Research and Impact Communiqué

September 9, 2015

This communiqué brings you research and impacts from the projects we support in Africa and South Asia as well as insights into our investigators, resources, and funding opportunities. For more visit our <u>website</u>.

Farewell and Thanks from Innovation Lab Director Dr. Richard Bowen



This issue of the Communiqué marks the last in the series for the USAID Innovation Lab for Adapting Livestock Systems to Climate Change, and provides me with an opportunity to publicly express my gratitude to the many individuals – past and present – that helped make this program an outstanding success.

Shana Gillette, Jessica Davis, Sarah Lupis, Kierra Jewell and Michele Bradley were all with the program at the beginning and each helped immensely to organize the multitude of components into a synergistic whole. Joyce Turk was our USAID AOR until her retirement and the driving force behind the establishment of the Livestock Innovation Lab. Joyce is the type of person I would call a dynamo – always in motion, always thinking deeply about problems and solutions, and totally committed to the investigators, researchers and smallholder farmers we impact. I know of few program officers that showed dedication to the mission like Joyce did, and our program benefitted immensely from her guidance.

Our current Management Entity staff is an amazing group of people to work with. Dr. Katie Steneroden jumped into the fire as Deputy Director. She rapidly assimilated the myriad of projects in our portfolio and made substantive contributions to the entire program, particularly in mentoring our Scholars in Nepal. Dr. Dana Hoag nearly singlehandedly managed the research projects and Scholars in East Africa and I attribute the successes of this Scholar program largely to Dana. Diana Fahrenbruck is our Administrative Assistant, a title that doesn't come close to describing the breadth of her contributions. Large bureaucracies require abundant reporting and recordkeeping and Diana accomplished those goals all while keeping us out of trouble. "Herding cats" is the analogy that comes to mind in thinking about what Leslie Butler, our financial officer, does. Leslie kept the ship afloat and on an even course, even in the face of some large budget cuts.

Finally, the entire program benefitted from the work of Nicole Gutierrez and her team of students that managed communications. I have been constantly impressed by Nicole's ability to turn an incipient concept into a spectacularly effective graphic that displays to all what we've been trying to accomplish and she has made our web site into a truly valuable information resource. Megan Dietz is a student intern that has managed the writing and assembly of this Communiqué and research briefs for some time. Professors like me often bemoan the poor writing skills of our students (as our mentors likely did about us), but Megan has been exceptional in her ability to assimilate multiple sources into a comprehensive document. Additional interns that provided valuable skills in editing and compiling research briefs and other documents include Mary Ann Crawford, Valerie Ho, Tom O'Malley, and Ricki Watkins. A final shout-out of appreciation goes to our two regional coordinators: Doj Raj Khanal in Nepal and Solomon Desta in Ethiopia. Each made huge contributions to organizing events and mentoring Scholars.

Of course, the people that really require recognition for their efforts in making our Innovation Laboratory a success are the scientists that conducted the research upon which our program is based. Each of the U.S. University researchers that worked in East Africa, West Africa and Nepal have international reputations and, along with their U.S. and in-country colleagues, generated highly impactful studies in and across each of those regions. Rather than me listing them by name, please go to our web site at Icccrsp.org to view their research briefs and refereed publications. The Scholars program was predicated on the idea that there are numerous talented young scientists in developing countries that could do impactful research, but are typically constrained by lack of resources. If I had to list the one activity we supported that made the largest impact, it would be the Scholars program. Again, please go to our website to view summaries of their projects, research briefs and refereed publications from those young scientists.

Let me finish by affirming what a great honor and privilege it has been for me to direct the Livestock Innovation Lab over the past three years. I've enjoyed working with our staff, our PIs, Scholars and graduate students and believe that our collective efforts have made the world a better place.

Richard A. Bowen



Activities of the Livestock Innovation Lab

Long-term Project Impacts



Sieve Structures to Control Gully Erosion on the Borana Plateau

Gully erosion is a widespread problem on the Borana plateau, serving as the main pathway by which ponds are contaminated by sediment accumulation. Sieve structures provide a solution to this problem by slowing the rate of water flow and remove sediment. Easily constructed from local resources, Livestock Innovation Lab researchers demonstrated that a series of sieves can effectively trap sediment and improve water quality for pastoralists and their livestock.



Enclosures for Pond Rehabilitation and Grazing Management

Limited drinking water for both people and livestock remains a persistent problem for Boran pastoralists. Ponds serve as a critical water resource but are often damaged by uncontrolled grazing. Innovation Lab researchers tested a system using enclosures to manage livestock grazing and pond catchment access. As a result of these enclosures, pastoralists reported a significant increase in plant cover, reduced pond sedimentation, and improved water quality. Results show a promising and simple method for grazing management to improve water access and quality in Borana.



New Video on Drip Irrigation in Nepal

The Livestock Innovation Lab and the Small Earth Nepal bring a new video detailing the story of Dunga Bhutal from Kapilvastu and her experiences using our drip irrigation kits to build a flourishing garden on otherwise barren land. Drought mapping around the Gandhi river basin suggest that—like Dunga's home district—these areas of Nepal are becoming dryer. Through the use of drip kits and other agricultural technologies, farmers in Nepal are finding water saving techniques to improve household nutrition.



New Video on Fodder Production in Nepal

Fodder cultivation remains a main source of livestock nutrition in Nepal. In this video by Small Earth Nepal, see how farmers are working to expand their agricultural businesses with modern forage use and management. Through techniques and technologies introduced by the Livestock Innovation Lab and the Small Earth Nepal farmers are seeing their income exceed their production costs and looking forward to higher yields and higher profit in dry or wet seasons now and in the future.



New Video on Mineral Blocks in Nepal

Livestock are a key source of income for many farmers in Nepal. Lack of proper nutrients can hinder livestock performance and production, resulting in losses in nutrition and income sources. The Livestock Innovation Lab along with the Small Earth Nepal are helping farmers combat livestock malnutrition through training on how to make and use mineral blocks. Watch this new video showcasing the preparation of these mineral blocks from local resources and the impact it has on livestock health and production.



Innovation Lab Researcher Presents at International Conference

Dr. Peter Little—lead researcher for the project *Climate-Induced Vulnerability and Pastoralists Marketing Chains in Southern Ethiopia and Northeastern Kenya (CHAINS)*—traveled to Paris, France to participate in his co-organized European Conference on African Studies (ECAS). Click the link above to learn more about Little's research on pastoralists' market response and his experience presenting at one of the largest annual conferences for African research specialists.

Congratulations to the Livestock Innovation Lab's Innovator of the Month!



Congratulations to our September Innovator of the Month Jorge Hernandez! A veterinarian and professor of epidemiology at the University of Florida, Jorge's interests lie in researching capacity building initiatives in low income economies from a One Health perspective. Read the article here to learn more about Jorge's work, challenges and advice for aspiring researchers.

Funding & Fellowship Opportunities

Zayed International Prize for the Environment: US\$1 Million for Environmental Leadership and Science

Deadline: 30 September, 2015

The Zayed International Prize for the Environment offers cash prizes that total US\$1 million to recognize and promote pioneering contributions in environment and sustainable development. The prizes are open to individuals, organizations, and partnerships worldwide in four categories: global leadership in environment and sustainable development; scientific/technical achievements in environment; environmental action leading to positive change in society; and the young scientists award for environmental sustainability.

International Plant Nutrition Institute (IPNI): IPNI Science Award 2015

Deadline: 30 September, 2015

The IPNI Science Award is presented each year to an agricultural scientist for outstanding achievements in research, extension, or education focusing on management of plant nutrients. Eligibility for nominations extends to agronomists, crop scientists, and soil scientists worldwide. The recipient receives a plaque and US\$5 thousand.

European Commission (EC): Marie Sklodowska-Curie Co-Funding

Deadline: 1 October, 2015

The Marie Sklowdowska-Curie Actions (MSCA) support research training and career development. The MSCA COFUND scheme aims at stimulating regional, national or international programs to foster excellence in researchers' training, mobility, and career development. Each proposal under the COFUND scheme shall have a sole participant that will be responsible for matching funds to execute the proposal. Participants submit multi-annual proposals for new or existing doctoral programmes or fellowship programmes that may be run at regional, national, or international level. The application deadline is 01 October 2015.

US Department of State: Hubert H. Humphrey Fellowships

Deadline: 1 October, 2015

The Hubert H. Humphrey Fellowship Program supports non-degree academic study and related professional experiences in the U.S. for experienced professionals from countries that are undergoing development or political transition. Fellows are hosted at universities in the USA. Program fields include agriculture and rural development; natural resources, environmental policy, and climate change; and many others. Applications are made through the U.S. Embassies or Binational Fulbright Commissions in eligible countries, with varying deadlines. The embassies and commissions submit their nominations before 01 October to the Institute of International Education office in Washington, DC

Tata Group: Tata Social Enterprise Challenge, 4th Edition

Deadline: 7 October, 2015

The Tata Group, in collaboration with the Indian Institute of Management Calcutta (IIMC), seeks to identify promising social enterprises in India. Proposals are invited for social enterprises in agriculture, water and sanitation, energy, and other thematic areas. The proposed enterprises should create social impact in India, although applicants do not have to be Indian nationals. Selected social entrepreneurs are offered funding opportunities, mentorship, and an opportunity to be incubated at IIM Calcutta's Incubation Center. The deadline for submitting impact proposals (business plans) is 07 October 2015

USAID: Reducing Agricultural Risks in Guatemala

Deadline: 16 October, 2015

USAID seeks to support projects that will improve food security in Guatemala by building resilience to cyclical droughts and floods, and by reducing household food security during these events. Eligibility to apply for funding is unrestricted. The maximum grant amount is US\$1 million. Funding Opportunity APS-OFDA-15-000005.

Common Fund for Commodities: Seventh Call for Proposals

Deadline: 19 October, 2015

The CFC calls for proposals that advance commodity development in its member countries. Financial support takes the form of loans, equity investments, and grants. Funding is targeted mainly to for-profit organizations and social enterprises for production, value chains, and marketing across a wide group of commodities (agricultural crops, tree crops, timber, bamboo and rattan, minerals, and others). "Fast-track" funding of US\$50 thousand to US\$120 thousand has a simplified application procedure, and may be non-repayable under certain conditions and justifications. CFC will consider proposals where its share of financing does not exceed 50% of the total.