

# *Special* EVENT

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## OPERATIONAL IMPLICATIONS OF INTEGRATING CLIMATE SMART AGRICULTURE INTO FEED THE FUTURE ACTIVITIES

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WEBINAR CHAT TRANSCRIPT

FEBRUARY 18, 2016

## PRESENTERS

Zachary Baquet, USAID (Moderator)

Rob Bertram, USAID

## CONTRIBUTORS

Mark Visocky, USAID

Tatiana Pulido, USAID

Laura Schreeg, USAID

Moffatt Ngugi, USAID

## WEBINAR CHAT TRANSCRIPT

USAID Agrilinks: Good morning, all! Please feel free to use this chat box to introduce yourselves. We're happy you're joining us for this talk!

Ekanath Khatiwada: I am Ekanath Khatiwada, Market systems Advisor, Sabal Project Nepal.

USAID Agrilinks: Glad to see you joining, Ekanath.

Na Li: Hi, Good Morning everyone, I am a PhD student in Industrial Technology at Purdue.

Ronald Marumbi: I am Ronald Marumbi from the University of Zimbabwe. I am an MPhil student working on conservation agriculture in semi-arid regions.

USAID Agrilinks: Hi, Na and Ronald. Thanks for tuning in.

Kura Murwisi: Hi everyone, Kura Murwisi, Rural and Agricultural Finance Associate at Genesis Analytics in South Africa.

USAID Agrilinks: Hi Kura!

USAID Agrilinks: Welcome.

Kura Murwisi: Thank you.

Rachel Levesque: Good morning everyone, we are a few colleagues from Global Affairs Canada, in the Food Security Division.

Noah Lusaka: I'm Noah Lusaka working with Arid Lands Information Network (ALIN) in Kenya.

USAID Agrilinks: Hi there Noah and Rachel.

USAID Agrilinks: I'm wondering what everyone is most interesting in getting out of this presentation today.

Zachary Baquet: Good Morning All!

Zachary Baquet: Thank you for joining us.

Kura Murwisi: I'm interested to know if USAID thinking going forward on incorporating CSA into their programs. Is CSA becoming an integral stand-alone priority for USAID or it remains a small component which has to be mainstreamed, like gender? Are there any upcoming USAID CSA programs like the DFID CSAP?

Udunopa Abalu: Good morning everyone.

Roberta Lauretti-Bernhard: Good Morning/afternoon all- Roberta Lauretti-Bernhard from GAIN.

Sharmin Faraj: Good morning.

KDAD A/V Tech: Good Morning all! We will be starting at 830. We were finishing up some sound tests earlier!

Naomi Sakane: Hi everyone.

Zachary Baquet: Hi Na Li, we have not started yet.

Noah Lusaka: I'm interested to learn new experiences as we're developing our new strategy that focuses on climate smart agriculture.

Zachary Baquet: We will test sound shortly.

Na Li: Ok! Thank you.

Saeed Sheikh: Saeed Sheikh, Good morning everybody.

Willies Mwandira: I want to see how CSA can go beyond building resilience, and incorporate issues of poverty eradication.

Sharmin Faraj: Do you have any representative at Ohio State University?

USAID Agrilinks: Welcome, all!

USAID Agrilinks: We have our intro polls up now.

USAID Agrilinks: Tell us a bit about your work!

Paola Flores: Hi every one!

Michael Davidson: I am in California. 5: 22 AM No coffee yet!!

USAID Agrilinks: Wow! Thanks for the early attendance, Michael.

Zachary Baquet: Welcome Michael!

USAID Agrilinks: And thanks to those of you who are staying up late.

Patrick Hanemann: Patrick Hanemann, Farm2Market Agribusiness Consulting, McAllen TX.

Zachary Baquet: Drinking tea now.

Zachary Baquet: Second cup.

Zachary Baquet: Hi Patrick!

Alanna Malik: Alanna Malik, World Food Programme, WAS Office.

Sharmin Faraj: I am from Middle East, Kurdistan Iraq but now I am at Ohio State University.

John Costenbader: John Costenbader, DAI Climate & Natural Resource Programs, DC Office.

Lief Doerring: Lief Doerring, DAI, Bethesda, MD.

E.D.Israel King: I am from MS Swaminathan Research Foundation, India.

USAID Agrilinks: Again, as you join in please do take a moment to introduce yourselves!

Philip Charlesworth: Philip Charlesworth: working with USAID, Guinea.

Anne Swindale 2: Anne Swindale, BFS MEL team, Washington DC.

Zachary Baquet: Hi Anne!

USAID Agrilinks: We will be getting started in about 7 or so minutes.

Moffatt Ngugi: Bureau for food security climate change in Agriculture advisor.

Zachary Arney: Zachary Arney, Fintrac, Washington DC.

Jillann Richardson-Rohrscheib: Good Morning!

Udunopa Abalu: Udunopa Abalu, working with the International Executive Service Corps (IESC) in Washington, DC.

USAID Agrilinks: It looks like we have a good mix of representation from different organizational types!

Michael Davidson: Moffatt, are you in DC?

Laura Ostenso: Laura Ostenso, Feed the Future Knowledge Driven Agricultural Development project, D.C.

Gitau Mbure: Gitau Mbure, World Vision, Washington DC.

Steven Long: Steven Long, IRG/Engility, Washington DC.

Mark Visocky: Mark Visocky Climate Smart Ag Team Leader BFS.

Moffatt Ngugi: yes, am in DC.

Nicholas Neuenschwander: Nick Neuenschwander, Self Help Africa.

USAID Agrilinks: Thanks everyone for introducing yourselves, and please take a quick second to fill out some of our polls.

McDonald Homer: McDonald Homer, Deputy Office Director, USAID Afghanistan-Greetings from Kabul.

Terence Albrecht: Good morning. Terry Albrecht from USDA/Foreign Ag Service in Washington DC.

Anna Madalinska: Anna Madalinska, DC.

John Russell: John Russell, EcoFoodSystems, in Bend, Oregon.

Michael Davidson: Thank you. I will be discussing innovations in subsurface drip with USAID in DC in mid-March.

Arun KC: Arun KC, CCAFS.

Marit Wilkerson: Marit Wilkerson, Climate Change Advisor, Bureau for Africa, USAID/Washington.

USAID Agrilinks: Hi Arun, John, Marit, Terence, and all!

Michael Davidson: I am a CSA consultant and US State Department expert speaker on CSA.

Mike Colby: Mike Colby; USAID medical leave; hi all!

Lucas Wolf: Lucas Wolf, Trees, Water & People - Managua, Nicaragua.

Meg Dallett: Meg Dallett, Fintrac.

Meredith Waters: Meredith Waters, M&E PM with MSI over their environmental portfolio.

Saeed Sheikh: I am connected.

Noah Lusaka: I would like to share my experiences with solar powered drip irrigation systems introduced in 3 Kenyan Counties covering over one acre.

Megan Maiolo-Heath: Megan Maiolo-Heath, Trees, Water & People, Fort Collins, Colorado.

Harry Bottenberg: Harry Bottenberg, USAID, OAPA, MEO for Afghanistan.

Moshood Jaji: Jaji, Moshood, Agricultural Extension and Mgt Dept, Lagos State Polytechnic, Ikorodu, Nigeria.

Michael Davidson: Noah, I would like to learn about your experience.

Melanie Mberman: Melanie Berman, Winrock International.

USAID Agrilinks: Meg, Meredith, Harry, Saeed, all -- thanks for taking the time to tune in today.

Sarah Gavian: Sarah Gavian, Independent consultant.

Harry Bottenberg: Hi Sarah.

Faustine Wabwire: Faustine Wabwire, Bread for the World Institute.

Felix Baden-Powell: Felix Baden-Powell, the Palladium Group.

USAID Agrilinks: We'll be starting in just a few minutes.

Michael Davidson: Noah, I will be in Kenya at the end of March.

Ellie Turner: Ellie Turner, RTI.

Sarah Page: Sarah Page, Catholic Relief Services in Tanzania.

Marijke Hummel: Marijke Hummel, PhD student, National University of Ireland, Galway.

Michael Davidson: Hi RTI!

USAID Agrilinks: We're about to start.

Noah Lusaka: Michael: Welcome to Nairobi Kenya. We can organize to meet.

Michael Davidson: michael.davidson@climatesmartirrigation.com

Abdifatah Mohamed: A,Fatah Osman with KISIMA NGO currently in Nairobi.

Alison Padget: Alison Padget, World Hope International, Washington DC.

USAID Agrilinks: Enter questions for Rob and others here!

Steve Morin: Steve Morin USAID/OAG/ENRM.

Ryan Moore: Ryan Moore, Agricultural Research Service, USDA.

Steve Morin: Steve Morin Afghanistan Office of Agriculture.

Erin Homiak: Erin Homiak, Nutrition Advisor, Concern Worldwide, Mozambique.

Jonathan Hubchen: Jonathan Hubchen, LSU AgCenter.

Noah Lusaka: Thanks Michael I can be reached on nlusaka@alin.net

Thomas Herlehy: Hi this is Tom Herlehy from Land O'Lakes.

Abby Love: Hi all, I'm Abby Love, Agriculture Officer, with Mercy Corps and the TOPS Program. Based in Washington, DC.

Karl Deering: Karl Deering CARE International.

Patricia Neenan: Patricia Neenan from CABI.

Amita Mohan: Hi all.

T.J. Ryan: T.J. Ryan, ACDI/VOCA.

Thomas Herlehy: Tom Herlehy works in Washington, DC.

David Rohrbach: David Rohrbach, USA.

Farzana Yasmeen: Farzana Yasmeen from USAID Bangladesh.

James Woolley: James Woolley, USAID Haiti.

Allan Pineda: Hi. Joining from Tamale, Ghana.

Martin Noponen: Martin Noponen, Rainforest Alliance, UK.

Saeed Sheikh: Saeed Sheikh from Somaliland.

James Woolley: James Woolley, USAID Haiti.

Carmen Jaquez: Hello everyone - this is Carmen Jaquez from Land O'Lakes based in Nairobi.

Zachary Baquet: Greetings All!

James Ozols: Jim Ozols Integra LLC, Washington, DC.

Victor Mombu: Greetings from Ghana.

Beau Ingle: Beau Ingle, the Ohio State University's Office of International Programs in Agriculture. Good Morning!

Gabriela Soto: Gabriela Soto from Committee of Sustainable Assessment, in Costa Rica.

Gordon Mengel: Gordie Mengel, Agriculture Specialist, Food Security Team, US Peace Corps/Washington, DC.

Krishna Paudel: Krishna Paudel and Sarah Kagoya from Louisiana State University.

Amita Mohan: I am Amita Mohan from WSU, Pullman.

Eric Crawford: Eric Crawford, Co-Director, Food Security Group, and Director, Global Center for Food Systems Innovation, Michigan State University.

USAID Agrilinks: A big welcome to all of you!

Zachary Baquet: Hi Eric!

Jane Podolsky: Jane Podolsky, NCBA CLUSA, Senior Program Manager.

Jonathan Hubchen: Hello to Krishna and Sarah from LSU.

Seyram Loh: Hi All, I am Seyram Kofi Loh, USAID - ASSESS, Accra-Ghana.

Mike McGahuey: Mike McGahuey, USAID retired, Arlington.

Krishna Paudel: Hello Jonathan!

Zachary Baquet: If you want today's presentation, you can download it from the "file downloads" box on the left.

ChiMing Peng: Hi. I am ChiMing from Taiwan.

Trevor Smith: Trevor Smith, MSc student and independent researcher, Concordia University, Montreal.

USAID Agrilinks: Remember that you can ask questions here to each other and to our presenters at any time. We will record your questions and pose them to our presenters at the end during Q&A.

Zachary Baquet: You can also download the CSA Framework Paper there too.

Doudou Ndiaye: Regional Agriculture Specialist, Sahel Regional Office, USAID/Senegal.

Lini Wollenberg: Lini Wollenberg CCAFS Low Emissions Development program.

Kura Murwisi: Hi Agrilinks: My question is Are there any upcoming USAID CSA programs like the DFID CSAP.

USAID Agrilinks: If you want to private chat with another webinar participant to converse privately or exchange contact info, hover over their name and select "start private chat".

Sandrine Chetail: Sandrine, Director for Agriculture with Mercy Corps.

Richard Volk: Good morning all. Richard Volk from E3 Water Office.

USAID Agrilinks: We're delighted to see almost 200 folks participating today!

Erin Homiak: How have you successfully integrate gender into Agriculture and Nutrition programs? Are these approaches gender-sensitive or gender-transformative?

James Hansen: Hi All. I'm Jim Hansen, CCAFS Climate Information Services and Climate Informed Safetynets Flagship, based at IRI, Columbia University.

Moffatt Ngugi: @ Kura, no we do not anticipate a standalone program rather integrating CSA considerations across existing work or into new food security programs/activities.

Rebecca Anzueto: Good morning everyone, Rebecca Anzueto from Lutheran World Relief.

Jennie Barron: Jennie Barron, the Sustainable Agriculture Water Management, IWMI; WLE Flagship leader Land water productivity, in Colombo Sri Lanka.

Kura Murwisi: Thanks Moffat.

Ekanath Khatiwada: In this commercial and competitive agriculture markets, how dose CSA can be attractive to the VC actors in order to better integrate CSA practices into

the value chain? Is it attractive to the private sectors? What could be a good strategy to bring value chain actors in to CSA products in general?

Torsten Mandal: I am Torsten Mandal, freelance agronomist, with innovative documented methods making agroforestry and soil and water conservation much more appropriate for climate smart agriculture for small farmers in the tropics.

USAID Agrilinks: Great questions. We're jotting them down. Keep 'em coming!

Zachary Baquet: Thank you for your question @Ekanath.

Christian Dimkpa: Good morning. Christian Dimkpa from International Fertilizer Development Center.

Chris Henderson: Just arrived - Chris Henderson, Practical Action.

Daniel White: Dan White, Ag Director, ACDI/VOCA.

Zachary Baquet: Welcome Christian and Chris!

USAID Agrilinks: Welcome Chris and Christian and Daniel, thanks for introducing yourselves.

Zachary Baquet: Hi Daniel!

Kura Murwisi: So I am correct if I say CSA will not be treated as a standalone priority in the FTF program but will be integrated into existing programs, yes?

Felix Kamau: Hi All, I am Felix Kamau, The Nature Conservancy (TNC) Agriculture Strategy Director for Africa Region, based in Nairobi, Kenya.

Michael Davidson: Christian, where are you located?

Moffatt Ngugi: Hi Felix, welcome.

Loretta Ishida: Loretta Ishida, LWR (covering East Africa from our HQ in the States).

Felix Kamau: Hi Moffat!

Apollin Fotso Kuate: Apollin Fotso Kuate, IITA-Cameroon.

USAID Agrilinks: Thanks to those who are just joining for your introductions.

Naomi Sakane: Hi Moffat.

Torsten Mandal: Hi again Moffatt.

USAID Agrilinks: Please use this chat box to talk with one another and to ask questions to our presenters.

Andrew Bisson: Very interesting graphic.

David Edison: Good morning. David Williams from the Inter-American Institute for Cooperation on Agriculture (IICA), in San José, Costa Rica.

Kristy Cook: Kristy Cook, Senior Technical Advisor, Cultural Practice LLC and Associate Director INGENAES project - Integrating Gender and Nutrition in Agricultural Extension Services.

USAID Agrilinks: I agree, Andrew!

Moffatt Ngugi: Hi Torsten & Naomi, welcome.

Madeleine Smith: Madeleine Smith, the SPRING Project, Arlington, VA.

Carrie Hubbell Melgarejo: Nutrition Advisor, SPRING Project.

Henry Kamande: Henry Kamande; Senior Business Manager, TechnoServe Kenya.

Zachary Baquet: Hi Kristy!

Diane Russell: Diane Russell, USAID/Forestry and Biodiversity.

Bright Schandorf Adu: Interesting graphics there, Schandorf, Farmerline.

Z Raheem: Hi Moffatt, this is Jon Randall and Zaki Raheem from DAI.

Robert O'Sullivan: Bob O'Sullivan, Winrock International.

Reid Hamel: Hi all, I'm a Research Fellow with CSIS's Global Food Security Project.

Dragan Terzic: Dragan Terzic AgroLink Association.

Zachary Baquet: You can download the presentation from the pod on the left of your screen.

Faustine Wabwire: Moffat: Am glad to know the sustained focus on supporting regional trade in Feed the Future activities. Looking forward to hear more on this.

Laura Ostenso: What role does agricultural education and training have to play in integrating CSA within in-country partners such as research institutes and universities that Feed the Future works with?

Naomi Sakane: Hello Diane, this is Naomi. Hopefully, it will help to address some of the key challenges that were raised during the CSA meeting in Lusaka last year!!

Tor Edwards: Sorry I'm a bit late. This is Tor Edwards, from Nigeria.

Moffatt Ngugi: @ Faustine, yes, Rob will touch on this some in this session.

USAID Agrilinks: Framework paper is on the left in the download box!

Zachary Baquet: Hi Tor!

Laura Ostenso: I see here there is a point on HICD- I'm really curious to hear about agricultural education and training within that.

Samuel Nanga Nanga: Hi Apollin.

Veronica Letelier: You can also download the CSA framework paper using this link: <http://agrilinks.org/sites/default/files/resource/files/Framework%20CSA%20paper%20final.pdf>

Deborah Hellums: Debbie Hellums, International Fertilizer Development Center.

Torsten Mandal: It is a fine introduction going on, I can assist making the multipurpose solutions affordable, reliable and fully integrated and not needed continuous financial support after introduction.

Faustine Wabwire: @Moffat: Are these slides available on Agrilinks? Thanks.

Victorine Goly: Hi Victorine Goly from International Fertilizer Development Center.

Zachary Baquet: You can do private chats with other participants by finding their name on the attendee list above then hover your cursor over the person's name.

Noah Lusaka: We did a video on CSA pilot in Kenya that can be viewed at [https://www.youtube.com/watch?time\\_continue=17&v=niyB9-KqPyA](https://www.youtube.com/watch?time_continue=17&v=niyB9-KqPyA)

Clemen Gehlhar: Hi everyone, Clemen Gehlhar from USDA/FAS, Office of Capacity Building and Development.

Erin Homiak: Reduce greenhouse gases? Look at the cattle industry. Cowspiracy. There's no other way to make a considerable impact on CO2 emissions w/o addressing this agro-business. I'm not sure how this would be addressed by the development/industry that would make a deep impact.

Farzana Yasmeen: @Zachary @USAID Agrilinks: Great that you included the PPT slides in the download section. Thanks!

Moffatt Ngugi: @Faustine and all...slides and the framework paper on the left of the screen for download.

USAID Agrilinks: Slides are available for download from the box on the left, and will be posted on the event page as well.

Zachary Baquet: @Faustine slides are to the left for download.

Faustine Wabwire: Thanks.

Laura Schreeg: Laura O - great point. FTF sees CSA an approach and part of that approach includes education and training. For example, the Human Institution and Capacity Development team is incorporating CSA into their work.

Zachary Baquet: Hi Farzana! Glad you can join us.

Alhassan Tampuri: Hi, Tampuri from Excel Bit Com Ltd, Ghana.

Krishna Paudel: Is this presentation being recorded? If yes, how do we receive it?

Bright Schandorf Adu: On strengthen human capacity, it will be laudable to review the curriculum of senior high schools in sub-Saharan Africa to reflect the current trends of climate change. These future leaders cannot be left out in this process.

USAID Agrilinks: Remember to keep typing your questions here!

Zachary Baquet: Hi Krishna yes it is being recorded.

Zachary Baquet: The recording of the webinar will be on Agrilinks on the events page.

Zachary Baquet: If you registered for the event, we will send an email letting you know when it is available.

Michael Davidson: Most CSA interventions are dis-adopted. Will we discuss implementation and failures to sustainably implement methodologies and tools?

Thomas Herlehy: What does LED mean?

Farzana Yasmeen: @USAID Agrilinks: Since ADS series are now under review and new guidance will be released soon on activity designs, is there any plan to include CSA requirements in those guidances?

USAID Agrilinks: We aim to post all event resources on the event page within a week of the event. You will also get an email from Agrilinks with them attached.

Robert O'Sullivan: LED = low emission development.

Mark Visocky: Farzana yes we are updating guidance on climate change and CSA incorporation in CDCS and PADs.

Farzana Yasmeen: @Mark Visocky: Thanks Mark! This is absolutely required.

John Russell: Question for Rob or Moffatt: Approximately what percentage of the BFS budget (current and/or projected) will be allocated to CSA?

Laura Schreeg: Hi John - FTF sees CSA as an overall approach that is a cross cutting theme.

Laura Schreeg: CSA builds on climate as a cross cutting theme.

Marinho Nhambeto: Greetings from Mozambique, Land O'Lakes International Development.

USAID Agrilinks: Thanks for your questions, all!

Moffatt Ngugi: Am sure Rob will weigh in at Q&A, no stand alone projects labeled CSA are being planned, rather we aim to integrate climate resilience across the entire portfolio... noting Laura's response as well.

Torsten Mandal: I developed methods in Africa for climate smarter integration of tree and food legumes on small farms and slopes.

Luis Ramos: When you mention "Integrate livestock and aquaculture", is better fishing practices taken in consideration, or just increased aquaculture?

Felix Kamau: What would be the modalities of coordinating Feed the Future CSA initiatives with other CSA initiatives being promoted by other programs.

Kristy Cook: Experience shows Cross-cutting "themes" such as gender do not gain any traction without staff, budget and incentives. What does USAID propose to ensure there is dedicated attention to integrating CSA into agricultural investments?

USAID Agrilinks: So great to see almost 250 participants online with us.

Pamela Robinson: Kristy, good point.

Naomi Sakane: CSA builds on the use of sound climate data and science. Unfortunately, data availability and quality on the ground remain questionable. How do you plan to address this great challenge?

Pamela Robinson: Hello everyone, Pamela Robinson, Financial Voyages LLC, Atlanta, GA USA.

Torsten Mandal: I also developed methods for recycling ash, urine and latrine safely on small farms, and making legumes actually fix nitrogen (as they not always do).

Harry Bottenberg: Fertilizers and pigeon pea seed are scarce in Malawi, I worked on the INVC project last year.

Harry Bottenberg: Key is animal manure but livestock scarce also in Malawi.

Apollin Fotso Kuate: Seeing that CSA is applicable on a small scale like now pictured but what if I have 10 ha?

Naomi Sakane: @Harry Bottenberg, that's right! The same applies to Eastern Zambia!!

Torsten Mandal: Seed of good tree legumes are also often scarce and often killed by risky or inefficient seed pretreatments, I developed reliable methods suited for small farms.

Herman Sanchez: Kristy: You are absolutely right. Gender is mismanaged cross cutting peace-of-mind-issue where seldom direct and specific funds are allocated.

Mark Visocky: There are always ways to incorporate CSA on larger scale such as no-till irrigation or shade grown coffee and cacao.

Alhassan Tampuri: CSA is crucial in feeding the future Africa Population in the mist of decline rainfalls and limited irrigations investments. What is the CSA approach in dealing with problems with maximum focus on the smallholder farmers who have continually reduced yield results due to climate change effects?

Torsten Mandal: The key-problem for ox or cow-mechanization I Africa is often lack of good feed in the ploughing season. I developed methods to keep tree legumes between crops without damaging crops.

Torsten Mandal: I also developed method increasing germination under hot sunny conditions 7 times.

Harry Bottenberg: No till or educed till is difficult in developing countries where burning is common and animals graze on the land after harvest.

Herman Sanchez: The CSA follows the same strategies we use in the 1980s and early 90s with agroforestry research. Development of agricultural systems with the lowest energy inputs.

Harry Bottenberg: Need to protect residue from animals and fire.

Patricia Neenan: Does the USAID CSA strategy also look at the potential increase in crop loss due to pests and diseases that are moving into new areas as a result of climate change?

Kushal Neogy: Does following Organic Farming or Low Input farming Techniques helpful?

USAID Agrilinks: Thanks for your question Kushal.

Torsten Mandal: The methods I developed are great for green fire belts.

Gabriela Soto: I feel the solutions for the low capital access from small holders was not clearly address.

USAID Agrilinks: Please continue to share your questions with us here.

Naomi Sakane: The CSA approach has great potential in addressing many challenges that smallholder face in their production. But given the high heterogeneity among smallholders and the diversity of their agro-ecologies, there is an urgent need to tailor such an approach to their characteristics.

Paige Ober: Can we talk about why some heat tolerant maize species were preferred by women farmers?

Torsten Mandal: Temperatures are much higher near the soil surface than the air in sunny weather, we developed a solutions in Kenya.

Hesbon Obor: Are these GMO maize.

Michael Davidson: This is all good information. Great tools to implement CSA but without organizational and institutional LOCAL support these systems will not be sustained. In the Developed world 88% of all people working in agriculture do not farm. They work in support services that are critical to support all ag (particularly irrigation) systems.

Krishna Paudel: Are these drought tolerant corn varieties also high protein containing varieties?

McDonald Homer: I assume HTMA seeds are hybrids. How affordable is this improved seed for the average resource poor farmer?

Krishna Paudel: Hybrid or conventional varieties?

Michael Davidson: It is possible to buy very small packages of hybrid seeds now.

Luis Ramos: Yes please make reference to whether the presented maize hybrids are GMO, and if so, are they bounded by commercial binding restrictions.

Kushal Neogy: Just to update; CRS in India has collaborated in India with International Rice Research Institute (IRRI) to promote drought and flood tolerant varieties in flood and drought prone areas respectively.

Michael Davidson: Open pollinated seeds cannot reach the increase in growth that we need.

Pardon Sithole: Excellent presentation, are the seeds bio fortified?

Kristy Cook: DT maize good success story, but perhaps investments in sorghum and millets would have returned to drought tolerance along with diet diversity, etc.?

Madeleine Smith: One important observation is that many of these systems are also inherently nutrition-sensitive agriculture practices. As we scale up CSA practices and the related information systems, we also have the opportunity to build in the link to how these practices contribute to the underlying causes of malnutrition.

Mark Dripchak: While the science behind CSA is straightforward, the people factor needs to be addressed: how to convince people to take a chance and break from their traditional methods!

Torsten Mandal: Drought resilience can also be increased by improved direct seeding of termite resistant trees for long, rat- and splash proof crop stores.

Michael Davidson: Farmers are always risk averse. I work on this constraint.

Torsten Mandal: Some tree crops can also help farmers and their livestock surviving drought year, save money and get income of fruits.

Felix Kamau: Very important to address post-harvest losses.

Herman Sanchez: Even though, today we have more and better technological options, in the 1980s and early 90s we used “native” adapted seed varieties to drought. I am not sure about the option of using hybrid seeds and or patented GMOs seeds with small farmers.

Torsten Mandal: Yes Felix, but the key problem I mentioned is rarely addressed.

Noah Lusaka: In arid areas the need for effective water harvesting and conservation is important.

Zachary Baquet: Thank you for your comments and questions! Keep them coming! We are moving into the Q&A portion of the webinar.

Jelle Van Loon: Where can we find the framework paper?

Mercy Mumo: Where is the framework paper?

USAID Agrilinks: Soon we'll be heading into Q&A! Keep asking your questions to our presenters.

Zachary Baquet: @Jelle you can download it from the box on the left.

Mercy Mumo: Seen it.

Nyakio Ndungu: Jelle it's on a tab at the bottom of the page <--

Jelle Van Loon: OK thank you.

Thomas Herlehy: What does GLEE mean?

Moshood Jaji: Felix, I agree with you on the Post-harvest loses being addressed.

McDonald Homer: How to advance CSA discussions/thinking for non-FTF countries?

Zachary Baquet: Global Learning and Evidence Exchange.

Torsten Mandal: Sanchez, mix 25% non Bt seeds by regulation and Bt resistance can be avoided at least.

Moffatt Ngugi: GLEE = Global Learning and Evidence Exchange, opportunity to share and learn.

Victorine Goly: Why developing policies, it is always good to consider realities on the field and lessons from previous experience.

Alhassan Tampuri: Sub-Sahara Africa must take advantage of CSA to increase food product by investing in quality and resilient seeds product water management by developing smaller pond to support rain fed agriculture and we have some ideas with share and work to gather to feed not only the future but also the present. Thanks.

Farzana Yasmeen: USAID Bangladesh mission has a number of activities by CSISA and IFDC in the areas of stress tolerant rice varieties and deep placement of fertilizer. And there are success stories and case studies out there. It will be useful if some of the papers/stories can be linked to the resources section of the event page.

James Ozols: What about ways to improve the enabling environment and help reduce risk to farmers who may be unwilling to adopt these practices you are naming due to being risk averse and uncertain about the improvements they will see?

Cynthia Donovan: Thanks for highlighting the role of grain legumes in CSA. So much potential. Seed system developments are key to realize that potential.

Naomi Sakane: @ Kristy, there similar are on-going initiatives on both sorghum and millet in West Africa. For instance, the Alliance for Green Revolution in Africa (AGRA) is implementing a seed and other technologies in Ethiopia, Ghana, Malawi, Mozambique, Senegal and Tanzania. From my experience in Southern Africa, the cultural aspects of food pose a great issue.

John Russell: Laura, et al., I understand that CSA is cross-cutting. And it's great to say it will be integrated across the board, but without knowing just what resources are actually allocated to it, it's not possible for investors to know just how important is really is to USAID. I think the same is true of other cross-cutting "themes" such as gender, resilience, etc.

Afia Agyekum: @Naomi, can you give a specific example of seed technology used in Ethiopia?

Simana Kone: Thank you all.

Naomi Sakane: Good presentation! I found that the diversity component of the CSA can be strengthened. Unless I missed it, I did not hear much about interventions at a landscape level!

Michael Davidson: 84% of all drip irrigation kits in Zambia are dis-adopted within three years.

Erin Homiak: @Naomi, I'm also wondering about the seed technology in Mozambique if you have more information. Finding quality seeds here is extremely challenging here.

Simana Kone: A special thanks for Rob Bertram.

Faustine Wabwire: Given that CSA is cross-cutting, how is USAID positioning itself to engage in the context of the Paris Climate Agreement? Does the Paris Agreement provide momentum for CSA-related operations?

Crecencio Elenes: Of course drip irrigation requires more climate knowledge and financial resources to maintaining it.

Kushal Neogy: Is this being recorded? The call dropped for me several times; kindly share the link of the recording if available. Thanks.

Harry Bottenberg: Acacia albida doesn't grow that well in the highland plateau in Malawi, not as well at least as in the lower lying plains along Lake Malawi. So adoption is not that widespread.

Sara Delaney: Could you ask them to share the reference to that paper just mentioned on the study on adoption of CSA innovations, please?

Michael Davidson: Dear Crecencio, what we need is the irrigation industry to be an actor in LDCs as it works in the developed world.

Amita Mohan: Many thanks to Rob! Great presentation.

Torsten Mandal: Do you also see a risk for insufficient interest in getting the techniques sufficiently appropriate for small farmers so farmers use the nice principles?

Luis Ramos: GMO technology is great. The fact that they might be GMO is not a problem, is the commercial limitations what is a problem.

Naomi Sakane: @ Afia, the project covers chickpea, sesame, maize, teff, and wheat.

Moffatt Ngugi: @ Sara, the study is ongoing anticipated release later in the year. Marit may comment if she is still on.

Apollin Fotso Kuate: But the Hybrids are not available to small scale farmers and they are still expensive when available.

Herman Sanchez: Am I wrong when I say that climate change has always occurred? The difference is the way the issues, analysis, and solutions are presented...and the fact that developing countries have always more responsive to CSA.

Michael Davidson: You can buy hybrids in quantities as few as one seed now.

Abdulmojeed Yakubu: I equally think if we are going to ensure the production of crops year round, we must be ready to provide irrigation facilities especially in Africa and other third world countries.

John S. Amoakohene: This John S. Amoakohene: Had challenges entering. Has just been successful.

Victorine Goly: The hybrids are in accessible to small scale farmers so what can they do?

Torsten Mandal: Acaica albida (now Faidherbia albida) seeds can also be very hard to germinate using most guidelines. I had no problems with those discarded by a big seed center.

Naomi Sakane: @ Afia, Desi and Kabuli chickpea varieties, drought tolerant maize, improved varieties of sesame, and rust-resistant varieties of wheat!

Jennie Barron: Thanks for good presentation and for making available via web = helpful!

Afia Agyekum: Thanks Noami.

Sara Delaney: Ok, thank you Moffatt, I'll look out for it later.

Naomi Sakane: @ Afia: BH--661 is a white flint drought--tolerant maize variety.

Abubakary Kijoji: The most challenges in adoption of CSA technologies such Hybrids, stress tolerant crops/varieties is seed costs being high. What the FTF is doing to support seeds availability and accessibility by smallholders?

Thomas Herlehy: Thanks for making the CSA Framework paper available and the PPT slides available too.

Luis Ramos: How is fishing seen by Feed the Future as practices to increase food availability and nutrition, as climate adapted practices? Particularly artisanal fishing.

Elizabeth Basauri Bryan: It is also important to ensure that the CSA approach is gender sensitive. Women have less access to information on climate and important practices to respond to climate change. They also have different needs and preferences for adaptation.

Tassawar Hussain: Thanks all concerned.

John S. Amoakohene: Sorry for joining late.

Samuel Nanga: Thank you to allow downloading the presentation.

Torsten Mandal: If any are interested in more appropriate solutions than the standard, I have TorstenMandal@Gmail.com, Skype Torsten.Mandal and is easy to find on LinkedIn or Facebook.

Hosea Yakubu: Q: How can the CSA be properly captured in M&E monitoring systems?

John S. Amoakohene: I hope I will have access to the discussions.

Naomi Sakane: @ Afia: example of DTMA varieties: hybrids (BH546, BH547, BH661, MH130, MH138Q, and MH140) and five OPVs (Gibe---2, Melkassa1Q, Melkasa5, Melkasa6Q, and Melkasa7).

Michael Davidson: Torsten where are you located?

Mark Dripchak: This was a very informative presentation, but I have to admit I am disappointed by the lack of addressing the fact that people ("beneficiaries") will determine the success of an intervention when they decide whether or not to adopt an innovation.

Torsten Mandal: Hosea, I can be contacted for methods estimating drought stress in crops (or erosion / run-off).

Farzana Yasmeen: I second Mark Dripchak.

Joséa Raharison: Big thanks for this meeting.

Torsten Mandal: Michael, I am based in Copenhagen, Denmark, but have a house in rural Kenya too.

Naomi Sakane: @ Afia: teff varieties: DZ---CR---37 (Tsedey), D---Z---387 (Quncho), DZ---01---196 (Maghna), D---Z---01---354 (Enatit), D---Z---01---974 (Dukem), RIL 273 (Lakech), and D---Z---01---1285 (Koye).

Herman Sanchez: Hybrid seeds are great only when the grower has access to credit or has disposable income to buy expensive inputs demanded by this high tech seeds.

Gabriela Soto: What are the metrics that are used for mitigation?

Hosea Yakubu: @Torsten: will send you a mail to follow-up on that, thanks.

Felix Kamau: Would Feed the Future CSA initiative collaborate with other CSA initiatives being promoted by other programs.

Michael Davidson: I will email you Torsten.

John S. Amoakohene: Can I send questions later after I have listened to the presentations?

Abdulmojeed Yakubu: What Mark is trying to refer to may be called ' Societal impact of research'. I think there is need to address this.

Naomi Sakane: @ Afia: Wheat varieties: bread wheat: Danda'a (Danphe#1), Kakaba (Picaflor#1), Shorima; and durum wheat: Denbi, Hitosa (Chen/Altar---84), and Werer (Mamouri---I).

David Rohrbach: Given the lack of good data on adoption and disadoption for many technologies, especially in Africa, is there not a need to a) invest more in

M&E and b) do this differently than we have in the past – i.e., less justification of past investment and more efforts to better understand partial success and failure?

- Mark Dripchak: Getting people to change their practices is about marketing the idea, and you need to appeal to \*their\* priorities.
- Patricia Neenan: How does USAID plan to get local, relevant information on CSA into the hands of the farmers?
- Torsten Mandal: Great, Michael, nice with some interested in making the principles work in practice for the small farmers rather than repeating what not really solved the problems - or is used already.
- Afia Agyekum: Thanks Naomi. The information is a great starting point. I was actually looking for very specific examples and I am grateful for the details you have provided.
- Amanda Davey: What is an example of a practice that has been adopted by millions of smallholder farmers?
- Elizabeth Basauri Bryan: Given that women have different priorities it is important that some of the choices offered to farmers appeal to women and are made available to them to encourage their adoption of new practices/technologies.
- Torsten Mandal: Climate Smart Farming can be linked to many funding opportunities and priorities, e.g. with innovative use of multipurpose trees (nutrition, schools, poverty, women, livelihood, conservation, microfinance, disease vector elimination, WASH...).
- Mark Dripchak: Thank you. My point is the importance of understanding farmers' situations.
- Torsten Mandal: Yes Mark, and also the details of why they may not adopt advice much - or need new.
- Victorine Goly: This will take time to materialize because famers always resist to change and we need to look at the situation of famers (no access to credit, etc.).
- Michael Davidson: Donors will not solve these issues.
- Michael Davidson: Farmers are not resistant to change that makes more money for them. All irrigation systems break every day. The most important actor for the farmer is the irrigation supplier and his/her manufacturers. This is the critical interdependent and interlinked relationship.

Thomas Herlehy: How can USAID get Missions in line with this mixed farming approach - combining crops, animals and aquaculture? USAID-Bangladesh just issued an RFA that specifically prohibits including aquaculture in the project plan.

Torsten Mandal: Microfinance problems can be reduced by reducing investment needs, e.g. by reducing fertilizer needs and risks and increasing its benefits.

Michael Davidson: In order for any system to work and be sustainable, each actor must have a vested interest.

Luis Ramos: Thank you!

Mark Dripchak: Yes, Michael Davidson, but your money-making statement neglects socio-cultural barriers.

James Woolley: I really appreciate Mark's comment about working with farmers to find solutions that work for them. Farmers are being affected by Climate Change and they are themselves looking for ways to survive. Classical top down approaches should be avoided.

Torsten Mandal: Fish feed is a key-problem for fish farming, and eroding cabbage fields not the solutions. Unlike other tree legumes, Calliandra calothyrsus is a good protein rich fish feed. I published on Calliandra.

Michael Davidson: I am not neglecting it. The system that I propose (and is replicable) increases SES.

Nicholas Neuenschwander: Is FTF utilizing GMOs for aquaculture?

Gabriela Soto: Torsten can you tell us where to find your publication on Calliandra?

Torsten Mandal: No Michael, not you.

Mark Dripchak: Clear now, Michael. Thank you.

Torsten Mandal: You can email me, or start Googling my name Calliandra and PDF.

Gabriela Soto: Thanks!

Torsten Mandal: I made several publications on Calliandra.

Rose Kadende-Kaiser: Good question Nicholas.

Moshood Jaji: Torsten, can I get some of your publications.

Michael Davidson: Mark Dripchak, in the developed world, 25 million make their living in agriculture. Really good livings. But only 2 million actually farm. Those jobs and the criticality of the services they provide makes agriculture productive, forward thinking and sustainable.

Alhassan Tampuri: What is FTF doing to integrate CSA into policies development in countries, regionals and communities government investment in agriculture and agribusiness?

Torsten Mandal: Legumes will often be limited by phosphate or water. I developed solutions.

Torsten Mandal: Yes Moshood. Please mail [TorstenMandal@gmail.com](mailto:TorstenMandal@gmail.com) and mention what you do.

Mark Dripchak: Michael, I was focusing on underdeveloped countries, where production systems can use some serious help.

Moshood Jaji: Ok Torsten.

Thomas Herlehy: Thank you for your responses.

Torsten Mandal: Introducing N-fixing bacteria for new legume types is often a problem - particularly in a sustainable way. I documented a great new method.

Michael Davidson: Mark, I agree. What I am suggesting is to look at this model and see if it is replicable. I only work in LDCs but have farmed in the developed world for 20 years.

Michael Davidson: I believe it is a replicable and generalizable model and am happy to discuss the details off line.

Naomi Sakane: Thanks Rob Bertram for your answer on the value chain. Dale Lewis is providing a good example of incorporating the value chain into the CSA practices through his work on Community Markets for Conservation (COMACO) in Zambia. More details at: <http://itswild.org/>

Farzana Yasmeen: In Bangladesh, we have seen good adoption of FDP and stress tolerant rice varieties by lots of smallholder farmers. Counting indirect beneficiaries, that number is significant.

Torsten Mandal: No-till fails without good / better integrations of legumes and agroforestry. The guidelines for Southern Africa have been revised, but with methods not working well.

Gitau Mbure: See more about farmer managed natural regeneration (FMNR) at <http://fmnrhub.com.au/>

Amanda Davey: Thank you!

Z Raheem: Are there plans for upcoming FTF projects to require CSA indicators?

Torsten Mandal: Yes, Moffat, and as ICRAF mentioned the adoption of fodder trees started to move fast after they shifted to lower cost establishment methods partly but not fully using the methods and seeds I supplied.

Lini Wollenberg: In CCAFS' South Asia Program, we have seen huge interest in scaling up village-level approaches, "Climate smart villages," which allow addressing local contexts. The idea is not to promote a particular technology everywhere, but rather a process for determining the best management practices. Please see <https://ccafs.cgiar.org/blog/india-surge-interest-make-agriculture-climate-smart#.VsXYXoSW-5A>

Robert O'Sullivan: The new climate agreement coming out of Paris is built on INDCs (intended nationally determined contributions). However, there is a gap between current contributions and what is needed to avoid 2C warming. Countries INDCs treat agriculture and CSA differently. Some of our analysis shows that there is potential for increased mitigation contributions from ag. What is FTF / USAID doing to help countries understand the mitigation potential from CSA, and how they could increase their ambition in NDCs in the future?

Gordon Smith: Thanks Lini. You make a key point that we have set up systems for knowledge to propagate through societies. Others have pointed out the role of ag service providers in the dissemination of knowledge.

Farzana Yasmeen: On the standard indicators, I believe there are some good and CSA friendly disaggregates for indicators like "farmers applying new tech" and "hectares under improved tech".

Torsten Mandal: In South Asia contour hedges of tree legumes have had partial success (SALT etc.), but establishment with the poor methods advised was the key problems in all studies. In plough contour stripes became widely adopted, but should be combined with smart tree legume methods. Tree legume hedges weeded intensively, simply cut back frequently and widely spaced take some years to be very effective.

Saeed Sheikh: Many countries in Sub-Sahara Africa are water deficit, though land fertility is excellent. Did you find any solution for that structural problem?

Michael Davidson: Thank you all, I need to sign off.

Torsten Mandal: Adaptation to local situations is very important, but the ideal is a limited number of very adaptable, flexible, and multipurpose methods per project and stage so you really can get an impact on the common key problems and also reach the poor.

Faustine Wabwire: Faustine Wabwire: Given that CSA is cross-cutting, how is USAID positioning itself to engage in the context of the Paris Climate Agreement? Does the Paris Agreement provide momentum for CSA-related operations?

Torsten Mandal: See you Michael.

Kushal Neogy: Thank you so much.

Naomi Sakane: Thanks Rob!!

USAID Agrilinks: We're opening our polls now as well, please don't forget to answer them!

USAID Agrilinks: They are very valuable to us as a source of feedback.

Torsten Mandal: Some unmanned aerial vehicles are great for imaging of drought stress and show main sources of erosive run-off. I can suggest used for seeding soil and water conserving plants in remote areas with them too.

George Staicu: A BIG thank you to the organizers of this VERY INTERESTING & USEFUL webinar, to the speaker Rob Bertram and to the participants! I also appreciate the very insightful chat discussions! Bye everybody!

Lucas Wolf: Agreed, big and hearty thank you to USAID folks, much appreciated.

USAID Agrilinks: Thanks, George! Glad you found it useful as well!

Torsten Mandal: Accordingly, donors should focus on pro-poor, sustainable innovations.

USAID Agrilinks: Very happy so many of you were able to tune in this morning.

Farzana Yasmeen: I would like to thank Rob Bertram, Mark Visocky, Zachary, Tatiana and other BFS colleagues for a fantastic presentation.

Laura Schreeg: Thanks for joining. Really enjoyed all the comments and questions.

E.D.Israel King: Thanks Rob and Team. It was useful session and engaging. Oliver King, MSSRF, India. ediok151173@gmail.com, www.mssrf.org, www.nuscommunity.org

George Staicu: Good job USAID Agrilinks!!

Moffatt Ngugi: Thanks everyone!

Torsten Mandal: Thank you, too.

Pauline Simmons: Thanks to our USAID colleagues for a great presentation.

Ekanath Khatiwada: Very informative session.

Gabriela Soto: Muchas gracias, a very valuable discussion!

Faustine Wabwire: Excellent discussion. Kudos, USAID Team!

Megan Maiolo-Heath: Thank you!

Patricia Neenan: Thank you - very interesting discussion.

Naomi Sakane: A million thanks to AID folks! Very useful, indeed! Looking forward to its operationalization!!

Mark Dripchak: Thank you very much!

McDonald Homer: Thanks Rob and team. Great job.

Victorine Goly: Thank you, very valuable discussion.

Deborah Hellums: Thank you USAID for an interesting and informative presentation.

Julie Nash: Thank you. Great job.

Mike McGahuey: Very good presentations and discussions. Congratulations.

Gordon Mengel: Thanks Rob and team. Looking forward to the CSA GLEE in Lusaka.

USAID Agrilinks: Bye everyone! Thanks so much for joining us!