

A program managed by Virginia Tech's Office of International Research, Education, and Development (OIREd) has received an Associate Award from USAID's Sudan Mission to evaluate higher education needs in agriculture and natural resource management in the southern Sudan, a region largely in ruins after more than 50 years of civil war. The Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSP) will develop curricula to promote ecosystem protection for the region's degraded natural resource base, including shrub lands, savanna and grasslands, water and soil resources, and wildlife.

Because southern Sudan's higher education system collapsed during the war, few well-trained Sudanese are available to deal with agriculture and natural resource issues. SANREM CRSP's goal is to evaluate education and human resource needs in the southern Sudan and to develop higher education curricula to meet these needs.

Subsistence farming and grazing form the economic base of the southern Sudan. They employ the vast majority of its people, 90 percent of whom earn less than \$1 a day. Since a peace agreement was signed in 2005, refugees have begun returning to find an almost complete lack of services such as health care, schools, roads, and markets. For the region to develop into a modern, market-driven economy with food security, basic agricultural services such as education, extension, and research must be reestablished. Together with local and international experts, the SANREM team will begin by reviewing national and global models of higher education in agriculture, and gathering data to identify needs that can be addressed through new curricula to enhance farm production and ecosystem services.

The Associate Award is being led by Michael Bertelsen, SANREM's economic assessment impact coordinator and associate director of OIREd. Co-principal investigators are SANREM Program Director Dillaha and Father Michael Schultheis, acting vice chancellor for the Catholic University of the Sudan. "As the government of the southern Sudan works to restore basic services, assistance from agencies like USAID is essential to promote stability and peace in the region," Bertelsen said. After a preliminary review of the situation, Bertelsen traveled to Juba in November with Dillaha; Tom Broyles, assistant professor of agricultural and extension education at Virginia Tech; Peter Wyeth, agricultural economist in international programs at Washington State University; and Alice Pell, vice provost for international relations at Cornell University. The team interviewed policymakers and potential employers and led a symposium with Sudanese and regional university and government partners to assess higher education needs in agriculture and to develop a final work plan for the project.

"The region's natural resources have deteriorated rapidly," Dillaha said. "Action is critical now, not only to restore the environment but also to break the poverty cycle of the people whose livelihoods depend on these resources."

SANREM CRSP is one of two global agricultural programs funded by USAID and managed by OIREd. The other, the Integrated Pest Management CRSP, uses a systems approach to reducing damage caused by pests to an acceptable level without harming the environment.