

Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program NEWS

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Promoting stakeholder empowerment and improved livelihoods through knowledge-based sustainable agriculture and natural resource management systems.

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Don't forget to visit the [SANREM CRSP website](#) for regular updates and to [download](#) the latest PDF version of SANREM NEWS.

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Program Director's Message



Theo Dillaha, Program Director
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As the SANREM CRSP (Phase III) enters its third year, it is achieving measurable outcomes that are supporting the science and practice of SA and NRM. During 2006, SANREM supported 38 long-term degree students (71 percent women), conducted short-term training activities for 2,832 participants, and published 11 refereed journal articles, three books, and more than 90 other publications and presentations. SANREM also completed its Bridging Awards program, which supported continuation and closeout of outstanding research activities from SANREM CRSP Phase II. Our long-term research program has just completed its first full year of funding, and field research and capacity building activities are underway with 47 partners in 19 countries.

In September and October 2006, Keith Moore and Maria Elisa Christie, Associate Program Director and Gender Equity Coordinator, respectively, visited research sites in Kenya, Uganda, and Zambia that are part of the Decentralization Reforms and Property Rights: Potentials and Puzzles for Forest Sustainability and Livelihoods project, led by Elinor Ostrom of Indiana University; and the Developing a Participatory Socio-Economic Model for Food Security, Improved Rural Livelihoods, Watershed Management, and Biodiversity Conservation in Southern Africa project, led by Alex Travis of Cornell University.

ME personnel plan to visit the remaining long-term research sites during 2007. Maria Elisa seriously injured her back in a horseback riding accident in December. We are happy to report that she is recovering, and we hope she will be able to travel soon and resume her visits to project sites.

As this newsletter goes to press, I am touring research sites in Indonesia, Vietnam, and the Philippines, meeting partners associated with the long-term research Agroforestry and Sustainable Vegetable Production in Southeast Asian Watersheds project, led by Manuel Reyes of North Carolina Agricultural and Technical University. As part of this trip, I was also one of several SANREM partners who participated in the Global Event on Payments/Rewards for Environmental Services Jan. 22-27 in Mataram, Lombok, Indonesia as part of our Payments for Environmental Services (PES) associate award. The event included more than 150 participants from 16 countries. Lead sponsors for the Event were the World Agroforestry Center and its Rewarding Upland Poor for Environmental Services (RUPES) project, USAID, and the BASIS CRSP. SANREM participants were Paul Ferraro of Georgia State University, Margie Haung of Winrock International, and Josefina Braña Varela of the Mexico National Institute of Ecology, who gave presentations on regional experiences with payments for watershed services in Africa, Asia, and Latin America, respectively. I gave a presentation on time lags between

implementing land management changes and resulting hydrologic responses, and how these time lags can complicate assessment of environmental service outcomes. These presentations and information from the Event and other sources will be used to develop synthesis papers on regional approaches to PES.

Primary findings of the Event were that true PES is a rapidly developing conservation approach, but it is still relatively new; additional work is needed to develop practices to improve its effectiveness and reduce transactions costs; and PES is not the sole solution to environmental services problems, just one of many tools in the conservation tool box.

Dates to Remember

April 6, 2007	2 nd Quarter Report due
June 8, 2007	Written progress report due for review and discussion by SANREN EEP at the SANREM CRSP annual meeting
June 25-27, 2007	SANREM Annual Meeting, Cochabamba, Bolivia (tentative location)
July 6, 2007	3 rd Quarter Report due

2007 Annual Meeting Set

The SANREM CRSP Annual Meeting is scheduled for June 25-27 in Cochabamba, Bolivia. The meeting will be hosted by [PROINPA](#), a SANREM CRSP partner and non-profit organization that promotes technology innovation and the conservation, use, management, and development of genetic resources for farmers and the nation of Bolivia.

The meeting will be at the Hotel Casa Campestre, just 10 minutes from the airport. A welcome reception will be held on the evening of the 25th, and a participant's dinner will take place on the 26th. A field trip on the 27th will tour SANREM field sites in the region.

Note: Within the past several weeks there has been social unrest in Cochabamba. We are investigating the situation, identifying backup meeting sites, and we will make a decision soon with our Bolivian partners as to whether the annual meeting can be held in Cochabamba. Please check the SANREM CRSP website for current updates on the annual meeting.

Moore and Christie Visit Africa Projects

Associate Program Director Keith Moore and Gender Equity Coordinator Maria Elisa Christie visited SANREM sites in Kenya, Uganda, and Zambia September 20-October 18, 2006. The purpose of their trip was to assess the initiation of new projects, meet project teams and their partners, learn about the implementation contexts, promote gender equity, and develop linkages with USAID missions. Here is a sample of what they found while in Africa.

Transformed Poachers Learn Livelihood Alternatives

Fifteen years ago, Harrison Mtonga was serving a jail sentence for poaching a hippo in the Luangwa Valley in Zambia. Poaching in Zambia is illegal, but food insecurity, limited livelihood opportunities, and diminished biodiversity have made it a common source of income. This is a problem because poaching destroys Zambia's biodiversity, a globally valued resource.

On his release from jail, Mtonga entered a carpentry training program designed to provide transformed poachers with alternative sources of income. The program is sponsored by Community Markets for Conservation ([COMACO](#)), a project developed to improve biodiversity conservation by increasing food security and livelihoods. SANREM PI Alex Travis' research team is working closely with COMACO to develop new technologies and applications, as well as improve institutional capacity building to market products locally and globally. Households in the valley are producing peanut butter, honey, and substantial amounts of rice for sale. Locals are also working at newly established bush camps promoting the region's wildlife as an alternative to poaching. Continued targeted research and training of host country nationals by SANREM and COMACO will generate new technologies and critical knowledge needed for improved food security, rural livelihoods, and biodiversity conservation in Africa.

Mabira Slated for Destruction

Uganda's National Forest Authority (NFA) was formed in 2003 to protect forest resources from illegal logging, charcoal making, and other hazardous activities. In November, the entire NFA board of directors and many key staff resigned. Some of the officials who resigned were also members of the National Advisory Council (NAC), a group charged with monitoring SANREM research in and around the Mabira Central Forest Reserve (CFR). Under PI Elinor Ostrom's "Decentralization Reforms and Property Rights: Potentials and Puzzles for Forest Sustainability and Livelihoods" project, researchers were training local leaders from neighboring villages of Najalanga and Kirugu in natural resource management practices meant to increase responsible forest management and conservation.

After the resignations of those charged with protecting the Mabira CFR, Ugandan President Yoweri Museveni replaced NFA board members with officials who are more in agreement with developer objectives. Environmentalists are concerned that the new NFA will de-gazette a portion of the Mabira CFR for a developer who plans to build a sugar cane plantation. These concerns have prompted marches and demonstrations in the capital city of Kampala. In September 2006, students at Makerere University organized a march across Kampala to deliver a petition of protest to the Speaker of Parliament. Several NGOs in the region have also organized protest marches.

Recipes for Life

A recent increase in the younger generation's exposure to modern language and culture has threatened the oral traditions of the people in the Cotacachi region of Ecuador. When SANREM began its work in the region, the Cotacachi people asked for help documenting beliefs, rituals, sayings, and recipes that had long been passed along by word of mouth.

In response to their request, as well as a need to establish an understanding of the Cotacachi culture, researchers Virginia Nazarea, Juana Camacho, and Natalia Parra documented recipes, folk sayings, local customs, and folk cures for physical ailments, painting a picture of the rich cultural and oral heritage that has evolved in the region. Titled *Recipes for Life*, the book contains cures for such ailments as varicose veins, headaches, cough and cold, fevers, and liver pain; advice on childbirth and child rearing; explanations of cultural ceremonies and traditions; recipes for ritual and everyday foods; and sayings meant to guide each generation toward a better life.

The book was written in three languages--Quechua, Spanish, and English--to connect with a universal audience. “What can be more universal than the need to care for and teach one’s children, nourish and protect one’s family, celebrate life’s seasons and its small victories, face and tame its challenges, and reconcile oneself with inevitable transitions and surrenders?” the authors ask in the book’s prologue. Their compilation, which documents details of the ancient culture of the people of Cotacachi, illustrates SANREM’s efforts to embrace the distinct yet common elements that characterize project sites around the globe.

For more information, or to obtain a copy of *Recipes for Life*, visit [Abya-Yala Publishers](#) online.

Long-Term Research Project Updates

These updates are extracted from the quarterly reports submitted to the ME in January 2007. They provide a brief summary of research activities recently conducted by the research teams involved and are not intended to give a complete accounting of research activities from October through December 2006.

Decentralization Reforms and Property Rights: Potentials and Puzzles for Forest Sustainability and Livelihoods (LTR-1) - Elinor Ostrom, PI, Indiana University

Activities this quarter focused on pre-testing and incorporating a final round of comments from partners into the household survey form; continuing with field visits in all four countries (Bolivia, Kenya, Mexico, and Uganda) to conduct community training, data analysis and drafting of reports; and developing and pre-testing the national-level, large-n survey in Mexico as a model for the other target countries. Researchers in Kenya and Uganda are also working to incorporate gender-related issues in their work. Team discussions are being conducted regarding the best methods for synthesizing findings across the four countries using a matrix to compare expected and actual changes in forest management and resource access due to decentralization policies.

Developing a Participatory Socio-Economic Model for Food Security, Improved Rural Livelihoods, Watershed Management, and Biodiversity Conservation in Southern Africa (LTR-2) - Alex Travis, PI, Cornell University

Some 600 experimental plots have been established across a large study area for soil and crop science studies. A detailed watershed analysis is underway, and “ground-truthing”—the correlation of aerial imagery with field data collected on site visits—has established a foundation for future studies. An intensive aerial survey for wildlife counting was completed in which data were collected from the COMACO core area, as well as several control areas. These data will require additional surveys be conducted in order to properly interpret the initial findings. V-sat linkage was established in the Luangwa Valley, which will allow for implementation of a veterinary “virtual diagnostic” system using digital images transmitted back to experts in the U.S.

Watershed-based Natural Resource Management in Small-scale Agriculture: Sloped Areas of the Andean Region (LTR-3) - Jeff Alwang, PI, Virginia Tech

New baseline surveys were started at sites in Ecuador and Bolivia, and one was completed in Ecuador. Field-level experiments aimed at investigating and identifying

more sustainable agricultural practices have been established. These experiments are evaluating alternative nutrient management practices and methods for reducing erosion losses in highly sloped settings. Protocols for collecting cost of production information are being refined, and price data are being collected in the major markets for the Ecuador and Bolivia sites. The GIS for the Chimbo, Ecuador, site has been completed, and data for watershed modeling are in place. A protocol for monitoring biodiversity has been completed by ECOCIENIA in Ecuador.

Adapting to Change in the Andean Highlands: Practices and Strategies to Address Climate and Market Risks in Vulnerable Agro-Eco Systems (LTR-4) - Corinne Valdivia, PI, University of Missouri

Field experiments were established in two municipalities of Bolivia and eight rural communities. Soil amendment, pest dynamics and management, biodiversity assessments of native potatoes, quinoa, and oca (a tuber similar to a yam) were initiated at these sites. Surveys of 360 households were completed, a database developed, and a debriefing seminar took place in early December. A first stage in biodiversity assessment of potatoes in Umala yielded 114 varieties that are now being evaluated. In Peru, the information from a Knowledge, Attitude, Skills, Aspiration & Practice (KASAP) exercise—surveys and participatory workshops—in the first year was shared with community members in Santa Maria to engage them in an inter-learning process. A second site, Apopata, has been identified.

Agroforestry and Sustainable Vegetable Production in Southeast Asian Watersheds (LTR-5) - Manuel Reyes, PI, North Carolina Agricultural and Technical University

AVRDC is continuing its basic research on vegetable-tree interactions of light, nutrients, and water. Vegetable market literature was annotated, and additional documentation of the trucking of vegetables from rural areas to selected city markets was undertaken in Vietnam and the Philippines. In the Philippines, ongoing national policy review of vegetable agroforestry systems was continued and a stakeholder's policy dialogue conducted. Prospective participants of the capacity building activities were identified as well as their capacity building needs. In Vietnam, a gender survey found that in most households, although both men and women were involved in most of the activities relating to cultivation of major crops, the division of labor between men and women varied by the type of crop and the task.

News Items

Rhoades Featured on Earthwatch Radio

Researcher Robert Rhoades was featured on [Earthwatch Radio](#), a weekly feature produced by students and staff at the University of Wisconsin-Madison's [Sea Grant Institute](#), during the week of Dec. 3, 2006. Rhoades discussed climate change in Ecuador and its effects on the environment, especially the disappearing glaciers. He expressed concern that many people may not notice the effects of climate change until it is too late. In the case of Ecuador's Mount Cotacachi, the indigenous people are reluctant to admit that the glacier—a cultural focal point for generations—no longer exists. “Even though the glacier has disappeared, in the minds of the people of Cotacachi, the mountain still

has its beautiful glaciated peak,” Rhoades said. "For example, in postcards or publications, the peak will always be glaciated."

Dillaha Participates in Educational Exchange

Theo Dillaha went to Guatemala Dec. 9-13 with Sweet Briar College Engineering Program Director, James Durand, to assist in developing an international service-learning project for Sweet Briar's new undergraduate engineering program. They visited Xix, El Quiche, where they identified a series of water-supply related construction projects for which the Sweet Briar students will develop engineering solutions this spring and build in Guatemala this summer. Virginia Tech recently established a student exchange partnership with Sweet Briar that provides students at both schools with more diverse educational opportunities, including more international and service-oriented programs.

2006 Annual Report Released

The [2006 annual report](#) is now available online. The report contains information for Fiscal Year 2006 (Oct. 1, 2005- Sept. 30, 2006). Hard copies are available on request.

De Datta Recognized in Rice Today

SANREM Administrative PI S.K. De Datta was featured in the October-December 2006 issue of *Rice Today*, the magazine of the International Rice Research Institute (IRRI). The article describes the discovery, development, and significance of IR8, an important semi-dwarf variety of rice that was one of the first great successes of the Green Revolution. With proper fertilization, IR8 more than tripled rice production compared with yields from standard varieties and management practices. De Datta's research, coupled with other findings on the IR8 response to fertilizer, persuaded rice growers worldwide, including Ferdinand Marcos, the Philippine president at the time, to switch from standard rice varieties to IR8. This strain of rice and the agricultural changes it prompted are credited with initiating the Green Revolution in rice. For his contribution, Philippine President Gloria Macapagal Arroyo honored De Datta with a Presidential citation in January 2004.

SANREM Welcomes New Editor/Communications Coordinator

SANREM welcomes Deanne Estrada at its new Editor/Communications Coordinator. She comes to SANREM with more than 25 years of journalism experience, including 15 years on staff at the L.A. Times, where she served in a variety of positions, including Night City Editor and Education Editor. As Night City Editor, Deanne directed coverage of local news breaking after 6 p.m. by dispatching reporters and photographers, and editing their work. As Education Editor, she worked jointly with the University of California at Irvine to produce an award-winning weekly homework page that guided students to educational websites.

Deanne has won several awards for excellence in writing and design. In her position with SANREM, she will be responsible for managing all communications, including research briefs, newsletters, annual reports, and websites.

Website Improvements

Have you checked the website lately? The ME team is implementing an effective new communications strategy intended to keep all partners up-to-date on SANREM research and activities. With regular updates and new website features, our partners and stakeholders will have improved access to SANREM news and resources.

We want to hear from you!

The ME would like to include your stories in upcoming editions of SANREM NEWS.

Please submit items of interest to Deanne Estrada at destrada@vt.edu.

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