



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



**Feed the Future Innovation Lab for Livestock Systems**

**Contents** Issue #8, July 2019

- [Researcher's Corner](#)
- [Special Op-Ed](#)
- [Research-for-Development Highlights](#)
- [Capacity Building](#)
- [Publications](#)
- [Resources from Events](#)
- [Award](#)

## Researcher's Corner

### Policy Coming to Life through Networks of Passionate People



University of Florida's Dr. Renata Serra leads our Innovation Lab's policy team and co-leads our gender in livestock systems team.



**USAID**  
FROM THE AMERICAN PEOPLE

BILL & MELINDA  
GATES foundation

ILRI  
INTERNATIONAL  
LIVESTOCK RESEARCH  
INSTITUTE



UF IFAS  
UNIVERSITY of FLORIDA

Caring individuals working in isolation cannot achieve as much as a united village, and our academic village at the University of Florida provides a dynamic space for uniting many caring and gifted individuals. A few years ago, Dr. Renata Serra received a call to join the Feed the Future Innovation Lab for Livestock System's policy and gender teams from another UF employee who had learned about her involvement in a campus-wide working group on gender and international development. She was persuaded by that caller—the director of the Livestock Systems Innovation Lab, Dr. Gbola Adesogan—and since then her connections and contributions have continued to expand and deepen.

"I've become part of a larger family," said Serra, who serves as a policy and gender expert for the Innovation Lab. She is Senior Lecturer in the Center for African Studies, and an advisor to graduate students in the Master of Sustainable Development Practice, a program with extensive connections to the Innovation Lab. Serra has a PhD in Economics from Cambridge University, with specialization in development, gender and agricultural policies in western Africa. She is an active member of the [UF Sahel research group](#) as well as an Associate Editor for the journal *Feminist Economics*.

### **Making the Connections**

Much of Serra's research involves making connections and documenting networks. In six of our target countries, she has helped researchers and other stakeholders to formalize their networks and make the most of the annual Innovation Platform meetings. Her energy for such work increased in 2018 when she brought three UF undergraduate students to Ethiopia for field work. "You see things with young people's eyes when you involve them, and you learn a lot more," she said.



Dr. Renata Serra, left, brought three University of Florida students to conduct surveys in Ethiopia last year, along with staff member Lacey Harris-Coble (right).

As the policy lead for the Innovation Lab, she encourages researchers to avoid the common mistake of waiting to obtain results before starting a dialogue with policymakers. “Policy is not necessarily at the back end, so engaging with policymakers should start from the beginning of the project cycle,” she said. In each country, the Innovation Lab provides a foundation for building networks of allies in the smallholder livestock sector.

Her next major effort is being planned for this September in Rwanda, where she will guide an eager group of researchers and policymakers to prepare for policy interventions. She advised this group in April during the Annual General Meeting of the Innovation Lab, and they set tight deadlines for this year.

## Comparing Policy Environments

For countries as different as Ethiopia and Nepal, Serra and her colleagues are mapping existing networks in the livestock sector and describing how these influence a country’s policies. Comparing shape and points of entry of policy networks across countries is a new line of research.

At the smaller scale of the Innovation Lab itself, Serra appreciates how its network has grown and created synergies across UF and with colleagues worldwide. She credits the Innovation Lab’s reputation with helping UF obtain a forthcoming research grant to study gender issues in livestock vaccine value chains.

Regarding gender, consider this 2018 publication led by Serra: *Gender and livestock value chains: Annotated bibliography*. Regarding policy, anticipate forthcoming country-level reports for Burkina Faso, Niger, Ethiopia and Nepal. Lastly, as all USAID-funded projects will be entering their final year in October, Serra and research assistant Lacey Harris-Coble will turn their attention to supporting the creation of high-impact policy briefs.



Feed the Future Innovation Lab for Livestock Systems

Gender and Livestock Value Chains  
Annotated Bibliography



BILL & MELINDA  
GATES Foundation

ILRI  
UNIVERSITY OF ILLINOIS

UFIFAS  
UNIVERSITY OF FLORIDA



## The Payoff of Investing in Research for Growing Economies



Dr. Gbola Adesogan was invited to write a viewpoint for the American Farm Bureau Federation.

After speaking at the annual convention of the American Farm Bureau Federation in January, our director Dr. Gbola Adesogan was invited to author a commentary. Published on March 13, it was distributed to the six million members of the federation. The federation is an independent organization that advocates for agricultural communities in the U.S. and celebrates its 100th anniversary this year. Dr. Adesogan's article, "The Payoff of Investing in Research for Growing Economies," discusses the positive impacts of the Feed the Future Innovation Labs and the bipartisan support they have received in congress through the U.S. Foreign Assistance Act (visit <https://www.fb.org/viewpoints/the-payoff-of-investing-in-research-for-growing-economies>).



### “Give Milk” to Improve Nutrition and Livelihoods in Rwanda



Workshop participants in Kagugu, Rwanda, hold the posters they will use to teach others about the importance of milk in the diet.

*[Blog post](#) by Judy Kimani, International Livestock Research Institute*

Our largest project in Rwanda is encouraging families to give their children the milk they need to reach their full potential. How will the researchers know if their interventions are effective? They are conducting a randomized controlled trial in two districts and will be comparing the outcomes that educational initiatives have on behavior change and the nutritional status of the vulnerable. The project is also evaluating the effect of capacity development support, including workshops, on dairy cooperatives and the Rwanda National Dairy Platform. Its principal investigator is Dr. Emily Ouma from the International Livestock Research Institute (ILRI), and other partners include RTI International, the University of Rwanda, and TechnoServe. Read more of this blog post (visit <https://blogs.ifas.ufl.edu/lsil/>) developed in collaboration with ILRI, and refer to ILRI's website to read the project's TechnoServe report about an AgPOSA Assessment (visit <https://cgspace.cgiar.org/handle/10568/92406>).

---

## Enhancing Food Safety in Ethiopia



Students at Hawassa University, Ethiopia, prepare to survey families about their nutrition and eating habits. (Credit: J. Vipham/KSU)

To assess the current knowledge about meat contamination in Ethiopia, a group of six researchers from the U.S. and Ethiopia scoured scientific studies from 2008 to 2018. Reviewing evidence from 7,828 meat samples, the researchers found high levels of contamination, and they recommend new interventions to address meat safety. The findings are available in the scientific article on [The prevalence and antimicrobial resistance profiles of bacterial isolates from meat and meat products in Ethiopia: A systematic review and meta-analysis](https://doi.org/10.1186/s40550-019-0071-z), published in January 2019 in the *International Journal of Food Contamination* (visit <https://doi.org/10.1186/s40550-019-0071-z>). This research was funded through our project on Linking Cattle Nutrition to Human Nutrition, and a principal investigator, Dr. Jessie Vipham from Kansas State University, is a co-author.



---

## Building Labs and Awareness about Mycotoxins in Rwanda



Kizito Nishimwe shares findings at a gathering in Kigali, Rwanda in April 2019.

As one of our two-year projects wraps up, Kizito Nishimwe, lecturer at University of Rwanda and a recent PhD graduate at Iowa State University, describes his work on aflatoxin detection and mitigation. His project, led by his supervisor Dr. Dirk Maier of Iowa State University, established a new mycotoxin analysis lab with equipment approved by the U.S. Grain Inspection Packers and Stockyards Administration (GIPSA) and a fluorometer for milk sample analysis. It will enable the university to analyze grain and milk samples for less than previous methods. The results of the project have been shared with key stakeholders in the government and private sector (learn more at <http://livestocklab.ifas.ufl.edu/projects/dr-dirk-e-maier/>).

After taking leave from the University of Rwanda to begin his PhD studies at Iowa State University (ISU) 2016, Nishimwe spent a year acquiring skills in mycotoxin analysis and sampling techniques, alongside ISU professors and project investigators Dr. Dirk E. Maier and Dr. Erin Bowers. In 2017, Nishimwe led the collection and analysis of 3,328 feed samples from Rwanda's 30 districts. The project also engaged 225 dairy farmers and 309 poultry farmers.



The main objective of this study was to assess and mitigate the prevalence of aflatoxins and fumonisins in animal feeds and aflatoxin M1 in milk in Rwanda, and to raise awareness among professionals and policymakers to protect consumer health and increase export opportunities. To raise awareness about the need to prevent aflatoxin contamination of feeds, teaching materials for farmers were developed in English and translated into the local language, Kinyarwanda, and distributed to all study participants, and mycotoxin analysis trainings were held at the University of Rwanda. The study recommends new, multi-sectoral collaboration and pooling of resources to prevent mycotoxin contamination of feeds and food in Rwanda.

In April of this year, the Innovation Lab collaborated with the Rwanda Agriculture Board and the USAID Rwanda Hinga Weze project implemented by CNFA to bring this research and other aflatoxin related information to the attention of policymakers and other stakeholders. The workshop covered pertinent topics including how to complement the commendable efforts of the government to ensure a safe food supply, risk communication, and recent techniques for preventing aflatoxin contamination.

---

## Capacity Building

---

### Building Feed Analysis Capacity Across Sectors



Discussing near-infrared spectroscopy (NIRS) in Ethiopia are Dr. Jose Dubeux, University of Florida, and Legesse Shiferaw, a lab technician from the Ethiopian Institute of Agricultural Research. This FOSS NIRS performs quick analyses of the nutritional values of large numbers of feed samples.

Just as mobile phones are displacing domains of the desktop computer, a new handheld instrument is providing results to rival its desktop counterpart. The mobile NIRS (near-infrared spectroscopy) machines are helping agricultural researchers in Ethiopia to analyze feed and fodder quality efficiently. Our research, led by Dr. Michael Blummel at ILRI, is among the first to show that mobile NIRS results can approximate results from traditional desktop machines. Yet the cost for one desktop machine would enable the purchase of more than 45 handheld devices.

This research is part of our Feed Study, funded by the Bill & Melinda Gates Foundation, and the NIRS component aims to improve capacity through public-private partnerships. Dr. Blummel is developing communities of practice by providing trainings on NIRS to universities, private businesses and national research institutes. For example, various members of the Ethiopian research community recently visited the Holeta Agricultural Research Center for discussions and demonstration of the use of NIRS. At another training at Addis Ababa, Ethiopia, colleagues from Burkina Faso were introduced to the use of NIRS. This knowledge will help them with operating a new NIRS machine, installed on June 21 at ILRI offices and moving within a year to the Institute for the Environment and Agricultural Research in Burkina Faso. The Feed Study purchased the desktop NIRS machine for use in Burkina Faso, and it plans to purchase additional handheld NIRS machines for both countries.

---

### Third Annual Nutrition Symposium Addresses Extension Services



Our Global Symposium united more than 160 participants from 14 countries in Kathmandu, Nepal.

For two days in April, we co-hosted a symposium with the Government of Nepal on the themes of livestock, human nutrition, and extension services. Inaugurating the event with candle lighting and ribbon-cutting ceremonies was Honorable Prakash Mathema, Joint Secretary of Nepal's Ministry of Agriculture and Livestock Development. More than 160 people from 14 countries attended the event in Kathmandu titled "Extending Our Reach: Improving human nutrition and incomes through effective livestock research and extension partnerships."

One highlight was the interactive poster session that featured more than 30 researchers discussing their projects. Building on the theme of extension, plenary presenters shared perspectives from the U.S., Africa, and Asia. Experts from the University of Florida (Dr. Brian Myers, Head of Department of Agricultural Education and Communications; Dr. Saqib Mukhtar, Associate Dean for Extension; Dr. Nick Place, Dean and Director of UF/IFAS Extension) shared lessons from the land-grant university system and its integrated extension programs. Other speakers highlighted research-extension linkage examples from China, South Korea, India, and Kenya. Representatives from our focus countries of Nepal and Cambodia, Ethiopia and Rwanda, and Burkina Faso and Niger shared their insights in three respective panel sessions.

Several key ideas and observations were shared during the symposium. For example, malnutrition costs an estimated \$3.5 trillion USD every year, and impacts are life-long and irreversible. Animal-source foods (ASF) like eggs, milk and meat from various types of livestock in proper amounts can improve diets low in protein, essential amino acids, vitamins and minerals. Challenges to be addressed include making high-quality ASF accessible and available to vulnerable populations, addressing food safety issues in ASF, and fostering linkages between agriculture and nutrition. There is high potential for extension to address these challenges, but linkages across sectors are weak, thus limiting the current impact of investments in research. Fortunately, there are diverse examples of research and extension linkages to draw from and apply to specific country contexts.

To experience some of the information shared at the symposium, visit our website and download the presentations:

(<http://livestocklab.ifas.ufl.edu/events/2019-global-nutrition-symposium/>).

## **Our Annual General Meeting**

During the two days prior to the symposium, principal investigators or their representatives from the [research projects funded by the Livestock Systems](#) Innovation Lab gathered in Kathmandu with Board Members and representatives of the Management Entity of the Lab for our Annual General Meeting. Researchers shared updates from their projects and formed working groups to address challenges within their geographic region and within their domains of research. The meeting's second day focused on themes around policy environments and how to engage effectively with policymakers. One highlight at the end of the meeting was a marketplace session that featured representatives from the private agricultural sector of Nepal. This provided an opportunity for the researchers to engage directly with the private sector and to explore ideas for collaboration and scaling of technologies developed by the Innovation Lab's researchers.



---

## Publications

---



### ***Innovation Summaries: Ethiopia, Rwanda & Nepal***

Innovation summaries are new, one-page reviews of innovations based on our research. The current 12 innovations are outcomes of sponsored projects in Ethiopia, Rwanda and Nepal. Each summary provides quick facts, benefits, and an introduction to the application of the innovation. These are available as a printed booklet; or you may download each project's summary from the corresponding [project's page](#). Similar summaries are also available from a new Feed the Future website for innovations: <https://feedthefuture.globalinnovationexchange.org/>.

### ***Land-Grant Model***

This policy paper discusses the [Prospects of Establishing a Land-Grant University Model: Policy Paper on the Agriculture and Forestry University of Nepal](#). Reflecting a growing partnership, it was developed jointly by editors from the University of Florida and co-authors from Nepal. It opens with a letter from the Prof. Ishwari Prasad Dhakal, the Vice Chancellor of the Agriculture and Forestry University, and it concludes with recommendations about how to build a land-grant model.

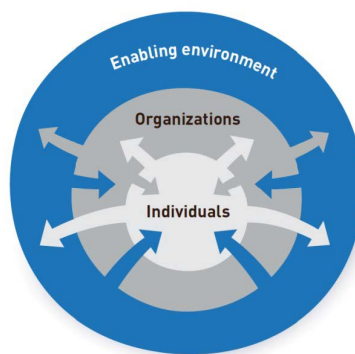


### ***Role of Gender in Livestock Systems***

Gender issues are highlighted on this new web page, <http://livestocklab.ifas.ufl.edu/themes/gender/>. Here you will find resources for holding trainings, findings from studies out of Rwanda, and presentations about the importance of systems thinking. You can also connect with our University of Florida leaders for the cross-cutting theme of Gender in Livestock Systems: [Dr. Kathleen Colverson](#) and [Dr. Renata Serra](#).

## Gap Analysis for Ethiopia

A new report offers a Human and Institutional Capacity Development Gap Analysis in Ethiopia. It is co-authored by our HICD team leaders, [Dr. Rebecca Williams](#) and [Dr. Sandra Russo](#), of the University of Florida's Office for Global Research Engagement. It shows strengths and challenges that are specific to Haramaya University, Gondar University, and Hawassa University.



---

## Resources from Events

---

Download presentations and read more about these events by visiting the links provided below (or visit <http://livestocklab.ifas.ufl.edu/events/>).

- June 26: We held a symposium at the annual meeting of the American Dairy Science Association in Ohio. [MILK Symposium: Improving Milk Production, Quality, and Safety in Developing Countries](#) featured Innovation-Lab-funded scientists from Ethiopia, Nepal, and other countries who have worked on dairy-related research.
  - June 5: We held a one-day symposium near Capitol Hill In Washington, DC: [Ensuring children's cognitive and physical development through animal source foods](#). Welcoming the gathering was Congressman Ted Yoho from Florida and Jack Payne, Senior Vice President for Agriculture and Natural Resources, University of Florida.
  - April 25-26: The global symposium [Extending Our Reach: Improving human nutrition and incomes through effective livestock research and extension partnerships](#) was held in Kathmandu, Nepal.
  - April 2: Innovation Platform meeting in [Rwanda](#).
  - February 18: Innovation Platform meeting in [Ethiopia](#).
  - November 19, 2018: We co-hosted the [One Health International Symposium on Risk Communication in Resource-Limited Countries](#). This collaboration with the University of Florida's One Health Center of Excellence, Center for Stress Resilient Agriculture, and Center for African Studies featured experts on mycotoxins and on communication strategies. Videos and presentation files are [available on our website](#).
-

---

## Award

---

### Director Wins International Agriculture Award



Our director, Dr. Adegbola Adesogan, will receive the 2019 Bouffault International Animal Agriculture Award on July 9 at the annual meeting of the American Society of Animal Science. Congratulations Gbola! The award recognizes a distinguished individual who has served the animal agriculture industry in developing areas of the world. Dr. Adesogan has served on the editorial boards of the *Journal of Animal Science*, *ANIMAL*, and other journals, and he has chaired or co-chaired the committees of nearly 20 PhD and MS students. He has authored or coauthored more than 200 scientific publications and earned \$65,000,000 in grants.

---

[Visit our Website](http://livestocklab.ifas.ufl.edu/)

<http://livestocklab.ifas.ufl.edu/>

This newsletter is made possible by the generous support of the American people through the United States Agency for International Development (USAID) and its Feed the Future Innovation Lab for Livestock Systems managed by the University of Florida and the International Livestock Research Institute. The contents are the responsibility of the University of Florida and do not necessarily reflect the views of USAID or the United States Government.

*Copyright © 2019 University of Florida, All rights reserved.*

**Our mailing address is:**

Feed the Future Innovation Lab for Livestock Systems  
Department of Animal Sciences  
P.O. Box 110910  
Gainesville, Florida  
32611-0910