

SARAH CARDEY



SARAH CARDEY



GLOBAL VETS



PETER KEVAN



PETER VAN STRAATEN



VINCE SOUZA-MACHADO



Integrating skills for stability and change

As globalization draws us increasingly closer, the importance of trusted partnerships grows exponentially — like the one between the University of Guelph and its partners in Africa. Together, we've developed a foundation of respect, understanding and knowledge sharing, making ours among the most enduring international teaching and research networks in existence. And now, that partnership is poised to reach even new heights, as the partners embark on a new era of internationalism.

Guelph is committed to international development and research that enhances learning opportunities for communities at home and abroad. More than 100 faculty members participate in international development, including leading-edge research in farming systems, biotechnology, organic agriculture, food and water safety and animal disease surveillance and protection.

Communication and participation among stakeholders is essential to the success of any collaborative effort. With the world getting more complicated — yet, smaller at the same time, as we find new ways to communicate — it's vital that we work across disciplines as never before.

The University of Guelph supports this kind of inter-disciplinary research and development, and considers studies that are sustainable and particularly relevant to communities' strength. Guelph researchers are committed to holistic

development, teaching and research. Guelph and its African partners evaluate and assess the social impacts — such as gender issues and environmental sustainability — that are vital and necessary parts of project development and implementation. The science is important, but so are the associated spin-offs.

African partners, such as those developed in the 1970s through the Ghana-Guelph project sponsored by the Canadian International Development Agency, continue working closely with Guelph researchers. For example one PhD student from the program has since become

head of the agroforestry department at the University of Ghana and continues to work on collaborative projects with Guelph agroforestry researchers.

Student exchanges and internships are an important aspect of Guelph-Africa relations. Guelph has official partnerships with the University of Natal, the University of Swaziland and the University of Ghana, and is building on the strength of these ties through exchanges between students. This creates a rich network for life-long learning and friendship.

That's what's needed as the world becomes more of a global community — respect, understanding, and knowledge sharing. That's our foundation. And together, we're ready for the future, now.

Communication and participation among stakeholders is essential to the success of any collaborative effort.



KOFI LARWEH

<< Radio can link farmers with research institutions and extension agencies in Africa, and help convey developments in sustainable agricultural research, says Guelph researcher Helen Hambly Odame, School of Environmental Design and Rural Development. She, along with graduate student Blythe McKay, School of Rural Extension Studies (shown here) is investigating how knowledge-sharing between agricultural researchers and farmers can improve food security and local families' health and nutrition.

A close look at what happens where forests meet fields

Good things happen when crops are planted between rows of trees — a practice called agroforestry — say University of Guelph researchers Naresh Thevathasan and Prof. Andy Gordon. In Ghana, they're leading the agroforestry component of a project — sponsored by the Canadian International Development Agency (CIDA) project in Ghana — to implement agroforestry-based land-use practices. The Guelph environmental biologists are working with farmers, scientists and extension personnel in Ghana — where farming employs nearly three-quarters of the population — to increase crop yields and farm income through improved agroforestry techniques. They say that the trees stabilize surrounding soil, water and nutrients, and fertilize crops with leaf matter. As well, trees modify microclimates, providing an environment conducive to crop growth under arid conditions.

Understanding and promoting equality in developing countries

Rural Nigerian women caused an uproar in the international community in 2002 when they fought back against petroleum companies' aggressive and destructive practices. The result: a 40 per cent shut down of oil production in the country.

Prof. Terisa Turner, Dept. Sociology and Anthropology is studying the social, political

and historical reasons behind the women's movement.

"African rural women took action against the destruction of their homes and farmland in peaceful protest that included tactics such as nude demonstrations," says Turner. "This caused the movement to catch fire across the country, leading to general labour strikes and international political pressure."

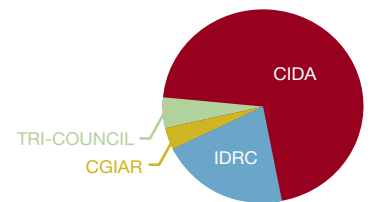
Turner says this movement set the stage for other international civil society movements that have brought pressure on highly influential policy-making groups, such as the World Trade Organization, and oppressive policies that prevent small farmers in developing countries from competing with the economic superpowers.

<< Prof. Terisa Turner, pictured left, with Emem Okon and Jim Wiwa in the Wiwa home, Bane, Ogoniland, Rivers State, Nigeria, July 2001. Jim Wiwa is the father of Ken Saro-Wiwa, an internationally acclaimed poet, author and environmentalist. Ken Saro-Wiwa helped organize mass peaceful protests against the environmentally devastating practices of transnational oil companies in Nigeria. He was hanged with eight other activists by a military government in Port Harcourt on November 10, 1995 despite international protests and appeals.



ADABU BROWN HILL

University of Guelph international research funding 2000-2003



Canadian International Development Agency (CIDA)	\$1,061,219
International Development Research Centre (IDRC)	\$353,290
Consultative Group on International Agricultural Research (CGIAR)	\$31,349
Tri-Council Funding	\$50,000
Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada, Canadian Institutes for Health Research	
Total	\$1,495,858

Distance learning close to home

Distance-learning programs facilitated by the University of Guelph are offering new possibilities for developing countries, where limited resources have made education an expensive challenge. The programs have helped farmers in Cameroon increase their crop yields and improve their quality of life. The programs are implemented by the host university to ensure they're self-sustaining, while the U of G helps train faculty, facilitate funding from donor agencies and act as a program catalyst.

Profs. Jana Janakiram, Ab Moore and Doug Pletsch, School of Environmental Design and Rural Development, developed and initiated the first program — the diploma in tropical agriculture — in Cameroon's University of Dschang 10 years ago. It has now expanded to three streams of study. Five Cameroon universities have adopted the Dschang model and are developing their own distance-learning programs.



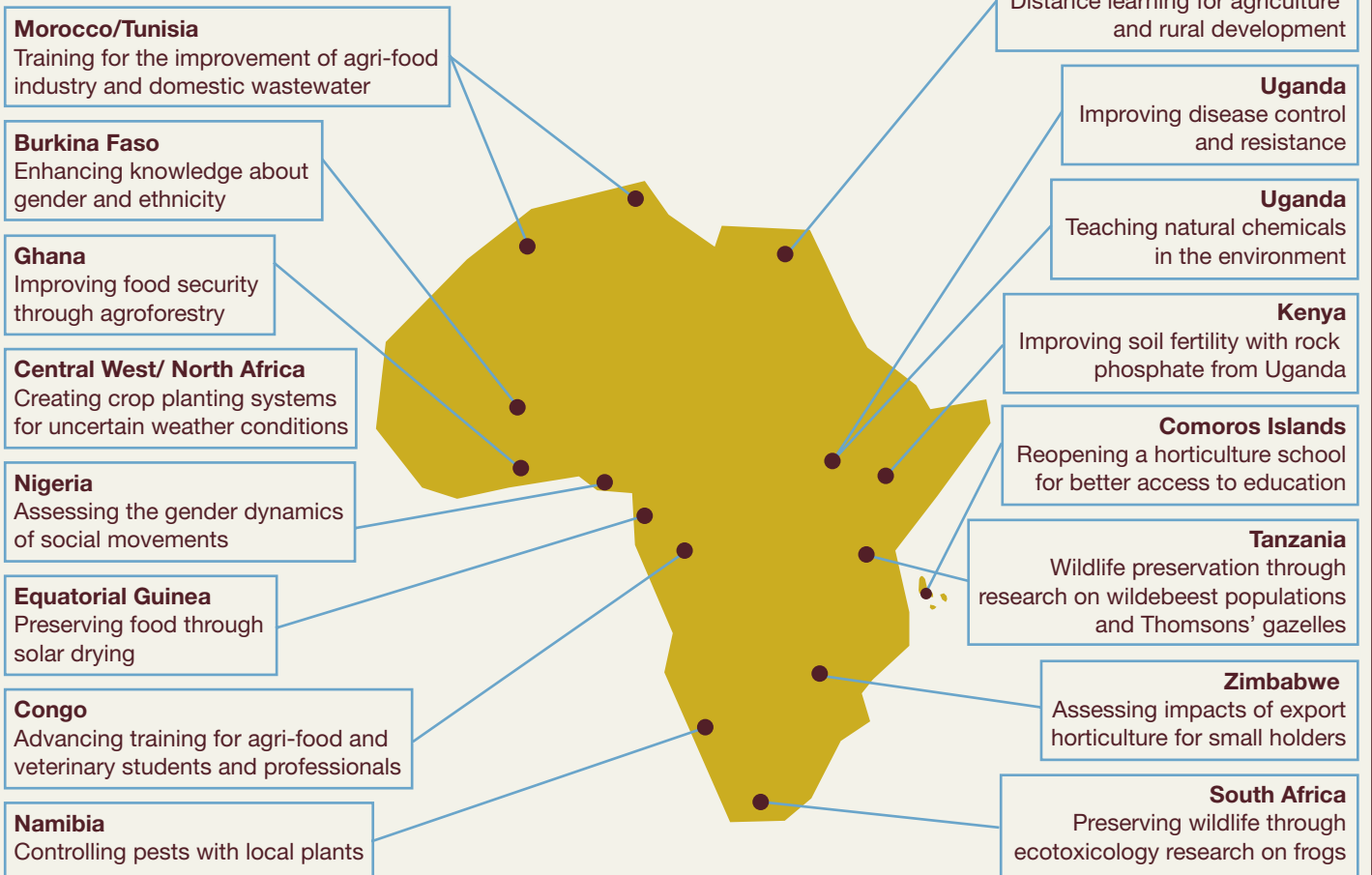
JANA JANAKIRAM

U of G researchers have also facilitated distance-learning programs in seed technology, farm management and rural development in India, Russia and Egypt, respectively. These programs have focused on developing rural extension materials in the distance-learning format written in clear language, that can be

^ Cameroon citizens welcome the first distance education program in tropical agriculture with a traditional dance at the opening ceremony celebrations.

easily understood by rural farmers or their school-going children.

Guelph-Africa areas of collaboration



Export crops grow in Zimbabwe

Export crop agriculture is booming in Murewe, Zimbabwe, resulting in farmers learning about new technologies, marketing and advanced production, says a Guelph researcher.

“Farmers in Zimbabwe are improving their own food crops and have greater employment opportunities as a result of producing crops for



OLIVER MASAKURE

export,” says Spencer Henson, Department of Agricultural Economics and Business.

By surveying in a community of 4,500 farmers — 60 per cent of whom are women — Henson found that inputs such as fertilizers, improved extension services and increased knowledge are some of benefits that come from working with export companies. These inputs not only improve crops grown for export but they also have positive impacts that carry over to crops grown for subsistence or local markets.

In adapting to the requirements of growing for export, some farmers initially realized losses. However, Henson also found that farmers’ subsistence or local market farming was not replaced by export crops, so there was no effect on the community’s food security.

<< **Researcher Spencer Henson, pictured right, surveyed over 300 farmers and spoke with contract farming managers in Murewe, Zimbabwe to measure the impact of export farming on agricultural practices.**

Wastewater project provides alternative source for irrigation

New laboratory equipment and training opportunities will improve rural wastewater management in Morocco and Tunisia, says a Guelph researcher.

Re-using wastewater from rural villages and industrial sources — such as olive oil processing plants — are some of the priorities partners at the Hassan II Agricultural and Veterinarian Institute (Morocco) and the Olive Institute (Tunisia) will pursue with Researchers Chris Kinsley and Anna Crolla, Collège d’Alfred. The project will develop training materials and support existing research programs for improving wastewater treatment and re-use at these North African institutions. The project will bring together researchers and wastewater technicians from the two countries for training sessions in Morocco this spring.

“With new lab equipment, training materials and a chance to work together we hope to develop useful tools which wastewater experts can use to address local health, environmental and agricultural priorities,” says Kinsley.

Researcher appointed to lead livestock institute

A fascination with livestock health led Prof. John McDermott to Africa in the early 1980s, where he studied through the Ontario Veterinary College’s Farm Service — and he’s still there. In fact, University of Guelph epidemiologist McDermott is the newly appointed Deputy Director-General for the Nairobi-based International Livestock Research Institute (ILRI).

The institute uses knowledge gained through livestock health and management research to help rural farmers in developing countries raise healthy livestock. That’s an ideal fit with McDermott’s research in livestock health delivery systems and the control and spread of tropical infectious diseases. Currently, two-thirds of the world’s domestic animals are kept in developing countries, where more than 90 per cent are owned by rural smallholders.

“Among people of developing countries livestock is seen as a vital component in crop-livestock systems and a key resource for vulnerable and marginalized people in semi-arid and arid lands,” says McDermott.

McDermott will work closely with governments and other development partners

to co-ordinate the ILRI’s livestock research projects, to benefit farmers throughout the developing world.



S. WELBURN, DFID

^ **Prof. John McDermott (Population Medicine) and Barry Smit (Geography) work with colleagues and rural community members in South Eastern Uganda investigating animal and human trypanosomiasis (sleeping sickness).**

∨ **Tanzanian field geologist Manyama Makweba (pictured) and University of Guelph professor Peter van Straaten are studying phosphorus content in rock. They’ve found that phosphate — a source of phosphorus — in crushed rock combined with organic manures can be used to improve fertility in East Africa’s nutrient-depleted soils. This collaborative research between the International Centre for Research in Agroforestry and numerous scientific organizations has resulted in dramatic crop yield increases for thousands of small farmers in East Africa. Read more about their research in *Rocks for Crops: Agrominerals of sub-Saharan Africa* at: http://www.uoguelph.ca/~geology/rocks_for_crops/, also available in book form, by Peter van Straaten.**

PETER VAN STRAATEN

