Feed the Future Innovation Lab for Livestock Systems

2018 GLOBAL NUTRITION SYMPOSIUM

The Missing Link: Increasing Availability of Animal-Source Foods Through Greater Production & Marketing of Quality Feeds

HARMONY HOTEL
ADDIS ABABA, ETHIOPIA
JANUARY 24-25, 2018
We would like to welcome you to the second Global Nutrition Symposium of the Feed the Future Innovation Lab for Livestock Systems, titled *The Missing Link: Increasing Availability of Animal-Source Foods Through Greater Production & Marketing of Quality Feeds.*

Since October 2015, with USAID funding, the Livestock Systems Innovation Lab has been managing and implementing projects aimed at sustainably improving animal-source food production, and marketing and consumption, in six countries in order to improve the nutrition, health, incomes, and livelihoods of the vulnerable.

In November 2017, the Bill & Melinda Gates Foundation awarded funds to the Livestock Systems Innovation Lab for complementary research for development efforts on improving quality feed supply in Ethiopia and Burkina Faso and understanding and mitigating Environmental Enteric Dysfunction in Ethiopia.

The first Global Nutrition Symposium, organized in March 29-30, 2017, in Gainesville, Florida, explored the evidence base for the important beneficial impacts that animal-source foods have on human health, nutrition, and growth. These benefits are due to the high protein quality and high concentration of bioavailable micronutrients such as vitamins A and B12 and iron, iodine, and zinc in animal-source foods, which are critical for growth, neurological function, and immunity, etc. The Symposium also addressed risks from animal-source food consumption including those from zoonotic and foodborne diseases and mycotoxins, and discussed strategies to improve consumption of animal-source foods by the poor.

Although the focus of this year’s event is on livestock feed, the “nutrition” in the title of the Symposium series continues to refer to human nutrition. This is because quality feed is perhaps the most important determinant of livestock productivity, and it is therefore a key factor driving availability of animal-source foods. In developing country smallholder systems worldwide, poor animal nutrition caused by insufficient quantities and/or poor quality feed reduces weight gain and milk or egg production, which in turn decrease revenues from livestock production. Poor livestock nutrition also compromises animal health and contributes to increases in greenhouse gas emissions.

This year’s Symposium will explore the positive impacts of quality feeds on livestock production. In addition, as in 2017, an important focus will be on exploring, discussing, and debating best ways forward on improving availability of quality feeds for smallholder farmers. Through working groups, we will explore two important aspects: increasing supply and improving delivery of quality feeds.

This year’s Global Nutrition Symposium in Addis Ababa is organized with two key national research organizations that have significant experience in improving quality feed supply and livestock productivity: the Ethiopian Institute for Agricultural Research (EIAR) and the Agricultural Transformation Agency of Ethiopia (ATA). As in 2017, organizers continue to be the Feed the Future Innovation Lab for Livestock Systems at the University of Florida and its main partner, the International Livestock Research Institute (ILRI), which has a wealth of experience in improving all aspects of livestock production in developing countries.

We look forward to lively discussions of this important theme during the Symposium and to building partnerships for the future.
INTRODUCTION

2018 GLOBAL NUTRITION SYMPOSIUM

Lack of sufficient quantities of high quality feed is perhaps the greatest constraint to increased productivity, sustainability, and profitability of smallholder livestock systems. As human and livestock populations soar, land use for urban and other development expands, and climate change takes hold, natural pastures shrink in absolute terms and, in particular, per livestock unit. In many environments, changing climates and overuse also reduce resource quality, as poor quality grasses and shrubs dominate native vegetation. Yet the majority of livestock in developing countries rely on natural pastures and resources as their main source of feed. For instance, natural pastures provide 78% of all livestock feed in Ethiopia and 80-84% of the sheep and goat feed in Burkina Faso. Cereal straws, which form the bulk of supplemented livestock feeds in smallholder systems, are notoriously poor in nutritional quality and therefore constrain animal performance. High quality forages, supplemental concentrates, and byproducts that can substantially increase livestock productivity are often underexploited in such systems for reasons ranging from unaffordability and lack of land to lack of awareness and knowledge about their importance and use.

The negative impacts of lack of quality feed are direct, dramatic, and varied at different levels. At the individual animal level, inadequate, unbalanced diets reduce growth rates and milk and egg production and impair animal health; these impacts can be profound and lifelong in offspring when they occur during pregnancy. At the herd level, poor immunity due to undernutrition can result in greater disease incidence and reduced performance. At the household, community, and national levels, low livestock productivity and poor health resulting from low quality feeds can severely curtail incomes and revenues and contribute to childhood stunting through reduced consumption of animal source-foods. At local, national, and regional levels, shrinking pasture resources are fueling conflicts within and across borders and ethnic groups. Globally, poor quality feed consumption and the resulting low productivity, contribute to increased greenhouse gas emissions, and the perception that livestock production is harmful to the environment.

Opportunities to successfully improve the supply of quality livestock feeds and hence increase livestock productivity and improve human nutrition through greater availability of animal-source foods abound for the public and private sector and their research and development partners. The 2018 Global Nutrition Symposium focuses on analyzing, exploiting, and further developing these opportunities based on lessons learned from key stakeholders in the livestock feed and animal-source food value chains. The Symposium focuses on supply of quality feeds from all sources, including natural grasslands, cultivated forages, crop residues, concentrate supplements, and agricultural by-products. The Symposium will consider how to increase the supply of quality feed through market-driven solutions and institutional arrangements, and will do so by evaluating past experiences with and the future potential of diverse mechanisms in different social and agroecological livestock systems settings.

NOUHOUN ZAMPALIGRÉ

Institut de l’Environnement et de Recherche Agricoles (INERA)
Bobo Diallasso, Burkina Faso

Dr. Zampaligré is a rangeland management and livestock production systems INERA researcher hosted by CIRDES in Bobo Dioulasso. He holds an MSc in livestock nutrition from the Polytechnic University of Bobo Diulasso and a PhD in agricultural sciences from the University of Kassel, Germany. He boasts solid grounding of the impacts of climate change on natural resource management and local adaptation to climate change in West Africa. Dr Zampaligré has published ten peer review articles in academic journals, including Environment Development and Sustainability, Journal of Agricultural Studies, Regional Environmental Change and the Journal of Animal Science. In 2013, he was awarded a junior postdoctoral grant by the Volkswagen foundation to pursue his research in Burkina Faso. He is currently involved in the Local Governance and Adapting to Climate Change in Sub-Saharan Africa project in Kenya and Burkina Faso funded by USAID.
Wednesday, January 24

AGENDA
Session I. Opening
Chair: Dr. David Sammons, External Advisory Board
Feed the Future Innovation Lab for Livestock Systems

Lack of high quality feed was identified as the greatest constraint to livestock production and animal-source food consumption during inception meetings in the six core target countries of the Feed the Future Innovation Lab for Livestock Systems. Consequently, with funding from both USAID and the Bill & Melinda Gates Foundation, the Livestock Systems Innovation Lab manages and implements research for development projects aimed at concerted improvements in the supply of quality feed in Ethiopia and Burkina Faso; USAID funds additional feed-enhancing research projects in Rwanda, Niger, Cambodia, and Nepal. This second, 2018 Global Nutrition Symposium marks the beginning of the joint funding of the Livestock Systems Innovation Lab by both donors. It brings together researchers, development practitioners, and policy makers to critically assess knowledge, tools, practices, and products that are needed to develop a roadmap for increasing the supply of quality feed.

8.00 am  Registration

8.30 am  Opening of the Symposium
- Representative of Ethiopian Ministry of Livestock and Fisheries – Dr. Gebregziabher Gebrevohannes, State Minister
- Representative of the U.S. Agency for International Development (USAID) – Dr. Faith Bartz Tarr, AAAS Science and Technology Policy Fellow & Agriculture Officer
- Representative of the Ethiopian Institute of Agricultural Research (EIAR) – Dr. Diriba Geleti, Deputy Director
- Representative of Institute for the Environment and Agricultural Research (INERA) – Dr. Oumou Sanon, Deputy Director
- Representative of International Livestock Research Institute (ILRI) – Dr. Alan Duncan, Director General’s representative in Ethiopia
- Representative of the External Advisory Board, Feed the Future Innovation Lab for Livestock Systems – Dr. David Sammons

9.00 am  The U.S. Global Food Security Strategy, USAID Multi-Sectoral Nutrition Strategy, and the importance of nutrition sensitive agriculture for the development of Ethiopia
Dr. Faith Bartz Tarr, AAAS Science and Technology Policy Fellow & Agriculture Officer, USAID

9.20 am  Realizing livestock’s potential: Why animal feed is critical to achieving our strategic goals
Ms. Kristen MacNaughtan, Program Officer, Bill & Melinda Gates Foundation

9.40 am  Focus on Feed: USAID and Bill & Melinda Gates Foundation collaboration on feed research and capacity building
Dr. Adegbola Adesogan, Director, Feed the Future Innovation Lab for Livestock Systems

9.55 am  Opening of the poster session – Improving supply, fostering demand: Experiences in quality feeds
Group photo and coffee

Session II. Quality Feeds: Roles, Impacts, and Experiences
Chair: Dr. Joyce Turk, External Advisory Board
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Improving the supply of quality feed can be a win-win strategy that results in improved human nutrition through greater availability of animal-source foods, improved environmental health due to reduced greenhouse gas emissions, and reduced expansion of pasture land due to sustainable intensification of livestock production. However, the gap between the future demand and expected supply of quality feed is growing, as livestock populations grow and pasture resources dwindle. For instance, the Ethiopia Livestock Master Plan notes that, of the main livestock systems in Ethiopia, currently only the agro-pastoral system has sufficient feed resources, and this is only when rainfall is average to higher than average. “It also notes that in the business as usual scenario, by 2028, all systems will be deficient in all years. Fortunately, over the past decades, numerous research and development efforts have been conducted on improving the supply of quality feeds, offering an evidence base that can be mined for important lessons.

10.30 am  Keynote address – Improving livestock productivity, nutrition security, and the environment through the food-not feed strategy
Dr. Harinder Makkar, former Senior Animal Production Officer, Food and Agriculture Organization (FAO); and Private consultant

11.15 am  Mapping feed demand and supply
Dr. Michael Blümmel, Deputy Program Leader – Feed and Forage Development, ILRI

11.45 am  Improving the supply of quality feeds in Ethiopia: Successes and lessons learned
Dr. Adugna Tolera, Professor, Hawassa University and Dr. Getnet Asefa, Former Director – Livestock Research Directorate, ELARD

12.15 pm  Improving the supply of quality feeds in Burkina Faso: Successes and lessons learned
Dr. Oumou Sanon, Deputy Director, INERA

12.45 pm  Lunch and poster session continued
Session III. Working Group 1 – Solutions for Increasing the Supply of Quality Feed

Chair: Dr. Harinder Makkar, External Advisory Board
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There is no single all-encompassing solution to improving the supply of quality feed and, even on a single farm, a combination of solutions may be required. The working groups in this session will explore the potential to improve the supply of quality feed with proven and novel strategies for different livestock systems and environments. Presenters, responders, and participants will present and constructively critique specific experiences, viewpoints, and alternative approaches. The goal is to identify up to three research themes and three development solutions that should be tackled to improve quality livestock feed supply. The “what,” “where,” and “how” of each solution should be specified.

2.15 pm
Working Groups
1. Achieving “forage revolution” through improved varieties and seed systems
   - Presenters: Dr. Chris Jones and Dr. Jean Hanson, ILRI
   - Responder: Dr. Solomon Mengistu, EiAR

2. Increasing synergies and impact through dual-purpose crops
   - Presenter: Dr. Tim Dalton, Kansas State University (KSU)
   - Responder: Dr. Fekede Feyissa, EiAR

3. Forage quality improvement
   - Presenter: Dr. Michael Bluemel, ILRI
   - Responder: Dr. Salissou Issa, National Institute of Agricultural Research (INRAN)

4. Balancing rations for productivity and profitability
   - Presenter: Dr. Barry Bradford, KSU
   - Responder: Dr. Bhola Shrestha, Heifer International Nepal

5. Exploiting and preserving the quality of concentrates and by products
   - Presenter: Dr. Asamoah Larbi, International Institute of Tropical Agriculture (IITA)
   - Responder: Dr. Dirk Maier, Iowa State University

4.00 pm
Working group presentations and discussion

5.30 pm
Reception hosted by ILRI
Session IV. Working Group 2 – Models and Tools for Feed Delivery

Chair: Dr. David Sammons, External Advisory Board
Feed the Future Innovation Lab for Livestock Systems

The need for quality feed is increasing due to the rapid increase in demand for animal-source foods and the reduced availability of natural pastures. Models for market-driven feed delivery vary substantially in size, scope, and the types of feeds in question. Feed processing businesses range from microenterprises consisting of a chopper and mixer to much larger plants with sophisticated technology. Cooperative models are unique due to various factors, including perhaps having an easier supply of backward credit. Small-scale urban feed vendors fill a void particularly in the supply of fresh forages. Finally, pastoral lands present their unique challenges given their remoteness, strong reliance on natural pastures, dependence on semi-arid to arid areas, and difficult pathways to intensification. In this session, experiences with these delivery methods as well as tools for mapping feed resources and technologies will be reviewed, along with their strengths and challenges. Focus will be on fostering innovation in feed delivery and recommending research and development actions. The goal is to identify up to three research themes and three development solutions that should be addressed to improve the supply of quality livestock feed. The “what,” “where,” and “how” of each solution should be specified.

8.30 am Working Groups
1. Mapping resources and targeting technologies: Making the most of FEAST and TechFit
   • Presenter: Dr. Alan Duncan, ILRI
   • Responder: Dr. Nouhoun Zampaligre, INERA
2. Feed microbusinesses and processing plants
   • Presenter: Mr. Seyoum Bediye, ELAR and Ethiopian Animal Feed Industry Association
   • Responder: Mr. Beruk Yemane, Ethio Feed PLC
3. Feed supply through cooperatives
   • Presenter: Dr. Carl Birkelo, ACDI/VOCRA
   • Responder: Mr. Matthew Karugarama, Zamura Feeds – Rwanda
4. Urban forage vendors
   • Presenter: Dr. Elaine Grings, USAID
   • Responder: Dr. Getnet Assefa, ELAR
5. Feed reserves and transport to areas of need
   • Presenter: Dr. Lemma Gizachew, FAO
   • Responder: Dr. Michael Jacobs, Mercy Corps

10.00 am Coffee

Session V. Ways Forward

Chair: Dr. Michael Jacobs, External Advisory Board
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Whereas budgetary resources and policy attention for increasing the supply of quality feeds have been limited in the past decades, this trend is now being reversed in some countries. For instance, the 2015 Ethiopian Livestock Master Plan analyzed current and future trends in demand for livestock products, described feed and other inputs needed to meet the growing demand, and developed roadmaps for key value chains. Such detailed knowledge forms a valuable basis for the development of enabling policies for improving the supply of quality feed. In this final session, factors contributing to such enabling policy frameworks will be analyzed and discussed.

10.15 am Developing an enabling policy framework for ensuring the supply of quality feeds
Mr. Seyoum Bediye, Director, ELAR and Ethiopian Animal Feed Industry Association

12.15 pm Summary
Dr. Asamoah Larbi, Country Representative (Ghana), IITA; and External Advisory Board, Feed the Future Innovation Lab for Livestock Systems

12.30 pm Adjourn

12.30 pm Lunch followed by field trip (departure at 1.15 pm)
SPEAKER PROFILES
Dr. Solomon Mengistu is a senior researcher at the Ethiopian Institute of Agricultural Research (EIAR). Prior to his current role, Dr. Solomon was a forage genetic resources collector at ILRI (then ILCA) and travelled in eastern, central and western Africa for forage germplasm collection expeditions. Dr. Solomon has a PhD in Agricultural Resources and Environment from the University of Jordan and he has authored and co-authored articles and book chapters. His research interests include research project development and leadership in livestock and feed resources, crop/livestock integration, development of forage crop varieties and practices, technology adoption surveys including designing data collection tools and data analysis, and climate change impact assessment, mitigation and adaptation strategies. Prior to his current role, Dr. Solomon was a forage genetic resources collector at ILRI and travelled throughout Africa for forage germplasm collection expeditions.

Dr. Harinder P.S. Makkar is a private consultant and was formerly a Senior Animal Production Officer with the FAO. Before joining FAO in 2010, Dr. Makkar was Mercator Professor and International Project Coordinator of a Sino-German Project on ‘Fuel and Feed for Tomorrow’ at the University of Hohenheim, Stuttgart, Germany. He has published over 250 research papers and 8 books in the areas of bioactive compounds and their interactions with livestock, soil, plant and environment; biotechnologies in animal agriculture; use of unconventional feed resources as livestock feed; strategies for enhancing nutrient use efficiency in animal food chains; and generation of value-added products from coproducts of the biofuel industry. He obtained his MSc degree from the National Dairy Research Institute, India and his PhD from the University of Nottingham, UK. He has also worked for the International Atomic Energy Agency in Vienna for 7 years and for the Indian Veterinary Research Institute for 10 years.

Dr. Hadja Oumou Sanon is the Deputy Director of INERA. She has a PhD from the Swedish University of Agricultural Sciences and her research interests are fodder resources characterization, the improvement of fodder production, the promotion of fodder crops, and the valorisation of local resources in animal feeding including the use of fruit residues. She is also interested in the analysis of the production systems and the meat value chains. Dr. Sanon has several publications: about 20 scientific articles in peer-reviewed journals, 15 communications or posters presented at international conferences and a dozen of fact sheets. In addition to her research activities, Dr. Sanon contributes to the training of the students from the Universities and professional Schools in Burkina Faso, through courses and thesis supervision.

David Sammons, the retired Dean of the University of Florida (UF) International Center, holds a PhD (1978) in Agronomy from the University of Illinois and an AM in Biology from Harvard University. During his career he served as Director of International Programs in the UF Institute of Food and Agricultural Sciences, held an appointment as Senior Advisor for University Relations in the Office of Agriculture at USAID/Washington, served as Associate Dean and Director of International Programs in Agriculture at Purdue University, and was Professor of Agronomy at the University of Maryland. He spent a sabbatical as a Fulbright Senior Fellow at Egerton University in Kenya and has served on the Boards of both ICARDA and the World Vegetable Center. Dr. Sammons is currently Chair of the External Advisory Board of the Feed the Future Innovation Lab for Livestock Systems. A fellow of the American Society of Agronomy, he has authored over 170 scientific articles and seven books/book chapters.

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Dr. Asamoah Larbi is IITA’s Country Representative in Ghana and a Chief Scientist for the USAID-funded project on Africa Research in Sustainable Intensification for the Next Generation (Africa RISING), West Africa project, based in Tamale, northern Ghana. He holds a PhD from the University of Florida, Gainesville (1989) with a major in Forage Agronomy and a minor in Ruminant Nutrition, MSc in Animal Production and Forage Science (1982), and a BSc in Agriculture, Animal Production (1979). He has worked as a research scientist at the International Center for Agricultural Research in the Dry Areas (ICARDA), 2003 to 2012 based in Aleppo, Syria; and the International Livestock Research Institute (ILRI), then known as the International Livestock Centre for Africa (ILCA), 1989 to 2003 based in Addis Ababa, Ethiopia and Ibadan, Nigeria. Earlier in his professional career, he was a Lecturer at the Animal Science Department, University of Ghana (1982-1986), and an Animal Husbandry Officer (1979-1980) with the Ghana Ministry of Agriculture.

Kristen MacNaughtan is a Program Officer at the Bill & Melinda Gates Foundation. She leads the Nutritious Food Systems initiative for the Agricultural Development team, which is jointly owned with the Nutrition team. She joined the foundation in 2008 and has worked across a variety of topics on AgDev including ag-nutrition, livestock, ag-finance, extension and advisory services, roots-tubers-bananas (RTBs), post-harvest loss, and emergency relief. Prior to the foundation, Kristen worked in both the private and non-profit sectors. She holds an MS in International Development with a concentration in Nutrition & Complex Emergencies from Tulane University.

Mr. Matthew Karugarama currently serves as the General Manager of Zamura Feeds-Rwanda’s leading processor of animal feeds. As a young entrepreneur, Matthew leverages his vast experience gained at Tyson Foods as well as the skills gained from his studies in Economics at the University of Arkansas to ignite his passion for agri-business by attracting and managing large portfolios of ag investment in Africa. Matthew is passionate about agri-business because of the sector’s capacity to provide sustainable solutions to poverty while improving the food security situation in Africa. In his current role as General Manager at Zamura Feeds in Rwanda, Matthew implements the company’s vision of providing farmers with high quality, affordable livestock feed in order to increase their egg, meat and milk yields. As General Manager, Mr. Karugarama also approaches ag investment as an opportunity to build capacity in the protein value chain, support “farmer-preneurs” and create value by raising meat, egg and dairy productivity.

Dr. Dirk Maier’s research program focuses on post-harvest engineering applied to grain and feed operations and processing. Projects involve post-harvest loss reduction and prevention, food security, grain operations management, feed technology, post-harvest engineering (crop handling, drying, storage, processing, and loss prevention), value-added processing of agricultural crops and food/feed products, ecosystem modeling, stored products protection (IPM, fumigation), alternative crop storage systems (grain chilling, hermetic storage), dehydration of biological products, bulk material (grain, feed) handling and segregation (IP), quality assurance of agricultural crops and biological products, and facilities planning and design. Dr. Maier’s outreach program focuses on crop post-harvest handling, drying, storage, processing and loss prevention, global food and nutrition security, and continuing education and credentialing of industry professionals in the global grain and feed industry. He provides leadership to and teaches a number of distance courses in the GEAPS Continuing Education and Credentials Program.
Dr. Chris Jones is the Program Leader for Feed and Forage Development, which is a multidisciplinary research program involving a team of plant molecular biologists, physiologists and geneticists, and animal nutrition scientists. His work is directed towards accelerating the genetic improvement of feed and forage species in support of livestock production in developing countries. He has a PhD from the University of Dundee and has researched all aspects of plant biotechnology from academic to highly commercially driven projects. He Joined ILRI in July 2015 from the New Zealand Crown Research Institute, AgResearch.

Dr. Michael Jacobs is Chief of Party for the five-year Pastoralist Areas Resilience Improvement through Market Expansion (PRIME) project. By profession, he is a range ecologist with over 27 years of experience working with communities and institutions to identify and help resolve complex socio-environmental conflicts. He has published on plight of pastoralists in rangelands of Africa and the Middle East, is coauthor on the impacts of conflicts on biodiversity and protected areas and a management plan for Awash National Park, Ethiopia. His most recent positions involved resolving issues related to the extensive livestock production and rangelands for herders and farmers in Afghanistan as Chief of Party for the Pastoral Engagement, Adaption and Capacity Enhancement (PEACE) Project, and curriculum development for the John Garang Memorial University of Science and Technology (JG-MUST) Project in South Sudan.

Dr. Salissou Issa is an animal nutritionist and the Research Director of the National Institute of Agronomic Research of Niger (INRAN) where he has been working since 1992. He is also the Nutrition Team Leader of the Niger National Center of Specialization in Livestock (CNS-EL) for West Africa. He received his Master in Animal Biology from Cheikh Anta Diop University and his PhD in Animal Nutrition and Industry at Kansas State University. His research focus mainly on monogastric and ruminant nutrition, including cereals grains and forage processing, crops and livestock integration, fodder and animal product value chains, pasture restoration, invasive pasture weeds control and animal breed. In addition, Dr. Issa supervises graduate students and has published over 20 papers.

Dr. Jean Hanson is a Genetic Resources Specialist at ILRI. She has a PhD from the University of Birmingham (1975) and more than 35 years of experience in seed conservation and genebank management, mostly in developing countries. She has broad experience with conserving, studying, and using forage diversity and is currently project leader for forage diversity at ILRI. She has experience in development of training and knowledge tools and was involved in the development teams for the selection of forages for the tropics and crop genebank knowledge base tools. Dr. Hanson’s current research interests at ILRI include management of forage genetic resources, morphological and nutritional characterization, seed production, forage adoption, and knowledge sharing.
Faith Tarr joined USAID in 2014 as an AAAS Science and Technology Policy Fellow, International Agricultural Advisor, and Technology Scaling Advisor. She is currently based in Addis Ababa, Ethiopia, and previously served in Washington D.C. at the USAID Bureau for Food Security. Faith has a PhD in Plant Pathology from North Carolina State University, and managed food safety research and graduate student training during a post-doctoral position at the Emory University Rollins School of Public Health before joining USAID. Prior to her graduate studies, Faith gained private sector research and development experience in human and animal health and nutrition at Chr. Hansen, Inc. Faith’s loves of food, the natural world, and learning led her to the fields of agriculture and food safety. Her passion for sharing knowledge drives her to advance science to serve society, fostering evidence-based policy and practice for positive impacts on agricultural productivity, human, and environmental health.

BHOLA SHANKAR SHRESTHA

Heifer International Nepal
Kathmandu, Nepal

Bhola S. Shrestha, is a Senior Program Manager at Heifer International Nepal. He has an MS degree in Tropical Animal Production and Health from the University of Edinburgh, Scotland and his research interests are in Livestock Production Management and Animal Breeding. Prior to his current role, Mr. Shrestha was Senior Scientist and Division Chief of Animal Breeding Division, Nepal Agricultural Research Council. He has contributed mostly in genetic improvement of dairy animals in the country and currently working for productivity improvement through better nutrition management of dairy animals. He has co-authored books on Goat Production and published more than 30 papers in journal, national and international workshop proceedings and technical working papers. He has been awarded as “Most Outstanding Principal Investigator” in a Korean funded AFACI (Asian Food and Agriculture Cooperation Initiatives) project dealing with Animal Genetic Resources.

ELAINE GRINGS

United States Agency for International Development (USAID)
Washington D.C., USA

Dr. Elaine Grings is a Livestock Research Advisor with the United States Agency for International Development, Bureau for Food Security in Washington DC, where she began work in 2015. Prior to joining USAID, Dr. Grings was an Assistant Professor of Beef Cow/Calf Management at South Dakota State University. From 2007-2010, she served as a Livestock Scientist with the International Livestock Research Institute based in Ibadan, Nigeria. She also spent 16 years as an Animal Scientist with USDA-ARS at the Fort Keogh Livestock and Range Research Laboratory in Miles City, Montana. Dr. Grings’ research efforts have focused on forage and rangeland-based ruminant production systems. She holds a BS in Animal Science from the University of California, Davis, MS in Range Science from Colorado State University and PhD in Animal Science from Washington State University.

LEMMA GIZACHEW

Food and Agriculture Organization (FAO)
Addis Ababa, Ethiopia

Dr. Lemma Gizachew is a Livestock Production Officer at the FAO where he is engaged in crises time livestock emergency feeding, feed development and livestock production interventions geared to benefit farmers, agro-pastoralists, pastoralists, and the private entrepreneurs. In addition, he represents the FAO the country office in national networks and taskforces that focus on livestock feed and feeding systems. Prior to his current role, Dr. Gizachew was the Director of Livestock, Fishery and Apiculture Research Directorate of the Oromia Agricultural Research Institute (OARI) in Ethiopia. Dr. Gizachew has a BSc in Animal Sciences, a MSc in Tropical Agriculture, and a PhD in Grassland Sciences. For over 20 years, he has extensively researched on tropical pasture and forage crops and livestock feeding, and disseminated the research findings via on-farm works, workshops and widely read publications.

LEA FAITH BARTZ TARR

United States Agency for International Development (USAID)
Addis Ababa, Ethiopia

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Feed the Future Innovation Lab for Livestock Systems
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Dr. Adegbola (“Gbola”) Adesogan is the Director of the Livestock Systems Innovation Lab and a Professor of Ruminant Nutrition at the University of Florida. His research interests include sustainable improvement of livestock production, using animal-source foods to improve human health and nutrition, improving forage and feed quality, preservation and safety and using feed additives to enhance rumen digestion and the performance, health and welfare of livestock. Prior to his tenure at the University of Florida, he was an Assistant Professor of Animal Nutrition at the University of Wales, UK. He has served on the editorial boards of various Animal Science journals, mentored several PhD and MS students, and authored or coauthored over 200 scientific publications. He has received various awards for graduate student mentorship and his research as well as the 2017 Nilson Award for leadership.

Getnet Assefa

Ethiopian Institute of Agricultural Research (EIAR)
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Dr. Getnet Assefa is the Feed Resources and Animal Nutrition expert at EIAR. His research has focused on characterizing animal feed resources in Ethiopia and he has published numerous journal articles on livestock feeds. He is the lead author of the 2016 study titled “Animal feed resources Research in Ethiopia: achievements, challenges and future directions.” Dr. Assefa received his MSc from the Swedish University of Agricultural Science and his PhD from Humboldt University of Berlin, Germany. His research has focused on the evaluation of browse trees including quality and nutrition aspects as well as feeding performance.

Diriba Geleti

Ethiopian Institute of Agricultural Research (EIAR)
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Dr. Diriba Geleti is the Deputy Director General of EIAR. He received his BSc degree from the then Alemaya University, now Haramaya University, in Animal Science in 1986 EC, and has been serving in research management, forage and nutrition research coordination and research activities for the last 23 years. He completed his MSc study in Forage and Nutrition Science at Haramaya University in 1992 EC, and received his PhD in the same discipline from Addis Ababa University in 2006 EC. He has also attended several other training programs at various institutions during his career. During his tenure, Dr. Diriba has made an unreserved effort to share his knowledge and experience with his counterparts, and has authored/co-authored 4 books, 14 book chapters, 18 journal articles and some 50 other articles.

Gebregziabher Gebreyohannes

Ministry of Livestock and Fishery
Addis Ababa, Ethiopia

Gebregziabher was appointed State Minister for Livestock and Fishery in 2013. He has a profound experience in Ethiopia’s livestock sector. He has BSc and MSc degrees from Haramaya University. During his MSc studies, he was a graduate fellow in animal production at ILRI. After gaining research experience in animal production, he completed a PhD in dairy animal breeding at Kasetsart University. He has more than 25 years research experience, and he served in the Oromia and Tigray agricultural research institutes in different research and administrative positions. His most recent position was Director General of the Tigray Agricultural Research Institute. He joined the Board representing the Government of Ethiopia in November 2015.
FEKEDE FEYISSA

Ethiopian Institute of Agricultural Research (EIAR)
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Dr. Fekede Feyissa is the Livestock Research Director at the Ethiopian Institute of Agricultural Research (EIAR). He has a PhD in livestock production and management from the National Dairy Institute, India. Prior to his current role at EIAR he was a Senior Researcher at the Holetta Agricultural Research Center. Dr. Feyissa’s research interests are animal feeds and he has published or co-published over 50 scientific papers.

TESHAY GASHAW

International Livestock Research Institute (ILRI)
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Tsehay Gashaw is a knowledge sharing and web communications officer at the International Livestock Research Institute (ILRI). She has more than 15 years of extensive experience in knowledge management, group facilitation, strategic communication, change management, and monitoring and evaluation for agriculture and agricultural research in developing countries. Her comprehensive understanding of communications includes designing, implementation, and adaptation of knowledge management communication strategies and activities; promoting and supporting knowledge sharing and learning approaches; organizing, designing and facilitating co-creation processes both online and offline; designing and facilitating multi-stakeholder workshops and events; and managing and developing social media tools to support innovation processes and platforms. Tsehay holds a Master of Science in information systems management and development from American university of London and Bachelor of computer science from Addis Ababa University.

SEYOUM BEDIYE

Ethiopian Institute of Agricultural Research (EIAR) and the Ethiopian Animal Feed Industry Association
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Dr. Seyoum Bediye is a senior researcher at the Ethiopian Institute of Agricultural Research. Previously he was the Director of the Livestock Research Directorate under the Ethiopian Institute of Agricultural Research. Dr. Bediye was also formerly the Center Manager of the Holeta Research Center. He is a member of the Ethiopian Feed Industry Development Association and has published extensively on livestock production.

CARL P. BIRKELO

ACDI/VOCA
Addis Ababa, Ethiopia

Dr. Carl P. Birkelo is Chief of Party and lead technical specialist of the USDA Food for Progress supported Feed Enhancement for Ethiopian Development − Phase II (FEED II) project implemented by the U.S. based international development organization ACDI/VOCA. Feed II works to improve the lives and resilience of smallholder and agro-pastoralist households and expand livestock based opportunities through development of feed resources and improved animal nutrition. Dr. Birkelo received his BS degree at California State University − Chico and his MS and PhD degrees at Colorado State University. Previously, he was Associate Professor of Ruminant Nutrition at South Dakota State University and has worked for more than 30 years in commercial livestock production. Dr. Birkelo has worked in Ethiopia for over 8 years through the first and second phases of FEED and is currently managing the startup of Phase III.
Dr. Michael Blümmel is the Deputy Program Leader of Feed and Forage Development at ILRI in Ethiopia. He has a Dr. of Science and a Habilitation degree from the University of Hohenheim and more than 25 years of experience in teaching, development, research, and research management in Europe, US, Africa and Asia. Dr. Blümmel’s major research interests are feeding and feed resourcing at the interface of positive and negative effects from livestock, multi-dimensional crop improvement, crop-livestock interactions, and establishment of equitable feed and fodder value chains.

Dr. Tim Dalton is a Professor in the Department of Agricultural Economics at Kansas State University and the Director of the Feed the Future Innovation Lab for Collaborative Research on Sorghum and Millet. Dr. Dalton’s research and teaching focuses on international agricultural development in less developed countries around the world. He studies how new varieties of sorghum, rice, and maize affect food productivity, production risk management, and nutrition, as well as the impact of natural resource degradation—primarily soils and agricultural biodiversity—on agriculture and human well-being. Dalton has worked in Africa and southeast Asia. Dr. Dalton received his MS in Agricultural Economics from the University of Illinois at Urbana-Champaign and his PhD in Agricultural Economics from Purdue University.

Barry Bradford is a Professor in the department of Animal Sciences and Industry at Kansas State University. He received his bachelor’s degree at Iowa State University, and then went on to obtain his doctorate in animal nutrition at Michigan State University, where his research focused on metabolic regulation of feed intake in dairy cattle. In 2006, Bradford began his current position at Kansas State University with a 60% research, 40% teaching appointment. Bradford oversees an active research program focused on uses of alternative feedstuffs in dairy nutrition, transition cow health, and physiological regulation of carbohydrate and lipid metabolism. He also teaches over 185 students per year as an instructor in Fundamentals of Nutrition, Physiology of Lactation, and Dairy Cattle Nutrition.

Professor Alan Duncan is a Principal Livestock Scientist at ILRI and an associate of the University of Edinburgh’s Global Academy for Agriculture and Food Security. Dr. Duncan has a technical background in livestock nutrition, but in recent years has become interested in institutional barriers to livestock feed development among smallholder farmers. This has involved him in experimentation with the use of local innovation platforms to catalyze innovation to overcome system level blockages to improved livestock feeding. Dr. Duncan manages a range of research for development projects mainly focused on livestock feed issues. Within many of these he has developed and applied the use of simple participatory tools such as FEAST and Techfit to aid identification of appropriate feed development strategies in smallholder systems.
Dr. Adugna Tolera is a professor of animal feeds and nutrition at Hawassa University. He has a PhD degree in Animal Nutrition from Agricultural University of Norway. Adugna has had short term research experiences at Rowett Research Institute, UK, Langston University, USA and Norwegian University of Life Sciences, Norway. From December 2007 to September 2011, he worked for Texas A&M University as a Livestock Production Specialist for the Ethiopia Sanitary & Phytosanitary Standards and Livestock & Meat Marketing Program (SPS-LMM). From November 1, 2016 up to April 30, 2017 he worked as a senior researcher at Ethiopian Institute of Agricultural Research (EIAR) with key responsibilities of leading preparation of Animal Feeds and Nutrition Research Strategy. His research and development work experience focuses on animal feeds and nutrition, livestock production systems, feedlot design and management, feeding and management of meat and dairy animals, rangeland management and climate change.

Beruk Yemane did his post graduate study in Range Management, majoring in Range Nutrition from New Mexico University, New Mexico, USA. He has served in government with the former Relief and Rehabilitation Commission and Ministry of Agriculture in different positions. In addition, he has worked for Oxfam Great Britain, an international non-governmental organization, as senior pastoral program manager, coordinating national and cross border projects for ten years. In the last ten years, he has been managing a private commercial animal feed manufacturing company, specializing in innovative feed solutions.

Dr. Zampaligré is a rangeland management and livestock production systems INERA researcher hosted by CIRDES in Bobo Dioulasso. He holds an MSc in livestock nutrition from the Polytechnic University of Bobo Dioulasso and a PhD in agricultural sciences from the University of Kassel, Germany. He boasts solid grounding of the impacts of climate change on natural resource management and local adaptation to climate change in West Africa. Dr Zampaligré has published ten peer review articles in academic journals, including Environment Development and Sustainability, Journal of Agricultural Studies, Regional Environmental Change and the Journal of Animal Science. In 2013, he was awarded a junior postdoctoral grant by the Volkswagen foundation to pursue his research in Burkina Faso. He is currently involved in the Local Governance and Adapting to Climate Change in Sub-Saharan Africa project in Kenya and Burkina Faso funded by USAID.
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