



**MPEP** SEMINAR SERIES  
Exploring Frontiers in Inclusive Market Development

# SMALLHOLDERS IN VALUE CHAINS: EVIDENCE ON SCALE, PRODUCTIVITY, AND BENEFITS

---

WEBINAR CHAT TRANSCRIPT

MARCH 27, 2014

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

## **PRESENTER:**

Elizabeth Dunn, Impact LLC

## **WEBINAR CHAT TRANSCRIPT:**

**USAID Microlinks:** Hello everyone and thanks for joining the seminar today! People are beginning to arrive in the room. If you can hear my audio, please go ahead and introduce yourself in this public chat. We'll get started in about 15 min.

**Patricia Orlowitz:** The audio is great – thanks! This is Patricia from USAID/Cambodia

**Diana Cazacu:** Hello everyone - I can hear very well

**Oana Baban:** Hello everyone! Audio great here too! Oana from Vestergaard, Switzerland

**Veronica Letelier, FHI 360 (Guest Webinar Facilitator):** Veronica Letelier, Technical Advisor for Agriculture and Livelihoods at FHI 360 Washington, DC

**Diana Cazacu:** I am Diana from Advisor Finance, Netherlands. Previously worked in African countries for Opportunity International Banks and Banco Terra (ra bobank subsidiary), Mozambique

**Joachim Weber:** Hi, this is Joachim from Nairobi. Sound is good, and I'm looking forward to listening in. I'm a ValueLinks (GIZ) guy but working freelance all over Africa mainly with organic and certified value chains

**USAID Microlinks:** Hi everyone, if you can hear my audio, please go ahead and introduce yourself in this public chat. We'll get started in about 15 min.

**Hans Martin Dietz:** Hi, I am Hans Marrin, working for HELVETAS Swiss Intercooperation in their head office in Zürich

**Hans Martin Dietz:** My main area of work is market systems development (M4P) working with our projects in Asia and Africa

**Sohel Khan:** Hi, good morning, can you hear me? I just introduced myself.

**Hans Martin Dietz:** Happy to be here

**Sohel Khan:** This is Sohel Khan, working in Canadian Hunger Foundation, based in Ottawa, Canada

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Nyambura Theuri:** Thanks. I am Nyambura from Catholic Relief Services, CRS, Nairobi

**Sunitha Viswanathan:** Hi, I am from Bangalore, India. I work with Unitus Seed Fund - an early stage Venture Capital Fund that makes investments in startups that serve large number of low income population in India.

**Jessica Murcia:** Hi I am from Colombia. I work with Grameen Foundation

**Gabriel Nehrbass:** Hi this is Gabriel Nehrbass from Save the Children. I am in Costa Rica.

**Khalil Almikhlaifi:** Hi I am from Yemen

**Khalil Almikhlaifi:** I work for the Yemen Microfinance Network in Yemen

**USAID Microlinks:** Gabriel in Costa Rica, your old colleague Angelina from Save the Children says hello and thanks for joining the seminar.

**Gabriel Nehrbass:** Hi Angie!

**Khalil Almikhlaifi:** Hi every body

**Ruth Junkin:** Hi. This is Ruth from CRS in Tanzania.

**Khalil Almikhlaifi:** Thanks for welcoming everybody

**Samantha Penabad:** Hi this is Samantha Penabad joining from Accenture Development Partnerships

**Kristin Lang:** Kristin Lang from Croatan Institute in Washington, DC

**Catherine Sobrevega:** This is Catherine from MEDA. I am in Ghana

**David Maxson:** Howdy all, David Maxson Senior Investment Officer for Africa from Accion International

**Leslie Gardiner:** Hi everybody! Leslie from CHF in Ottawa. Hearing you fine.

**Christopher Thomas:** Christopher Thomas, dialing in from Cleveland, OH, freelance consultant

**GITAU MBURE:** Gitau Mbure, WV US, Washington DC. Audio is coming through just fine

**Sohel Khan:** Jim Hamilton also join from Canadian Hunger Foundation, Ottawa, Canada

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Lowna Gie:** This is Lowna Gie from Fairfood International. I am calling in from Johannesburg

**Joanne Sonenshine:** Good morning! Joanne Sonenshine from Connective Impact Arlington, VA

**James Obarowski:** Hi this is James, Program Manager at TechnoServe from Port-au-Prince, Haiti <http://www.technoserve.org/our-work/projects/the-haiti-hope-project>

**USAID Microlinks:** Hi everyone, thanks for joining us! If you can't hear my audio, please let me know through this chat pod

**ANN ODEN:** Hi this is Ann Oden, Country Director, Nigeria for PYXERA Global

**Joanne Sonenshine:** Thanks! Are we on mute?

**Ghislain Auger:** Good morning, Ghislain from Québec City, Canada Développement International Desjardins

**Murray Fisher:** Murray Fisher, U.S. Water Partnership & World Vision, based in US

**David Maxson:** Oh, I am in Washington DC sorry heh

**Joanne Sonenshine:** Just wanted to make sure you can't hear me typing :)

**Karen Musikoyo:** Good Morning, Karen & Salome from USIU Nairobi have just joined the seminar

**David Maxson:** Oh I know, snow now? Come on

**Ed Brooks:** Good morning, Ed Brooks from Mercy Corps.

**Asya Troychansky:** Good morning everyone! I'm Impact Officer from Root Capital, Cambridge, MA

**Cecilia Banks:** Hi everyone, this is Cecilia Banks from Winrock International

**Ruth Dueck-Mbeba:** Good morning, Ruth from the MasterCard Foundation Your audio is coming through well.

**Jed Byers:** Good morning. I'm Jed Byers from Washington DC. I'm a graduate student at American University

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Jessica Bachay:** Good morning, this is Jessica from FHI 360 in DC

**David Pankratz:** David Pankratz, iDE Canada, Winnipeg Canada

**ANN ODEN:** Good morning. Ann Oden, Country Director Nigeria for PYXERA Global

**J Sebstad:** Hi, I'm from the Office of Microenterprise and Private Enterprise Promotion at USAID Washington

**Daniel Lissit:** Good morning everyone. I'm Dan Lissit, with Heifer International here in DC.

**Camila Castaneda:** Good morning, I am Camila Castaneda from the International Labour Organization (Geneva)

**David Neven:** David Neven, FAO, Rome

**Tina Connor:** Good morning, Tina Connor from International Relief and Development (Arlington, VA).

**Aimee Russillo:** Aimee Russillo - Berea, KY. south eastern appalachia. LiSeed

**Rachel Escot:** Rachel Escot, Program Development Director at SFV Consulting Group, an independent consultancy, I join from Paris, France

**Gabriel Nehrbass:** By email

**Samantha Riley:** Good morning, this is Samantha Riley from Fairfood International. Calling from Johannesburg.

**Lucie Chocholata:** Lucie Chocholata, FAO

**Gabriel Nehrbass:** 8 years of development experience

**Gabriel Nehrbass:** Oh whoops

**David Mbugua:** David Mbugua, World Vision Canada, Mississauga Canada

**Melanie Chen:** Melanie Chen, Freedom from Hunger in northern California

**Samantha Penabad:** For seminars, I often refer to twitter feeds as well!

**Sandrine Chetail:** Sandrine Chetail, Mercy Corps based in France

**Steev Lynn:** Freelance ag/business consultant, Brattleboro VT, USA

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Daniel Lissit:** Hey Melanie

**ROD DUBITSKY:** Rod Dubitsky, BRAC, London, 7 years experience.

**Sarah Heddon:** Sarah Heddon, AKF USA joining from Washington DC

**Forrest McKennie:** Forrest McKennie:MCC

**Dana Lunberry:** Greetings! I'm a program manager with Opportunity International based in Chicago, US.

**Giang Duong:** Giang Duong, FAO, Rome

**Reimund Kube:** Reimund Kube, independent, joining from DC

**Caitlin Lindsey:** Caitlin Lindsey, Development Innovations Group, DC Metro Area

**Diana Cazacu:** Elizabeth, will we be able to save this chat after the presentation?

**Joanne Sonenshine:** Is there a twitter hashtag for the discussion?

**Emily Shipman:** Emily Shipman, Sustainable Food Lab in VT in the US

**Marie Ang:** Good morning from Toronto! Marie Ang with The MasterCard Foundation

**Rodolfo Quiros:** Rodolfo Quiros, Academia de Centroamérica, Costa Rica

**Ewa Sierzynska:** Hi from Ewa Sierzynska, DC

**Adolfo Ruiz:** Hello, Adolfo Ruiz, Samaritans Purse, Kampala Uganda, +15 years experience

**USAID Microlinks:** Jeanne Downing from the Microenterprise and Private Enterprise Promotion Office is introducing the seminar and Elizabeth Dunn

**Anne Swindale:** Anne Swindale USAID/BFS Washington DC

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

**Veronica Letelier, FHI 360:** For more information on the FIELD-LWA you can go to:  
<http://kdid.org/projects/field-support>

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Doudou NDIAYE:** Regional Agriculture Specialist, Sahel Regional Office, USAID / Senegal

**Merrilene Peramune:** Hi Merrilene Peramune from Sri Lanka

**Cristiano Rossignoli:** Cristiano Rossignoli, University of Pisa, Italy

**Melissa Adams:** Melissa Adams, MCC, Washington DC

**Kerry Max:** Hi, Kerry Max, Director Inclusive Financial Services, MEDA, Ottawa Canada

**Grace Kenney:** Grace Kenney, ADM Institute for the Prevention of Postharvest Loss at the University of Illinois

**Robert Newbery:** Bob Newbery, Associate Professor Entrepreneurship and Development, Plymouth University

**USAID Microlinks:** The handout she is referring to can be found here:  
<http://www.microlinks.org/library/field-report-no-18-smallholders-and-inclusive-growth-agricultural-value-chains>

**Colton Hubbard:** Hello, Colton Hubbard, International Youth Foundation, Baltimore MD

**USAID Microlinks:** It will also be available in the file downloads pod during Q&A

**Gail Motsi:** Gail Motsi from CHF in Tamale, Ghana

**George Kegode:** Hello, George Kegode, Assistant Professor, Northwest Missouri State University

**Gloria Almeyda:** Gloria Almeyda, Center for Intercultural Education & Development, Georgetown University, Washington D.C.

**Christian Pennotti:** CARE, Food and Nutrition Security, Senior Technical Advisor

**Conor Walsh:** Hi, I am with CRS in Tanzania

**Ratnesh Jha:** Ratnesh, Poverty Unit, UNDP India

**Brian Malcolm:** Brian Malcolm, Cdn Cooperative Association, Ottawa, Canada

**Ben Friedman:** Ben Friedman, Senior Manager, Agriculture & Food Security, AECOM International Development, Washington, DC

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Caroline Fowler:** Caroline Fowler, EcoVentures International, Washington, DC

**Kerry Max:** Connor - just a quick hello from your old Nicaragua friends Kerry and Melissa

**Patricia Richter:** Patricia Richter, Social Finance Programme, International Labour Organisation

**James Obarowski:** Also relevant is # of farmers who could benefit, i.e. number of dairy farmers

**Terrence Isert:** Terry Isert, ProMicro Consulting LLC

**Veronica Letelier, FHI 360:** Please feel free to write your questions in your chat box

**Diana Rutherford:** Diana Rutherford, Research & Evaluation, Economic Development & Livelihoods, FHI 360

**GITAU MBURE:** Gitau Mbure, WV US. How is smallholder defined? Is it possible to have scale in participation presented as a ratio of smallholder farmers versus other farmers?

**Veronica Letelier, FHI 360:** The study uses the World Bank's definition "smallholders farms are defined as operating two hectares or less"

**GITAU MBURE:** Thanks Veronica for the definition.

**Veronica Letelier, FHI 360:** We are also keeping track of your questions and they will be asked at the end

**Karen Musikoyo:** I like Gitau Mbure's question. Thanks Veronica for the clarification

**David Neven:** Does the research cover post-project impact assessments? Perhaps many farmers can be reached, but with project assistance remains a critical factor driving adoption/upgrading. How sustainable are the results presented?

**Kerry Max:** What is the thinking that might explain the disconnect between higher farm profits and no significant impact on HH income?

**Veronica Letelier, FHI 360:** Thank you for your question David, we will share with presenter

**Gail Motsi:** Is there any sex disaggregation of the benefits?

**USAID Microlinks:** Thanks David and Kerry for your questions. Can you let me know your

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**



organizational affiliation and where you're joining us from?

Veronica Letelier, FHI 360: Thanks Kerry, Please keep sending your questions

**Richard Meyer:** Is there any counterfactual data to suggest what income would have been without the projects?

**David Neven:** Food and Agriculture Organization, Rome , Italy (agri-industry division)

**Veronica Letelier, FHI 360:** Thanks Richard

**Gail Motsi:** How were farm profits calculated - did the calculation incorporate fixed and variable costs of production?

**Terrence Isert:** Piggy-backing on the gender question, is there disaggregation by age (specifically youth)?

**Veronica Letelier, FHI 360:** Please make sure to include the name of your organization when asking questions

**Khalil Almikhlafi:** In countries with poor infrastructures, what value chain can do if all the issues and finding are focusing on having strong and good infrastructure like water and power supply?

**Khalil Almikhlafi:** Power?

**Cristiano Rossignoli:** In the case of Kenya dairy, is there any comparative analysis about increasing milk yield through working on other production factors (animal nutrition, extension services etc...) instead of improving the cattle genetic strain through AI?

**Teshale Endalamaw:** I am Teshale from Ethiopia

**Richard Meyer:** Do power relationships in the chain suggest that more of the benefits are going to middlemen? Ohio State

**Veronica Letelier, FHI 360:** Thank you Gail, Terrence, Khalil please remember to add your organization's name

**Karen Musikoyo:** Great presentation

**Sunitha Viswanathan:** Thank You!

**Terrence Isert:** (retyping question) ProMicro Consulting, Piggy-backing on the gender question, is there disaggregation by age (specifically youth)?

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Gail Motsi:** It's Gail from CHF Ghana

**Daniel Lissit:** Cristiano, our (Heifer International) East Africa Dairy Development project has incorporated just that approach. I believe that improved care/nutrition of local breeds has resulted in production increases of ~4x.

**ANN ODEN:** Excellent presentation. It captures the issues vividly and globally.

**Jerry Battulga:** Hello everybody greetings in Mongolia

**Jed Byers:** What is the proper role of the private sector in helping commercialize smallholder farmers? What are the risks - and benefits - that result from trying to incentivize private sector actors to incorporate smallholders?

**Joachim Weber:** Thanks, Elisabeth, well done. I really like your point that the household capacity and capability of the smallholder is important. It can't be stressed enough that the value chain approach is not a solution to all situations, but only if there is a market opportunity and people who are capable to produce a competitive product.

**Jerry Battulga:** Sorry I cannot see PowerPoints help me

**ROD DUBITSKY:** Hi - Could the HH income/ farm profit paradox be explained by measurement issues? EG maybe farmer profits don't adequately capture higher labor and input costs and so profit is overstated, while HH income may be more easily measured.

**Cristiano Rossignoli:** Thank you Daniel :) I read some interesting paper from Heifer! Thaks

**USAID Microlinks:** Hi Jerry, the PPT slides are available for download in the download pod to the left of your screen.

**Doudou NDIAYE:** Thank you for the clear presentation. My question concern the Small holders producers in case that they cannot satisfy the quality or technology along the high value chain likely export products, what support from the Government are needed?

**Veronica Letelier, FHI 360:** Thank you everyone, we will try to get your questions answered

**KDAD AV Tech:** Doudou, good to see you again, I recognize your name from yesterday!

**GITAU MBURE:** Yes

**Diana Cazacu:** Are you aware of any programs that are helping tobacco farmers in

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

countries in Africa to diversify their crops in order to reduce the dependency on the income from tobacco crop? Many times these farmers are excluded from receiving assistance, because of they grow tobacco.

**Doudou NDIAYE:** Yes, nice to have you again today

**Connor Walsh:** Or is it possible that the unit of measurement is different: the farm may or may not be directly linked to the HH. Could it be that farm profits are not shared with the HH, because the "farm enterprise" is controlled by other interests?

**USAID Microlinks:** Hi Khalil, I see that you've raised your hand. Do you have a question you'd like to share with us in the public chat?

**David Pankratz:** When you say that HH income does not increase, are you restricting the term 'HH income' to cash income from sales into the market? Or is it even more restricted to the increase in cash expenses on HH goods such as food and clothing?

**David Pankratz:** Do you have a breakdown of the uses of 'profits' between consumption, loan repayment, investment in other income earning opportunities, and spending on HH needs?

**Haben Berhe:** Question: was there evidence where agriculture technology adoption by smallholders significantly increased the push and pull factors Elizabeth mentioned?

**Jerry Battulga:** How to monitoring HHs income?

**George Kegode:** Can questions be repeated for clarity?

**Teshale Endalamaw:** Can we say the linkage we will create between MFI and establishing village saving groups as a push strategy/factor and linking them with market as pull factor?

**Veronica Letelier, FHI 360:** Thanks! Keep your questions coming!

**David Pankratz:** Lastly, if I understood you correctly, children's education was excluded from the definition of HH income. Did I get that right? If so, then it seems to me you're excluding a primary benefit of increased income, and I would argue that the measure of increased profits should be increases in school attendance through secondary school into post-secondary education. Have you any figures that relate increased profits with child's educational achievement?

**Jerry Battulga:** Our department implement saving group model in the urban and rural area now we are want to implement local value chain development model so confusing how to correct monitoring HHs income?

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Jerry Battulga:** We want organize easy way for monitoring

**Veronica Letelier, FHI 360:** You can find additional resources here:  
<http://www.microlinks.org/good-practice-center/value-chain-wiki>

**Jerry Battulga:** And note about income...

**Stephanie Haile:** Also take a look at the great body of work completed by USAID and the Syngenta Foundation on scaling improved seeds to smallholders available at:  
<http://www.apxc.org/#!/scaling-seed/c2518>

**Veronica Letelier, FHI 360:** FAO's <http://www.fao.org/ag/ags/ivc/en/>

**Veronica Letelier, FHI 360:** Thank you Stephanie

**USAID Microlinks:** We want your feedback! In lieu of a formal survey, please take one to two minutes to respond to our poll questions. This information will help us to better plan and implement these events going forward and will not be live broadcasted to other webinar participants. Please note that you will not be contacted by the Microlinks team unless you give us permission in the polls.

**Veronica Letelier, FHI 360:** And FAO's inclusive markets:  
<http://www.fao.org/economic/est/issues/smallholders/en/#.UzMgsPldV8E>

**Jerry Battulga:** Thank you

**Jerry Battulga:** For your support

**USAID Microlinks:** Thanks for filling out our survey! Very much appreciated :)

**Gabriel Nehrbass:** Gabriel Nehrbass from Save the Children. Did you look at smallholders in value chain agricultural activities they were already engaged versus smallholders entering new agricultural value chains (such as diversification projects)? If so, what were some of the differences you noted?

**Richard Meyer:** Thanks for the webinar

**Gabriel Nehrbass:** \*engaged in

**Iván Rodríguez:** For a limited market, Increase in productivity could produce an oversupply and lower prices ... then less income

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Veronica Letelier, FHI 360:** See recent report from promising Practices in Food for Peace Development Food Assistance Projects

**Jed Byers:** Great. Thank you for taking my question. Much appreciated.

**Kari Nelson:** One of the recommendations made is to have longer impact evaluation horizons. First question- is there a recommendation as to how long is long enough? And the second part- how do you balance the need for a longer time frame while also trying to protect treatment and comparison groups from contamination by other projects over these longer time frames?

**Khalil Almikhlafi:** When we start implementing value chains for certain agri product we are being criticized by either government officials or the farmers who's their expectation is somehow very high. From your experience what are the most successful tactics to tackle these issues?

**Feed the Future KDAD Project:** Thanks for your questions everyone! We will try to pose as many as we can today but if we don't get to them all, we encourage you to share them on the Microlinks event page.

**David Pankratz:** So, if drinking beer isn't HH income, what is? Is money that gets spend on children's education considered HH income?

**Joachim Weber:** Drinking the beer is spending household income, but you are right earning the money in the first place is part of the HH income

**Joachim Weber:** In one of the project I have been working farmers clearly told us that they don't want receipts or keep track of income because they did not want their wives to know about the income

**Reimund Kube:** Household income: diversified; value chain concentration: reduced diversity, but possibly higher profits, and also higher risks

**Joachim Weber:** So like Elizabeth has said, very difficult to track hh income

**Jerry Battulga:** Yes very difficult to track HHs income

**Jerry Battulga:** If you have case study about track H Hs income please could share us

**Christian Pennotti:** Thanks all.

**Diana Rutherford:** You could use HH financial diary, but literacy/numeracy is an issue, as it willingness of HHs to document income.

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**George Kegode:** Thanks for the presentation.

**Veronica Letelier, FHI 360:** Thank you everyone

**USAID Microlinks:** Thank you all for your participation. We apologize if we didn't get to your question. We'll work with Elizabeth to get them answered

**Cecilia Banks:** Many thanks

**Patricia Orlowitz:** Thanks

**Jed Byers:** Thank you

**Terrence Isert:** Thanks!

**Rachel Escot:** Many thanks

**David Maxson:** Much appreciated, thanks.

**Khalil Almikhlaifi:** Thanks everybody

**Karen Musikoyo:** Thank you very much for the wonderful presentation

**Ed Brooks:** Thanks. Very interesting presentation.

**KDAD AV Tech:** We'll leave the room open for about 10 minutes for polling and so you can check out the resources from today

**Jerry Battulga:** Thanks every body

**Sohel Khan:** Thanks you...

**Gabriel Nehrbass:** Thanks a lot

**Manuel Felix Abejo:** Thank you! Good day to everyone!

**Katherine Vaughn:** Thank you!

**Cristiano Rossignoli:** Thank you very much, Cristiano Rossignoli, dept. of Vet Science, University of Pisa Italy - [crossignoli@vet.unipi.it](mailto:crossignoli@vet.unipi.it)

**ANN ODEN:** Thanks very much!

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**

**Lucie Chocholata:** Thanks!

**Jessica Murcia:** Thanks

**This document was produced for review by the United States Agency for International Development. It was prepared by the Feed the Future Knowledge-Driven Agricultural Development (KDAD) project. The views expressed are those of the author and do not represent the views of the United States Agency for International Development or the United States Government.**