



Sustainable Agriculture and Natural Resource Management  
Collaborative Research Support Program

## SANREM CRSP Newsletter, May 2008

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

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<http://www.oired.vt.edu/sanremcrsp/documents/newsletters/05-08.pdf>

## Director's message



The SANREM CRSP management team is encouraged to report that the two panels reviewing the program in 2007 and 2008 both recommended that SANREM be renewed for another five years. Reports to USAID from the External Evaluation

Panel (EEP) and the Administrative Management Review (AMR) team cited our program's many strengths, with special praise for our new cross-cutting initiatives.

The two teams also identified areas in which we could improve, and we have responded or will respond to their suggestions proactively. USAID will consider the reports before deciding later this year whether SANREM will be extended through September 2014. Based on the recommendations of these reviews and other comments from USAID, we are optimistic that SANREM will be renewed. If that happens, in 2009 the ME will issue a request for applications (RFA) for research proposals.

The SANREM Management Entity (ME) has been extremely busy and productive in recent months. Besides hosting the two review programs, we finalized plans for our annual meeting May 26-29 at University of the Philippines-Los Baños. A field trip to SANREM's Lantapan site will precede the meeting, which will conclude with a gender workshop led by Maria Elisa Christie, our gender specialist. The focus of this year's meeting is on scientific results from our five Long-Term Research Award (LTRA) activities. More than 60 scientists, engineers, and development specialists are participating.

Watershed management continues to be a significant SANREM research focus. Five

SANREM partners presented papers and posters at "21st Century Watershed Technology: Improving Water Quality and the Environment," a conference co-sponsored by SANREM March 29 to April 2 in Concepción, Chile. Looking ahead to January 2009, SANREM will also co-sponsor Southeast Asia's first Soil and Water Assessment Tool (SWAT) workshop and conference.

SANREM's LTRAs all report steady progress with scientific results and training initiatives. This newsletter highlights LTRA-3: Watershed-based Natural Resource Management in Small-scale Agriculture: Sloped Areas of the Andean Region, led by Jeffrey Alwang of Virginia Tech.

The newsletter also describes an innovative teaching tool developed by Karen Garrett, a researcher on the LTRA-4 team, offered free to anyone in the world with internet access; and welcomes Jane Lee to the SANREM ME as program coordination assistant. These and other developments are described in detail below.

— Theo Dillaha

SANREM CRSP program director  
[dillaha@vt.edu](mailto:dillaha@vt.edu)

## **Research spotlight**

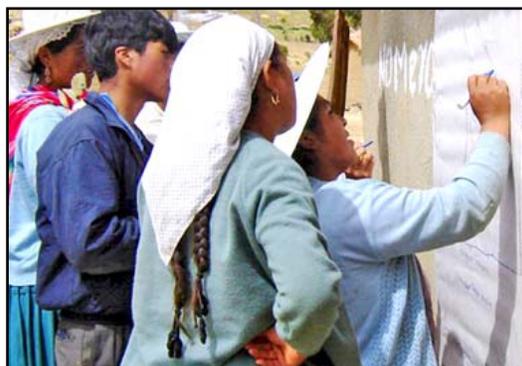
### **LTRA-3: Watershed-based Natural Resource Management in Small-scale Agriculture: Sloped Areas of the Andean Region**

**PI:** Jeffrey Alwang, Department of Agricultural and Applied Economics, Virginia Tech

Most households in rural watershed regions of the Andes rely on agriculture or other natural-resource based activities for their livelihoods. SANREM researchers are monitoring the social, economic, and environmental effects of livelihood changes in watersheds of Chimbo, Ecuador, and Tiraque, Bolivia. The aim is to improve farm families' lives and incomes by finding profitable alternatives, to identify constraints to adopting these alternatives, and to encourage genetic diversity in crop selection.

Having completed initial community surveys of natural resources and human assets, the SANREM team has begun analyzing soil erosion and monitoring stream flows, rainfall, and weather patterns. Geographic information system (GIS) data are being used to show areas of highest productivity and where soil loss and erosion are most likely. Researchers and farmers are experimenting with conservation techniques such as contour plowing and integrated pest management. Alternative crops such as blackberry, avocado, lemon, tree tomato, kanuahua, maca, and strawberry are being tested for their potential to raise family incomes.

In Bolivia, a field study is analyzing how potato producers decide which varieties to plant. In Ecuador, researchers are studying whether the current marketing system for profitable dairy products discourages farmers from participating. While biodiversity is being studied in both countries, researchers have already gathered data in Ecuador's Illangama



### **In Bolivia's Tiraque watershed region, residents list community resources such as forests, fields, and streams.**

and Alumbre watersheds on aquatic species and chemical composition of water in streams.

Training and capacity-building are central to this project. Professionals from Ecuador and Bolivia participated in February 2008 watershed modeling workshops at Virginia Tech. Integrated resource management and soil conservation training was conducted in Ecuador. A watershed modeling workshop in Bolivia is set for late summer 2008. SANREM is also encouraging cross-community study tours, offering undergraduate internships in watershed management, and supporting graduate students in the host countries and at U.S. institutions. Scientific work is ongoing in farmer fields, in experiment stations, and at U.S. universities.

The project reports several major findings to date:

- Evidence shows that two alternatives have high economic returns: reduced application of agrochemicals, particularly integrated pest management for potatoes; and low-cost conservation techniques to improve soil quality.
- An inventory of biodiversity and a study of the effects of human activities on this biodiversity show that the Ecuadoran



**Many residents of the Chimbo River watershed area depend on agriculture to make a living.**

- watershed is ecologically diverse, but many plant and animal species are threatened by land fragmentation.
- The main sources of water quality problems in Ecuador’s Chimbo River are urban, not agricultural.
- Access to water is becoming increasingly problematic for household consumers as well as municipal, agricultural, and potential industrial water users. The project and its partners are investigating how water allocation decisions are made, with the hope of developing more equitable policies.
- Natural resource-intensive activities such as cultivation of medicinal plants represent an important income-earning alternative.

**News, notes, milestones**

**Reviewers give SANREM program high marks**

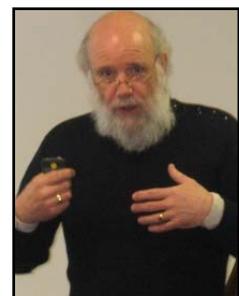
The two key panels reviewing the SANREM CRSP both strongly recommend that the

program be extended for another five years. In its report, the External Evaluation Panel (EEP) wrote, “The team is very impressed by the new knowledge generated, the excellent graduate training, and scientific staff commitment to engage in multidisciplinary research.”

The Administrative Management Review (AMR) team, whose recommendations to USAID will help determine whether the SANREM program is renewed, wrote in its preliminary report, “The SANREM CRSP has had good performance during the first three and a half years of operation; and more importantly ... the ME has made adjustments along the way that have steadily increased the efficiency and effectiveness of management.”

The reviews, completed in Year 4 of SANREM’s third phase, will help USAID determine whether SANREM will be renewed through September 2014 and whether Virginia Tech will continue as its management entity. USAID will announce its decision later this year. If SANREM is extended, the ME will issue a request for applications in 2009 for funding in fiscal year 2010.

The EEP, chaired by Ron Cantrell, former director general of the International Rice Research Institute, cited the need for multidisciplinary research: “As we place more stress on the environment due to rapid change, there are often unintended consequences ... for people-agricultural-environmental systems. The inter- and trans-disciplinary approach to research exemplified by SANREM is the most viable way to address the complexity that is the real world.”



**Associate Program Director Keith Moore speaks to AMR panel.**

In its recommendations to USAID, the panel

**AMR team and SANREM leaders, from left: Harry Rea, Theo Dillaha, Kathleen DeWalt, Gil Lucas, Keith Moore, S.K. De Datta, and Hans Gregersen**



wrote, "The body of work currently being undertaken by SANREM CRSP researchers has the potential to make an important contribution."

Besides Cantrell, EEP team members contributing to the report were Richard Harwood, Michigan State University (emeritus) and former EEP chair; Kathleen Galvin, Colorado State University; Robyn Burnham, University of Michigan; Edwin Price, Texas A&M University; and Paul Vlek, University of Bonn. Cantrell, Galvin, Price, and Vlek met at Virginia Tech earlier this year to write their final report, published Jan. 25 and available on request.

The AMR team, coordinated by R. Gillem Lucas of the consulting company APARIQ Inc., recommended to USAID that it "extend the SANREM III agreement for a period of at least five years." The team cited SANREM's "admirable adaptive management approach, ... strong partnership with and leadership of the LTRAs, and its good record during the first three and a half years."

Serving with Lucas on the AMR panel were Hans Gregersen, University of Minnesota (emeritus) and longtime associate of the Consultative Group on International Agricultural Research; and Kathleen Musante DeWalt, professor of anthropology and public health director at the Center for Latin American Studies in Pittsburgh. Harry Rea, cognizant technical officer for SANREM at USAID in Washington, also participated in the review.

## **Science in the spotlight for SANREM annual meeting**

The theme for the SANREM CRSP 2008 Annual Meeting is scientific results from the five LTRAs. University of the Philippines-Los Baños (UPLB) is hosting the meeting May 26-29. A field trip to Lantapan, an active SANREM site since 1992, will precede the meeting, and it will conclude with a gender workshop.

Day 1 will focus on LTRA progress reports and discussions, as well as SANREM cross-cutting activities. Day 2 will consist of 20 scientific presentations in these areas of study: smallholder livelihoods, crop diversity and choice, markets, social diversity, policy, soil and water management, and analyzing system stressors. Day 3 will include business meetings and a tour of the International Rice Research Institute (IRRI). The gender workshop opens with a working dinner Wednesday and continues Thursday with sessions on methodologies, case studies, and research questions and framework. An exhibit of 37 posters by SANREM researchers and partners will be open throughout the meeting.

SANREM's Lantapan sites are near the village of Songco, situated at the foot of the Mount Kitanglad Range in Bukidnon Province, Mindanao. The main occupation of Songco's 3,000 residents is farming. SANREM's field sites are experimenting with vegetable agroforestry – growing vegetables and trees together. The four main vegetable species being researched are bok choy, cabbage, tomato, and bean. Both fruit trees and timber



**Vegetables grow beside trees in Lantapan, site for a field trip before the annual meeting.**

trees such as mahogany are being tested. Research results indicate that the technique has the potential to improve quality of life for small-scale farmers.

UPLB was founded by U.S. botanist and agriculturist Edwin Copeland in 1909 as the College of Agriculture, one of the first two units of the University of the Philippines. Several of its buildings were designed by renowned architect Leandro Locsin. The university, site of numerous local and international research centers, has the highest concentration of Ph.D.s among educational institutions in the Philippines.

IRRI is the oldest, largest international agricultural research institute in Asia. Its mission is to reduce poverty and hunger, improve the health of rice farmers and consumers, and ensure that rice production is environmentally sustainable. Its headquarters, next to the main campus of UPLB, features laboratories, training and accommodation facilities, and a 252-hectare experimental farm.

Read more annual meeting details are available on SANREM's website:  
<http://www.oired.vt.edu/sanremcrsp/AM2008/AM2008home.php>

Click here to preview the program and read presentation and poster abstracts:  
<http://www.oired.vt.edu/sanremcrsp/AM2008/WebProgram.pdf>

**Researcher Garrett reaches out with teaching modules**

Not even the best teacher can reach students effectively without good course materials, a limitation in many parts of the developing world. At universities in resource-poor countries where training of agriculturists and scientists is key, libraries may not be well stocked, and software needed to analyze data and develop predictive models may be unavailable or quite expensive.

Online training modules developed by SANREM CRSP Researcher Karen Garrett with colleagues and students at Kansas State University are addressing this need in the area of plant disease and epidemiology. The modules are available free to anyone with internet access. Published in December and January in the journal *The Plant Health Instructor*, they are designed to teach principles of modeling: for instance, predicting the course of epidemics such as cassava mosaic disease. CMD is the most important viral disease of cassava in

sub-Saharan Africa, in some years causing severe food shortages and economic losses. Such models could help policymakers determine how climate change is likely to affect a particular disease and what alternative agricultural policies might mitigate the damage.

**Universities are becoming more than a place where you go to learn. They are also a source from which to obtain information globally.**

**— Karen Garrett**

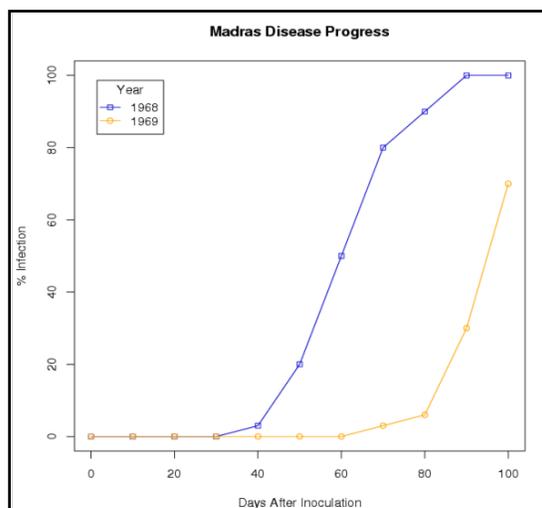
“We are tracking use of the teaching modules,” Garrett says. “So far, they have been accessed by more than 5,000 visitors in 99 countries.” The modules use R, a free software environment that includes base packages for graphics and statistics. R is especially useful in the sciences and engineering, Garrett says. “Our modules give a basic introduction to R by showing how to use it in different situations.”

Garrett, who teaches plant epidemiology, was preparing for a fall 2006 course when she thought of publishing the modules online. “If you’re developing material anyway, why not go ahead and publish it?” she says. “It’s value added.” Garrett and her colleagues continued updating the modules in 2007. “We went through quite a few revisions to make them easier to understand.”

Garrett created the modules mainly for teaching and for training researchers. “When we go back in the classroom this fall, we will develop more modules,” she says. “One will teach basic statistics for the most common types of field work, that is, experiments comparing different plant varieties and disease management strategies.”

Because the modules are free, they are especially valuable for teaching remotely, says Garrett, a research partner for LTRA-4: Adapting to Change in the Andean Highlands: Practices and Strategies to Address Climate and Market Risks in Vulnerable Agro-ecosystems. She foresees a global shift in how people seek knowledge: “Universities are becoming more than a place where you go to learn. They are also a source from which to obtain information globally.”

“We’ve already heard from other teachers that they are thinking about using the modules,” Garrett says. Her hope is that future scientists will carry the concepts from the classroom to the cassava fields and beyond, working with farmers to develop better strategies.



**Using Garrett’s teaching modules, researchers can track the progress of diseases like stripe rust (Madras disease) in wheat and other grasses.**

Click here to see the teaching modules:  
<http://www.apsnet.org/education/AdvancedPlantPath/Topics/RModules/default.html>

Click here for more information about the R software environment:  
<http://www.r-project.org/>

### **SANREM to co-sponsor water conference in Asia**

Southeast Asia’s first SWAT workshop and conference will be Jan. 5-8, 2009, in Chiang Mai, Thailand, with Chiang Mai University and North Carolina A&T State University as lead organizing institutions. SANREM CRSP is among the co-sponsors for the event, which is expected to draw more than 300

representatives of academia, private industry, government, and non-governmental organizations, including a large contingent of graduate and undergraduate students.

SWAT – Soil and Water Assessment Tool – is a watershed scale model using geographic information system (GIS) technology to facilitate preparation of model data files. It can simulate hydrology and water quality to



predict the effects of land management practices on large watersheds. SWAT technology

has been used widely to study the water quality of river systems, including the movement and concentrations of pollutants and the potential impact of climate change on stream flow.

Among topics to be covered at the SWAT-Southeast Asia conference are:

- applying watershed models in Southeast Asia
- conventional calibration and validation studies in regions where SWAT has not been used
- applications for sustainable agriculture, climate change, and biofuel scenarios
- land-use scenarios
- pollution issues, and
- large-scale applications of SWAT, such as major river systems, entire countries or continents.

North Carolina A&T is a SANREM CRSP Phase III partner institution. Manuel Reyes, lead PI for SANREM's Long-term Research Award Activity 5, is an associate professor of bioenvironmental engineering at the university, and SANREM Board Chair Alton Thompson is dean of the School of Agriculture and Environmental Services. Reyes is a lead organizer for the upcoming SWAT conference.

Other co-sponsors are Texas A&M University, Germany's Universität Hohenheim, USAID,

Center for Agricultural and Rural Development, Indian Institute of Technology-Delhi, Japan's Shimane University, Korea Institute of Construction Technology, University of the Philippines-Los Baños, University of Saskatchewan, U.S. Department of Agriculture's Agricultural Research Service, Grassland Soil & Water Research Laboratory, Vietnam's Institute of Education and Training, U.S. Department of Agriculture's National Water Management Center, Texas Institute for Applied Environmental Research, Virginia Tech, Universiti Utara Malaysia, American Society of Agricultural and Biological Engineering, World Association of Soil and Water Conservation, international journal *Agronomy for Sustainable Development*, and United Nations University.

The deadline to submit abstracts for presentations at the SWAT-SEA conference is June 1. Registration will begin Nov. 15. Click here for more information:

<http://www2.mcc.cmu.ac.th/swat/>

SWAT is a public-domain model supported by the U.S. Department of Agriculture at its Grassland, Soil and Water Research Laboratory in Temple, Texas. Click here to learn more about SWAT:

<http://www.brc.tamus.edu/swat/index.html>

### **Gender specialist leads awareness workshop**

"If you were born again, would you choose to be a man or a woman?" Workshop participants pondered this question and others at a recent gender awareness event developed and led by Maria Elisa Christie, gender equity coordinator for SANREM CRSP.

Christie, who is also director of Women in International Development at Virginia Tech,

**We may think we are sensitized to gender issues and have overcome sex-based discrimination here in the developed world, but very often, this is not the case.**

**— Maria Elisa Christie**

conceived the workshop for faculty and students because “it is our responsibility to ensure that our research programs benefit women and men equally. This requires that we work actively to overcome gender biases at all levels. We may think we are sensitized to gender issues and have overcome sex-based discrimination here in the developed world, but very often, this is not the case. I thought it would be useful for university people to look at how we seen gender.”

Through interactive exercises, program participants looked at the definition of gender, implicit bias, and how gender stereotypes affect our perceptions of people. The group consisted of faculty, staff, graduate students, and undergraduates.

Christie encouraged participants to consider that elements of projects, especially in developing countries, are always gendered. What are the gender assumptions behind the words you use – is a “farmer” always male? Who performs what task in a village? What time you are proposing for an activity? For example, if you schedule a meeting for when women are at home fixing dinner, they are unlikely to attend. This often means that those responsible for carrying out tasks related to research do not have the proper information or training.

Participants learned that, if you do not make a special effort to consider gender, your project may not have the intended effect. For example, if you suggest a new technique to reduce pests in tomato crops, make sure you consider “women’s fields” – areas that only women cultivate, such as the home vegetable plot. If you teach the new technique only to men, the women may not learn it, and pests on their tomatoes may attack the plants that the men grow for sale.

— **Miriam Rich**

Office of International Research, Education,  
and Development, Virginia Tech



**Opening the watershed conference is Oscar Parra, Ph.D., founder and director of the Environmental Sciences Centre, University of Concepción.**

### **Conference focuses on watershed problems and solutions**

Five SANREM CRSP partners presented papers and posters at “21st Century Watershed Technology: Improving Water Quality and the Environment,” a conference March 29 to April 2 in Concepción, Chile. The focus of the meeting, co-sponsored by SANREM, was emerging problems and new solutions for managing watersheds to meet water quality and quantity standards.

Attending the conference were 110 water resource professionals from 14 countries. Two days of workshops were followed by two and a half days of oral and poster presentations, including the following from SANREM CRSP partners:

- “Results of the Comprehensive Assessment of Water in Agriculture,” keynote

presentation by Theo Dillaha, SANREM CRSP program director

- “Attachment of Bacterial Indicators to Particulates in Runoff from Various Soils,” Saied Mostaghimi, SANREM CRSP watershed systems coordinator
- “Hydrology of Forested and Cultivated Watersheds in Upland Landscapes of the Luangwa River Valley, Zambia,” Conrad Heatwole, SANREM CRSP watershed monitoring and modeling coordinator (presented by Theo Dillaha)
- “Payments for Watershed Services in Developing Countries,” Theo Dillaha
- “Comparing Alternative Methods of Simulating Bacteria Concentrations with HSPF Under Low-Flow Conditions,” Brian Benham, LTRA-3
- “Adaptive Watershed Management in South American Highlands,” poster by Victor Barrera, INIAP-Ecuador and LTRA-3, presented by Elena Cruz, INIAP
- “Adaptive Watershed Management in Tiraque, Bolivia,” poster by Ruben Botello, PROINPA, Ecuador, and
- “Dairy Market Chains in Indigenous Communities of the Chimbo River Watershed,” Heather Weeks, LTRA-3.

Dillaha and Benham, associate professor of biological systems engineering at Virginia Tech, also moderated two sessions each. Lead sponsor for the conference was the American Society of Agricultural and Biological Engineers (ASABE). Co-sponsors besides SANREM were the University of Concepción, Texas Institute for Agricultural and Environmental Research at Tarleton State University, and the U.S. Department of Agriculture’s Agricultural Research Service (USDA-ARS).

More conference information is online at <http://www.asabe.org/meetings/water2008/index.htm>.

## **New member on the SANREM management team**

Jane Lee has joined the SANREM CRSP management team as a program coordination assistant. In her new role, she provides financial and operational support for the program; formulates, develops, and allocates annual budgets; reconciles monthly accounting statements; and develops new project cost proposals. She also serves as a financial liaison for subcontractors and coordinates travel for Virginia Tech staff and others attending SANREM CRSP conferences around the world.

Lee was previously a financial services associate for the Office of International Research, Education, and Development at Virginia Tech. In her new position, she succeeds Peggy Lawson, who retired in March.

Lee came to Virginia Tech in 2004 from San Francisco. She holds a master’s degree in accounting and a bachelor’s degree in business administration. Besides her accounting expertise, she speaks Korean fluently and is conversational in French.

## **Long-term research progress reports**

### **LTRA-1: Decentralization Reforms and Property Rights: Potentials and Puzzles for Forest Sustainability and Livelihoods**

**PI:** Elinor Ostrom, Indiana University  
SANREM researchers and partners trained 1,192 individuals in various topics related to the forest sector and decentralization. Researchers completed data collection in five

of seven sites each in Uganda and Kenya, two of five sites in Mexico, and three of five sites in Bolivia. Nationwide surveys were completed in Mexico and 92 percent completed in Bolivia. The nationwide survey in Mexico caught the attention of several influential organizations, resulting in a review of forest sector and policy recommendations. Large discrepancies were found between the decentralization policies that exist on paper and those actually practiced.

### **LTRA-2: Developing a Participatory Socioeconomic Model for Food Security, Improved Rural Livelihoods, Watershed Management, and Biodiversity Conservation in Southern Africa**

**PIs:** Alex Travis and Alfonso Torres, Cornell University; and Dale Lewis, Wildlife Conservation Society

SANREM research indicated that the Community Markets for Conservation (COMACO) could benefit from participation in global carbon markets, with opportunities in soil carbon sequestration through conservation farming, reforestation, and avoided deforestation. Wildlife distribution data showed clear differences between COMACO core areas and places where COMACO is not active or is just becoming active. COMACO embraced SANREM-recommended food safety and hygiene practices, which could translate into higher profits for processors. Research teams prepared for cross-cutting activities and data collection across the Luangua Valley.

### **LTRA-4: Adapting to Change in the Andean Highlands: Practices and Strategies to Address Climate and Market Risks in Vulnerable Agro-ecosystems**

**PIs:** Corinne Valdivia and Jere L. Gilles, University of Missouri-Columbia

Analysis of likely long-term climate-change projections and their implications in the high Andes continued successfully, and SANREM research was completed on livelihoods and perceptions of risks in two regions of Bolivia.

Measures of extreme precipitation and temperature were analyzed, demonstrating trends by mid-21st century of decreasing frost days, increasing heat-wave duration, intensity of precipitation, and numbers of consecutive dry days.

Second-year soil amendments and experiments on dynamics of pest research experiments and crop varieties were established. Participatory evaluations continued in all communities.

### **LTRA-5: Agroforestry and Sustainable Vegetable Production in Southeast Asian Watersheds**

**PI:** Manuel Reyes, North Carolina A&T State University

Several studies showed that certain vegetable-tree combinations can increase yields even when vegetables are planted beside and are partially shaded by trees. Experiments with a low-cost drip irrigation system indicated that drip may minimize tree-vegetable moisture competition.

SANREM researchers found that the perennial peanut *Arachis pintoii* has excellent prospects as living mulch for soil erosion control. Market value chain studies found several weak links, including low use of technology, inadequate supply of production inputs, poor marketing infrastructure, and inadequate post-harvest handling of produce.

## Kudos

- The effect of policy reform on Latin America's poor is the topic of a new book coauthored by SANREM Partner **Krister Andersson**, assistant professor of environmental policy at the University of Colorado-Boulder. Written with **Gustavo Gordillo de Anda** and **Frank van Laerhoven**, both affiliated with the United Nations' Food and Agriculture Organization, the book is titled, *Local Governments and Rural Development: Comparing Lessons from Brazil, Chile, Mexico, and Peru*. The University of Arizona Press will release the book in September. Click here for more information: <http://www.uapress.arizona.edu/BOOKS/bid1994.htm>
- The Peruvian potato project **T'ikapapa** has won The World Challenge 2007, a competition that seeks out development projects and businesses that not only make a profit but also give back to the community. T'ikapapa is an initiative of the **International Potato Center** (CIP), a SANREM partner in Peru. Click here to learn more: [www.theworldchallenge.co.uk/html/project07\\_potato.html](http://www.theworldchallenge.co.uk/html/project07_potato.html)
- A new book by **Maria Elisa Christie** focuses on how women's food preparation creates family and cultural bonds in three central Mexican communities. *Kitchenspace: Women, Fiestas, and Everyday Life in Central Mexico* is available now for online preordering from the University of Texas press at a discounted price. Click here to learn more: <http://www.utexas.edu/utpress/books/chrkit.html>
- **Christie** also organized and moderated a March 13 seminar on the role of women in agriculture and natural resource management. The Women's Month event focused on Virginia Tech's International Research Programs, which work with women in developing countries of Latin America, Asia, Africa, and Eastern Europe.

## New on the website

The SANREM Knowledgebase (SKB) is growing steadily. There are now 2,394 metadata entries, nearly 500 of them the products of SANREM CRSP Phase III. Entries include books, reports, journal articles, newsletters, videos, movies, presentations, and posters.

The SKB is searchable by title, creator or author, creation date, keywords, media type, time period, location, description (abstract), language, and SANREM project number if applicable.

For researchers in developing countries, many of the articles protected by copyright may be accessed through AGORA and OARE, databases maintained by the United Nations' Food and Agriculture Organization (FAO). Both

are databases of major journals regarding sustainable agriculture and the environment.

Read more about the SKB at: [http://www.oired.vt.edu/sanremcrsp/menu\\_information/SKB.php](http://www.oired.vt.edu/sanremcrsp/menu_information/SKB.php)

## Calendar

**May 26-29:** SANREM CRSP 2008 Annual Meeting, Philippines

**June 1:** Deadline to submit abstracts, Soil and Water Assessment Tool 2009 conference

**Oct. 15:** LTRA annual reports due

**Jan. 5-8, 2009:** Soil and Water Assessment Tool-Southeast Asia Conference

## How to reach us

SANREM CRSP's managers and staff are at Virginia Tech's Office of International Research, Education, and Development, 526 Prices Fork Road, Blacksburg, Va. 24061. Phone: 540-231-1230. Fax: 540-231-2439. E-mail: [sanrem@vt.edu](mailto:sanrem@vt.edu)

### **SANREM CRSP Management Entity**

<b>Bertelsen, Michael</b>	Economic Impact Assessment Coordinator (540) 231-9665. <a href="mailto:bertel@vt.edu">bertel@vt.edu</a>
<b>Christie, Maria Elisa</b>	Gender Equity Coordinator (540) 231-4297. <a href="mailto:mechristie@vt.edu">mechristie@vt.edu</a>
<b>De Datta, S.K.</b>	Administrative PI (540) 231-9853. <a href="mailto:dedatta@vt.edu">dedatta@vt.edu</a>
<b>Dillaha, Theo</b>	Program Director (540) 231-6813. <a href="mailto:dillaha@vt.edu">dillaha@vt.edu</a>
<b>Estrada, Deanne</b>	Editor and Communications Coordinator (540) 231-1218. <a href="mailto:destrada@vt.edu">destrada@vt.edu</a>
<b>Lee, Jane</b>	Program Coordination Assistant (540) 231-1230. <a href="mailto:janelee@vt.edu">janelee@vt.edu</a>
<b>Moore, Keith M.</b>	Associate Program Director (540) 231-2009. <a href="mailto:keithm@vt.edu">keithm@vt.edu</a>



Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program  
Office of International Research, Education, and Development (OIREd), Virginia Tech  
526 Prices Fork Road, Blacksburg, Va. 24061-0378  
Phone: (540) 231-1230. Fax: (540) 231-1302. E-mail: [sanrem@vt.edu](mailto:sanrem@vt.edu).  
On the web: <http://www.oired.vt.edu/sanremcrsp/>

