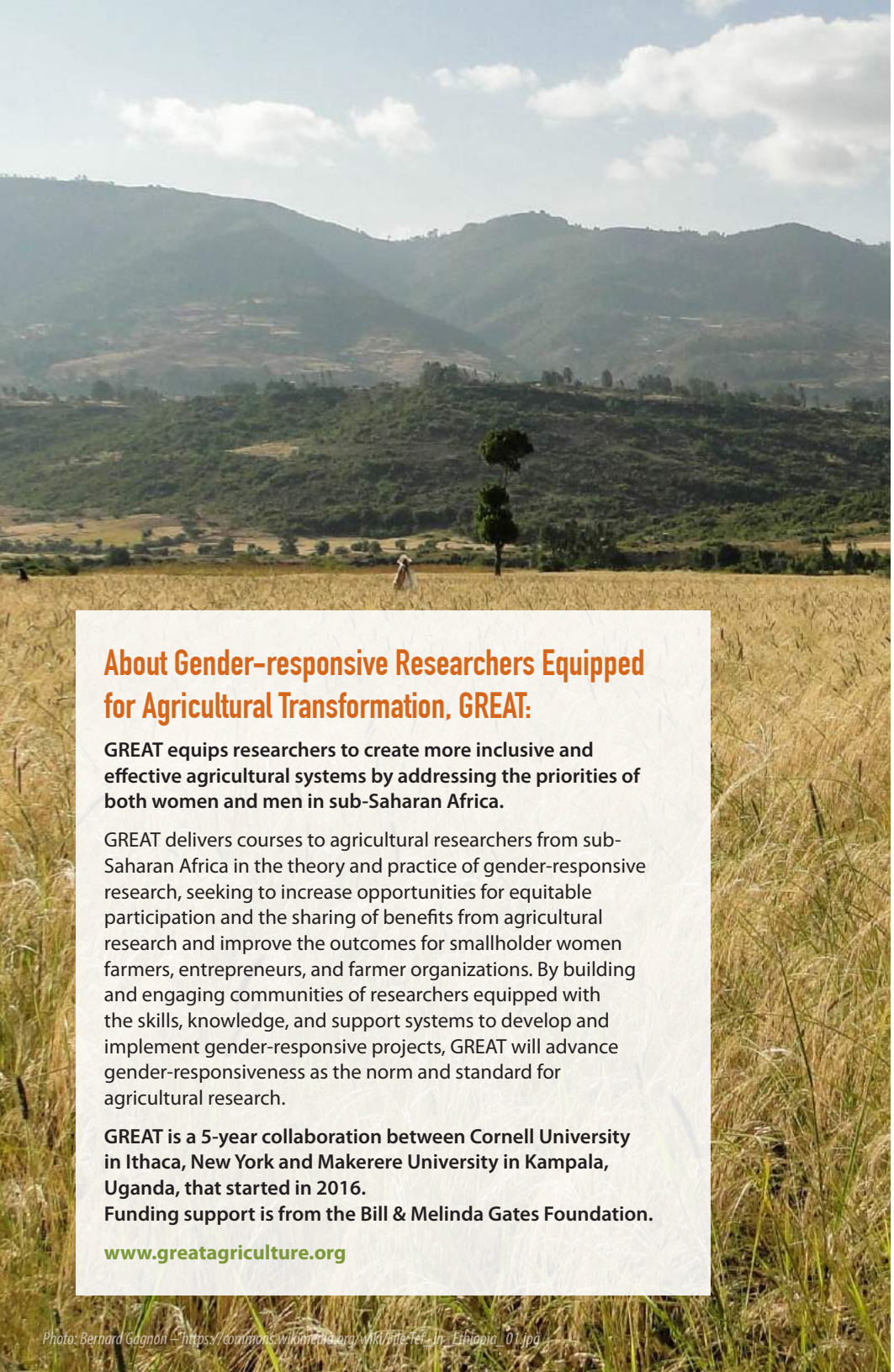
GREAT

GENDER-RESPONSIVE CEREAL GRAINS BREEDING COURSE

WEEK 1 | August 07-16 2017 **WEEK 2** | January 15-19 2018

GREAT
GENDER-RESPONSIVE RESEARCHERS EQUIPPED FOR AGRICULTURAL TRANSFORMATION



About Gender-responsive Researchers Equipped for Agricultural Transformation, GREAT:

GREAT equips researchers to create more inclusive and effective agricultural systems by addressing the priorities of both women and men in sub-Saharan Africa.

GREAT delivers courses to agricultural researchers from sub-Saharan Africa in the theory and practice of gender-responsive research, seeking to increase opportunities for equitable participation and the sharing of benefits from agricultural research and improve the outcomes for smallholder women farmers, entrepreneurs, and farmer organizations. By building and engaging communities of researchers equipped with the skills, knowledge, and support systems to develop and implement gender-responsive projects, GREAT will advance gender-responsiveness as the norm and standard for agricultural research.

GREAT is a 5-year collaboration between Cornell University in Ithaca, New York and Makerere University in Kampala, Uganda, that started in 2016.
Funding support is from the Bill & Melinda Gates Foundation.

www.greatagriculture.org

Photo: Bernard Gagnon - https://commons.wikimedia.org/wiki/File:Tef_In_Ethiopia_01.jpg

Welcome!

As co-leaders of the Gender-responsive Researchers Equipped for Agricultural Transformation (GREAT) project, we warmly welcome you to the GREAT Theme 2 course: Gender-responsive Cereal Grains Breeding, taking place over two separate sessions, on 07-16 August 2017, and 15-19 January 2018, in Kampala, Uganda.

We have a GREAT vision:

"To equip researchers to create more inclusive and effective agricultural systems by addressing the priorities of both women and men in sub-Saharan Africa."

The GREAT vision is based on a premise: That agricultural research projects are often designed with little consideration of how the research outputs, technologies and interventions will impact both men and women. Researchers are increasingly expected to design projects that deliver equitable outcomes, yet there is only limited or inappropriate gender training out there for agricultural researchers. Considering gender in research requires thinking differently, and not just applying tools. GREAT will not only teach participants how to use tools, but also how to change the way they look at their research, to be able to identify relevant gender research questions, or potential points of negative or positive impact for women and men, and how to address these.

What we strive for is changing researchers and research systems. If GREAT can change the agricultural research paradigm so that

gender is the lens through which all projects are conceptualized and implemented, research outputs will be more appropriate to the needs of both women and men farmers, and more widely adopted. Women will gain greater visibility and voice in agricultural research design and implementation.

All of this would culminate in increased benefits from agricultural research for men, women and children together.

The challenge in developing a truly applied gender training course for agricultural researchers bound GREAT proponents together, building a community of passionate supporters. We are indebted to the many visionary voices that have contributed intellectual input into the development of GREAT, and thank everyone who has generously devoted time, thoughts and resources to the GREAT vision.

Rhetoric around gender-responsive research is not new, but action and evidence is what is lacking. With GREAT intervention, we hope that the usual process of paying lip-service to gender without linking it to concrete commitments of time, budgets and personnel will change. Change is our greatest challenge. We hope you will join us as agents of change to implement this new vision of agricultural research to intelligently design research projects that maximize impact for all.

Thank you for joining the GREAT vision!

Hale Ann Tufan

Margaret Mangheni

INFORMATION ABOUT UPCOMING COURSES

GREAT Course 3: ***Gender-responsive Legume Breeding***, will be held at Makerere University in Kampala, Uganda, with a first session in July 23 - August 01, 2018 and a second session January 14-18, 2019.

Applications are due by February 15th, 2018. Information about applications and course details is available on the course website at:

www.greatagriculture.org/contentcourses/upcoming-courses

CONTENTS

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The GREAT Training Approach

The training has enriched my understanding of the practice of gender inclusion. It is not merely having women and men participating, it is considering the interaction between the two outside of the project, and identifying potential opportunities that we can use to achieve the goals of the project.

-Aman Bonaventure Omondi,
Epidemiologist and GREAT
Roots, Tubers and Bananas
Course Fellow

Photo: Glenn Carstens-Peters – https://stocksnap.io/photo/XMEJGCEFIM

What is the GREAT Approach?

GREAT combines theory and practice into a dynamic package, ensuring that learning is practical, grounded and applied. To do this, our courses are split into three parts:

PART ONE — **Week 1 Training:** Nine days of hands on training in applied gender theory and mixed methods research in Kampala, Uganda

PART TWO — **Field Work Phase:** Four months of field trainer-supported field practice, testing out mixed methods tools with participant team's own projects

PART THREE — **Week 2 Training:** Five days of follow-up training covering mixed methods data analysis and writing, communications and institutional change

*To broaden learning and deepen understanding, participants attend in **interdisciplinary teams**, combining biophysical scientists, like plant or animal breeders, with social scientists, like sociologists and economists. Sessions on mixed methods approaches are designed to strengthen skills for researchers from all backgrounds, and enable Fellows to fluidly communicate across qualitative and quantitative research disciplines. This enables more effective project management and development of more inclusive and effective technologies, which leads to **better adoption** and **enhanced outcomes** for farmers and consumers–both women and men.*

For research programs to be gender-responsive, researchers need to be effectively equipped to work in interdisciplinary settings. This doesn't mean that biophysical scientists need to become gender experts, or vice versa, but it does require a basic understanding of the gender research tools used for both qualitative and quantiative research.

The result: both groups are better able to speak each other's language, and develop technologies that are more inclusive and effective of everyone's needs, resulting in better adoption rates and greater impact.

Icons: flaticon.com; Devon Jenkins

Photo: Devon Jenkins

The GREAT Course Roadmap

PART ONE

Week 1 Training Makerere University

1. Self realization, conceptual clarity, and interdisciplinarity
2. Methodology: qualitative and quantitative
3. Research question and case study
4. Impact assessment and participatory methods

Gender-responsive research design

PART TWO

Field Work Phase Participant Field Sites

5. Research planning and field data collection

Gender-responsive research application

PART THREE

Week 2 Training Makerere University

6. Data analysis and reporting

Gender-responsive research analysis

7. Communication to policy makers and the communities

Gender-responsive research communication

8. Institutional transformation
9. Community of Practice

Gender-responsive research community building

Seed Grants

In Week 1 of the GREAT course, participants learn applied gender theory and develop their own mixed-methods research plans at Makerere University, in preparation for heading out to the field.

In Week 2, participants learn how to analyze and write up data collected from mixed methods research, and GREAT works with participants in strategies for effective communications, institutional transformation and building a community of practice.

At the close of Week 2, participant teams compete for seed grant funding to further data collection and publish case studies. Two Fellows from each course are also selected to receive further training and take on training roles with future GREAT courses.

Photos: Devon Jenkins

Participant Teams

 Photo: Devon Jenkins

Participant Team

Conservation of Local Crop Genetic Diversity: Unraveling the Dynamics and Challenges at the Smallholder Farm Level (Uganda)

Donor Agency:
The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)

Field Trainer:
Richard Miiro

Project Description:
This project aims to improve understanding of the dynamics and challenges of conservation of local sorghum and cowpea genetic diversity in Uganda. The team will explore the amount and distribution of genetic diversity of these crops and document on- and off-farm factors influencing maintenance of genetic diversity.

Thomas L. Odong, from Uganda, is currently a lecturer/biometrician at School of Agricultural Sciences, Makerere University. His areas of specialization include: research methods, applied statistics, plant genetic resources, statistical genetics and bioinformatics. He has over 14 years of experience in multidisciplinary research, teaching and statistical consulting. Thomas obtained his PhD in Statistical Genetics from Wageningen University in the Netherlands in 2012. He also held a post-doctoral fellow in the Laboratory of Bioinformatics at Wageningen University.

Martha Businge, from Uganda, is a master's student in Agriculture Extension and Education at Makerere University, and is engaged in research on sorghum genetic diversity, and farmers' contribution to availability of traditional sorghum varieties. She is motivated by a desire to better farmers' lives through extending information that can spur rural development, in addition to understanding the farmers' contextual realities.

Participant Team

Delivering Genetic Gain in Wheat (DGGW) (Ethiopia)

Donor Agencies:

The Bill & Melinda Gates Foundation, and the U.K. Department for International Development (DFID)

Field Trainers:

Hale Tufan

Maria Nassuna-Musoke

Project Description:

Delivering Genetic Gain in Wheat (DGGW) will mitigate serious threats to wheat brought about by climate change, and develop and deploy new strains of wheat that are heat tolerant as well as resistant to wheat rusts and other diseases. DGGW uses modern tools of comparative genomics and big data to develop and deploy varieties of wheat that incorporate climate resilience as well as improved disease resistance for smallholder farmers in these politically vulnerable regions

Abune Gudeta Regassa, from Ethiopia, is currently employed by the Ethiopian Institute of Agricultural Research (EIAR) in the Agricultural Extension Research program as a researcher at Kulumsa Agricultural Research Center (KARC). She has been nominated and selected as a Gender Research Focal Person by EIAR. Abune is passionate about creating knowledge that is open and accessible for all, to open a path for agricultural transformation. She has an MSc in Agricultural Information and Communication Management from Haramaya University, Ethiopia.

Habtemariam Zegeye Endalamaw, from Ethiopia, is currently employed by EIAR, and based at KARC, where the national wheat research program is coordinated. Habtemariam has been involved in wheat breeding for the last 10 years, in collaboration with regional CGIAR centers (CIMMYT and ICARDA), advanced international agricultural institutes and universities. He contributes to the release of wheat variety development for different agro-ecologies. Habte has an MSc degree in Plant Breeding and Genetics the from Hawassa University, Ethiopia.

Cherinet Kasahun Olana, from Ethiopia, is currently employed by EIAR, and has worked as a food science and nutrition researcher for the past three years at KARC. He has a BSc in Food Science and Post-harvest Technology from Hawassa University, Ethiopia.

Participant Team

Delivering Genetic Gain in Wheat (DGGW) Breeding Pipeline (Kenya)

Donor Agencies:

The Bill & Melinda Gates Foundation, and the U.K. Department for International Development (DFID)

Field Trainer:

Miriam Kyotalimye

Project Description:

Cognizant of the roles wheat breeding plays in providing seed of superior varieties, we're involved in making crosses or adopting crosses made by the CIMMYT global wheat program, through a systematic "shuttle breeding scheme." The goal is combining targeted traits and genes into desirable genetic backgrounds. Accordingly, as a team working with other subject matter specialists we select best plants from segregating populations (based on both phenotype and genotype), implement multi-locational testing to model variety adaptation and yield stability. Seed of superior varieties is then bulked and disseminated to merchants and farmers. The project also incorporates advisory and outreach activities to all our clients, mainly farmers cultivating small- to large-scale farms.

Godwin Kamau Macharia, from Kenya, works with the Kenya Agricultural and Livestock Research Organization (KALRO) as a wheat breeder, and is based at KALRO's Food Crops Research Centre-Njoro (FCRC-Njoro). In collaboration with other national, regional and international scientists, Godwin has been involved in wheat improvement for nearly 14 years. He considers the popular quote from Dr. Norman Borlaug, "take it to the farmer," as the driving spirit in his research, and recognizes that the surest and fastest pathway to success is inclusiveness. Godwin obtained his PhD in Plant Breeding and Genetics from the University of Minnesota, USA, in 2013.

Anne Gichangi Wanjogu, from Kenya, is currently employed by KALRO, and is based at FCRC-Njoro. Anna has for the past 7 years been involved in wheat socioeconomic, economic and marketing research in partnership with national, regional and international wheat scientists. She believes that dissemination, adoption of improved technologies such as improved varieties is key to varietal development research. Anne obtained her MSc in Agricultural Economics from Egerton University, Kenya, in 2010.

Bernice Ngina Waweru, from Kenya, is currently employed by KALRO, and is based at FCRC-Njoro. Bernice has worked with KALRO since 2010 in various capacities, and is currently working as a molecular breeder under the current cereal breeder at the center, Dr. Godwin Macharia. She believes that by embracing technology and practicing sustainable agriculture, food security for all will be achieved in her country. She recently attained her MSc in Plant Breeding and Biotechnology from The University of Eldoret, Kenya.

Participant Team

Determining the Effectiveness of Host Resistance, Intercropping, Imazapyr and Fertilizer Application Towards Striga Control in Maize (Uganda)

Donor Agency:
The World Bank

Field Trainer:
Sarah Mayanja

Project Description:

Maize, the most important food and income security cereal crop in Uganda, faces serious productivity threats by Striga. Yield losses attributed to Striga infestation exceed 70%, especially when combined with other biotic and abiotic constraints such as drought, nitrogen, and pest or disease stresses. This results in food insecurity at the household level, primarily affecting women and children, who are responsible for growing food for home consumption in most Striga-infested areas. This study is evaluating several Striga mitigation measures – including host plant resistance, where new Striga resistant lines have been developed; intercropping maize with legumes; maize seed coating with Imazapyr herbicide; and soil fertility amendments –with a goal of identifying gender-responsive technologies that are appropriate to farmer conditions.

Godfrey Sseruwu, from Uganda, is currently employed by the National Agricultural Research Organization (NARO) and based at Mukono Zonal Agricultural Research and Development Institute (MUZARDI). Godfrey obtained his PhD in Plant Breeding from the University of KwaZulu-Natal, South Africa in 2014 and is currently a cereals breeder involved in maize breeding with 8 years experience. He conducts his research in partnership with scientists at national, regional and international levels. He emphasizes development of varieties with consumer-preferred traits through participatory variety selection.

Damalie Babirye Magala, from Uganda, is currently employed by NARO and based at MUZARDI. Damalie is a social research and development professional, with over 15 years experience in strategic, adaptive and applied research in agriculture and rural development. She regards the importance of engagement of diverse actors as a key driver for stimulating innovation and creativity among rural communities, especially women. Damalie is pursuing a PhD in Agricultural and Rural Innovations, at Makerere University, Uganda.

Participant Team

Developing Maize Varieties and Hybrids Tolerant to Multiple Stresses (Ghana)

Donor Agency:

Stress Tolerant Maize for Africa (STMA), under the Bill & Melinda Gates Foundation

Field Trainer:

Margaret Mangheni
Lilian Nkengla

Project Description:

This project seeks to develop high-yielding stable maize varieties and hybrids that are tolerant to multiple stresses (abiotic and biotic). The project will help farmers in mitigating challenges resulting from stress-related constraints. With gender consideration, preferred traits and varieties that meet the needs of smallholder farmers and consumers would be bred and disseminated.

Priscilla Francisco Ribeiro, from Ghana, obtained her PhD in breeding from the University of Ghana in 2016. For the past 10 years she has been employed as a research scientist at Council for Scientific and Industrial Research-Crop Research Institute (CSIR-CRI), Ghana, where her roles include application of biotechnology tools in plant breeding activities and maize breeding. Priscilla's current research focus is on breeding maize varieties that are tolerant to biotic and abiotic stresses. She is motivated by the need to help farmers increase their yield and improve their livelihood through developing stress tolerant maize varieties.

Eyram Natson Amengor, from Ghana, is an employee of CSIR-CRI. He has been working as a Research Scientist/Economist with the Institute for about 5 years, collaborating with researchers nationally, regionally and internationally. He believes that climate-smart and adapted technologies with gender considerations have the ability to make Ghana, Africa, and the world food secure. He obtained a Master of Arts degree in Economics in 2012 and is currently searching for a PhD scholarship for further education.

Participant Team

Development and Dissemination of High Yielding, Disease Resistant and Consumer-Preferred Rice Varieties for the Lowland and Upland Ecologies of Ghana

Donor Agency:
The Alliance for a Green Revolution in Africa (AGRA)

Field Trainer:
Grace Bantebya

Project Description:
This project focuses on the development and dissemination of rice varieties to farmers. The project will help develop and disseminate new rice varieties across Ghana through organizing stakeholder meetings, producing fact sheets, and conducting field demonstrations and interviews. The project also aims to help entrepreneurs improve seed production techniques, aiding in the distribution of new seed varieties across the country.

Maxwell Darko Asante, from Ghana, is a Senior Research Scientist at the Council for Scientific and Industrial Research-Crops Research Institute (CSIR-CRI) in Ghana. He has been involved in rice breeding at the Institute since 2004. Maxwell is currently breeding for high-yielding, disease-resistant and consumer-preferred rice varieties for the lowland ecologies of Ghana. His passion is to develop rice varieties that will have a great impact on the rice industry in Ghana, and move the country from the current 40% to 100% self sufficiency. Maxwell obtained his PhD in Plant Breeding from the West Africa Centre for Crop Improvement (WACCI), University of Ghana, in 2012.

Bright Owusu Asante, from Ghana, is a Research Scientist currently employed at CSIR-CRI. He has over the past eight years been involved in agricultural development projects aimed at enhancing technology adoption, productivity and livelihoods of smallholder farmers in Ghana and across West Africa. His research interests are in agricultural and resource economics; gender mainstreaming; efficiency and productivity analysis; adoption and impact. Bright has a PhD in Agricultural and Resource Economics from the University of New England, Australia.

Participant Team

Extension of Hybrid Maize Varieties and Multiplication of Foundation Maize Seeds in Burundi

Donor Agency:
The International Fund for Agricultural Development (IFAD)

Field Trainer:
Adeline Muheebwa

Project Description:

Maize is the most important cereal both in terms of total annual production and total area sown. It is practically cultivated in all the agro-ecological zones of Burundi. Due to its high allogamy, maize production decreases year by year due to lack of knowledge of appropriate breeding techniques. In Burundi, research has developed varieties adapted to different agro-ecological zones, but unfortunately these are not widely distributed in rural areas. The main objective of this project is to increase the maize yield in terms of quantity and quality, and to improve extension of new hybrid maize varieties and the multiplication of foundation seeds, especially focusing on the lack of improved maize seeds of Open Pollinated Varieties (OPVs).

Immaculée Abingoye Mayugi, from Burundi, is currently employed by Institut des Sciences Agronomiques du Burundi (ISABU), and is based in Bujumbura. For the past seven years she has been involved in a socio-economic programme, and believes that the involvement and implication of women in agriculture practices from the field to the office is a major key to Burundi's future development. She obtained her MSc in Research Methods from Jomo Kenyatta University of Agriculture and Technology, Kenya in 2017.

Espérance Habindavyi, from Burundi, is currently employed by ISABU in the Crop Production Programme. Based in Bujumbura, Espérance Habindavyi has for the past 15 years been involved in the Institute's cereal research programme, in partnership with national and regional researchers. Nowadays, her research interest is centered on varieties of cereals that have characteristics to resist to drought. Espérance Habindavyi obtained her MSc in Environmental Sciences and Biodiversity Management from Uppsala University, Sweden in 2009.

Participant Team

Improving Food and Livelihood Security in East Africa Using Multiple Stress Tolerant Sorghum Cultivars (Kenya / Uganda)

Donor Agency:

The McKnight Foundation

Field Trainers:

May Sengendo

Losira Nasirumbi–Sanya

Project Description:

This project's goal is to use sorghum as a catalyst for agro-ecological intensification to improve crop and livestock productivity for enhanced food and nutritional security in Kenya and Uganda. The focus region has expansive semi-arid agroecological zones, with fragile agricultural production systems conditioned by drought, low soil fertility, acidity, and low-input traditional labour. Significant areas of this region are suitable for sorghum production, but in many cases farmers grow maize, leading to poor yields and often total crop failures – creating serious food and nutritional insecurity. To address this problem, the project will explore the use of multiple-stress-tolerant sorghum with smallholder farms.

Moses Biruma, from Uganda, has over 10 years' experience in agricultural research and development. He attained his MSc in Crop Science and PhD degrees from Makerere University, Uganda. Currently, Moses is working at the National Semi Arid Resources Research Institute (NaSARRI), Serere, one of the public agriculture research Institutes under the National Agriculture Research Organisation (NARO) umbrella. Moses is a team player with vast experience in implementing collaborative donor research projects, has excellent working relationships with NARS, regional organisation/networks and international agricultural research centres (IARCs). Moses has expertise in crop protection, biotechnology and molecular breeding.

Hellen Opie, from Uganda, is employed by the NARO and based at NaSARRI. Hellen has for the past four years been working as a socio-economist in dryland cereals, as well as other important dryland crops resources. She is passionate about participatory research processes as a means to enhance the uptake of research outputs. Hellen obtained an MSc in Development Economics from Wageningen University, the Netherlands, in 2011.

Beatrice Sadina, from Uganda, works for NARO, based at NaSARRI. Beatrice has been involved in development and dissemination of soil fertility management technologies in the semi-arid parts of Uganda for the last four years, in partnership with national and regional scientists. She regards development of sustainable appropriate soil and water management approaches for food security as the main agenda. Beatrice has a BSc in Agricultural Land Use and Management, and an MSc in Soil Science, both from Makerere University, Uganda.

Participant Team

Improving Maize Productivity by Drought Management in Tanzania

Donor Agency:

The Innovative Agricultural Research Initiative (iAGRI)

Field Trainer:

Brenda Boonabaana

Project Description:

In both developed and developing nations, drought is the most important abiotic stress in maize, constraining and destabilizing maize grain production, and drought tolerance is one of the most important varietal selection criteria farmers consider. Frequent drought is particularly problematic for tropical and sub-tropical maize in Sub-Saharan Africa. Globally, annual drought-induced yield losses are thought to average 15% of yield potential, equal to 120 million tons of grain. Effective solutions are of utmost importance especially as the situation is set to worsen as climate change progresses. While improved resistant varieties are the most relevant intervention in the long run; powerful optimization of both maize genetics and Integrated Crop and Pest Management (ICPM) for maize would enhance control of the problem in both the short and medium terms.

Andrew Kachiwile, from Tanzania, is currently employed by the Ministry of Agriculture, Livestock and Fisheries (MALF) in Dar es Salaam. Andrew has for the past nine years been involved in cassava and maize breeding in partnership with national, regional and international scientists. He regards development of sustainable technologies like new varieties as key to future farming development due to environmental changes. Andrew obtained his MSc in Crop Sciences major in Plant Breeding from Sokoine University of Agriculture, Tanzania in 2014.

Jackline Shayo, from Tanzania, is an agricultural economist working with Ministry of Agriculture, Livestock and Fisheries. Jackline works with farmers and help them to improve production and productivity. She is also conducting social studies on the impact of research technologies, commodity value chain analysis and market research. Jackline has participated in various national and international gender activities through Kilimo Trust, AWARD and AfricaRice. Jackline likes to share her technical experiences with youth and women to waken up entrepreneurial spirit with agricultural value chains.

Participant Team

Research and Development Project for Food Security and Adaptation to Climate Change (Niger)

Donor Agency:

The McKnight Foundation, and the Government of Norway

Field Trainer:

Anne Rietveld

Project Description:

The main goal of the project is to improve food security and quality nutrition for smallholder farmers. Furthermore the project activities seek to reduce participant risk while improving their capacity to cope with climate change. This will be done in a participatory manner by taking advantage of existing agricultural research results and those to be developed during the project's life span. The project will be focused in areas where these cereals are largely cultivated. Pearl millet represents the primary staple food grain, and constitutes the bedrock of food security in Niger, where it is alternatively used as a processed food, and feed for animals and poultry. Pearl millet is the principal source of income for small-scale Nigerien farmers. Irrigation production systems will also be examined.

Ahmadou Issaka, from Niger, holds a PhD in plant breeding from the West African Centre for Crop Improvement (WACCI), University of Ghana. He is a senior scientist with 15 years' experience as a pearl millet breeder at the National Agricultural Research Institute of Niger (INRAN). The crop represents the first staple food grain and constitutes the bedrock of food security in Niger, where it also represents the principal source of income for small-scale farmers. Food security is a major issue in Niger, with a population growth exceeding food production, and limited land favorable for agriculture. Ahmadou is interested in participatory plant improvement for increased grain yield and disease resistance - a high priority in breeding to provide food security.

Germaine Ibro, from Niger, holds a PhD in Production Economics from the University of Ouagadougou, Burkina Faso, and has worked with INRAN since 1986. Her research area involves several gender-related topics, such as women's entrepreneurship in cowpea and rice processing, technology adoption, and program evaluation focused on women's engagement in agriculture.

Participant Team

Spring Bread Wheat Production Among Vulnerable People within Internally Displaced Persons' (IDPs) Camp in Maiduguri, Nigeria

Donor Agency:
Lake Chad Research Institute (LCRI)

Field Trainer:
Peace Musiimenta

Project Description:
This project will explore the possibilities of improving gender equality and equity through wheat production. Particularly, this project will examine the use of wheat production as a tool for improved gender relations for people in an Internally Displaced Persons' (IDPs) Camp in Northeastern Nigeria.

Kachalla Kyari Mala, from Nigeria, has a master's degree in Genetics and Crop Breeding from the University Of Maiduguri, Nigeria, and is currently pursuing a PhD in Genetics and Crop Breeding from the same university. He works in the National Agricultural Research Institute as a research officer. The institute has, among other things, the national mandate for genetic improvement of wheat, barley, and pearl millet. Kachalla's research is aimed at developing high-yielding, early-maturing, heat-tolerant, pest- and disease-resistant varieties with specific adaptation to different ecological zones of Nigeria.

Jidda Abba Tamin, from Nigeria, has a master's degree in Public Administration from University Of Maiduguri, Nigeria. He currently works at the Lake Chad Research Institute (LCRI), in Maiduguri, as an Administrative officer. The institute has among other things, the national mandate of genetic improvement of wheat, barley, and pearl millet. His services include providing administrative support and rural sociology towards achieving the mandate of the institute.

Participant Team

Stress Tolerant Rice for Africa and South Asia (STRASA) (Tanzania, Madagascar)

Donor Agencies:

The Bill & Melinda Gates Foundation, and the International Rice Research Institute (IRRI)

Field Trainer:

Lori Leonard

Project Description:

STRASA in Sub-Saharan Africa covers 18 countries with the goal to increase rice yields of poor farmers by 50% and incomes by 15% through the provision of seeds of stress tolerant rice varieties and improved capacities. The main stresses covered by the project are drought, submergence, salinity, iron toxicity and cold. The project applies recent advances in genetics and breeding in the development of tolerant rice varieties for increasing yields so that the rice producers can improve production and substantially improve their livelihoods. In addition, this project aims to build the capacity of researchers and seed producers and promote the exchange of elite germplasm. Furthermore, the project identifies the regions where stress-tolerant varieties have maximum impact and develops a network for seed production and adoption.

Gaudiose Mujawamariya, from Rwanda, specializes in rice value chain economics and currently acts as the gender focal person for AfricaRice. Here, she leads the value chain and general socio-economic research, including gender studies in Eastern and Southern Africa, for the purpose of identifying priority areas for R&D and impact pathways. Specifically, she conducts strategic and applied economics research (in relation to institutions and market organisation). Her motivation is to really achieve food security and attain sustainable development for all. Gaudiose obtained her PhD in Development Economics from Wageningen University, Netherlands in 2012.

Negussie Zenna, from Ethiopia, is working for the AfricaRice Center, a pan-African organization and a center of excellence for rice research in Africa. His current activities involve rice breeding for African highland ecologies, and he works in collaboration with national and international rice research institutions. Negussie believes partnership and inclusive research is a way forward for sustainable agricultural development and food security. He trained as a rice breeder at the University of the Philippines, and conducted his PhD research at the International Rice Research Institute (IRRI) in the Philippines, and graduated in 2007.

Individual Participants

Agricultural Transformation for Formerly Displaced Communities in Northern Uganda

Donor Agency: N/A

The project aims to conduct a gender analysis of the reconstruction process in post-conflict areas in Northeastern Uganda, giving specific importance to young people in the return areas. It will examine whether and how gender influences access to resources, and the use of humanitarian and recovery assistance among the formerly displaced youth.

Flavia Victoria Namuggala, from Uganda, is a Lecturer at the School of Women and Gender Studies, Makerere University. She holds a doctoral degree in Gender Studies from Arizona State University. Victoria's research interests revolve around youth and violence. Currently she is focused on the reconstruction process in Northern Uganda following a two-decade civil armed conflict. In her work, she is motivated by the desire to end oppression, discrimination and exploitation especially that which is anchored in gender, with an overall goal of promoting social transformation towards gendered social justice. During the GREAT course Victoria will collaborate with the *'Conservation of Local Crop Genetic Diversity – Unraveling the Dynamics and Challenges at Smallholder farm level'* team.

Impact of Gendered Production on Maize Productivity in Uganda

Donor Agency: The World Bank

The project will evaluate the roles of gender in improving cereal production in Mid-West and Northern Ugandan in the districts of Masind, Lira and Arua. The focus will be smallholder farmers involved in maize production for the last five years. The team will conduct focus group discussion, key informant interviews and individual household interviews using checklists and questionnaires. The project will use these activities to explore questions such as: what activities are disaggregated by gender in cereals production? How is time use different by gender in cereal production? What factors affect cereal production by different gender categories?

Stephen Angudubo, from Uganda, works with the National Crops Resources Research Institution (NaCRRI) in Namulonge, under the umbrella of the National Agricultural Research Organization (NARO). Stephen is an agricultural economist with three years of socioeconomic research experience within the paradigm of agricultural research. He regards the evaluation of impact and return on investment as crucial in agricultural research, technology dissemination, and adoption to increase household incomes and livelihoods. Stephen is currently completing an MSc in Agricultural and Applied Economics at Makerere University, in collaboration with the University of Pretoria, South Africa. During the GREAT course Stephen will collaborate with the *'Determining the effectiveness of host resistance, intercropping Imazapyr and fertilizer application towards Striga control in maize'* team.

Trainers & Resource Persons

GREAT brings together experts from a wide array of disciplinary backgrounds and professional experience. Having such a rich diversity of knowledge, skills and experiences together on one team allows us to offer GREAT course participants a truly unique training, and provide top-notch mentoring and support during the field research portion of the GREAT program.

Photo: Devon Jenkins

Trainers & Resource Persons

Adeline Muheebwa is a gender and development consultant, a chairperson of AUPWAE, and a bronze medal winner for the first ever "Create and Cook with Tooke Flour" competition. Adeline's passion is to inspire individuals, especially women and youths, to discover their purpose, restore their dignity and creatively use their potential for a fulfilling livelihood. She previously worked with ASARECA, a regional organization represented by 11 member countries. Prior to this, Adeline worked as a development practitioner with USAID, IFAD, Chemonics Inc, ILO and Winrock projects.

Anne Rietveld is a researcher and gender focal point for the CGIAR Research program on Roots, Tubers and Banana, based at Bioversity International, and has a degree in International Development Studies from Wageningen University, with a focus on Rural Sociology and Farming Systems Research. Her current research centers on gender roles, relations and norms in the East and Central African highlands.

Brenda Boonabaana is a Lecturer at Makerere University, Gender and Development Researcher and trainer, and has a PhD in Tourism, Development and Gender from the University of Otago. She is a Fellow of the African Women in Agricultural Research and Development (AWARD) and the International Food Policy Research Institute (IFPRI) under the GAAP2 project.

Cheryl Doss is a Senior Lecturer in Development Economics at the University of Oxford, and leads the Gender Flagship for the CGIAR Program on Policies, Institutions and Markets led by the International Food Policy Research Institute (IFPRI). She has published and consulted extensively on issues of gender and agriculture. Her research also focuses on methods of collecting sex-disaggregated data for gender analysis, with an emphasis on women's access to and ownership of land and other assets. She has a PhD in Agricultural Economics from the University of Minnesota.

Devon Jenkins is an agricultural development and communications specialist based at Cornell University. His background covers over 13 years of international and community development experience, with a focus on sustainable agriculture and holistic community development, and includes extensive work in West Africa. As part of the GREAT project support team, Devon works on communications and project management. He has a master's degree in International Agriculture and Rural Development from Cornell.

Elizabeth Asiimwe is an agricultural extension professional with an MSc in Agricultural Extension Education. Currently, she works at Makerere University as a project administrative and financial support officer on the GREAT project. She is also a part–time tutor at Makerere, where she teaches in-service secondary school teachers of agriculture. Elizabeth's work experience ranges from promotion of agricultural inputs in the private sector to research and research / communication work in academic and CGIAR institutions, respectively. Her research interests include gender, agriculture, human nutrition and adult learning.

Trainers & Resource Persons

Eva Weltzien is a freelance consultant whose research focused on the effective use of sorghum, pearl millet and barley genetic resources for variety development and seed systems that best meet women and men farmers' needs in dryland areas. She coordinated research on sorghum improvement in West-Africa for ICRISAT for 17 years, focusing on methodologies for participatory plant breeding and enhancing local seed systems. In 2015 she was awarded the 'Justus von Liebig Prize for World Nutrition', jointly with her husband Fred Rattunde. She received her Doctorate degree from the Technical University of Munich, Germany.

Godfrey Kayobyo is a socio-economist based in Uganda, who works as a consultant with Nkoola Institutional Development Associates (NIDA). His work has included research briefs and impact assessments for the International Food Policy Research Institute (IFPRI), Opportunity International, Uganda's national agricultural advisory services (NAADS), CTA and others.

Grace Bantebya is a Professor of Women and Gender Studies in the School of Women and Gender Studies at Makerere University. She is a distinguished social anthropologist and an experienced trainer/ lecturer, researcher and advocate for gender equality and social transformation. Grace has done extensive research in poverty and social exclusion, gender poverty and social transformation, transforming the lives of young women and girls. She has published widely, most recent being a book entitled "Women, Work and Domestic Virtue in Uganda" which got an award from African Studies Association. Grace is a Fellow of the International Women's Leadership Forum.

Hale Ann Tufan is Principle Investigator of the GREAT project. A molecular biologist by training, she has worked for the John Innes Centre, CIMMYT, and the University of East Anglia, School of International Development. Hale joined International Programs, Cornell University in 2012 to manage the NEXTGEN Cassava project, for which she developed the NEXTGEN Cassava "Gender-Responsive Cassava Breeding" initiative to capture needs, priorities and challenges women and men face in cassava production, to prioritize gendered traits in breeding program design and implementation.

Jaron Porciello is the Associate Director of Research Data Engagement and Training in International Programs, College of Agriculture and Life Sciences, Cornell University. As an information science researcher she is interested in how we collect, curate, and use data to solve problems and as well as how to build a culture of data sharing across international science collaborations. She is responsible for curating GREAT's resource hub and will be working with the group on online collaboration and group work. Jaron brings more than seven years of academic experience, and holds Masters degrees in Library and Information Sciences, and English, from Indiana University.

Josephine Ahikire is Dean of the School of Women and Gender Studies and an Associate Professor of Gender Studies at Makerere University, and is Executive Chair of the Centre for Basic Research (CBR), a leading research centre in Kampala. Josephine has worked extensively in feminist political theory and has published works on women and politics, labour and urban culture. She is an active member of the Uganda Women's Movement and is also member of regional bodies such as the Council for Development of Social Science Research in Africa (CODESRIA) and the African Gender Institute (AGI) University of Cape Town.

Trainers & Resource Persons

Lawrence Lubyayi is a statistician with over 8 years' experience in data management, analysis, synthesis and dissemination; health systems research; social and public health evaluation research. Lawrence has a Master's degree in Statistics (Specialization-Biostatistics) from the University of Hasselt, Belgium, and international experience in Belgium and in the African context, particularly in Uganda. His has worked with global donors including PEPFAR, NIH, ICER, IFPRI, DFID, Global Fund for Children and USAID.

Lilian Nkengla is a Research Associate at IITA in Cameroon who leads the gender aspects for a breeding project in West and Central Africa. She participates in the development of gender protocols and gender-responsive management for data collection and qualitative research. Lilian studied Women and Gender Studies as an undergraduate and holds a PhD in Gender and Natural Resource Management from Brandenburg University of Technology, Cottbus-Senftenberg, Germany. She is a GREAT Fellow from Theme 1, a GREAT Sub-Saharan Africa Gender Specialist Fellow, and a member of the GREAT Community of Practice Advisory Board.

Lori Leonard is an Associate Professor in the Department of Development Sociology at Cornell University and Director of the Polson Institute for Global Development. She teaches courses on gender and development and was a long-time board member of the Program for the Study of Women, Gender and Sexuality at the Johns Hopkins University. Gender and the gendered impacts of development projects are cross-cutting themes in her research, which is based primarily in Chad.

Losira Nasirumbi-Sanya is a social and development research professional with over 10 years of adaptive and applied research experience. She holds an MS in Agricultural Economics and a BA in Social Sciences from Makerere University, Uganda, and is currently pursuing a PhD in Agricultural and Rural Innovation. Losira is a GREAT Fellow from Theme 1, a GREAT Sub-Saharan Africa Gender Specialist Fellow, and a member of the GREAT Community of Practice Advisory Board

Margaret Mangheni is the Co-Project Leader for GREAT, and an Associate Professor at Makerere University. She has over 10 years of practical experience supporting integration of gender into higher education, and successfully spearheaded the integration of gender into the agriculture curriculum at Makerere. Margaret has conducted research and short-term consultancy projects with: the Rwanda Agricultural Board, Uganda's National Agricultural Research Organization, ASARECA and RUFORUM, focusing on gender responsiveness of project proposals, gender training, evaluations, project design, and institutional analysis. She is also a member of the international advisory committee of a USAID-funded project on integrating gender and nutrition into agricultural extension and advisory services.

Margaret Smith is a Professor of Plant Breeding and Genetics at Cornell University, focused on corn breeding. Her research is focused on enhancing our understanding of corn adaptation to marginal environments (in the US and internationally), and developing genetic materials that will improve corn productivity and sustainability in such environments. Her research includes understanding the genetics of and genetic variability for improved performance under marginal conditions, developing better selection methods, exploring sources of novel genes to improve key productivity and sustainability traits, and developing and releasing germplasm sources.

Trainers & Resource Persons

Maria Nassuna-Musoke has worked extensively across Africa facilitating change processes since 2003, and is currently involved in facilitation for team building, strategic planning, process documentation, and project monitoring and evaluation. She has a PhD from the Institute of Crop and Animal Production in the Tropics and Subtropics, University of Göttingen, Germany. Maria also has an MSc in Animal Reproductive Physiology from James Cook University, and a Bachelor of Veterinary Medicine degree from Makerere University.

May Sengendo is currently serving as Academic Staff at the School of Women and Gender Studies, College Of Humanities and Social Sciences, at Makerere University, Kampala, Uganda where she is actively participating in academic and community initiatives to address gender and development issues from an African perspective. Her work has a national and international outlook and includes teaching; research, publication and dissemination; outreach, networking and advocacy; and gender mainstreaming. May seeks to contribute to development in Uganda and the region at large through ensuring that gender is an integral part of the development process.

Miriam Kyotalimye is a Program Assistant at the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), and is based in Uganda. Her work as ASARECA includes agricultural policy support for the Policy Analysis and Advocacy Programme (PAAP). Prior to working at ASARECA, Miriam worked with the International Food Policy Research Institute (IFPRI), and she continues to publish with them on agricultural policy. She has an MSc in Agricultural Economics from Makerere University.

Ogara Collin is currently Head of Research and Learning at ACODEV. He worked at Africhild as a Research Associate, Share Uganda as a Project Manager, Global Hands of Hope as a Programs Manager, Research Coordinator at Sanyu Africa Research Institute (University of Liverpool), Lecturer at Nkumba University, Advocacy Coordinator at Children of the World Foundation and Program Manager at Uganda Orphans Rural Development Program. Mr. Ogara is a master trainer and vendor for ATLAS.ti.

Peace Musiimenta is a Lecturer at the School of Women and Gender Studies, Makerere University, Uganda, and holds a PhD in Gender Studies. She is an experienced gender analyst, mentor, trainer and researcher in women, gender and socioeconomic development issues (gender equality, equity and development; Gender Equity Budgeting; gender analysis and alternative transformative leadership) at both national and international levels.

Richard Miiro, a Senior Lecturer, trainer, facilitator and researcher at Makerere University, is passionate about gender integration. His work involves promoting gender equity and learning in a sweet potato-through-schools project, and he is engaged in an IDRC-funded project assessing the capacity of agricultural researchers to conduct gender-responsive research in Rwanda and Uganda. Previously he worked promoting gender with the Grameen Foundation's Community Knowledge Workers initiative.

Sarah Mayanja is a Research Associate at the International Potato Center in Uganda, and Deputy Project Leader / Gender in Value Chains and Marketing Specialist for the RTB-ENDURE Project. She was previously a Regional Manager at AGRINET, and an African Women in Agricultural Research and Development (AWARD) Fellow (2010-2012). She has an MSc in Agroecology and Sustainable Agriculture from Uganda Martyrs University.

Developing the technology is one side of the story, but in our project we also involved women's participation–but was it enough? Does it have an impact? I was given a gender lens where I have to look each stage of my activities. It is a good reminder if I want to see that my products are benefitting both men and women in Africa.

–Negussie Zenna, Rice Breeder
GREAT Cereals Course Participant

Photo: Milada Vigerova – https://stocksnap.io/photo/E899MGQN3V

A special thank you to our External Project Advisory Committee:

Josephine Ahikire, *School of Women and Gender Studies, Makerere University*

Bernard Bashaasha, *College of Agricultural and Environmental Sciences, Makerere University*

Cheryl Doss, *Department of International Development, Oxford University*

Jemimah Njuki, *International Development Research Centre*

Wanjiru Kamau Rutenberg, *African Women in Agricultural Research and Development*

Londa Schiebinger, *Department of History, Stanford University*

Vicki Wilde, *The Bill & Melinda Gates Foundation*

And to our GREAT session reviewers:

Anne Delaporte and Yvonne Pinto, *The Agricultural Learning and Impacts Network (ALINe)*

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Judith Byfield, *History Department , Cornell University*

Linda McCandless, *International Programs, College of Agriculture and Life Sciences, Cornell University*

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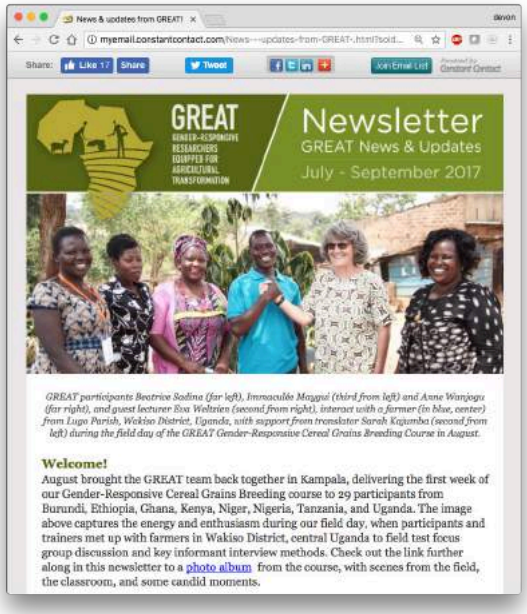
ONLINE Resources

Providing access to curated resources for gender-responsive agricultural research



Staying Connected:

The GREAT Quarterly Newsletter

Four times per year GREAT sends out an email newsletter to hundreds of recipients around Sub-Saharan Africa and globally, with updates from the project, spotlights on upcoming events and important resources, and the latest blog entries. If you'd like to stay in the know, and be aware of what's new in the gender and agricultural research world, sign up to get the newsletter delivered to your inbox, too!

See our previous newsletters: www.greatagriculture.org/content/news
To sign up visit: tinyurl.com/great-updates

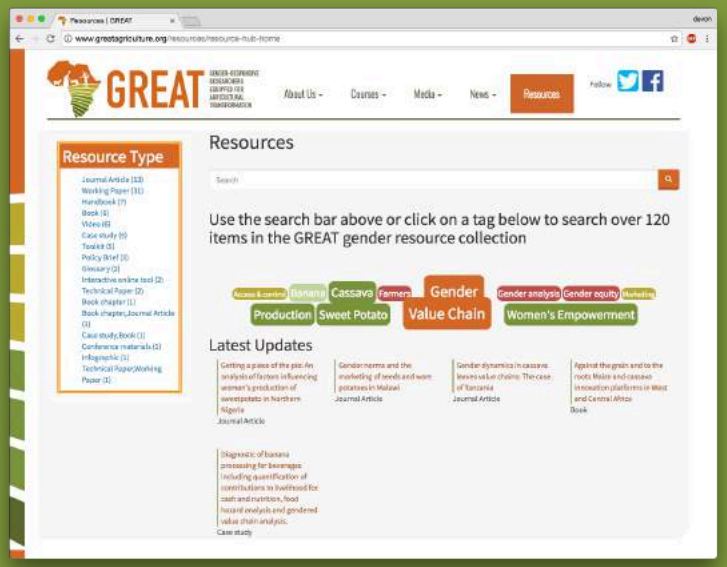
Finding Resources:

The GREAT Resource Hub

Complementing the training and mentoring components of the project, GREAT also curates a collection of gender resources for agricultural researchers. This resource is freely available to anyone via the GREAT website, at **www.greatagriculture.org/resources/resource-hub-home**.

Resources cover gender-responsiveness for agricultural research for a broad range of crops and come from a diverse array of sources. As each themed GREAT cohort training takes place new resources will be added that are tailored to the respective crops and value chains of the cohorts.

If you have a specific resource you can't find, or would like to contribute something to the GREAT Resource Hub, please use the integrated form on the website to contact the GREAT web team.



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