead institutions and the Colegio de Posgraduados, Campus Cárdenas, Tabasco. Workshop leaders were J. Magaña, R. Blake and M. Osorio. Thirty-three participants (29 male, 4 female) received a booklet of supporting literature (6 articles, 4 in Spanish).

Following is a participation summary of the entire TIES short course program:

- Total participants in four originally-planned short courses: 109 (87 ♂, 22 ♀)
 - Total participants in five actual TIES short courses: 142 (116 ♂, 26 ♀)
 - Total classroom hours delivered: 175
- *February-March.* In collaboration with Veracruz partners (Universidad Veracruzana and INIFAP) and other institutions, a watershed management framework was developed for a TIES phase II project. Unfortunately, the potential partners were unable to garner sufficient resources to satisfy the scholarship requirement. A contingency plan of activities was developed with watershed management elements integrated into the Veracruz component of one of the field courses in our TIES joint teaching platform. Intended focus of the new project was community-based micro-watershed management in the cattle lands (pastures) that dominate the coastal plain of Veracruz. **Research themes included:**
 - 1) Water capture and retention
 - Improved soil infiltration and water capture by pasturelands (e.g., management of adapted species to improve land cover, soil pores and organic matter, forage quality and yield to increase net income from livestock).
 - Greater protection of brooks and streams in pasturelands to enhance the capture and retention of water (e.g., implement stream bed buffer areas of trees and shrubs to also produce firewood, forage, habitat services, timber, fruit and other products).
 - 2) Geographic systems to integrate watershed management practices and monitor land use changes and ecosystem services
 - 3) Economic returns from livestock in agrosilvopastoral systems
 - Improved availability and quality of forages from greater water capture by pasturelands.
 - Healthful foods of animal origin from pasturelands (nutritional composition and nutraceutical content [conjugated linoleic acid, an anticarcinogen]).
 - Greater profitability from animal agriculture use of watershed farmlands.
 - 4) Conceptual and empirical system dynamics models to evaluate nutrient cycling, farm and microwatershed technologies and policy options at multiple levels of sociopolitical and physical aggregation.

2.	<p>What activities ? (<i>continued</i>)</p> <ul style="list-style-type: none"> • <i>March 10.</i> Invited speaker (R. Blake). Perspectivas de la Investigación Pecuaria en el Mundo Tropical: El caso de la respuesta en leche en ambientes difíciles. 6^a Reunión de Servidores Públicos Federales y Estatales de Ganadería, Mérida, Yucatán, 9 al 11 de marzo. (6th Congress of Federal and State Public Servants in Livestock Production). • <i>March.</i> Two students from Yucatan (Luis Nabté) and Veracruz (Victor Absalón) were admitted to Cornell’s Graduate School to commence Master of Science programs in August 2005. Original plans to admit three students in 2005 were precluded by late announcement of scholarships. Consequently, our announcement for 2006-08 will be for two TIES scholarships (instead of one). • <i>Research funding proposals.</i> Three proposals with total value of \$15.5 million pesos were submitted by UADY this period in support of the TIES research platform. (see details on pp. 14-15)
----	--

3.	<p>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?</p> <p>The short course series has clearly helped to better define and understand problems affecting farmers. The expectation is that livestock owners, their communities, and other professionals will benefit from a functional partnership focusing on decision support of the systems they manage. These activities to date have challenged the partners to consider needed adjustments—some structural in nature, others operational—to better implement and capitalize on this and future international partnerships.</p>
----	---

4.	<p>How have these activities benefited (or will ultimately benefit) the lead U.S. institution(s) and/or the local U.S. community?</p> <p>Personal interactions and communication with interested faculty members have been strengthened, which enhances the potentials for achievement on both sides. Through this process, including our program of TIES short courses and research planning activities, Cornell is better prepared to focus on relevant issues with scientists at partner institutions.</p>
----	---

5.	<p>Describe the extent and nature of engagement of other collaborating U.S. and Mexican institutions in partnership activities.</p> <p>List these institutions (include NGOs, community-based organizations, government agencies, the private sector, other higher education institutions, etc.) and fully describe their involvement:</p> <p><i>Universidad Veracruzana (UV).</i> Partnership colleagues Francisco Juárez and Eduardo Canudas made key contributions to the first three TIES short courses (see #2). Each course yielded discussion and collaborative research planning involving faculty from all partner institutions. These gains were further exploited with key inputs and assistance from Dr. Carlos Lamothe, Director of the Faculty of Veterinary Medicine and Animal Science (FMVZ) 1) to identify research themes and activities aimed at the TIES Phase II competition and 2) to host our 5th TIES short course on system dynamics applications to agricultural systems with livestock.</p> <p><i>Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP).</i> Partnership colleagues Bertha Rueda and F. Juárez (joint employee with UV) were intimately involved in short course planning. Dr. Rueda also co-taught short courses #2 (with Dr. Juárez) and #3 and was responsible for planning the <i>Día del Ganadero 2004</i> (field day), a joint TIES event held November 6 at the La Posta experiment station. Like the UV case, gains from these activities were further exploited with key inputs and assistance from Dr. Heriberto Román Ponce, Regional Director of INIFAP in Veracruz: 1) TIES Phase II planning activities and 2) key publication support (copies of supporting literature in printed booklets and electronic media) for our 5th TIES short course. In addition, Fernando Duarte, an INIFAP scientist in Yucatán, is developing a dissertation project contribution to the TIES research platform as part of his UADY doctoral program.</p> <p><i>Fundación PRODUCE Yucatán and Secretaría de Desarrollo Rural y Pesca.</i> Preliminary discussions were held between UADY, TIES Steering Committee, and these institutions about a Yucatán Día del Ganadero to be held in June.</p> <p><i>University at Albany, State University of New York, Department of Public Administration and Policy.</i> Collaboration with Dr. Ignacio Martínez (a Mexican national at the Center for Policy Research) in the development of a policy analysis model of the Yucatán sheep sector based on information collected in surveys conducted under this project.</p>
6.	<p>Is your partnership working with Mexico's Consejo Nacional de Ciencia y Tecnología (CONACyT)? If yes, please fully describe involvement and provide complete information regarding CONACyT scholarship(s) awarded, if applicable.</p> <p>No. However, we sought CONACyT scholarship support with the Universidad Veracruzana to prepare the previously mentioned community-based watershed management proposal for TIES Phase II. In February we met with CONACyT's Subdirector for the Gulf region (based in Xalapa), Dr. Roberto de la Garza Montelongo. We plan to contact other CONACyT officials to further pursue the potential for CONACyT scholarship support for current or future TIES work. Also, UADY utilized PIFOP-CONACyT funds to support graduate student participation in short course #5.</p>

7.	<p>How has your partnership contributed to Mexico's competitiveness?</p> <p>It is premature to claim, or to have made, any significant measurable contribution. Our goal is to improve understanding of decision support tools and to effectively and appropriately apply them, especially through problem-solving research. Ultimately, partnership contributions are aimed at assisting farmers through the professionals trained to advise them to achieve productivity and profitability objectives.</p>
8.	<p>What have been your partnership's greatest <i>successes</i> during this reporting period? Has your partnership also experienced any <u>unanticipated</u> successes? Yes.</p> <ul style="list-style-type: none"> • Completion of a 60-household survey of beef cattle producers in Tizimín, Panabá and Peto. In addition to fundamental information about constraints and opportunities, this activity serendipitously fostered unanticipated feedbacks from producers about how the UADY may better help them. Farmers said they needed a portfolio of effective technologies, information on how to use them, and tailored short courses in their own communities—a clear role for UADY. Priority technical issues included the management of costs of production, alleviation of productivity constraints, marketing, and credit. <ul style="list-style-type: none"> ○ Such good fortune from frank talk led to a UADY document summarizing these initial sentiments (to be complemented by the survey analysis itself). This document, <i>Problemática y Retroalimentación Planteadas por Productores Bovinos del Oriente del Estado de Yucatán</i>, which was prepared by Drs. Juan Magaña and Guillermo Ríos, has been circulated to various producer associations for feedback to guide future research and outreach. Thus, our TIES program identified information needs that can serve as the basis for better relationships between UADY and its producer clientele. • Our TIES training series of four short courses was so well received that participants emphatically requested a fifth course. Consequently, an independently financed course on the dynamics and effective modeling of agricultural systems with livestock was given April 8-13 at the Universidad Veracruzana. Additional benefits came from active discussions about teaching needs, teaching platforms and research planning, including potential thesis issues for a TIES student entering Cornell University in August (Victor Absalón) and two UADY doctoral students (Valentín Cárdenas and Fernando Duarte). Furthermore, Director Lamothe agreed to further train two UV faculty members in system dynamics methods at Cornell in fall 2005 so that UV can offer a course in this subject to its students, probably in 2006. <p><i>Rural Human Welfare “Yucatan”</i> (“Yucatan” Bienestar del hombre en el campo), a 9-min video-documentary, was one of the student projects in Dr. Elvira Sánchez’ course, <i>Media Analysis and Production</i>. Subjects were four families (and their communities) who participated in our rapid appraisal of farming systems with sheep. Four undergraduate women wrote the script and produced the video based on their eye-opening, <u>first-ever</u>, rural experiences in September and October 2004. This documentary resulted from novel collaboration between UADY’s Schools of Anthropology and Veterinary Medicine and Animal Science (FMVZ), which was catalyzed by our TIES project.</p> <p><i>“This video made me feel proud to be Yucatecan.”</i>—Dr. Juan Magaña, UADY professor</p>

9.	<p>Has your partnership encountered any <i>challenges</i> during this reporting period? Yes.</p> <p>The partnership has faced challenges in determination of decision-making authority, assignment of administrative responsibilities, and the extent of individual UADY faculty participation in project activities. Frank discussion of these issues with UADY administrators was guided by an internal working document analyzing project outcomes during the first nine months. This review promptly yielded mutual agreement to assure incentives and enhance administrative support. This should allow participating UADY faculty and students to fully and efficiently implement programmed activities in a timely manner.</p> <p>Another challenge has been to identify mechanisms for greater participation by partners in Veracruz. Although we were unable to submit a community-based watershed management project for the TIES Phase II competition, our research planning was invaluable in identifying research themes for future opportunities and to distill priorities for our existing project. This effort and short course #5 (system dynamics applications to agricultural systems with livestock) helped precipitate Dr. Lamothe's decision to further train his faculty so that a system dynamics course can be incorporated into the UV-FMVZ curriculum.</p>
10.	<p>Has your partnership adapted <i>curricula</i> or introduced methods of instruction relevant to Mexico's development needs during this reporting period?</p> <p>Alternative approaches and methods of instruction and learning have been demonstrated through our short course series. These short courses and the planning of joint courses for the coming academic year have facilitated discussions at UADY and UV about coursework focus and content (e.g., principal drivers and feedbacks affecting performance of livestock and farming systems). The UV decision to train two faculty members in system dynamics methodology and to provide this training to its students is a <u>major curriculum advance</u>. The UADY is still in transition in implementing a more flexible and diverse curriculum of instruction, including pedagogical methods. Elements of the current Cornell curriculum (to which UADY and UV faculty are being exposed) constitute part of a menu of options for consideration. In this regard, and others, our project is an opportunity to experiment and to test alternatives for each institution's future portfolio.</p>

11.	<p>Has your partnership conducted collaborative <i>research</i> to address a development problem in Mexico? Yes.</p> <p>With leadership from Dr. Charles Nicholson, a system dynamics model of Yucatán sheep production and marketing was developed using information from our rapid appraisal of these farming systems. The initial conceptual model was a presented and discussed in short course #3. Simulation with a more developed version was a capstone exercise in short course #5 to evaluate Yucatán sheep system behaviors and impacts from alternative technology interventions. It also served as a research planning (and <u>thinking</u>) tool for the course participants. A research publication is in preparation. Dr. Ignacio Martínez (a Mexican national) of the Department of Public Administration and Policy, University at Albany, State University of NY, is collaborating in this effort.</p> <p>As described in #2, a rapid appraisal of constraints and opportunities was conducted on more than 60 beef cattle-owning households in three Yucatán locations. This appraisal was carried out by a Cornell-UADY research team including two UADY students, Claudia López and Andrés Calderón. Information from this survey is a basic input to the evaluation of beef cattle system potentials for Yucatecan farmers.</p>
12.	<p>Has your partnership undertaken activities to prepare individuals for participation in Mexico's <i>workforce</i>?</p> <p>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.</p>
13.	<p>Has your partnership been involved in <i>community outreach</i> activities in Mexico during this reporting period?</p> <p>No, except in the ways described in #8 (above).</p>
14.	<p>Has your partnership been involved in building Mexico's <i>trade capacity</i> during this reporting period? No.</p>
15.	<p>Has your partnership informed <i>policy</i> 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.)?</p> <p>No. However, a main goal of the system dynamics-based Yucatán sheep sector model is to inform policy makers about the sustainability of efforts to promote livestock-sector development.</p>

16. How has information about your partnership been disseminated during this reporting period?
- *November 19.* Press conference with F. Herrera, R. Blake, G. Ríos and C. Nicholson about our TIES project and activities. A newspaper article and a television news report resulted from this conference:
 - Page 12, Sección Imagen, *Diario de Yucatan*. 20 November 2004. **Convenio de colaboración para investigación conjunta. Acuerdo entre instituciones de México y EE.UU.** (See article in attached file: *Diario de Yucatán 20 noviembre de 2004.pdf*)
 - Other press releases in the UADY archive:
 - <http://www.uady.mx/sitios/prensa/boletines/nov-04/19-nov-04.html>
 - <http://www.uady.mx/sitios/prensa/boletines/oct-04/19-oct-04.html>
 - <http://www.uady.mx/sitios/prensa/boletines/sep-04/20-sep-04.html>
 - <http://www.uady.mx/sitios/prensa/boletines/sep-04/17-sep-04.html>
 - <http://www.uady.mx/sitios/prensa/boletines/sep-04/02-sep-04.html>
 - *November 20.* One-hour interview (R. Blake with G. Ríos and C. F. Nicholson) about our TIES project on the weekly radio program, *Revista Universitaria*. Broadcast 8:00-10:00am, Mérida.
 - *April 13.* **Estudian abaratar costos a productores**, brief article on the final day of our 5th TIES short course appearing in the Veracruz newspaper, *El Dictámen* (See article in attached file: *El Dictámen.pdf*)

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

- Short-term training and consultation at Cornell for UADY Professor Armín Ayala. April 18-May 6, 2005.
- Plan and carry out a Yucatecan Día del Ganadero en Tizimín (tentative).
- Plan course content, logistics and operational plan to conduct the four core courses (and field trips) constituting the 2005-06 joint teaching platform with the UADY and UV.
- Two Cornell graduate students (Baba and Parsons) conduct field research in Yucatán in June-July in collaboration with a team of UADY graduate students and faculty and others.
- Analyze data from rapid field appraisals of constraints on sheep and cattle systems, summer 2005.
- Establish partnership web site.
- Master of Science degree programs at Cornell University are initiated in August by Luis Nabté and Victor Absalón. Cornell chairpersons are Professors Michael Van Amburgh (Nabté) and Robert Blake (Absalón).
- Short-term training at Cornell of three UADY professors (G. Ríos and J. Magaña, 6 wk each; J. Ku, 2 wk), two UADY doctoral students (V. Cárdenas and F. Duarte, 6 wk each and independently funded by PIFI resources), and two UV professors (F. Juárez and E. Canudas, 6 wk each and funded by UV). Principal activities include: 1) take Prof. Nicholson's course, *Introduction to System Dynamics Modeling*, 2) participate in two core courses on the joint teaching platform for the fall semester, 3) discuss and plan collaborative research activities (including projects of MS students Nabté and Absalón), 4) plan field trips and core courses for the spring semester, and 5) meet various faculty members to learn about their research and Cornell academic programs.

QUANTITATIVE ANALYSIS

		For the period <i>October 1, 2004- March 31, 2005</i>	Since the beginning of ALO funding
1.	How many scholarships for Mexicans of two or more semesters does this partnership support?	None this period	Graduate Male: Graduate Female:
	Provide estimated total cost.		
2.	How many other scholarships for Mexicans of fewer than two semesters does this partnership support?	None this period	Graduate Male: Graduate Female:
	Fully describe the nature and duration of the scholarship(s)		
3.	How many exchanges for Mexicans does this partnership support?	None this period	None
	Fully describe the nature and duration of the exchange(s):		
4.	How many internships for Mexicans does this partnership support?	None this period	Graduate Male: Graduate Female:
	Fully describe the internship(s) and give location(s):		
5.	Approximately how many Mexicans have received short-term training ...? Number of participants in short courses 2-5 (left column) and all five courses (right column), includes rapid appraisals.	Males: 98 Females: 22 Total: 120	Males: 116 Females: 26 Total: 142
	Total classroom hours delivered in short courses:	140	175
	Fully describe the nature, location, and duration of the training for each: <ul style="list-style-type: none"> • Rapid appraisal of input use and constraints affecting rural households owning beef cattle in three Yucatán locations, October-December, and computer coding of survey data for statistical analysis, December-March at UADY, by one male and one female undergraduate student (see #2 in Qualitative Analysis) • Short courses #2, #3, #4, each of one-week duration, at UADY in October, November and February. Course themes were computer model applications for nutrition management, bio-economic methods to evaluate technology options, and potentials for genetic gain in ruminant livestock in the Gulf region. • Short course #5 of one-week duration in April at the Universidad Veracruzana focusing on system dynamics applications to agricultural systems with livestock in the Gulf region. 		

		For the period October 1, 2004- March 31, 2005	Since the beginning of ALO funding
6.	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.	None this period	NA
7.	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? Yes	Estimated total dollar amount: 10,250.	Estimated total dollar amount: 23,950.
	List separately and estimate dollar amounts Finance short course #5: UADY-FMVZ (\$1600), UADY/PIFI (\$2150), UV (\$1000), INIFAP (\$1000), and Cornell donor for C. Nicholson travel (\$3000) Communications and office supplies [research planning and sheep appraisal (D. Parsons)] and transportation for Cornell Partnership Director (at UADY)	 8,750. 1,500.	 8,750. 15,200.
8.	How many times has your partnership consulted/collaborated with a Mexican government entity/organization?	None this period, except INIFAP.	None, except INIFAP.
	List and describe the nature of these consultations/collaborations: INIFAP is one of our TIES partner institutions.		
9.	How many times has your partnership participated in a Mexican government-sponsored panel or other initiative to inform policy?	None this period	None
	List and describe the nature of participation in the panels and/or initiative:		

Additional information:

Research funding proposals. The following proposals submitted by UADY derived from TIES project activity.

- **Chemical-kinetic Forage Parameters Controlling the Productivity and Profitability of Ruminant Livestock in the Gulf Region** (Estimación de Parámetros Químico-cinéticos de Forrajes que Controlan la Productividad y Rentabilidad de Ganado Rumiante en la Región del Golfo). Funding program: CONACyT Ciencia Básica. Amount requested: \$15 million pesos. Collaborating institutions: UADY, UV, INIFAP, Cornell University. PI: Drs. Juan Ku and Armin Ayala.

Additional information (*continued*):

- **Strategies for Genetic and Nutritional Management for Improved Efficiency and Profit from Weanling Calves in Eastern Yucatán** (Evaluación de estrategias de manejo genético y nutricional para mejorar la eficiencia y rentabilidad de la producción de destetes en el oriente del estado de Yucatán). Funding program: CONACYT and the State Government of Yucatán. Amount requested: \$375,000.00 pesos. PI: Dr. Juan Magaña.
- **Nutricional and Genetic Management Strategies for Fattening and Finishing Sheep in Traditional and Elevated Stall Systems** (Estrategias de manejo de alimentación y genético para la engorda y finalización de ovinos en sistemas tradicional y jaula elevada en el estado de Yucatán). Funding program: Fundación PRODUCE Yucatán A. C. Amount requested: \$176,000 pesos. PI: Dr. Juan Magaña.

April 15 TIES project visit by Ambassador Antonio O. Garza, Jr. Although this visit falls slightly outside the reporting period, it is important to acknowledge here the substantial effort made by the TIES partners to receive and interact with Ambassador Garza and his team. Representatives from all TIES partner institutions were in attendance—UADY, UV, INIFAP and Cornell. This provided an important opportunity for information sharing and positive feedbacks to Mexican colleagues. It also permitted significant media coverage, including the attached newspaper articles (see *Notas periodísticas visita Embajador Garza.pdf*). A team of UADY undergraduate students in this semester's edition of the course, *Media Analysis and Production*, are preparing a new video presentation based on this event and our TIES activities.