



Sustainable Agriculture and Natural Resource Management
Cooperative Research Support Program

May 2007 Newsletter

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

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Program Director's Message

The SANREM CRSP is entering an important period in its evolution. We are approximately halfway through the first five years of funding and will be undergoing a major program assessment over the next eight months of SANREM progress toward meeting its research objectives and the progress of the Long-Term Research Award (LTRA) activities in particular. All of the LTRAs are well underway, and important research is beginning to show positive results. For example, SANREM research in Zambia appears to have reduced poultry mortality by more than 50% in its first year. This success is leveraging additional funding that will be used to further improve poultry production in the region.

SANREM long-term research leaders are currently preparing progress reports that cover their first year or so of activities. These will be presented at the SANREM annual meeting in Cochabamba, Bolivia, in June. The annual meeting is an integral component of our continuous assessment process, as the SANREM External Evaluation Panel (EEP) members will be meeting with the LTRA leaders and partners as a component of their evaluation. The EEP members will also lead discussion during LTRA presentations. These discussions will cover not only research progress but also SANREM cross-cutting themes of soil quality management, biodiversity conservation, water resources management, and the role of gender in SA and NRM. The evaluations and recommendations of the EEP will be considered by the SANREM CRSP Management Entity (ME) in allocation of FY 2008 resources due to the 21.6% cut in funding from USAID next year.

After SANREM's mid-term external evaluation, USAID will assess the overall CRSP portfolio and the SANREM CRSP to determine how well SANREM is meeting the objectives of a Soil, Water, and Ecosystems Services CRSP that USAID proposed as a replacement for SANREM. The proposed objectives of the Soil, Water, and Ecosystems Services CRSP are the same as those of the SANREM CRSP, but the new CRSP would be expected to expand soil management activities due to the termination of the Soil Management CRSP at the end of this year. Based on the results of the USAID assessment, in FY 2009 SANREM could be: (1) renewed for another five years as the SANREM CRSP; (2) renewed but renamed the Soil, Water, and Ecosystems Services CRSP; or (3) terminated and re-competed as a new Soil, Water, and Ecosystems Services CRSP. The SANREM ME and partners are working diligently to minimize the possibility of Option 3 because of the disruption that it would cause in SANREM's long-term host country capacity-building activities. If SANREM is terminated in FY 2009, it would be the first time in the 30-year history of the Title XII program that a cooperative research program was ended after less than 10 years.

— **Theo Dillaha, Program Director, SANREM CRSP**



SANREM Loses a Graduate Student

Julia Pryde, a land and water resources engineering graduate student in Biological Systems Engineering at Virginia Tech, was among those who died in the campus shootings April 16. Julia worked with Mary Leigh Wolfe, Professor of Biological Systems Engineering and Co-Principal Investigator on Jeffrey Alwang's long-term research activity in Bolivia and Ecuador. Julia traveled to Ecuador and Peru last summer to begin her research, which involved water quality modeling, and estimating and controlling erosion from footpaths and unpaved roads in agricultural watersheds in the high Andes.

Wolfe worked with Julia for five years, first as her undergraduate advisor, then as her major professor. Julia showed maturity and wisdom beyond her years and was "quite a listener," Wolfe said. "She stood out at her age because she already had a life plan and was taking concrete steps to achieve it. Julia was also a passionate woman, yet she never took herself so seriously that she couldn't laugh. She felt strongly that we should make things right for people and the environment, but she also had the biggest laugh in the world." One colleague would tease Julia just to hear her laugh, Wolfe recalled.

At Seek Education, Explore, DiScover (SEEDS), the nonprofit youth education organization where Julia had volunteered since 2004, peers described her as irreplaceable. "She rallied her friends into action and was not one to let challenges stop her from trying," reads the tribute on the organization's website. "The sparkle of her eyes, her smile, and laugh are unforgettable."

A certified wildland firefighter, Julia worked with the Student Conservation Association and was part of a firefighting team. She worked on Nature Conservancy restoration projects in New Jersey and performed home assessments and GPS data collection for fire evaluation at the Turtle Mountain Indian Reservation in North Dakota. She was a member of the American Society of Agricultural and Biological Engineers.

Julia planned to pursue a Ph.D. and then an academic career as a teacher and researcher in sustainable agriculture and water resources management. Her dream was to work in South America and Africa, where she hoped to improve people's daily lives through increased technical knowledge, particularly for watershed management. She loved the outdoors and spent her free time hiking and camping in the mountains. "She always had a smile and thoroughly enjoyed life," SANREM's Dillaha said. "Please keep her family and friends in your thoughts."

Julia is survived by her parents, Karen and Harry Pryde; brothers Michael and Keith; and sister Leah. Memorial donations may be made to SEEDS, 209 Main St., P.O. Box 824, Blacksburg, VA 24063. Letters of condolence may be e-mailed to pflegerfh@aol.com

Annual Meeting Focuses on LTRA Programs

The progress of SANREM CRSP's five LTRA activities will be the focus of the annual meeting June 24-27 in Cochabamba, Bolivia, where three of the LTRAs are active. The goal of the meeting is to evaluate the progress of LTRA activities and to allow SANREM researchers and their partners to share and discuss successful strategies for achieving sustainable agriculture and natural resource management. More than 40 SANREM partners plan to participate.

Discussion sessions will be led by members of the SANREM EEP, composed of Richard Harwood, retired from Michigan State University; Kathleen Galvin of Colorado State University; Robyn Burnham of the University of Michigan; Edwin Price of Texas A&M University; and Paul Vlek of University of Bonn, Germany. They will use the occasion to conduct a midterm assessment of SANREM's progress in achieving its long-term goals.

The meeting will include a field trip to Tiraque, the Bolivian site for watershed management project in the Andean highlands led by Jeffrey Alwang of Virginia Tech. Farmers at the site are experimenting with alternative crops, including strawberries, and several Andean root crops. The group also will visit the Toralapa experiment station to see activities with potatoes and other crops, as well as the germplasm bank for Andean crops. The trip will include discussions with participating farmers and farm groups as well as local government officials.

Meeting arrangements are being coordinated with PROINPA, a partner on two SANREM long-term research activities. Additional details about the annual meeting are available at: http://www.oired.vt.edu/sanremcrsp/AM_2007/AM_2007_home.php.

Take a Virtual Tour of SANREM Sites

A clickable world map with links to all SANREM projects is now featured on the SANREM CRSP home page. The map shows the global coverage of SANREM activities and provides easy access to descriptions of the LTRAs and key partners. To take the virtual world tour, go to: <http://www.oired.vt.edu/sanremcrsp/>. If you have suggestions for the content of the linked web pages, e-mail SANREM Editor/Communications Coordinator Deanne Estrada, destrada@vt.edu

Program Director Travels to Asia

SANREM Director Dillaha began the year with a monthlong mission to Southeast Asia, where he visited field sites and partners in Indonesia, the Philippines, and Vietnam. The projects are associated with LTR-5: Agroforestry and Sustainable Vegetable Production in Southeast Asian Watersheds Long-Term Research, directed by North Carolina A&T's Manuel Reyes. Dillaha visited field research sites, observed the activities' progress to date, met with project teams and their partners, and visited USAID missions.

While in Indonesia, Dillaha participated in the Global Event on Payments/Rewards for Environmental Services hosted by the World Agroforestry Center (ICRAF) in Lombok, Indonesia, and presented a paper on time lags between conservation activities and resulting hydrologic responses. Other participating SANREM team members were Paul Ferraro of Georgia State University, Marjorie Huang of Winrock International, and Josefina Braña Varela of the Ecology Institute of New Mexico, who gave presentations on the state and characteristics of payments for environmental services programs in Africa, Asia, and South America, respectively. More information on the Lombok conference, including abstracts and copies of PowerPoint presentations, are available at <http://www.worldagroforestry.org/sea/rupes/Home/tabid/114/Default.aspx>

LTR-5 research in Indonesia is being conducted in Nanggung Subdistrict, West Java, where research partners from Bogor Agricultural Institute and ICRAF are introducing commercial production of herbs, medicinal plants, and high-value indigenous vegetables into agroforestry systems.

In Vietnam, Dillaha teamed up with Alton Thompson, Dean of the School of Agriculture at NCA&T and Chair of the SANREM CRSP Board of Directors. At Nong Lam University in Ho Chi Minh City, they met with faculty and administrators for the signing of a Memorandum of Understanding between Nong Lam University and NC A&T for faculty and student exchanges. Dillaha also toured field research sites operated by Nong Lam University and Mars International in the Nghia Trung area of Binh Phuoc province. SANREM research in Vietnam is focused on increasing cacao and vegetable production in agroforestry systems.

In the Philippines, Dillaha met with SANREM partners from ICRAF, De La Salle University, Don Bosco Technical College, University of the Philippines at Los Baños, University of the Philippines Open University, and USAID. He also visited the University of Santo Tomas and Silliman University, where he discussed the possibility of SANREM partnerships.

In Bukidnon, Mindinao, Dillaha toured four field sites in the Lantapan Watershed. "The visit to the Lantapan watershed was particularly enlightening," he said, "as SANREM has had activities in this watershed since the early 1990s. I was particularly impressed with one of the cooperating SANREM farmers, Henry Binahon, who seems to be very successfully applying almost every imaginable best management practice in his agroforestry and vegetable production enterprise." He described Binahon and his wife as "poster people" for sustainable agriculture and natural resource management.

SANREM Gives Technical Assistance to USAID Madagascar Mission

A SANREM team visited Madagascar in May at the request of USAID to study restoration activities and progress at an illegally logged forest site that serves as a corridor between two major biodiversity preserves. The team's leader was Sarah Karpanty, Assistant Professor of Fisheries and Wildlife Sciences at Virginia Tech. Traveling with her were Theo Dillaha and Charles Welch, a research scientist at Duke University's Lemur Center.

For eight months before being shut down in 2004, the logging company used heavy machinery to build a 17 kilometer road through the formerly pristine Didy reserve forest. The company then cut timber in a swath 50 to 200 meters wide along the road. Scientists fear that the road is impeding the migration of lemurs through the corridor, for lemurs typically travel through tree canopies, avoiding movement on the ground. In 2005, Karpanty, Welch and others visited the site, assessed the damage, established plots to monitor natural forest re-vegetation, and developed a restoration plan. Since then, some restoration efforts have been made.

The May follow-up assessment studies restoration sites where trees had been planted, natural regeneration in the established plots, and results of erosion control practices. The team is now updating the site restoration plan. Partners in the site assessment include USAID's MIARO program, Centre ValBio, Conservation International, the World Wildlife Fund, and the Madagascar Institute for the Conservation of Tropical Environments (MICET). A final report on the project will be available in July.

TC Reelects Chair, Endorses Cross-Cutting Initiative

Gerald Shively of Purdue University was reelected Chair of the SANREM CRSP Technical Committee (TC) at the committee's April 6 teleconference. He and Saied Mostaghimi of Virginia Tech were chosen as Systems Coordinator Technical Committee representatives to the annual meeting in Cochabamba. Elizabeth Jiménez of SANREM's LTRA project on adaptation to climate change in the Andean Highlands was elected host country representative. Jiménez is Assistant Professor of Economics at the National Agrarian University in La Molina, Peru.

The TC unanimously recommended allocating funds for cross-cutting research on watershed modeling and assessment, initially focusing on LTRA activities in Zambia, Bolivia, and Ecuador. The initiative's aim is to identify long-term impacts of proposed best-management practices on targeted watersheds. The initiative will be led by Conrad Heatwole of Virginia Tech. Alex Travis of Cornell University, Principal Investigator for the SANREM LTRA project in Zambia, said a pilot study by Heatwole shows promise in tying together different ecosystems economically and scientifically. Heatwole said he hopes to build on existing projects by incorporating satellite imagery and watershed modeling.

Asian University Administrators Visit NC A&T, Virginia Tech

Taking steps to develop and expand cooperation with universities in Southeast Asia, NC A&T hosted a team of five top university administrators from Indonesia, the Philippines, Vietnam, and Thailand. Manuel Reyes, Principal Investigator for SANREM in Southeast Asia and Associate Professor of Biological Engineering at NC A&T, organized the weeklong visit, which began March 25 in Washington, D.C., and included the campuses of NC A&T in Greensboro and Virginia Tech in Blacksburg. The theme for the week was, “Sustainable Agriculture and Natural Resource Management for a Better World.”

The visitors were Rey Luis Velasco, Chancellor, University of the Philippines at Los Baños; Bui Cach Tuyen, Rector, and Tran Thi Tuyet, Deputy Director of Continuing Education Center, Nong Lam University, Vietnam; Muhamad Ahmad Chozin, Vice-Rector for Research, Bogor Agricultural University, Indonesia; and Attachai Jintrawet, Associate Dean, Faculty of Agriculture, Chiang Mai University, Thailand. Los Baños, Long Lam and Bogor are SANREM partner universities.

In Greensboro, the group met students during a campus tour, and had sessions with Chancellor Lloyd Hackley; Vice Chancellors Janice Brewington and N. Radhakrishnan; Dean of the College of Agriculture Alton Thompson; and International Programs Director Minnie Mayes. Talks focused on SANREM research activities and developing student exchange, study abroad, and mutually beneficial research programs between the Asian universities and NC A&T.

At Virginia Tech, the delegation met with President Charles Steger; Vice Provost for Outreach and International Affairs John Dooley; S.K. De Datta, Associate Provost for International Affairs and Director of the Office of International Research, Education, and Development; and representatives of Education Abroad, Agricultural Research and Extension, and the College of Engineering. They toured Virginia Tech agricultural research farms, the Virginia Bioinformatics Institute, and the Virginia Tech Aquaculture Center.

In Washington, the delegation met with officials from USAID, the National Science Foundation, U.S. Department of Agriculture, Foreign Agricultural Service, and attachés from the Indonesian, Thai, and Philippine embassies. The group toured the Beltsville, Md., Agricultural Research Center. Their U.S. visit ended March 31 with a reception sponsored by Mars International Inc.

LTRA Projects Report Progress

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

Activities for the quarter focused on finalizing the household survey form and continuing with field visits in the four target countries of Uganda, Kenya, Bolivia, and Mexico. The survey aims in part to show expected and actual changes in forest management and resource access due to decentralization policies. In Uganda, the team made a follow-up visit to Mabira, where there is the possibility that the forest will be converted to sugar cane. A third SANREM site was established in Kenya, where 20 community members were trained, including six who received in-depth training in research techniques.

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

A detailed watershed analysis is under way, and “ground-truthing” — the correlation of aerial imagery with field data collected on site visits — has built a base for future studies. Intensive aerial-survey wildlife census data collected in the previous quarter in the COMACO core area and several control areas were analyzed as a set, as well as compared with findings from previous years. The core area appears to have relatively high populations of target species, which may be increasing in number. But outside that area, the data show a paucity of wildlife. The numbers suggest that the Luangwa River Valley is in critical need of an ecosystem-wide management plan.

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

In Ecuador, researchers set up field sites for rainfall and erosion studies in pastures and bean and maize fields. A farmer-researcher team is investigating several soil conservation structures and alternative practices. Teams also are evaluating improved varieties of potatoes, barley, quinoa, blackberries, and other crops that might be adopted. Researchers in Bolivia set up test plots for new crop varieties and continued integrated crop management studies to see how potatoes and faba beans respond to various cultivation and spacing techniques. In the highlands, eight experiments are testing potential new crops to fit into a potato rotation. The goal is to form a seed potato production system.

Adapting to Change in Andean Ecosystems (LTR-4), Principal Investigator Corinne Valdivia, University of Missouri, Columbia.

The research focus this quarter was on soil amendment treatments, pest dynamics, biodiversity, and climate. In addition, two focus groups in Ancoraimas addressed traditional climate forecast indicators, their utility in the face of changing climate and cropping systems, and the prognosis for future use. The research teams shared a summary of ecological data for Ancoraimas and Umala with the communities, triggering an exchange of ideas. In Peru surveys were completed at Apopata, an agro-pastoral community in the highlands of Puno. The themes included coalition building, climate forecast expert focus groups, soil amendment practices, pest management, and biodiversity assessments.

Agroforestry and Sustainable Vegetable Production in Southeast Asian Watersheds, (LTR-5), Principal Investigator Manuel Reyes, North Carolina A&T University.

In the Philippines, researchers completed field work for a market study and began compiling a report on women traders. Interviews with 50 women and heads of farming households in Sungko for a gender survey were completed. A market study in Vietnam of 306 farmers in nine hamlets found that perennial crops are more valuable than annuals. The five most profitable diversified crops identified were durian, bamboo shoots, cassava, rambutan, and vegetables. In Indonesia, field trials on integrated pest management were initiated.

Calendar

June 1	Deadline for FY 2007 progress reports
June 10-July 10	SANREM Management Entity visits to LTRA Andes sites
June 24-27	SANREM annual meeting, Cochabamba, Bolivia
Aug. 31	Deadline for FY 2008 work plans
Oct. 15	Deadline for FY 2007 annual report
March 29-April 3, 2008	“21 st Century Watershed Technology: Improving Water Quality and the Environment,” international symposium, Concepción, Chile

Update Your Address Book – We’ve Moved

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