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## SCALING UP INPUT TECHNOLOGY AND INPUT ACCESS: CLUES FROM ZAMBIA

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WEBINAR CHAT TRANSCRIPT

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## PRESENTERS

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## WEBINAR CHAT TRANSCRIPT

USAID Microlinks: Good morning to everyone who has joined early! We will be getting started at 9:00 AM EDT.

Ekanath Khatiwada: Am not hearing.

Elizabeth Godwin: Sounds good!

USAID Microlinks: Great, thank you!

USAID Microlinks: Please introduce yourselves! Who do you work with and from where are you joining?

Monitor: I can hear you!

Bert Smit: Hello, this is Bert Smit, working for World Vision UK as Regional Manager for Southern Africa. We have a number of agriculture/livelihoods programs in Zambia.

Bert Smit: (I'm not hearing anything at the moment. I think it hasn't started yet?)

USAID Microlinks: Thanks Bert! Glad that you could join!

USAID Microlinks: And you're correct, we have the in-room audio muted right now so you aren't able to hear anything.

Bert Smit: OK, thank you.

Jacob Ulrich: Jacob Ulrich, Country Director Technoserve Zambia.

USAID Microlinks: Welcome Jacob!

Bert Smit: I'm just looking at the TechnoService website, interesting!

Jacob Ulrich: I hear.

USAID Microlinks: Thank you, Jacob!

Beau Ingle: Good Morning from the Office of International Programs in Agriculture at the Ohio State University.

USAID Microlinks: Good morning Beau!

Bhola Basnet: Myself Bhola Man Singh Basnet from Nepal.

Laura Conn: Good morning - Laura Conn, Senior Program Officer from the NGO CNFA in DC.

USAID Microlinks: Glad that you could join us Bhola and Laura!

Genevieve Audet: Good afternoon, Geneviève Audet from the Royal Tropical Institute in Amsterdam.

USAID Microlinks: Please take a minute to take our polls. And welcome Genevieve!

Bhola Basnet: I am Principal Scientist (Agronomy).

Victoria Machakaire: Good morning from Ottawa in Canada, I am an Agriculture and Food Security Technical Specialist for World Vision International.

Ekanath Khatiwada: I am Ekanath Khatiwada from Nepal.

Sharon Mbanu: Hello, Sharon with Feed the Future Zimbabwe Crop Development Program.

Bridget Carle: Hi everyone, Bridget Carle with Swiss Re in Washington

Bhola Basnet: I am proponent of integrated nutrient management (INM) i.e., Fusion technology.

USAID Microlinks: Welcome all!

USAID Microlinks: So glad that you could join.

Jerry Brown: Good morning, Agriculture Results Inc.!

USAID Microlinks: We'll be getting started in a couple of minutes.

Nicholas Neuenschwander: Good morning. Nick, intern at Self Help Africa in New York.

Alec Newman: G'day all. My name is Alec Newman, I'm working with Rent to Own (asset financing) in Zambia.

Vaidehi Krishnan: Good afternoon, this is Vai from Mercy Corps Middle East.

Katy Wyatt: Good morning. Katy, intern at the MasterCard Foundation in Toronto.

Emmanuel Lusumpa: Hi, I am Zambia Partnership manager for Partners Worldwide.

Sripada Udupa: Good morning... I am Sripada Udupa, From ICARDA-Morocco.

Jen Peterson: Hi folks. I work for Tetra Tech ARD in snowy Vermont.

Edin Barrientos: Good Morning, ASODEFIR (Rural Finance Development Association), Guatemala

Javier Gamarra: Morning, I work in Agribusiness Booster here in Paraguay (South America).

USAID Microlinks: Can everyone hear Kristin O'Planick speaking?

Judith Thompson: Good Morning all.

Bert Smit: I'm hearing nothing.

Gora BEYE: Good morning, I'm Gora from Senegal, PRAPS (regional Sahel pastoralism project).

Bert Smit: Yes, now I'm hearing.

Dave Westphal: Dave Westphal: Context

Anthony D'Agostino: Good morning all. Anthony here, a PhD candidate in Sustainable Development.

Javier Gamarra: Yes, I am hearing well

Alec Newman: Can't hear.

Bhola Basnet: I am hearing well.

USAID Microlinks: Alec, our A/V Tech will private chat you to help.

Frank Tembo: Yes, I can hear.

Alec Newman: Ta.

Floyd Dowell: The audio is fading in and out.

Paul Bordoni: Good morning - Paul Bordoni from Bioversity and University of Cape TownResearch on the impact of modernization on decision making of SSF.

Vaidehi Krishnan: Yes - I'm facing the same problem.

Judith Thompson: Audio is fading in and out for me too.

Genevieve Audet: Same for me.

Sarah Gavian: Agree that audio is fading in and out.

Kendra Leith: I also cannot hear.

Victoria Machakaire: I have no sound either.

Steve Clarke: Same for me.

Vaidehi Krishnan: I can now.

Floyd Dowell: What is the call-in number? I got kicked out of the phone call-in and don't have the number now.

USAID Microlinks: Thanks everyone....our A/V Tech is working on it.

Cynthia Donovan: Good morning. Cynthia Donovan for FTF Legume Innovation Lab at Michigan State University.

Robert Navin: I'm in Malawi for six months designing the next agricultural policy 5 year activity.

Bhola Basnet: Research into Use (RiU) is must.

Sripada Udupa: I cannot hear....

Sripada Udupa: Can you help me?

KDAD A/V Tech: We are broadcasting audio and you should be able to hear. If you're behind a firewall, using Google Chrome, or have a slow internet connection, you may have issues.

KDAD A/V Tech: We will respond to private chats.

Asaah Ndambi: I was not hearing before and just closed the window and opened it again. Now I hear well.

USAID Microlinks: Call in number: 1-800-832-0736 Room #9865920

KDAD A/V Tech: That's a great suggestion Asaah, for anyone else who is having issues, trying closing and re-opening your browser.

Bhola Basnet: Mobile/Cellphone is very useful for small holder farmers in Nepal because many farmers have mobile sets.

Sarah Gavian: Working well now.

Victoria Machakaire: I still do not get any sound

USAID Microlinks: Hi all--for anyone still having audio issues, our A/V Tech will private chat with you. Look for a blinking yellow box at the bottom of the chat pod.

Bhola Basnet: Radio and community-based FM are also useful for transferring the technologies.

KDAD A/V Tech: Phone call in number: 800-832-0736. code 9865920

USAID Microlinks: Can everyone hear Richard Kohl speaking?

Cynthia Donovan: I can.

Stephen Simon: I can.

Elizabeth Dunn: Yes.

USAID Microlinks: Wonderful...thank you for your patience!

Modibo Traoré: No I cannot.

Kristy Cook: No I can't.

USAID Microlinks: For those who cannot hear, our A/V tech will private chat with you.

Emmanuel Lusumpa: Can't hear him now.

Cynthia Donovan: Is there a way to download presentations?

Bhola Basnet: Nepal also has "Feed the Future" project.

USAID Microlinks: Cynthia, yes, you will be able to download the PPT during the Q&A in a few minutes.

Kristy Cook: Phone audio does not seem to work.

KDAD A/V Tech: And, for those having issues, all the materials will be available for download in about a week (including the ppt and audio files).

USAID Microlinks: We have a full room in Washington, DC. About 40 people attending in-person!

Bhola Basnet: Corn/Maize is number one cereal crop in hilly areas of Nepal and second important crop after rice on national level.

Cecilia Gonzalez: Greetings, I am joining from Fort Lauderdale, FL-USA, Food & Agriculture Systems, Independent.

USAID Microlinks: Greetings Cecilia!

Robert Ungethuem: Stream down here is terribly slow. Will the event be recorded?

Bhola Basnet: Hybrid maize is becoming popular in Nepal year after year.

USAID Microlinks: Robert--yes, the event is being recording and will be available one week after the event.

Robert Ungethuem: Thank you so much.

USAID Microlinks: \*recorded : )

Bhola Basnet: Community-based seed production (CBSP) is popular in Nepal.

Jennifer Bremer: Hi, all, joining from DC

USAID Microlinks: Good morning Jennifer!

USAID Microlinks: The phone dial-in option should be working again now.

Olu Ajayi: Hello everyone, Olu Ajayi from CTA Netherlands here.

USAID Microlinks: Welcome Olu!

Consuelo Estevez de Jensen: Good morning, joining from U of Puerto Rico.

Bhola Basnet: In every project there should be program-budget for communications which we didn't do in the last 50 years or so. So critics say your technologies are lying in shelves.

Bhola Basnet: We have drought-tolerant rice varieties released in Nepal. We have project named stress-tolerant rice for Africa and South Asia which is funded by BMGF.

USAID Microlinks: Thank you for sharing, Bhola.

Kristy Cook: Phone audio is finally working thanks.

USAID Microlinks: Glad to hear that, Kristy....sorry for any inconvenience!

Elizabeth Dunn: OPD's??? What was that?

Alec Newman: Open pollinated varieties.

Bhola Basnet: Scientists lack in salesmanship, they are not pro-active and very weak communicators. This trend has to be changed. This is my personal opinion.

Stella Siegel: OPV.

Elizabeth Dunn: Thanks.

Kristy Cook: Kristy Cook Cultural Practice, INGENEAS project - integrating gender and nutrition in agricultural extension and leading Zambia program with.

Ekanath Khatiwada: How to balance low inputs and high inputs support markets when we are working on the high demand of inputs including hybrid seed and associated inputs (chemicals, technology and fertilizers)? In this context how to comply USAID PERSUAP and EMMP giving the example of Zambia hybrid Maize sector?

Paul Bordoni: Why do the farmers do NOT want OPVs?

Stella Siegel: How is the data that farmers prefer hybrid supported?

Bhola Basnet: The coverage of improved varieties of maize in Nepal is about 85%.

USAID Microlinks: Thank you for your question, Ekanath! The presenters will be responding to questions around 10:00.

Alec Newman: OPVs have lower yields I believe?

Robert Navin: Another major cause of maize success was the market opportunity created due to the collapse of maize production in Zimbabwe due to their policies.

Brian Martalus: Rain distribution is what counts not total average rainfall.

Bhola Basnet: Most of the maize varieties in Nepal are OPV.

Meaghan Murphy: Hi all! Meaghan Murphy here from Feed the Future Enabling Environment for Food Security project. Great to see enabling environment highlighted here.

USAID Microlinks: Hi Meaghan!

David Mowbray: Interesting comment about Hybrid vs OPV. CIMMYT had been accused in the past of pushing hybrids when many farmers wanted to stay with OPV. The result was a change in some CIMMYT breeding emphasis.

Floyd Dowell: Isn't the real reason of success in Zambia the fact that they had free inputs and a guaranteed market??

Kristy Cook: Brian is right - distribution. Replanting is necessary many years in Zambia - hybrids become much more expensive when you have to plant 2-3 times a year.

USAID Microlinks: What do you all think about Richard's question just now?

Bhola Basnet: We in Nepal highly praised the project funded by USAID in Nepal named Integrated Cereal Project (ICP) which included rice, maize and wheat, still we have impact of ICP.

Brian Martalus: So hard to phase out subsidies.

Floyd Dowell: Seems he does attribute success to subsidies and output purchasing. Seems pretty simple summary of the success there.

Cynthia Donovan: There is substantial research on the Zambia FISP and FRA programs and the drain on all other investments in the Ag sector. See [fsg.afre.msu.edu/zambia/wp99.pdf](http://fsg.afre.msu.edu/zambia/wp99.pdf) and other INDABA documents.

USAID Microlinks: Thanks for sharing these resources, Cynthia.

Elizabeth Dunn: Please explain comment on slide: "innovation can go to scale without...market access."

Alec Newman: Also, what are the alternatives to an expensive input subsidy program?

Kristy Cook: Subsidies become entitlements - politically infeasible to walk away from.

Alec Newman: Exactly Cynthia.

Cynthia Donovan: One key problem: all the subsidies are on maize, thus constraining the options for other crops such as pulses and other grains.

Floyd Dowell: Elizabeth, Alec, and Kristy are right on track. Without subsidies and minimizing risk, there likely was no success in Zambia?

Bhola Basnet: Thank you.

Jennifer Bremer: Off-mike!

Cynthia Donovan: Bad audio.

Simon Winter: I am interested in how carefully and purposefully the partnerships between Gov't, donors and private sector have been structured or were the various stakeholders working independently and incidentally?

Raymond Waldron: Yes.

Cynthia Donovan: Better now.

Jennifer Bremer: Hi, Ray, long time.

USAID Microlinks: Thanks for the feedback on the audio. Please let us know if you're still not able to hear Dan White speaking.

Steve Morris: It's coming and going all the time as it was before.

Stella Siegel: Was there a biosafety study?

Sarah Gavian: What concerned me here was the huge area expansion. One would hope with (reasonably) high use of improved inputs (fertilizer, seed) would permit intensification.

Raymond Waldron: Hi Jennifer, let's chat off-line later.

George Staicu: Everything is OK with the audio here in Bucharest, Romania. I can hear very well Mr. Dan White.

Matar Gaye 2: Hi Ric: If risk is more critical than return for small maize producers of Zambia, how could we understand their preference for Hybrid varieties in the climatic conditions you described?

USAID Microlinks: FYI--You can private chat with other webinar participants by hovering your mouse over their name in the "Attendees" pod and selecting private chat.

Stella Siegel: Sarah, excellent point.

Jennifer Bremer: In answer to question on whether this is a justifiable subsidy, it would be interesting to see them shift to the buying and see if they can phase out the subsidies that way, but this won't work if they in fact are not viable as a

maize exporter. Can they do anything about that? Roads, other transaction costs?

Brian Martalus: Far out.

USAID Microlinks: Brian--ha : )

Anthony D'Agostino: Was the crop duration of the hybrid seeds substantially different than traditional?

USAID Microlinks: Keep the questions coming! I'm recording them and will share as many as I can during the Q&A later on.

David Mowbray: Question: Where does the USAID Drought Tolerant Maize for Africa Seed Scaling project -- working in Zambia -- fit in?

Felix Kamau: Hello, I am Felix Kamau from Nairobi. I work for The Nature Conservancy (TNC) as the Agriculture Strategy Director for Africa Region.

Robert Navin: What is the definition of small-holder in Zambia? What was the ratio of increased hectareage over time by small holders vs. large scale ex-Zimbabwe white farmers, and was animal traction or mechanized plowing and ridging used?

Stephen Kabiru: GMO or Non GMO?

USAID Microlinks: Welcome Felix!

Brian Martalus: GMOs are defacto illegal in Zambia.

Bridget Carle: Why illegal?

Felix Kamau: Thanks, there is a sound problem, I can see the slides but no sound!

Brian Martalus: Technically you could apply for a permit.

Brian Martalus: But I don't think one has ever been approved.

Floyd Dowell: Hybrids do not imply GMO.

USAID Microlinks: Felix, our A/V Tech will private chat you to help you with your audio issues.

Brian Martalus: There is a large stigma against GMOs in food crops.

Kristy Cook: Robert Navin - extensive work by IAPRI on farm size and changes see Food Security Research Project and IAPRI websites.

Raymond Waldron: I may have missed it: do input suppliers in your cases include village level "agro dealers?"

Floyd Dowell: So I assume they are all referring to non-GMO maize.

Felix Kamau: Thanks.

Brian Martalus: I have heard there is some traction around testing GMO cotton.

David Mowbray: None of the CIMMYT work in DTM varieties -- hybrid or OPV are GMO.

Robert Navin: Thanks Kristy.

Cynthia Donovan: <http://www.iapri.org.zm/> Indaba Ag Policy Research Institute.

Floyd Dowell: Is the current speaker referring mainly to maize? So the inputs are still provided for free or reduced cost to the farmer?

Paul Bordoni: He just mentioned maize.

Brian Martalus: Also lower bulk products.

Brian Martalus: Like veg.

Brian Martalus: It's expensive to move heavy maize seed and fertilizer around.

Raymond Waldron: Good point and I agree with Brian: horticulture crops.

Jennifer Bremer: But maize and fertilizer are high volume and basic, although usually short selling season.

Floyd Dowell: Seems that subsidized or free input would really affect this model??

Stephen Kabiru: Horticulture is geared for export can we look at feeding the local population with what they eat.

USAID Microlinks: We are moving into the moderated discussion portion of the seminar! Please feel free to answer the poll questions.

Stella Siegel: That is why it is strange to hear that farmers prefer to buy rather than save seed for planting, unless there is serious savings from drought tolerance.

Stephen Kabiru: Ok.

Brian Martalus: Imagine if they spent those hundreds of millions of dollars per year on education, literacy and extension services.

Brian Martalus: They would get higher yields as well as having more human capital for all sectors of economy.

Jennifer Bremer: Or irrigation to move to more high value, not to mention roads to reduce transaction costs, etc.

Cynthia Donovan: Critical problem: pan-territorial and pan-seasonal pricing used.

Jennifer Bremer: On question one, I voted not sure but what I meant was it depends.

Brian Martalus: One year they spent a BILLION dollars subsidizing maize.

Cynthia Donovan: For FRA maize purchases.

Brian Martalus: 20 percent of national government.

Brian Martalus: Budget.

Stephen Kabiru: I believe water management is the key.

Floyd Dowell: Brian's comments are right on track!

Jennifer Bremer: Ditto on question 2, it doesn't depend on whether the increased use of inputs (or use of higher-cost inputs) is profitable or not without the subsidy.

Jennifer Bremer: Well at least they're meeting their CAADP 10% requirement ;-)

Stephen Kabiru: I am with Jennifer on that.

USAID Microlinks: Richard just responded to question 1 and now Dan is speaking.

USAID Microlinks: Hesbon, please feel free to type in a comment or question in the chat pod.

Simon Winter: One of the key challenges around the policy level interventions is the stickiness of the policies and adherence to them - in a recent tour of Ghana, Nigeria, Kenya and Tanzania the on-again and off-again pressures around subsidies and government procurement schemes for maize were a critical disabler of private investment and farmer adoption.

Modibo Traoré: Yes there are a lot of distortions on the subsidies program. How we can avoid these distortions?

Cynthia Donovan: Recent research shows that the subsidy programs do not contribute to poverty reduction: [http://www.iapri.org.zm/images/PolicyBriefs/ps\\_71.pdf](http://www.iapri.org.zm/images/PolicyBriefs/ps_71.pdf)

Kristy Cook: Zambia maize subsidies are now entrenched, benefitting mostly larger farmers and purchase program benefits millers. Cannot examine Zambia maize policies without understanding the politics of 'democracy' in the country. The evidence on costs and inequitable distribution exist but that will not change the policies without policies that help government meet their needs of building constituents.

Gitau Mbure: Gitau Mbure from World Vision. I have a question for Dan: Thanks for the presentation. Did PROFIT face any challenges in managing the issue of exclusivity where input suppliers require the village level agro dealers to market their products exclusively and how was this managed? Also, what

types of embedded services proved most valuable to strengthen relationships with farmers and input suppliers?

- Sarah Gavian: Gov't subsidy of inputs, coupled with guaranteed purchase of surpluses is obviously hellishly expensive and politically treacherous (in that it becomes impossible to lift such policies later). It also has all manner of scope for corruption, distortions, etc. HOWEVER, and I don't know Zambia very well, what does it cost NOT to solve the problem of food security? I'm more familiar with the Sahel, where generations of desperate poverty (and corruption) are contributing to civil insecurity and global terrorism. I'm not trying to be knee-jerk alarmist - but there are huge costs to thwarting the dreams and energies of the young. How does the analysis look if we take achievement of food security (and the dignity of labor) as given, and figure out the costs/benefits of different approaches to achieving it?
- Meaghan Murphy: Good point Kristy.
- Jennifer Bremer: On Q2, definitely a tradeoff, but possible to reach the POOR as the speaker is saying, and maybe eventually the POTP.
- Felix Kamau 3: How about quality of inputs, is this a big problem in Zambia? There is widespread sale of fake inputs in several countries, e.g., Kenya and Tanzania.
- Kristy Cook: Commercial pathways work if there are WELL targeted, efficient safety nets for 'poor' - question is political context to achieve that.
- Jennifer Bremer: Farmers who do not produce a marketable surplus of their basic food crop and have no market for higher value products that they can reach do not buy inputs because they really need CASH.
- Simon Winter: For me the key questions are how to get the subsidies and purchase schemes to be well governed with participation in the governance mechanism by the private sector and farmers' representation - such that there are aligned interests but in ways that allow for an exit from or at least reduction of the subsidies to be transitioned over time.
- Cynthia Donovan: Agree with Kristy. There is not necessarily a tradeoff but in Zambia case, tradeoff is there. Also, subsidies have challenged commercial activities while not reaching the poor.
- Kristy Cook: Would like to hear a bit about PROFIT+ move from the community agro dealers to the producer corporations - very interesting model of upgrading local mom-pop input shops to more commercial enterprises.
- Stephen Kabiru: POVERTY= Lack of Reliable water source and lack of a paying ready market.

Jennifer Bremer: Don't forget, PLEASE, that the POTP are almost always net buyers of grain, so they benefit from lower local prices if that results from the program. This is almost always overlooked.

USAID Microlinks: Dan responded to this questions first and now Richard is speaking.

Jennifer Bremer: Poverty = lack of control over productive resources.

Brian Martalus: Not every rural dweller wants to be a farmer.

Brian Martalus: But it's the only option there.

George Staicu: What are the MAIN CONCLUSIONS of the two case-studies presented? ("Scaling Up of Drought-Tolerant Maize in Zambia", "Scaling Up Input Technology and Input Access: Clues from Zambia") Are they positive? Negative? Could they be replicated in other countries also?

Jennifer Bremer: Surveys show only 10% of rural youth want to be farmers in some countries, at least in part because they know there is less land for them due to population growth.

Stephen Kabiru: The youth do not want to do anything that does not pay.

Cynthia Donovan: The poor in Zambia in rural areas often have to buy back in the form of maize meal and those prices don't always reflect the lower prices for grain.[http://www.iapri.org.zm/images/PolicyBriefs/ps\\_73.pdf](http://www.iapri.org.zm/images/PolicyBriefs/ps_73.pdf)

Brian Martalus: There is a real difference between a motivated smallholder farmer who is experimenting, taking risks, trying to maximize profits.

Brian Martalus: Compared to a rural dweller doing the bare minimum.

Paul Bordoni: There is a market of subsidized inputs. On FISP, farmers get seed and fertilizer at a subsidized price and resell to the emergent and large scale, hence reaching the small scale farmers is not happening...

Jennifer Bremer: Also being POTP is often the result of illness/disability or other factors unrelated to motivation.

Stephen Kabiru: WATER= Better Health and Better Crop.

Edye Kuyper: The topic of bundling also relates to the ability of the cropping system to achieve food and NUTRITION security. Given stunting rates in Zambia, production diversity is extremely important.

Olu Ajayi: Most youths do not wish to take up farming because they see few successful farmers- most of the farmers they see around them are poor, vulnerable, even in land abundant countries.

Richard Meyer 2: Has anyone considered the impact of elite urban people acquiring land and crowding out smallholder access to more land (i.e., the MSU findings)?

Sharon Mbanjo: Poverty= countries not directing resources to sectors they have a comparative advantage in pursuing.

Dan Norell: If the poorest have the options of rural employment or migrating out per the presenters, then what employment creation efforts should donors support for the poorest in the rural areas?

Floyd Dowell: The speaker is fading out again.

Cynthia Donovan: Sorry. Have to go. Excellent discussion. Thanks.

Anthony D'Agostino: Alternatively promoting pull factors in urban areas to capitalize on higher marginal productivity, as well as ease population: land availability stresses because of rural population growth.

Brian Martalus: Wheat/soy rotations for commercial farmers in Zambia.

Stephen Kabiru: Three years ago TIME magazine featured an article of a Chinese Immigrant who made \$25m from growing Chicken in Zambia. What do the Chinese know that the Zambians don't?

USAID Microlinks: Thank you for joining Cynthia!

USAID Microlinks: Please continue to share your questions. We will alternate between in-room and webinar.

Brian Martalus: Poverty in Zambia pretty much correlates with land size.

Natalia Estrada-Carmona: So, it was a success to scale-up maize adoption by medium-small farmers in Zambia, however, the impact of this on food security is dubious. Zambia was listed the third worst country according to the global hunger index (<http://www.ifpri.org/publication/2015-global-hunger-index-armed-conflict-and-challenge-hunger>).

Brian Martalus: More land, less poor.

Stella Siegel: There are also successful Zambian farmers growing chicken but they have capital for investment.

Emmanuel Lusumpa: Brian what do you mean?

Brian Martalus: Diets in Zambia are not very diverse.

Robert Navin: Malawi, right next door, is much poorer per capital and heading downward due to El Nino, bad policy implementation, and some bad policies including fertilizer subsidies for political reasons. Subsidies and food relieve has

locked Malawi into a poverty trap. Population growth rates have to come down from 3+%, and lousy subsidies need to be moved into irrigation infrastructure investments, agricultural research, and extension. Richard and Dan's lessons from Zambia are spot-on, but of limited applicability to many other countries.

- Brian Martalus: Meaning, people in Zambia with smaller plots are poorer.
- Brian Martalus: And vice versa.
- Brian Martalus: Due to low productivity, people with less than 2HA are generally net buyers of crops.
- Stephen Kabiru: Capital is just like Dating. Capital will come to you if you have something the capital likes. You have to have something sellable.
- Stella Siegel: Was there a biosafety assessment done before supporting hybrid seed in Zambia?
- Stella Siegel: Capital is not like dating, it actually based on practical considerations.
- Floyd Dowell: Stella, is there a biosafety concern with hybrids?
- USAID Microlinks: Thanks for all of your great questions! Wondering....how did you like the moderated discussion on the webinar? Did you enjoy the polls?
- Stella Siegel: Yes, it ultimately has potential to affect availability of heirloom/heritage seed.
- Stephen Kabiru: Polls were nice but limiting. Thanks.
- Jennifer Bremer: Project implementation is sailing across a stormy ocean, not following a highway.
- Natalia Estrada-Carmona: Also, there is a gender assessment to identify how scaling up maize is affecting women and men? Considering the different accessibility to inputs, lands, support...?
- Stella Siegel: That is the reason people object to Monsanto.
- Floyd Dowell: Ok, I see Stella's concern now.
- Kristy Cook: Natalie - wonderful point - lower middle income country, food secure but high, high rate of stunting. It's not about food only obviously - huge income distribution issue in Zambia, dietary diversity issue, and many other factors currently under study. SUN Movement active and hopeful, but income distribution and huge rural poor without many options is not easily solved. Note growing obesity as well as wealthy increase consumption but do not improve diets.

Stephen Kabiru: GENDER= Woman and Children are the Labor and Man is the Manager.

Felix Kamau: Great discussion, but I am sorry I have to leave now.

Brian Martalus: Our largest contract sets the main value chains, but lets the partner change crops with consultation with the COR.

Brian Martalus: Meaning it doesn't have to go to the CO.

Brian Martalus: So it's much more flexible.

Theodore Nouhoheflin: Great insight.

Patrick Binns: Other than government subsidies for hybrid maize seed and grain purchase program, what were success factors of best input suppliers? Did they use local demo farms to show improvements in yield and resilience? Did suppliers provide simple marketing materials? Were there special business support programs for suppliers?

Kristy Cook: Natalie -again good point. In Feed the Future we chose groundnuts (I was at mission during that period along with Brian) rather than maize to work on because would get more women. Big gender issues with 20% women-headed HHs and GBV, but not easy solutions. PROFIT+ has a good gender strategy and works with many women - INGENAES will be looking at some impacts of this on dissemination of extension to women. Some work by HarvestPlus on orange maize, but very few other studies look at gender.

Simon Winter: So why had Zambia developed such a strong commercial seed sector in the first place?

Stephen Kabiru: Simon Proximity to Zimbabwe and Mozambique where the seed commercial seed companies were strong.

Jennifer Bremer: With regard to OPVs, is there a difference between OPVs that do not have other desirable characteristics, e.g., QPM vs others that are just basically less successful replicates of hybrids? If so, which ones. Interesting point on the certified OPVs.

Paul Bordoni: Simon: hybrid seed is also lots of money, and makes sure that fertilizer is also sold (other money)...

Simon Winter: Good point Stephen - I presume it was also partly due to the strong market that had presented itself for commercial seed sales from the commercial farmers in Zambia - who ironically have now exited maize due to the ongoing policy distortions - question then is to Richard's point - in countries where you don't have the proximity and the market already there how do you develop sufficient attraction to commercial seed multipliers and distributors.

Jen Peterson: When I worked in Zambia in the 90's, farmers were very focused on fertilizer. They only used hybrid maize if they had access to fertilizer. Fertilizer used on maize isn't specific to maize - can be used on other crops. We have heard a lot about seed, but not much about fertilizer here. What can the presenters say about impacts of this approach on fertilizer availability and use in Zambia?

Stella Siegel: How does one address externalities, when neighboring plots have different plots? If one farmer prefers PVO and saving seed and another chose to plant hybrid?

Robert Navin: Due to the serious drought this year in southern Africa, many farmers who spent money on hybrids and fertilizer will need to reassess what they do next year. Drought tolerant varieties are also failing this year. It will be interesting to see if pressure is put on governments to move inefficient fertilizer subsidies to investments in irrigation, and research and extension on other crops. As Richard said, USAID needs to be flexible in light of climate change and weather variability.

Stephen Kabiru: Jen, I guess fertilizer is not a big issue as seed because as one of the people in the forum suggested there is an influx of fake seeds being sold in the region.

Raymond Waldron: Excellent point about M&E and consistent with USAID/FtF guidelines.

Jen Peterson: Thanks Stephen!

George Staicu: Yes, I liked the moderated discussion on the webinar and the polls. It was something new and it was keeping me alert. Thanks for this VERY INTERESTING webinar. Thanks & congrats to the presenters, moderators and organizers! Hope we will get a copy of the VERY INTERESTING chat discussions, questions & answers! Have to go! Bye.

Jennifer Bremer: Irrigating maize is rarely profitable. Once you go to irrigation, people need to shift to something more high-value.

Jennifer Bremer: Also agree this is a great discussion.

USAID Microlinks: Thanks for joining, George!

Jennifer Bremer: Would appreciate link to the study mentioned on gender and agro-dealers/agents

Stephen Kabiru: Jennifer what type of irrigation are you thinking about? What part of irrigation is the most expensive? Drip irrigation is affordable then again the duration the Maize crop takes to mature.

Emmanuel Lusumpa: Jennifer, I agree with you on irrigation.

Brian Martalus: Or you need much larger scale maize for irrigation to be worth it.

Brian Martalus: Hundreds or thousands of hectares.

Theodore Nouhoheflin: Targeting farmers as individuals in the adoption of technology is not enough. What is the role of farmer s organizations in this process? Farmer's organizations play a key role in information assess, inputs and outputs markets. Individuals may not have all the resources to assess markets.

Robert Navin: Indeed, people do need to shift to higher value crops on irrigated lands (or lands with better retained moisture). Sorghum will be replacing maize in some areas. Diets are hard to change, but that was the staple in southern Africa before maize was introduced 200+ years ago.

USAID Microlinks: We will include all of the additional studies that Dan and Richard mentioned with the other event resources on Microlinks and Agrilinks. They will be up in the next day or so. <https://www.microlinks.org/library/scaling-input-technology-and-input-access-clues-zambia-event-resources>

Stephen Kabiru: African Development Bank and World Vision have small scale Irrigation projects in Tunisia, Egypt and Kenya respectively. These projects have successfully paid back the investment in 2 years.

Theodore Nouhoheflin: High yield seeds have been introduced in Africa for decades and we have some success stories as well as constraints to adoption. There are tremendous literature available at IITA and other CGIARs. What are the lessons learnt from these adoptions?

USAID Microlinks: Please answer these end of seminar polls to help us shape our future events!

Brian Martalus: Is that Carl Wahl?

USAID Microlinks: Mark H. from USAID/BFS is now speaking to respond to the in-room question.

Katy Wyatt: What was the in-room question? It was cutting out.

USAID Microlinks: Katy--I was not able to catch it all either...did any of the other webinar participants hear more clearly?

Stella Siegel: Robert, good point, may be rather than push soya bean and hybrid on Africa we should look into ecologically appropriate agriculture.

Nicholas Neuenschwander: Could not hear the answer or the question.

USAID Microlinks: Richard is now responding to the question.

USAID Microlinks: Everything is being recorded and will be available in a week's time so you will be able to loop back to this part of the Q&A.

Stephen Kabiru: Awesome discussion.

USAID Microlinks: So glad that many of you found it valuable! We were excited to bring Dan and Richard together to discuss this topic.

Jennifer Bremer: One big factor overlooked here is that the shallow market for purchased maize means that farmers and traders have an experience that years of high yield are years of LOWER income due to a crash in prices, so standard buying by the government is actually useful, IF the government can afford it, which normally they can't.

Stephen Kabiru: Jennifer... perfect point.

Jennifer Bremer: So rainfall risk and price risk are negatively correlated; price risk is a huge disincentive to invest in new technologies.

Stephen Kabiru: Jennifer would crop Insurance backed by the Government work?

Emily Mwale Banda: The comments on conservation agriculture is true. Most rural poor farmers would like to participate, but do not have adequate resources to effectively achieve their goals. For example, it is costly for a poor farmer to buy weed killers, when she/he is thinking of buying fertilizer to improve the yields. If there can be a wholesome approach, it can help the poor farmer achieve higher yields

USAID Microlinks: We are over the time but are wrapping up. Thank you to everyone who joined us today! Post-event resources (including the webinar recording, transcripts, and links to the studies that Dan mentioned) will be available within a week. You will receive an email with a link to the event page on Microlinks.

Jennifer Bremer: Crop insurance can work if the risk is not correlated all over the country, i.e., drought/etc. affects only some of the insured. If it affects everyone it is hard to make it work, but it depends on the place.

Olu Ajayi: The Technical Centre for Agric and Rural Cooperation (CTA) is just about to begin a new work on Promoting Climate Resilient AgriFood Solutions in Southern Africa region- one of the comments of the Project is to identify best practices on weather-based crop insurance.

USAID Microlinks: We will be producing a video with one more additional question answered by Richard and Dan that will be available in about a month. So, stay tuned!

Stephen Kabiru: Olu and Jennifer, thanks.

USAID Microlinks: Thank you all for attending!

Paul Bordoni: Thanks!!

Olu Ajayi: Thanks.

Raymond Waldron: Excellent!

USAID Microlinks: Great discussion online today.