



# GOING GEOSPATIAL WITH IMPACT EVALUATIONS

---

## WEBINAR CHAT TRANSCRIPT

**JULY 15, 2015**

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.

## Presenters

Dr. Ariel BenYishay, AidData

Dr. Mark Buntaine, University of California Santa Barbara

Dr. Daniel Runfola, AidData

Tania Alfonso, USAID (Moderator)

**USAID Learning Lab:** Welcome, Everyone!

**USAID Learning Lab:** Thanks for joining today's webinar

**USAID Learning Lab:** To get us started, we'd be interested to hear more about all of you.

**USAID Learning Lab:** Please introduce yourself by listing your name, organization, and where you're joining us from

**USAID Learning Lab:** We'll get started in about 10-12 minutes

**Boris Badza:** Hello everyone, I am Boris from Bosnia, (USAID MEASURE-BIH), IMPAQ International LLC,

**Amit Srivastava:** Hello everyone, I am Amit Srivastava from CIMYYT New Delhi, India

**USAID Learning Lab:** Welcome, Boris! Glad you could join us

**Jacob Dodoo:** Hello everyone, I'm Jacob Dodoo from Ghana. PhD candidate at the University of Nairobi, Kenya

**Wynne Mancini:** I am Wynne Mancini from Chemonics International, Washington, D.C..

**Jonah Meyers:** Jonah Meyers from Rights and Resources Group in Washington, DC

**KDAD Facilitator:** Hi Jonah, Wynne and Jacob! Thank you for introducing yourselves!

**KDAD AV Tech:** Thanks to everyone for logging on early. Kindly introduce yourself, sharing your organizational affiliation and where you're joining from.

**Sarah Bindman:** Hi all, I'm Sarah Bindman from SpatialDev in Seattle

**Julian Aramburu:** Hello everyone. I'm Julian Aramburu, Inter-American Development Bank, Washington DC

**Scheller Hinkle:** Hi. My names Scheller, and I'm with Tetra Tech ARd up in Burlington, VT.

**Ryan Fong:** Hi all, I'm Ryan Fong from USAID/Mozambique

**Gabriela Alcaraz Velasco:** Hello! here Gabriela Alcaraz -Researcher in Washington DC

**Patrick Martin:** Hi everyone! My name is Patrick Martin and I'm a GIS graduate student at the University of Connecticut

**KDAD Facilitator:** Welcome to the webinar, Gabriela, Ryan, Scheller and Julian! Great to have you here with us!

**Mayeso Zenengeya:** Hi all, am Mayeso from USAID/Malawi

**Elliott Wilkes:** Hi folks, I'm Elliott Wilkes with Forsa Consulting in Nairobi

**Soham Banerji:** Soham Banerji, Senior M&E Associate, Dexis Consulting, Washington DC.

**USAID Learning Lab:** Hello Everyone! We'll switch to our introduction polls.

**USAID Learning Lab:** Please fill out the questions and learn more about who else is on the webinar

**Michelle Guertin:** Hello everyone. Michelle Guertin, Senior Monitoring, Evaluation and Learning Specialist from CIMMYT with other colleagues.

**Rose Mayienda:** Hi everyone. My name is Rose Mayienda from Nairobi, Kenya. I'm a GIS Consultant with Futures Group

**Andry Napitupulu:** Hello everyone. Andry, from Mercy Corps Indonesia, Jakarta

**Benjamin White:** Hi Folks, Benjamin White, Fellow for Forestry, Climate and Geospatial Sciences from Integra LLC in DC.

**John Dalton:** John Dalton COP/ACME Bangladesh

**Giovanni Di Piazza:** Giovanni Di Piazza, IT/Database Specialist and M&E specialist

**Phyllis Rachler:** Hi, my name is Phyllis Rachler and I work on M&E for the WWF International Danube-Carpathian Programme

**Dercio Dauto:** Hi everyone! Dercio Dauto from Mozambique, M&E Specialist

**Abrar Ahmad:** hello everyone, this is abrar from iDE Bangladesh

**Leah Gainey:** Hi everyone, Leah Gainey from Celestial Green Ventures in Ireland

**Colleen Ditmars:** Colleen Ditmars, joining from DigitalGlobe in Herndon, Virginia.

**Peoulida Ros:** Hello, I'm Lida Ros, M&E Specialist, USAID/Cambodia

**USAID Learning Lab:** Welcome, everyone!

**USAID Learning Lab:** We'll get started in a few minutes

**Chris Kagy:** Chris Kagy, from Devis, in Arlington, VA

**Georgie Almon:** Hello. My name is Georgie Almon and I am joining from Social Impact in the DC area.

**Violetta Yevstigneyeva:** Violetta Yevstigneyeva, USAID- NTDs, Washington DC

**Shoshana Grossman-Crist:** Hi all, I'm Shoshana from the Inter-American Development Bank in Washington, D.C.

**Cicero Nhantumbo:** Cicero , SI team, USAID/Mozambique

**Kodjo Kondo:** Hi. Kodjo KONDO from the University of New England in Australia. PhD student in Agricultural economics with focus in adoption and impact studies. former M&E officer in USAID funded program in West Africa.

**Moffatt Ngugi:** Climate change & Agriculture advisor, BFS in DC

**Brian Bakker:** Brian Bakker joining from Washington DC. I am part of the GeoCenter within USAID's Global Development Lab.

**Joshua Okafor:** Hello everyone, this is Joshua Okafor. GIS Specialist/Data Analyst from USAID MARKETS II Project, Abuja Nigeria.

**Emily Holmes:** Hello all! Emily Holmes from Samaritan's Purse in North Carolina, USA

**Shoshana Grossman-Crist:** USAID- will a recording of this webinar be available afterwards for those unable to attend?

**James Anderson:** James Anderson, from DigitalGlobe supporting Global Development efforts.

**USAID Learning Lab:** Welcome everyone!

**Orlando Hidalgo:** Hi everyone. I'm Orlando Hidalgo, M&E Specialist in USAID/El Salvador

**Saira Butt:** Saira Butt, from Millennium Challenge Corporation. Thank you!

**Karoline Tufte Lien:** Hello everyone, I am Karoline Tufte Lien, advisor at section for research, higher education and innovation at NORAD (Norwegian Agency for Development Cooperation).

**Deborah Prindle:** Hi, I'm Debbie Prindle, USAID Consultant

**GraceAjayi:** Hello everyone, Grace Ajayi MPH student from Boston University (concentrating in Monitoring, Evaluation and Research Methodologies) and I'm working with USAID's Office of HIV and AIDS' Care and Treatment Team

**Ioana Bouvier:** Hi - Geospatial Analyst with USAID/E3 Land Tenure and Resources Management

**Kevin Flanagan:** Hello, I am Kevin. I work for the National Democratic Institute in Washington DC

**Leonardo Jorge Silva Rodriguez:** hello my name is Leonardo Rodriguez and I am from University of Rio de Janeiro, Brazil. I work with GIS since 2010 and has acted in healthcare with spatial analysis, cartography department of Brazil and recently in o&g industry

**Rachel Hampshire:** Hi all. Rachel Hampshire with Chemonics in DC.

**Elena Vinogradova:** Hi all! this is Elena Vinogradova from Education Development Center

**Anita Datar:** Hi, this is Anita Datar with the Health Policy Project's GeoHealth Mapping Team at Futures Group

**Krista Jacobs:** Hello, this is Krista Jacobs, a Gender Advisor in the Bureau for Food Security at USAID.

**Stephanie Dimos:** Hi I'm Stephanie Dimos. I'm a former AidData research assistant and currently with The QED Group.

**Dora Moscoso:** Hello, I am Dora Moscoso from the Inter-American Development Bank, Washington DC

**Biniam Iyob:** Biniam Iyob from USAID Washington

**Anastasia de Santos:** Hi this is Anastasia de Santos from USAID Washington

**Carmen Tedesco:** Hi- I'm a geospatial specialist from DAI working on the SERVIR project.

**Neelima Grover:** Neelima Grover : Hi everyone this is neelima grover from QED Group

**USAID Learning Lab:** Hi Everyone! This webinar is being recorded so that we can make it available for everyone to watch again (or for those who weren't able to make it).

**Karin McFarland:** Hi all, I work at the USAID Lab in the Agency Engagement team.

**jeff Bakken:** Hi! Jeff here from USAID's Global Development lab

**Megan Vaughan-Albert:** Hi - Megan Vaughan-Albert here at Avascent, a consulting firm that works with government and development contractors to find new opportunities. I do a lot of work on geospatial technologies.

**Shilpa Modi:** Hi, this is Shilpa Modi with the QED Group in Arlington, VA.

**Jerome Wolgin:** Jerry Wolgin USAID Africa Bureau

**Tess Present:** Hello all - I'm Tess Present working the Measuring Impact program. I'm based in Philadelphia.

**USAID Learning Lab:** We'll send out an email in about a week when that recording is available

**Robert Harris:** Hi, I'm Clay Harris. A former AidData GIS Analyst and a current Peace Corps Volunteer in Mexico.

**Michael Florian:** Hi this Michael. I'm an M&E Consultant based in Vietnam

**Steve Hellen:** Steve Hellen from Catholic Relief Services based in Baltimore

**Laura Hughston:** Hi, I'm Laura, Learning and Impact Assessment at Plan UK

**hultera paul:** Hi, I am Hultera from Bogor Agriculture Univ, Indonesia

**Silvia Petrova:** Hi everyone, This is Silvia Petrova, a Geospatial Analyst with LTRM at E3 bureau

**Janelle Mueller:** Hey flks- Janelle here, from Rare (Arlington, VA).

**Viktor Raykin:** Hello everyone, here Viktor Raykin, Environmental Consultant from NY  
courtney muro: Hello! Courtney Muro, Millenium Challenge Corporation

**Abidemi Okechukwu:** Hello, This is Abidemi, Malaria Program Manager USAID Nigeria

**Caroline Cook:** Hi, I'm Caroline Cook with the Measuring Impact project.

**Reena Sethi:** Hi. This is Reena Sethi, M&E Advisor with Jhpiego

**David Leege:** David Leege, Director University Engagement and Research at Catholic Relief Services

**Flori McClung:** Hello. I am Flori Berrocal McClung from US Postal Service. We chair a Disaster Risk Management Group at the Universal Postal Union, the UN specialized agency that oversees the international mail network.

**kristina kempkey:** Kristina Kempkey, USAID/HESN, AOR for AidData

**Patty Hill:** Patty Hill, from Engility's International Development projects (IRG)

**Carol Stoney:** Hi Carol Stoney from Winrock

**Nancy Dixon:** Hi, this is Nancy Dixon

**USAID Learning Lab:** Welcome, everyone! Tania from USAID is introducing the event

**Leah Wyatt:** Hello everyone! My name is Leah Denise Wyatt. I am one of the USAID Evaluation Interest Group facilitators. I welcome you to join! Search "Evaluation Interest Group" on Learning Lab

**USAID Learning Lab:** Please type any questions you have here in the chat pod throughout the presentation

**saunya amos:** Hello

**dickson otiangala:** Hi every one, this Dickson from kenya

**Shannon Howard:** Hi All! I work with IMPAQ International, and I am also a TDY Senior M&E Advisor for USAID/Ghana, Education Office, through the MECap activity.

**Nena do Nascimento:** Hi All - this is Nena do Nascimento from Futures Group/Mozambique

**Archanjel Chinkunda:** Hello

**COLLINS OSAE:** Hi Barbara Aurthur

**Blessing Mutsaka:** Blessing Mutsaka USAID Zimbabwe

**Diana Harper:** Hi everyone, Diana Harper from USAID/Global Health. Thanks for organizing this session!

**KDAD Facilitator:** welcome everyone!

**COLLINS OSAE:** Hi Blessing!

**Jessie Pinchoff:** Hi everyone! Jessie from Innovations for Poverty Action in New Haven

**Wendi Bevins:** Wesley Laytham and Miguel Menez from LWR sitting in for Wendi Bevins

**Barbara Arthur 2:** Hi Collins

**saunya amos:** What is the name of the current speaker?

**USAID Learning Lab:** His name is Dr. Ariel BenYishay

**saunya amos:** thanks

**KDAD AV Tech:** Mark Buntaine

**COLLINS OSAE:** Barbara, please ask Seyiram to tune in

**USAID Learning Lab:** Sorry, this is Dr. BenYishay

**Seyram Loh 2:** Hi Collins, I'm logged in. Thanks

**COLLINS OSAE:** Oh Great!

**Benjamin White:** What is your definition of high resolution?

**USAID Learning Lab:** Hi Everyone! Please post any questions you may have for the presenters here in the chat pod

**Barbara Arthur 2:** Hi everyone, Barbara Arthur from the ASSESS Project, Ghana



**Karin McFarland:** I would be interested in how GIE could be used on governance projects impact

**Joshua Okafor:** Would this presentation be shared with participants later?

**USAID Learning Lab:** Hi Everyone. Dr. Mark Buntaine is speaking now

**Megan Vaughan-Albert:** I'm interested with partnerships with the private sector - how can evaluators get access to some of the great remote sensing data that is being generated?

**USAID Learning Lab:** Hi Joshua. The webinar recording and a PDF copy of the slides will be available in about a week on the Learning Lab website

**AidData:** Hi Karin and Megan-thank you for your questions! I'll share them with the presenters

**USAID Learning Lab:** We'll send out an email when they're available to all those who register, but I believe they will be at the following URL: <http://usaidlearninglab.org/events/geospatial-impact-evaluations>

**Joshua Okafor:** @Learning Labs: Thank you, I will look out for it then

**Ryan Thomas:** How can someone who already knows how to use GIS learn the specific methodologies to replicate this research?

**Joshua Okafor:** @Learning Labs: Would it be possible for the speakers to share simple, perhaps open source? tools that can allow someone do basic comparisons such as this...perhaps with basemaps or things like that.

**Tania Alfonso (USAID):** Mark: were there treatment areas that could not be matched, in the Ecuador story? Or do you find a match for every treated community?

**Wendi Bevins:** What is the protocol when not every aspect of a treatment area can be matched to another location?

**Mercedes Stickler:** Will there be an opportunity to discuss the implications of the program design for the evaluation's findings? The evaluation noted that the program did not address the changes in economic incentives that would need to accompany changes in land tenure in order to achieve decreased deforestation.

**William Apted:** A lot of the evaluation depends heavily on the measure of deforestation, what approach was taken to measure rates of deforestation?

**John Dalton:** Nice

**Joshua Okafor:** I hear a lot of evaluation talk. While we aren't planning on any evaluations soon, what can I take away from this for my day to day use of GIS?

**Benjamin White:** Following up on William's question, I would like understand more about fragmentation in and around the treatment areas.

**Ryan Thomas:** Now that the research team has gathered data on issues of deforestation in the area, could this research also be used to examine other outcomes such as incomes or access to credit?

**Mercedes Stickler:** Have the authors reviewed Robinson et al. 2014, which reviewed 36 publications linking land cover change to tenure conditions and found that land tenure security IS in fact associated with less deforestation, regardless of the form of tenure?

**Joyce Elele:** Yes

**Ryan Thomas:** ... With relation to land tenure

**Mercedes Stickler:** Ryan Thomas - USAID's Land Tenure and Resource Management Office is conducting 7 impact evaluations of land tenure interventions that includes other outcomes, including incomes and access to credit. Happy to chat ([landmatters@usaid.gov](mailto:landmatters@usaid.gov))

**Benjamin White:** Any reason not use NDVI back further than that?

**Mercedes Stickler:** Wouldn't it make sense to include a measure of infrastructure/economic activity (e.g. night time lights)?

**Mercedes Stickler:** ...Also roads

**Karen Lawrence:** Not all communities in the Amazon have electricity so lights are not a good indicator

**Benjamin White:** Equating forest with NDVI is accurate. Forest or rather forest cover is a different matter.

**Benjamin White:** \*inaccurate, sorry: )

**Jerome Wolgin 2:** what are the reasons for the peaks and valleys in the last slide?

**William Apted:** Are the NDVI values from MODIS data or is it from calculated from higher resolution product, say landsat?

**Biniyam Iyob:** Rather than depending on NDVI only wouldn't it be better to use NDVI in conjunction with other methods such as Tassled cap greenness or Soil adjusted vegetation index as there are errors from NDVI (such reflection from soil)?

**Benjamin White:** Would it be good to substitute in LULC instead of NDVI , sya looking at Landsat Pathfinder?

**Lauren Damme:** @Mercedes Stickler - I'd love to touch base ~Lauren Damme, USDOL, International Bureau, Office of Child Labor, Forced Labor and Human Trafficking

**Ioana Bouvier:** On the Ecuador study, all data was aggregated at 1km, which means the study could be affected by the modifiable area unit problem - any sensitivity testing on pixel resolution?

**Mercedes Stickler:** @Lauren Damme - I'd be happy to chat!

**Lauren Damme:** @Mercedes Stickler - great,thanks - I'll shoot you an email later today.

**Marion Adeney:** Did you separate Indigenous Lands that are in generally higher pressure areas (e.g. Arc of Deforestation has very different dynamics than, for example, northern Amazonas State and these dynamics have changed over time. This difference in pressure can be some what, but maybe not entirely accounted for with distance to roads).

**Karen Lawrence:** yes it does, and agreed with the link to road

**Jason Landrum 2:** Mercedes, are integrated forest/coastal marine systems included in those impact analyses you mentioned earlier?

**Jason Landrum 2:** More specifically watersheds connected to mangrove forests, etc.

**Clara Burgert:** For more on linking DHS with other surveys spatial, check out upcoming webinar on July 27. [http://userforum.dhsprogram.com/index.php?t=thread&frm\\_id=67](http://userforum.dhsprogram.com/index.php?t=thread&frm_id=67)

**Mercedes Stickler:** Jason - So far, we have some evaluations in forest areas but not marine, though we are currently exploring a mangrove site - would be happy to share more details offline

**Jason Landrum 2:** That's great.Luis Ramos and I would be interested in discussing more since land tenure at the boundary of these areas is of interest for us

**Jason Landrum 2:** in Central America

**Jason Landrum 2:** Mercedes, we'll be in touch!Thanks.

**Mercedes Stickler:** Absolutely. Look forward to it!

**Jason Wong:** Interested to hear if anyone has experimented with social network analysis in combination with GIS.

**Ioana Bouvier:** Jason - yes on experimenting with social network analysis.

**Benjamin White:** So did the malaria ecology impact outweigh the intervention impacts?

**Andrew Inglis:** When do Geospatial Evaluation how do you reduce the likellihod of "Ecological Fallacy" when linking different datasets based on geography

Diana Harper: Is there an article related to the malaria impact evaluation?

**Ioana Bouvier:** Glad to chat Jason, I am also in the Land Tenure and Resource Management office

**James Anderson:** Jason Wong: At DigitalGlobe we have done some work with social network analysis and have build country-level human geography datasets to assist in that type of analysis

**Lauren Damme:** @Ioana - I would also love to be in touch to learn about how you're using social network analysis with GIS -I think that it's pretty relevant to our forced labor work.

**Jason Wong:** Thanks Ioana and James, I will share contact info via private messages and get in touch soon

**Ioana Bouvier:** Jason, would like to learn more about the human geography data and approach. Thanks!

**Hasmik Ghukasyan:** Iam also interested in social network data analysis, thank you

**Tania Alfonso (USAID):** To continue the conversation, join the Evaluation Interest Group on Learning Lab! And then go to <http://usaidlearninglab.org/working-group/group-discussion/geospatial-impact-evaluations>

**Ioana Bouvier:** Lauren - great, please send me a note to connect. Thanks!

**Kevin Flanagan:** We use quite a bit of social network analysis here, but never with GIS. would be fascinated to learn more about that.

**Lauren Damme:** Ioana - will do, thank you!

**David Galaty:** I missed the first 20 minutes because of connection issues - where can I access those materials?

**Silvia Petrova:** @ James Anderson: I am interested also in the approach of the human geography datasets

**David Galaty:** Are there powerful open source spatial/GIS apps?

**Mark Buntaine:** Our paper is available open access at: <http://www.sciencedirect.com/science/article/pii/S0959378015000503>

**Lauren Damme:** @ James Anderson - we are as well

**Shiyun Lu:** How to access previous webinar records?

**Wynne Mancini:** I am also interested in the intersection of social network analysis and GIS if someone is addressing that.: [wmancini@chemonics.com](mailto:wmancini@chemonics.com)

**Jessie Pinchoff:** @James Anderson here too

**Cicero Nhantumbo:** any experience in using GIS to track HIV patient a across a year in southern africa ?

**AidData:** Hi David- the powerpoint and audio recording of the webinar will be available on the Learning Lab site after the webinar

**David Galaty:** Fantastic. Looking at the material now. Thanks Mark and Lauren

**Benjamin White:** Using higher-level data types also makes this much easier, e.g. land use land cover.

**USAID Learning Lab:** Shiyun - We have one other webinar available on Learning Lab from the Evaluation Interest Group. It's on gap maps: <https://usaidlearninglab.org/events/where-poverty-evidence-most-needed-evidence-gap-map-shows-what-we-know>

**Michelle Guertin:** CIMMYT Question: Very nice geospatial example for monitoring and evaluation. This has been done at project level with somewhat different approaches and tools. Is there a will from USAID to harmonize approaches and standardization so that datasets can be combined and compared, and also facilitate the diachronic studies (e.g., harmonized indicators and metrics for sustainable intensification projects)?

**Cicero Nhantumbo:** any HIV/AIDS study that user GIS to inform ?

**Cicero Nhantumbo:** \*uses

**USAID Learning Lab:** But please check out the Evaluation Interest Group community on Learning Lab for regular updates and future events: <https://usaidlearninglab.org/working-group/evaluation-interest-group-0>

**Benjamin White:** Quantum GIS seems pretty popular in the GIS world...

**Shiyun Lu:** thx

**COLLINS OSAE:** What's the name of the software again, please?

**Elliott Wilkes:** what's the github repository link for the R library?

**AidData:** Hi Elliott- we'll share the github repository link after the presentation with all attendees

**AidData:** Collins- the software is R

**Elliott Wilkes:** @AidData: excellent. thanks!

**Colleen Ditmars:** USAID has access to high resolution DigitalGlobe imagery for their work through an established contract. Temporal and high spatial resolution as well.

**Charles Ajayi:** Accross a lot of countries with HIV epidemics and low social economic status, there are challenges with ensuring HIV adherence and retention on treatment due to cross border and intra-country migration (rural to urban). I am aware of some effort to use GIS in South Africa but not aware of any Geospatial Evaluation studies yet. Any opportunities or plans to do this for some cross-border health programs in sub-Saharan Africa (not just HIV but accross health programs)? The advantage of this is that we could actually track the effectiveness of programs targetted at migrant workers (formal or perhaps informal), and other key populations.

**Jason Wong:** Re: difficulties with evaluation over long time periods, possibility of crowdsourcing or making an intuitive interface for project recipients to self-report? E.g. collecting SMS texts that update a public Google Maps

**Benjamin White:** The landsat processing has already been done for much of the reason...

**Cicero Nhantumbo:** Quantum GIS is free and easy to use

**Benjamin White:** \*region

**Nehanda T.:** Transitioning from QGIS to ArcGIS is also fairly intuitive

**Ryan Thomas:** Are there any additional steps particular to spatial impact evaluations required to protect personally-identifiable information

**Kyla Cook:** Charles-Kyla Cook with CDC Mozambique, we're increasing our use of GIS in our programming and decision-making within our PEPFAR program, but nothing with evaluation yet. Definitely interested in it though.

**Kim Castelin:** @ryanthomas I have seen data where individual attributes have to be randomly distributed to avoid identification of individuals

**Elliott Wilkes:** For those looking for additional spatial datasets, take a look at columbia university's IRI: <http://iridl.ldeo.columbia.edu/>

**Mercedes Stickler:** @Ryan Thomas - Generally speaking, the more spatially precise the data, the more personally-identifiable it becomes. We tend to limit our analysis to the community (village) level rather than household level to reduce the risk of a confidentiality breach.

**Kim Castelin:** (ie if a person has age, income, etc attached to them and only 1 person falls into a class in an area, there are techniques you can use to make sure this person remains anonymous)

**Kim Castelin:** @mercedes- good point!

**Charles Ajayi:** @Kyla. Hi Kyla. Thanks for that! It appears a number of countries are now realizing the importance of this and doing similar things, including using the results to inform decisions. And, I agree with you, it has great applications for evaluation.

**Dow Maneerattana:** If anyone is interested in exploring Hansen data, you can also see <http://data.globalforestwatch.org/>

**Lauren Damme:** Are the presenters familiar with any examples of layering GIS data with RCT impact evaluations focused on household-level labor or income outcomes?

**William Apted:** Just a follow up question on the NDVI, what additional aspects were taken into account to determine if the project was the main cause of changes on the community land and not other aspects, say climatic changes? Was the climatic data/other data integrated to account for this?

**Rafael Vera:** Any good reference to adopt GIS to rural water and sanitation investment national programs? Thanks.

**David Galaty:** Good question, Lauren!

**Mercedes Stickler:** Given that two of the three projects evaluated were related to land tenure and deforestation, and the two evaluations addressed differing drivers of deforestation (e.g. proximity to roads, slope, etc.), I would be interested in hearing the authors' thoughts on (i) the limitations of their study designs to accurately control for all other drivers of deforestation (besides the treatment); (ii) the limitations of the effectiveness of the "treatment" as defined by the presence of demarcation/titling alone, rather than more detailed survey data on beneficiaries' perceptions of land tenure and/or the extent to which their rights are enforceable in practice; and also (iii) whether their findings have led the project designers to consider the importance of incorporating new economic incentives for decreased deforestation to accompany land tenure interventions, since it is often the case that secure land tenure on its own is a necessary but typically insufficient condition for reduced deforestation.

**Tania Alfonso (USAID):** You are invited to continue the conversation on Learning Lab with the Evaluation Interest Group. Go to [www.usaidlearninglab.org](http://www.usaidlearninglab.org) and search 'Evaluation Interest Group.' Feel free to share your opinions, experiences, challenges, and opportunities using geospatial analysis for evaluation.

**Dercio Dauto:** How to evaluate behavior change using GIS? Is there any study ?

**Dercio Dauto:** change...

**Ryan Thomas:** There is an R script in the appendix of the DHS spatial analysis report document, which could be really helpful to others: <http://dhsprogram.com/pubs/pdf/SAR8/SAR8.pdf>

**Clara Burgert:** For more information on using DHS data and our geo-masking process please participate in the July 27 webinar on linking DHS data to other surveys, for more information and to submit questions check-out [http://userforum.dhsprogram.com/index.php?t=thread&frm\\_id=67](http://userforum.dhsprogram.com/index.php?t=thread&frm_id=67)

**Karen Lawrence:** IT demarcation compared with other demarcations and no demarcation.e.g. the data from PRODES shows that deforestation is lower than say protected area demarcation

**James Anderson:** Dercio, some change can be monitored by looking at surrogate factors.Such as an increase in the number of roads, bridges, etc.

**USAID Learning Lab:** Here's the direct link to the Evaluation Interest Group. Please click "Request Membership" to get updates from the group sent to your email: <https://usaidlearninglab.org/working-group/evaluation-interest-group-0>

**USAID Learning Lab:** Continue the discussion from this webinar at: <http://usaidlearninglab.org/working-group/group-discussion/geospatial-impact-evaluations>

**Lauren Damme:** Follow-up - could you please provide a link or further resource to the Malawi farmer practices/GIS RCT?

**AidData:** @Lauren- the policy brief on the Malawi study can be found here: <http://www.povertyactionlab.org/evaluation/making-networks-work-policy-evidence-agricultural-technology-adoption-malawi>

**Lauren Damme:** @AidData - thank you!

**Mercedes Stickler:** Thank you for the thorough response, Mark!

**Mark Buntaine:** @Mercedes -- I also private chatted you about your more technical question. Happy to follow-up.

**Mercedes Stickler:** Wonderful - thanks!

**Deborah Prindle:** Thanks, very interesting webinar!

**USAID Learning Lab:** Continue the discussion: <http://usaidlearninglab.org/working-group/group-discussion/geospatial-impact-evaluations>

**USAID Learning Lab:** Also, please look for the post-event resources on Learning Lab in about a week: <http://usaidlearninglab.org/events/geospatial-impact-evaluations>

**Kyla Cook:** thank you!

**hultera paul:** Thanks, for interesting webinar

**Ryan Thomas:** Thanks everyone

**KDAD AV Tech:** Check out the polls!

**Leah Wyatt:** Thank you, @AidData!

**Rafael Vera:** Great webinar with opportunity to ask questions. Congratulations!

**William Apted:** Thank you, very informative and interesting webinar

**USAID Learning Lab:** Thank you for joining today's webinar!

**kristina kempkey:** Thank you to everyone for attending. I look forward to continued conversations with everyone. A bit thanks to the EIG for hosting as well.

**KDAD AV Tech:** We'll leave the room open for about another 10 minutes

**Leah Wyatt:** I look forward to connecting with you all further on Learning Lab in the Evaluation Interest Group on this topic. I'll be resharing resources exchanged today

**Karin McFarland:** Thanks!



**KDAD AV Tech:** Kindly fill out the polls and thanks for attending!

**Scheller Hinkle:** Where can the recording of this webinar be found? Will it be emailed out or on the Learning Lab?

**Anjali Dharan:** Sam question. And will the presentation slides be available as well?

**USAID Learning Lab:** @Scheller - there will be an email sent out to all those who registered, but you can also find them at: <http://usaidlearninglab.org/events/geospatial-impact-evaluations>

**Scheller Hinkle:** Thanks so much!

**Anjali Dharan:** Thank you

**USAID Learning Lab:** Thanks, everyone. Great webinar and discussion!

**Hasmik Ghukasyan:** thank you

**Lauren Damme:** Thank you!

**Wynne Mancini:** Thanks very much for the session and the resources!

**Jacob Dodoo:** Thank you! Great presentation

**Scheller Hinkle:** Well done to all of the presenters. Thank you for sharing your breadth of information!

**Dercio Dauto:** Thank you!

**Charles Ajayi 2:** Thank you

**Mercedes Stickler:** Yes thank you to the presenters and organizers for facilitating a very useful presentation and discussion!

**Colleen Ditmars:** Very interesting content. Thank you presenters.