CIIFAD
Annual Report (May 2010 – May 2011)

Supporting multi-disciplinary research

Partnering with developing country institutions

Facilitating campus-wide dialogue on critical international development issues

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PDF Editor
Message from the Director

We are very pleased to share with you this annual report, the culmination of an exciting year of new projects, continued initiatives, and fresh ideas that support Cornell’s aspirations to be a ‘global land grant’ university.

Since assuming leadership of the Cornell International Institute for Food, Agriculture and Development (CIIFAD) in 2009, I have been delighted to lead an organization with such a rich history and potential for the future. Food security has long been a priority for international development efforts, and agricultural research is, of course, fundamental for achieving and maintaining food security. But with the challenges of our day – food price volatility, globalized markets, urbanization, dwindling arable land, and climate change, just to name a few – food and agriculture are at the center of the conversation about how to end poverty, protect our natural resources, and spur economic growth. Cornell University is a place with rich traditions in agricultural research for the United States as well as the developing world, and CIIFAD contributes to this evolving conversation in several ways: by supporting multidisciplinary research, partnering with developing country institutions, and facilitating campus-wide dialogue on critical development issues.

Outlined herein are the highlights of our progress made this year towards this mission. In all of our activities, we look to integrate various modes of disciplinary thinking towards new ways of looking at problems and new approaches to solving them. We aim to break down barriers between academic silos, and we do so by tackling real-world problems that require holistic thinking and creative ideas. We draw upon the vast knowledge that has been and is being generated by agricultural research institutions – Cornell, as well as others around the world – and combine, integrate and apply best practices. We know that to do this best we need strong partnerships with both research institutions and development practitioners in the developing world. Finally, we recognize that a staggering amount of innovative research and thinking about international development is happening on our own campus. CIIFAD’s weekly seminar series, Perspectives in International Development, and our Annual Symposium are just two of the many ways we are working to connect the Cornell community.

Over the course of this year, CIIFAD has made exciting progress in all facets of our...
Training the next generation of development researchers and practitioners

In 2009, CIIFAD received a $3.2 M training grant from the National Science Foundation focused on Food Systems and Poverty Reduction. These Integrative Graduate Research and Education Traineeships (IGERT) give doctoral students the opportunity to learn concepts, vocabularies, and methods of other disciplines and to work as members of interdisciplinary teams. The CIIFAD-led IGERT recruits doctoral students from over 21 graduate fields, and 25 faculty from across the university lend their skills and support to the program. During the reporting period of May 2010 to May 2011, IGERT staff: (a) Recruited 2 cohorts of students. The first two cohorts have 8 and 12 PhD students respectively and include students from a broad range of disciplines. (b) Developed and delivered two core IGERT courses and a 2-semester sequence of professional skills development seminars.

The Student Multidisciplinary Applied Research Teams (SMART) program develops experiential learning opportunities for Cornell students that strengthen students’ ability to develop innovative approaches to complex problems related to agriculture, markets, and development. SMART pairs strategically selected teams of students and faculty from diverse disciplines with firms, organizations, or community groups in developing countries. The teams work on well-defined assignments that challenge students to apply the knowledge and skills learned in the classroom to real world problems. During 2010-2011, nine SMART teams undertook a number of projects with an array of clients, including an organic vegetable producer in China, a chocolatier in South Africa, a native-plant nursery in South Africa, a microfinance initiative in Ghana, a cut-flower company in Belize, an organic rice exporter in Indonesia, and a hospital-affiliated NGO in Malawi that is working to improve nutrition and soil health through increased adoption of legumes among smallholder farmers. Each team developed a case study that can be used in classroom teaching of future courses, and they also presented project posters at the annual CIIFAD Symposium on April 21, 2011.
Improving soil fertility and nutrition through research on legumes

CIIFAD participates in a project of the McKnight Collaborative Crop Research Program 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. The research team includes scientists/professors in Soil Science, Agronomy, Entomology, Plant Pathology, Agricultural Extension, Agricultural Economics, Sociology and Food Science.
Strengthening agricultural value chains in sub-Saharan Africa

In September of 2009, CIIFAD in partnership with International Relief and Development (IRD) received a grant from the USAID mission in Zimbabwe for the implementation of the “Restoring Livelihoods-Strengthening Value Chains (REVALUE)” project. The 18-month project was centered around the following objectives: (1) Support the re-establishment of agro-dealers involved in agricultural inputs and commercialization of groundnuts and beans; and (2) Enable increased production and commercialization opportunities for farmers of groundnuts and beans. CIIFAD’s primary role in this project is to train extension workers on crop husbandry and market linkages. Provision of agricultural inputs (through a voucher system) was coupled with technical support to farmers. Program extension workers were trained by Cornell University on correct and safe use of chemicals, timely application of each of the agricultural input components, and techniques that can maximize crop yields. CIIFAD staff also led the training of marketing strategies to assist farmers in accessing lucrative markets and maximizing income from their harvest. Other partners working on this project include Africa University, i-Train and Evaluate Center (i-TEC), and 10 Zimbabwean private sector partners. During the 2009/2010 growing season, 2,250 farmers participated in this project resulting in an estimated 1,000 metric tons of unshelled groundnuts, and an average production per farmer that is 2.7 times higher than the previous growing season.

Another project that CIIFAD undertook this year is the “Strengthening the Support Structure for Production and Marketing of Tomatoes and Paprika among Smallholders in Zimbabwe” project. In response to USAID’s Horticulture Collaborative Research Support Program (HortCRSP) 2010 call for proposals, CIIFAD submitted a proposal, which was subsequently funded, for the one-year exploratory project. The political unrest and economic turmoil in Zimbabwe in the last ten years has destroyed agricultural export industries and the beginnings of an emerging smallholder horticulture sector in the country. The adoption of a stable currency and a unity government awakens the hope that small-scale farmers can be stimulated to participate in production of horticultural export and locally marketed crops. Using the paprika crop grown for export and tomatoes produced for local markets, this exploratory project links smallholders in irrigation schemes in both Manicaland and in peri-urban areas near Harare with research staff at nearby local universities and extension personnel of the Ministry of Agriculture, backstopped by local staff of the International Relief and Development. During the one-year duration of the project, irrigation scheme managers were trained to identify local markets for the tomatoes, and connect with industrial firms interested in contracting for paprika peppers. Production and postharvest problems encountered on smallholder fields were identified by extension personnel, and addressed by the staff of the local universities in student projects. At the end of the exploratory phase of the project, a workshop was held to identify the major findings and opportunities for further work. Collaborating partners for this project were the University of Zimbabwe, The Horticultural Research Institute, Africa University and the International Relief and Development (IRD).
Building capacity in African extension services to help smallholder farmers engage in markets

CIIFAD partners with the Catholic Relief Services (CRS) to build the capacity of African extension services to help smallholder farmers engage with markets. In previous years, CIIFAD-led classes of Cornell students have assisted with the development of curriculum aimed at helping extension agents communicate knowledge, skills and attitudes that farmers need to make the transition from subsistence/semi-subsistence farming to a market/business-oriented approach. In 2010, a CIIFAD-led team of Cornell students traveled to Malawi where they partnered with CRS, University of Malawi students and local extension services to pilot test a suite of electronic data collection tools meant to be used by extension agents. These tools were designed to help estimate the changes in productivity and profitability that were being made by farmers participating in CRS’s market-oriented agricultural programs. The tools also included a profitability calculator, which extension agents can use to help farmers evaluate their agricultural production and profitability against their investments in a specific agricultural enterprise. The Cornell team analyzed feedback from potential users of the technology and submitted a comprehensive evaluation to inform innovators/designers how they might improve the quality and acceptability of these innovative products.

Fostering innovative educational partnership models with university and professional associations

The Master of Professional Studies (MPS) degree in International Agriculture and Rural Development (IARD), with a specialization in Integrated Watershed Management is an accredited Cornell degree program 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 being present 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 recently has started the program.

In line with CIIFAD’s core function of partnering with developing country institutions’ Dr. Ralph Christy initiated a conversation in May 2009 between the Dean of the College of Agricultural and Life Sciences at Cornell University and the Dean of Stellenbosch and Cornell are counter-seasonal -- meaning our summers are their winters and their summers are our winters -- and this allows for a year-round laboratory in which students from both hemispheres can learn.

-- Ralph Christy, CIIFAD Director
Stellenbosch University’s Faculty of Agrisciences about strengthening the linkages between the two institutions through a memorandum of understanding (MOU). The MOU would facilitate international academic exchange, develop academic and scientific relationships and support of collaborative research activities between the Stellenbosch University’s Faculty of AgriSciences and Cornell University’s College of Agriculture and Life Sciences (CALS). The final signing of the MOU was held on the May 19, 2011, at Stellenbosch University. The MOU is expected to run for five years and covers five key areas of collaboration (University Personnel Exchange and Visits, Cooperative Research, Post Graduate Training, and Exchange of Scientific Materials) in all agricultural related fields.

In May 2010, Dr. Edward Mabaya (Assistant Director of CIIFAD), proposed the establishment of the South African Agricultural Professionals Fellowship which is now administered by the National Agricultural Marketing Council and the Agricultural Economics Association of South Africa (AEASA). The Fellowship seeks to provide 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 Fellowship is now funded by the National Agricultural Marketing Council. Program participation is open to AEASA members from South African agribusinesses, government departments, universities, and other agricultural organizations. The Fellowship was launched in 2010 at the joint international conference for the Agricultural Economics Association of South Africa (AEASA) and the African Association for Agricultural Economists (AAAE) that took place from September 19 to 23, 2010 at the Westin Grand Cape Town Arabella Quays. The inaugural cohort of Fellows included Mr. Elvis Nakana, Mr. Ngwako Moses Sefoko, Mr Standford Manthata, Mrs Yoliswa Happiness Hlanganise Vengayi. Led by Drs. Ed Mabaya and Thulasizwe Mkhabela, the Fellows visited USA institutions in October of 2010 for a two week visit to Cornell University, Washington DC and Tuskegee University.
Building the SRI network

The SRI International Network and Resources Center (or SRI-Rice) was established in 2010 with a generous gift from Jim Carrey’s Better U Foundation (BUF). SRI-Rice was created in response to the increasing importance of the System of Rice Intensification (SRI), an environment-friendly, climate-smart methodology that increases yields with fewer inputs. To date, significant productivity improvements have been achieved in over 40 countries.

Utilization of SRI concepts and methods and adaptation of SRI practices to local conditions and to new crops and cropping systems are quickly spreading among farmers. This has lead to a gap between farmers’ field experiences and know-how, and the knowledge that is collected and generated by interested researchers, extension specialists, program developers, donors, and policy makers. SRI-Rice is developing an improved framework for tracking and distilling SRI experiences, bringing together the research and adoption taking place around the world, and synthesizing what is being learned to facilitate collaborative synergies and accelerate learning. By providing guidance to the global SRI research agenda and providing opportunities for researchers for improved networking and collaboration, SRI-Rice is complementing the outreach efforts spearheaded by Cornell over the past decade.

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.
Bringing experts in international development to Cornell

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 campus to give intellectually stimulating, but layman-accessible, seminars on a broad range of critical topics in international development. During the 2010-11 academic year, for example, the series included Cornell speakers from 12 academic areas and several different colleges (notably the Law School, the business School and CALS). They addressed important development issues, such as foreign aid, climate change, biotechnology, gender, ethics and several innovative initiatives to improve household food security. The series has been very well received by the Cornell community as evidenced by the growing attendance, which increased to approximately 70 students and faculty per week during the past academic year, filling all of the available chairs most weeks.

Showcasing Cornell’s international engagement

In April 2011, CIIFAD convened its second annual 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. This symposium, entitled “Student Engagement In International Development,” brought together leading scholars and practitioners to discuss major cross-cutting issues within developing countries, and ways that students are currently involved and can become better engaged in problem solving research globally. The symposium included panel/audience discussions around identified themes and case study presentations by 9 CIIFAD SMART student/faculty teams. As part of the symposium, a gala reception was also held to present Dr. Willene Johnson with 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.
Appendix A. CIIFAD 2010-2011 Seminar Series, Perspectives in International Development

**Fall 2010 Speaker and title**

<table>
<thead>
<tr>
<th>September 1</th>
<th>Jan Low, Developing Effective Delivery Systems for Biofortified Crops: Lessons Learned in Achieving Economic, Nutrition, and Health Goals in Sub-Saharan Africa</th>
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<tbody>
<tr>
<td>September 8</td>
<td>Per Pinstrup-Andersen, Food Apocalypse Fatigue</td>
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<td>September 15</td>
<td>Robert Paarlberg, Politics of Food: What Everyone Needs to Know</td>
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<td>September 22</td>
<td>Tom Hertel, The Global Supply and Demand for Land in 2050: The Making of a Perfect Storm?</td>
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<td>September 29</td>
<td>Gebisa Ejeta, Africa’s Green Revolution: Miracle or Mirage</td>
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<td>October 6</td>
<td>Faculty Panel Discussion: Crouching Tiger, Hidden Dragon: Dimensions of the Sino-African Relationships</td>
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<td>October 13</td>
<td>Karim-Aly Kassam, Food and Health Security: Medicinal Plants in Afghanistan and Tajikistan</td>
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<td>October 20</td>
<td>Jerry Skees, Helping the Poor Manage Natural Disaster Risks</td>
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<td>October 27</td>
<td>Johannes Lehmann, Biochar Systems in Smallholder Agriculture</td>
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<td>November 3</td>
<td>Bob Howarth, Biofuels, Food Systems, and International Development</td>
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<td>November 10</td>
<td>Carol Colfer, Reflections on Successes and Failures of Participatory Action Research</td>
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**Spring 2011 Speaker and title**

| February 9 | David Pelletier, From Recommendations to Reality: Designing and Implementing Nutrition Policy in the Real World |
| February 16 | Mark Millstein, Business and Sustainability: Catalyst or Irritant? |
| February 23 | John Duxbury, Bringing Science to Development: Fact, Fantasy and Opportunity |
| March 9 | Jim Lassoie, “Relax, We’re From Conservation, Inc.”: Exploring the Consequences of Protecting Biodiversity |
| March 16 | Chris Barrett, Index-based Insurance: Financial Innovations for Development and Conservation |
| March 30 | Tom Carter, India’s Dairy Revolution: The Role of Collective Action |
| April 6 | Tri Mumpuni, Social Entrepreneurship in Indonesia: Lessons from a Practitioner |
| April 13 | Yun Yun Gong, Mycotoxins and Human Health: From Laboratory to Community |
| April 20 | Ed Mabaya, An Overview of the “Seeds of Development” Program: Business Development Services Training for Seed Companies in East and Southern Africa |

Appendix B. CIIFAD 2010-2011 Visiting Scholars

- Andrew Mude, International Livestock Research Institute (Nairobi, Kenya)
- Carol Colfer, Senior Research Associate, Center for International Forestry Research (Bogor, Indonesia)
- Garth Van’t Hul, CARE/Ethiopia (Addis Ababa, Ethiopia)
- Gebisa Ejeta, Purdue University (West Lafayette, Indiana)
- Jan Low, International Potato Center (Lima, Peru)
- Jerry Skees, University of Kentucky (Lexington, Kentucky)
- Moses Sefoko, National Agricultural Marketing Council (Pretoria, South Africa)
- Richard Dudley, Adjunct Professor, CIIFAD, teaching Dynamic Systems modeling for the Food Systems and Poverty Reduction IGERT
- Rina Oktaviani, Bogor Agricultural University (Bogor, Indonesia)
- Robert Paarlberg, Wellesley College (Wellesley, Massachusetts)
- Robert Darko Osei, University of Ghana (Legon, Ghana)
- Setyo Pertiswi, Bogor Agricultural University (Bogor, Indonesia)
- Stanford Manthata, (Matieland, South Africa)
- Thulasizwe Mkhabela, National Agricultural Marketing Council (Pretoria, South Africa)
- Tom Carter, United States Agency for International Development (Washington, DC)
- Tom Hertel, Purdue University (West Lafayette, Indiana)
- Tri Mumpuni, People-Centered Business and Economic Institute (Jakarta, Indonesia)
- Willis Kosura, University of Nairobi (Nairobi, Kenya)
- Yun Yun Gong, University of Leeds (Leeds, United Kingdom)
- Yoliswa Happiness Vengayi, University of Fort Hare (Capetown, South Africa)
Appendix C. Publications and presentations

SELECTED PUBLICATIONS


Christy, R.D., and Mabaya, E., "Accelerating Africa’s Agro-Industries to Sustain Economic Growth and Development:"


SELECTED PRESENTATIONS


Uphoff, N. Presentation to International Food Policy Research Institute (IFPRI), Washington DC, October 18, 2010.


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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