



Cornell University

Cornell International Institute for Food, Agriculture and Development

# CIIFAD

## Annual Report (May 2011 – May 2012)

CIIFAD's mission is to strengthen Cornell's capacity for making significant contributions to sustainable global development by

**Facilitating campus-wide dialogue on critical international development issues,**



**Supporting multi-disciplinary research, and**



**Partnering with developing country institutions**



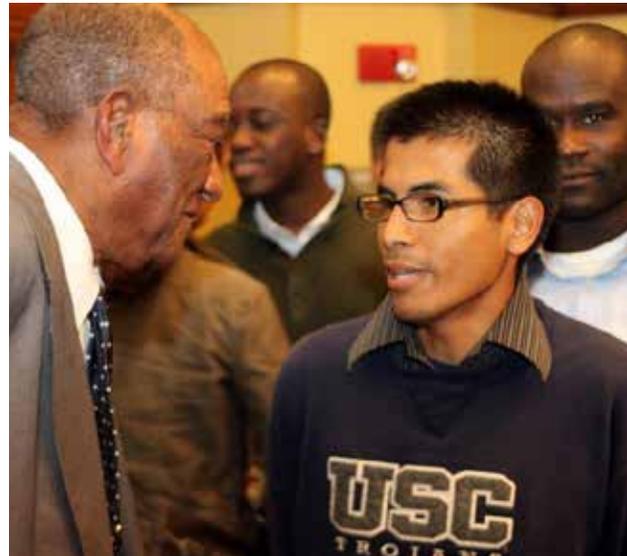
Since May 2011, CIIFAD has made exciting progress in all three areas. This report highlights our major accomplishments over the past year.



Ambassador Perkins speaking at the University Lecture series, October 20, 2011. Photo taken by Meaghan Charkowick

## University Lecture by Ambassador Perkins

On October 20, 2011, CIIFAD hosted a University Lecture by Ambassador Edward J. Perkins titled "Reflections on a Career in Diplomacy." Ambassador Perkins is former U.S. Ambassador to South Africa (1986-89), Australia (1993-96), Liberia (1985-86), and the United Nations (1992). Following his distinguished career in foreign service, he was appointed the William J. Crowe Professor of Geopolitics at the University of Oklahoma and Executive Director of the International Programs Center. Ambassador Perkins' memoir, *Mr. Ambassador: Warrior for Peace*, describes his efforts to support the dismantling of apartheid in South Africa. Dr. Perkins has been the recipient of numerous awards, including the Presidential Distinguished and Meritorious Service Award and the Department of State's Distinguished Honor and Superior Award for his long career in public service. More than 150 people were in attendance at his University Lecture.



Ambassador Edward J. Perkins speaking with students after his lecture on October 20, 2011. Photo taken by Meaghan Charkowick.

## Student Multidisciplinary Applied Research Teams (SMART)



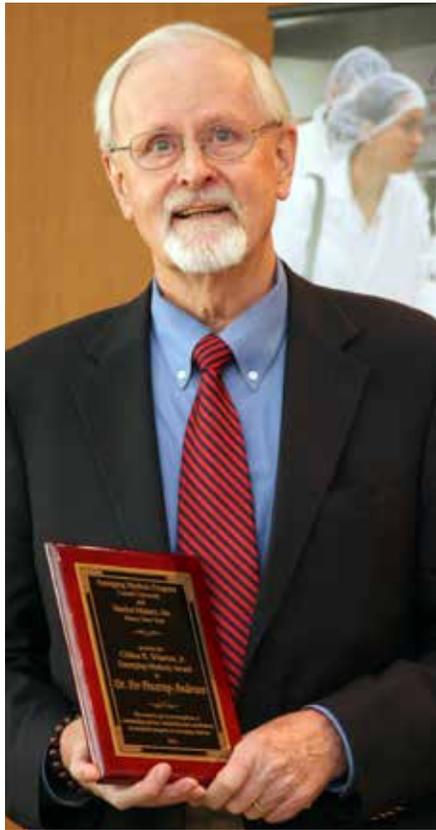
The Student Multidisciplinary Applied Research Teams (SMART) program brings together teams of students and faculty from across the university and pairs them with firms, organizations, or community groups located in developing countries. The teams work on well-defined assignments that challenge students to apply the knowledge and skills learned to the classroom in real world settings. SMART assignments vary from team to team. Teams work on location with the company or partner group for roughly two weeks during January, and summer SMART programs are currently being

piloted in China, Ecuador and Nicaragua. SMART is a unique program at Cornell University – and beyond – that explicitly fosters engagement with developing countries that provides service-learning experiences with private and public sector partners for undergraduates as well as graduate students. The SMART program has grown substantially in the last several years. We have nearly tripled the number of projects, applicants, and countries where we work. In 2012, we led 14 projects in 10 countries, involving 60 students representing 15 disciplines. The student response to SMART has been overwhelmingly positive. About her experience, Pajau Vanjay, a graduate student in Food Science, said, “SMART is an experience I will never forget. I was able to solidify my career interests in food science and agricultural development, refine my leadership and teamwork skills, learn about the Kenyan culture, and develop an understanding of how small businesses in developing countries operate. I am truly grateful for having the chance to participate in the SMART program, and have already proved that it can open doors for more opportunities in the future.”

### 2012 SMART PROJECTS



## CIIFAD 3rd Annual International Symposium



In April 2012, CIIFAD convened its 3rd international symposium to initiate dialogue and reflection about international engagement as an essential component of Cornell's vision of becoming a Global Land-Grant University. The symposium featured Dr. Jenny Aker, professor of Development Economics at The Fletcher School of Law and Diplomacy, as the keynote speaker. She gave a presentation titled, "Information and Communication Technologies for Agricultural Information, Outreach, and Impact: Potentials and Pitfalls." The symposium included poster presentations by the 14 SMART teams. As part of the symposium, Dr. Per Pinstrup-Andersen was awarded the "Dr. Clifton Wharton, Jr. Emerging Markets Award"; this award is given annually to an individual who has made a profound impact on low-income communities through his/her work on public policy, private strategy, or philanthropic investments.

Professor Per Pinstrup-Andersen, recipient of the 2012 Clifton R. Wharton, Jr. Emerging Markets Award.

## CIIFAD Seminar Series

CIIFAD's Wednesday seminar series, 'Perspectives in International Development' is one of the few seminar series on campus that consistently attracts students and faculty attendees from a broad range of disciplinary backgrounds. It has been able to achieve this by inviting speakers from across the globe to give intellectually stimulating, but layman-accessible, seminars on a broad range of critical topics in international development. During the 2011-2012 academic year, for example, the series included invited speakers who addressed such important development issues as the "global land-grab," the question of whether aid should be provided to middle income countries, biofuel policies and food grain prices, food aid policy, equitable growth in Africa, and longitudinal nutrition studies. The series has been very well received by the Cornell community as evidenced by the growing attendance, which increased to approximately 100 students and faculty per week.



Peter Timmer speaking at the CIIFAD Perspectives in International Development Seminar, September 7, 2012.

## Food Systems and Poverty Reduction IGERT

CIIFAD's National Science Foundation-funded Integrative Graduate Education and Research Traineeship (IGERT) program in Food Systems and Poverty Reduction completes its 3rd year in July 2012. This \$3.2 M training grant trains cohorts of doctoral students to work effectively as members of multidisciplinary teams. Students undertake 3 semesters of coursework, where they learn the concepts, vocabularies, and methods of multiple disciplines. They also gain valuable field experience working on multi-disciplinary research teams. To date, a total of 35 students from fourteen different graduate fields have been accepted into the program (Appendix B). These include 24 trainees (US Citizens and Permanent Residents) who receive financial support in the form of monthly stipends, as well as 11 Associates (students who do not receive stipends but participate fully in the courses and field experiences). The Associate option enables non-US citizens and permanent residents to participate; to date, this group includes 3 South Asian and 4 African students. Students also partner with various in-country institutions for multidisciplinary field research conducted in Kenya, Ethiopia, Tanzania and Zimbabwe. To date, partners have included the International Livestock Research Institute (ILRI), Bahir Dar University, CARE, World Vision and ICRAF.

## Stimulating Agricultural and Rural Transformation (StART)



A SMART team in Zambia in January 2012 worked with a microasset enterprise to develop a more business-friendly catalogue for their products such as generators, refrigerators, irrigation pumps, and other pieces of equipment agribusiness owners might need. Photo taken by Christine Hadekel.

In 2011-12, the Stimulating Agricultural and Rural Transformation (StART) initiative supported three major projects, recently awarded funding for a fourth, sponsored international visitors, and provided support to instruction of the NSF-funded Food Systems and Poverty Reduction IGERT, field research travel by students in the IGERT program, and to related international agricultural and rural transformation initiatives across campus. These projects have resulted in multiple journal articles and manuscripts in preparation, at least \$275K in external funding already obtained for Cornell as well as additional funds for Africa-based partners, with many substantial external

grant proposals presently under review, and support for at least two African graduate students, plus research experience for several others students and post-docs.

## Visit to Swedish University of Agricultural Sciences (SLU)

In September 2011, Ed Mabaya was part of a delegation led by CALS Associate Dean Helene Dillard to discuss with its Swedish counterparts expanding student exchange and faculty collaborations between the two schools. A delegation from SLU came to Ithaca in October to learn about Cornell research in biofuels and renewable energy. SLU is a three-campus university that is considered a leader in the “green sector,” with courses in agriculture, forestry, food science, veterinary studies, landscape architecture, environment and energy science. The faculty delegation included Quirine Ketterings (animal science), Larry Walker (biological and environmental engineering), Edward Mabaya (applied economics and management) and Yrjo Grohn (population medicine and diagnostic sciences). The group traveled

to Uppsala in September to enhance the potential for collaboration. Discussions concerned international cooperation, research challenges, and student exchanges between the two universities. There was also a keen interest in exploring joint programming in Africa. Details about the trip are available online at: <http://www.news.cornell.edu/stories/Dec11/CUStockholm.html>



Professor Jane Mt. Pleasant, left, looking at a soil sample with CALS '12 student Liz Burrichter on a SMART project in Handan, China in January 2012. Photo taken by Jenny Nelson.

## McKnight Collaborative Crop Research Program

CIIFAD participates in a collaborative crop research group that investigates how multipurpose legumes can improve the productivity and resilience of smallholder farms in Kenya. The research hopes to show that farmers will readily adopt well-adapted multipurpose legumes because of the broader range of household and biophysical benefits they provide, and that increasing the diversity of legumes on smallholder farms will improve soil productivity, household nutrition and provide the household members, especially women, with enhanced opportunities for income generation. Until November 2010, this work was funded by the PULSE CRSP (a USAID-funded Collaborative Research Support Program). Then, in December 2010 the project funding shifted to the McKnight Foundation Crop Collaborative Program and took on an explicit systems-oriented research approach. In addition to Cornell, the organizations involved in this project include the Kenya Agricultural Research Institute (KARI) at Kakamega, 3 Kenyan Universities (Nairobi, Moi and Egerton) and 3 NGOs (REFSO: Rural Energy & Food Security Organization; ARDAP: Appropriate Rural Development Agriculture Program; AVENE). The research team includes scientists/professors Soil Science, Agronomy, Entomology, Plant Pathology, Agricultural Extension, Agricultural Economics, Sociology and Food Science

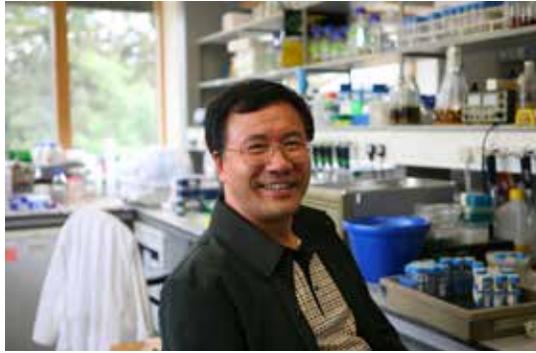
## Genetically Modified Crops in Africa: Current State and Future Potential



A three-year project funded by the John Templeton Foundation was awarded to Ed Mabaya and Ralph Christy. The ability of GM crops to increase yields and reduce input use is well established. Based on food security needs, Africa possibly stands to benefit the most from green biotechnology given the low agricultural productivity especially among smallholder farmers and the looming food crises in most urban areas. However, the adoption of GM crops in Africa has been slow and limited to a handful of countries owing to a variety of reasons and by relatively under-developed seed sectors. The primary objective of this research is to develop a comprehensive understanding of the current state and future potential of GM crops in Africa in a way that informs public policy and private strategy. The barriers and enablers of GM acceptance will be evaluated within the context of seed sector development. Through a comprehensive survey of seed companies operating in Africa, attitudes and strategies towards transgenics will be accessed. The research will analyze the scientific evidence about the role of international trade, bio-safety and intellectual property rights frameworks in fostering or hindering the adoption of GM crops. The research findings will answer if, when and how GM crops can help feed Africa. The intended audience for this research project is fourfold – African governments, private seed companies, development organizations and United Nations' Food and Agricultural Organization (FAO).

## South African Agricultural Professional Fellowship (SAAEPF)

In November and December 2011, CIIFAD hosted the second cohort of the South African Agricultural Economics Professional Fellows (SAAEPF). SAAEPF is administered by South Africa's National Agricultural Marketing Council (NAMC) and the Agricultural Economics Association of South Africa (AEASA). It provides training, support and networking opportunities for South Africa's young agricultural professionals working in the areas of land reform, agricultural trade, agribusiness development, management, policy, and marketing. The program bridges the gap between South African agricultural professionals with experts in their field at American based universities, government agencies, and international research centers. The 2011 cohort comprised of three fellows (Mr. Elvis Nakana - Senior Agricultural Economist in the South African National Department of Agriculture, Forestry and Fisheries; Ms. Heidi Phahlane - an Economist at the National Agricultural Marketing Council; and Mr. Justin du Toit an Agricultural Economist at Golder Associates Africa), accompanied by Professor Andre Jooste (NAMC). Led by Ed Mabaya, the group toured Cornell University campus and had meetings with various Cornell faculty and several graduate students. After Cornell the group went to Tuskegee University to attend the 69th Annual Professional Agricultural Workers Conference (PAWC) where they presented papers. From Tuskegee University, they stopped over at nearby Auburn University in Alabama and visited the Department of Agricultural Economics and Rural Sociology. Lastly, the group spent five days in Washington DC where they had meetings at the World Bank, South African Consulate in Washington, Economic Research Services (ERS) and the United States Department of Agriculture (USDA).



Tang Scholar Deng Zixin, Professor and Head of the Laboratory of Microbial Metabolism, Ministry of Education; and Dean, School of Life Sciences & Biotechnology, Shanghai Jiaotong University.

## Connecting Chinese Agricultural and Biological Scholars with Cornell University

The Tang Cornell-China Scholars Program aims to enhance scientific and technological collaboration throughout the world by developing cooperative relationships between the best scholars at the thresholds of their careers and established research and education leaders at Cornell University. Established in

1999, the program was designed to provide opportunities for the most distinguished scholars from the People's Republic of China—those in the early stages of careers in the agricultural and biological sciences and biological engineering—to spend up to two years at Cornell University undertaking research in their field of specialty. Those chosen to be Tang Cornell-China Scholars are expected to have demonstrated, at the time of their nomination, a track record of extraordinary capability in research and unusual potential for research leadership. The Scholars are also expected to have demonstrated an outstanding capability in teaching and that they will further enhance those teaching abilities during their stay at Cornell. As a result of participation in the program, the Tang Cornell-China Scholars are able to expand their capabilities in research, build lasting research relationships with Cornell colleagues, and develop their abilities to lead research and technology developments and educational advancements in their home institutions and in China at the highest levels. Tang Scholars spend a minimum of one year—all at once or in two study periods—working as a colleague in research in an appropriate laboratory or program at Cornell.

## Cornell/Bahir Dar MPS Degree in International Agriculture and Rural Development

Another CIIFAD initiative is a Master of Professional Studies (MPS) degree in International Agriculture and Rural Development (IARD), with a specialization in Integrated Watershed Management. This accredited Cornell degree program is offered at Bahir Dar University (BDU), in the Amhara region of Ethiopia. This is the first Africa-based CU graduate degree program where a student can earn a Cornell degree without setting foot on a Cornell campus. Cornell faculty travel to Bahir Dar to provide instruction and advising to students.

The program is designed to build BDU's capacity to offer degrees that span several disciplines and teach practical knowledge that can directly benefit society. Graduates of the program are expected to be involved in the development and implementation of technically-sound and sustainable solutions to improve natural resource management within Ethiopia's key watersheds. In 2010, the first cohort of 19 Ethiopian students enrolled in this program received their MPS degrees. A new cohort began the program in 2011.



MPS graduates of the Cornell Bahir Dar program.



System of Rice Intensification in action. Photo from Philippine Rural Reconstruction Movement in Nueva Ecija

## The SRI International Network and Resources Center

In its second year of existence, the SRI International Network and Resources Center (SRI-Rice) has expanded outreach to pursue its goal: to advance and share knowledge about the System of Rice Intensification and its derived practices and principles, and to support networking among interested organizations and individuals around the globe.

The SRI-Rice team published ten scientific publications and technical articles last year (see <http://sri.ciifad.cornell.edu/>) and participated in meetings, gave presentations at conferences and visited field sites in 19 countries: Australia, Benin, China, Costa Rica, Egypt, Ghana, India, Indonesia, Kenya, Malaysia, Mali, Morocco, Switzerland, Taiwan, Tanzania, Thailand, Tanzania, UK, and USA.

Outside of Cornell, SRI-Rice started two major regional initiatives this year: the SRI Latin America and Caribbean (LAC) Initiative and the SRI West Africa Initiative. The West Africa SRI Initiative integrates active organizations interested in developing SRI including NGOs, farmer organizations, the private sector, and agricultural research institutions, and is led by SRI-Rice and the World Bank-funded West Africa Agricultural Productivity Program (WAAPP), which currently includes 12 member countries from the Economic Community of West African States (ECOWAS). A first regional workshop is planned for June 2012. SRI-Rice has also expanded its services to offer direct technical assistance and capacity strengthening for research and development programs. Current projects include: 1) assistance to Peace Corps to develop a SRI training program for West Africa Peace Corps Volunteers, 2) diagnostic of SRI potentials in Bunthe District, Sierra Leone for a UK-based firm, and 3) technical advice for the SRI program of USAID-funded NAFKA project in Morogoro, Tanzania.

## Appendix A. CIIFAD 2011-2012 Invited Speakers and Visiting Scholars

### Invited Speakers

- Jenny Aker, Professor of Development Economics, Tufts University
- Derek Byerlee, The World Bank
- Jennifer Clapp, University of Waterloo
- Ruben Echeverria, Director General, International Center for Tropical Agriculture
- Julie Howard, Deputy Coordinator for Development, USAID
- Stephanie Mercier, former Chief Economist for the Democratic Staff of the Senate Agriculture Committee
- Sushil Pandey, International Rice Research Institute
- Sara Scherr, Ecoagriculture Partners
- Peter Timmer, Harvard University

### Visiting Scholars

- Dimbeswar Borah, Tata Trust (India)
- Joyce Chitja, African Centre for Food Security, School of Agricultural Sciences & Agribusiness, University Of Kwazulu-Natal (Pietermaritzburg, South Africa)
- Carol Colfer, Senior Research Associate, Center for International Forestry Research (Bogor, Indonesia)
- Richard Dudley, Adjunct Professor, CIIFAD, teaching Dynamic Systems modeling for the Food Systems and Poverty Reduction IGERT
- Anupam Gautam, Tata Trust (India)
- Sujit Kumar, Tata Trust (India)
- Zhao Lingxia (Tang Scholar)
- Andrew Mude, International Livestock Research Institute (Nairobi, Kenya)
- Weifen Qiu, Nanjing Finance and Economics University (Nanjing, China)
- Liu Ronghou (Tang Scholar)
- Mala Roy, Tata Trust (India)
- Baljinder Singh, Tata Trust (India)
- Zhao Shuhong (Tang Scholar)
- Khorshed Talati, Tata Trust (India)
- Wang Tao (Tang Scholar)
- Krisztina Tihanyi

## Appendix B: Fields of study and numbers of PhD students who have been accepted into the Food Systems and Poverty Reduction (FSPR) IGERT program as Trainees and Associates as of May 2012.

Numbers of PhD students enrolled in the FSPR IGERT		
<i>Graduate Field</i>	<i>Trainees</i>	<i>Associates</i>
Animal Science	1	0
Anthropology	0	1
Applied Economics and Management	4	5
Biological and Environmental Engineering	2	1
Civil and Environmental Engineering	2	0
Crop and Soil Science	3	0
Development Sociology	2	0
Ecology and Evolutionary Biology	1	1
Entomology	0	1
Environmental Toxicology	1	0
Food Science	1	0
Plant Breeding	1	0
Natural Resources	2	0
Nutrition	4	2
<b>Total</b>	<b>24</b>	<b>11</b>

## Appendix C. 2011-2012 SMART Participants by Department

SMART Participants by Department		
<i>Department/Field</i>	<i>Degree</i>	<i>Number</i>
Applied Economics and Management	BS	3
	MS	1
	Ph.D.	1
Business Administration	MBA	7
City and Regional Planning	MA	5
	Ph.D.	1
Cornell Insitute for Public Affairs	MPA	24
Crop and Soil Sciences	MS	1
Education	Ph.D.	1
Food Science	Ph.D.	3
Horticulture	MS	1
International Agriculture and Rural Dev.	BS	1
	MPS	1
International Development	MPS	1
Natural Resources	BS	1
Nutrition	BS	1
Operations Research	BS	1
Plant Breeding	MS	4
Plant Science	BS	1
Soil Science	BS	1
<b>Total</b>		<b>60</b>





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## Communicating with Cornell -- and beyond!

CIIFAD recognizes the importance of contributing to the global conversation about development through multiple channels of communication. CIIFAD maintains an active profile on Facebook as well as Twitter, with links to and comments about relevant news in international agriculture and development; thought-pieces about globalization, sustainability, nutrition, and economic empowerment; important national and global policy changes that affect our stakeholders; and new trends in charitable giving for sustainable development. Follow us @CIIFAD!



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