



# MEASURING PERFORMANCE IN AGRICULTURAL EXTENSION: A COMMON METRICS FRAMEWORK

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QUESTIONS AND ANSWERS TRANSCRIPT

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*Julie MacCartee:*

Great. Thank you so much, Judy. And thanks also to your dog Waldo for his patience in waiting for you to present. It's – we've had fun side discussions about hearing him a little bit. But – so, there are a lot of questions and comments coming in the chat box, which is wonderful, so we'll go back and start with some of the questions that came in a bit earlier. I also wanted to reassure everyone that we will be sharing the chat box content with the presenters, so any comments you type in that are answering some of the provocative questions that Judy has asked, your answers to those and your commentary will go to the presenters. And as Judy mentioned, there's also opportunity to think about these and provide commentary after this webinar.

All right. So, looking back to some of the earlier questions that came in... let's see... All right. Kristin or David – perhaps we can toss this one to Kristin to start – Viviani, or Viviana Palmieri asked, "Is there any reason why the system is limited to extension instead of considering the broader innovation systems, or what other related systems might be co-measured with extension?"

*David Spielman:*

I can take that one.

*Kristin Davis:*

Thanks. Okay, go for it David.

*David Spielman:*

Viviana, thank you very much for the question. Certainly, measuring attributes of the wider innovation system, which includes research and education, business and enterprise, and the general enabling environment, the role of cooperatives and extension among many other things, is important. Extension is just one element in a larger agricultural innovation system and we acknowledge that.

I think what we're trying to achieve here is simply putting some very small boundaries around what we can measure and hoping that contributes to broader measurement of the innovation system. So, for instance, in ag innovation systems we do measure agricultural R&D through initiatives like ASTI. We also look at measurements around educational achievement and performance systems and whatnot through RUFORUM and others, and so on and so forth. The task of measuring every little aspect of an innovation system is very, very broad and very,

very challenging. That's why in this particular exercise we're trying to parse it out to something that's directly relevant to sort of the investments and the choices and decisions that governments and their development partners make to help them inform that process, that decision making process. Thank you.

*Julie MacCartee:*

Thank you, David. Kristin, there were two questions that came in from Mahesh Shonder during your presentation, and so I thought I'd ask them both to you because since they're both sort of short questions. One was: "Can we use the same metrics for different extension service providers?" And the other was asking about measuring productivity versus profitability: Which should be measured?

*Kristin Davis:*

Yes, thanks very much, Mahesh, for joining us from India. Can the same metrics be used for different service providers? That very much depends on the goal or the outcome pillars that we're looking for. So, some providers might be looking more for public goods outcomes like food security and increasing incomes, and others might be looking for different goals and outcomes. So, it's going to really depend on your goal and your pillar, but we are trying to make a modular approach where you can sort of pick and choose what outcomes or indicators are going to work for you. And it's – I'm getting into Steve Van Fell's question a little bit, but we'll address that later with regard to looking at the overall matrix that we've come up with.

You also asked about productivity versus profitability, and we actually had that debate within the task force. We started off with productivity and then we said, "But that's not the ultimate goal. The ultimate goal is maybe to improve livelihoods or increase incomes or something like that." And so, we do have an element of productivity. We might expand that – it's not just crop productivity; there could also be factor productivity issues as well. But we do include the element of profitability because that's a step beyond the productivity.

*Julie MacCartee:*

Excellent. Thank you. All right. Let's jump up to – well, you mentioned that Steven had asked a question, so perhaps, Kristin, we can jump to his question. And Steve asked, "How are the ten listed metrics linked to the overall objectives, goals, or desired impacts or extension? That would help us see gaps and overlaps..." So, I lost the question. "They probably thought that through, but a simple slide showing the connections would be useful."

*Kristin Davis:*

Yeah, thanks, Steve. And Judy and David, feel free to chime in after I've said my bit. We do have a rather *[skip in audio]*-looking matrix that has your domains down the left side and then the audience across the right, the pillars across right, and then we've put in those initial Bill and Melinda Gates Foundation indicators as well as some others that we've been looking at exactly to do that, to see where are the gaps. And what we have seen is that there are a number of gaps and outcome pillars like sustainability and equity, so those are things that we're working on. It was really, I think, too tough to show to a webinar type of audience, but hopefully we're going to have something out of the task force in the coming months that we can share publicly and you can see more clearly how it goes.

*Judy Payne:*

This is Judy. I would echo what Kristin said. We were limited to what we could present, but the matrix that Kristin refers to is very useful for taking a look at what we're missing. And the question of equity is one where we're – we need to think much further. I think once we work a little bit more we'll get that matrix in some form, maybe multiple matrixes out there for more review.

*Julie MacCartee:*

Great. Thank you both. David, I'll ask a couple of questions that came in during your presentation. First of all, from Reginald Trussent: "Based on your experience, what is the minimum time frame to measure the impact of an extension system?"

*David Spielman:*

All right. That's a tricky question. Obviously, if you're trying to measure, let's say, the impact of a large extension system reform process – right? – changing salaries and incentives, providing more or different infrastructure, creating new administrative routines and procedures, new leadership, things like that, the time frame may be anywhere from, what, two to five years, five to ten years. It's very hard to say, depending on – it depends on what outcome indicators you care about. Things like profitability, productivity, incomes, and welfare obviously take some time to manifest.

But in other instances, for instance, you can measure the impact of a very simple extension intervention in a single season. So, I'll give you two examples that we've worked on under the Developing Local Extension Capacity project funded by Feed

the Future and USAID. In Ethiopia, working with Digital Green and the government of Ethiopia, we examined the impact of a video-enabled extension approach on farmers' adoption of new crop management practices for the main cereal crops. And we found that after one season simply engaging farmers in sort of video screenings on new technologies and practices that we saw increases in adoption levels by 5 to 8 percentage points, which sort of translated into much larger adoption rates on the order of 15 to 20 percent against the mean of the control or what people were otherwise doing. In other words, we saw significant increases in adoption of new technologies after one season simply by the video extension approach.

In Uganda we saw much of the same thing, and after one season we were focusing on maize and the use of video-enabled or video-based extension approaches we actually saw increases not only in adoption but also in yield, maize yields, based on what people learned in the video about best management practices, recommended management practices.

So, if it's a simple ICT-based intervention, you can measure a lot of impacts in one season. If it's a structural reform process, well, that's a lot longer.

*Julie MacCartee:*

Great, David. And allow me to throw one more out to you. You had discussed the difficulty of measuring ultimate impacts. I think Mahesh Shonder added another kind of layer to that difficulty, which is that impact is an outcome of multiple factors, so how to isolate the impact due to extension? Or should we even try? What do you think about that?

*David Spielman:*

Well, like in the examples that I just gave from Ethiopia and Uganda, as well as work that other colleagues of mine have done in India and Peru and many other countries, I think with a well-designed evaluation strategy you can definitely measure the impact of very specific extension interventions. To give you the example of what one of my colleagues did in Peru, he looked at – or, they looked at the impact of providing agronomic recommendations to children in high schools and trying to measure whether that affected what their parents did back on the farm, and in fact they found significant effects of this sort of intergenerational transfer of

information. That's pretty exciting, right? Give extension messages in a school and lo and behold the parents actually adopt new practices on the farm.

So, we can certainly measure some of these things. The question is how – what are you trying to measure? How broad are you trying to measure? With good evaluation design you can measure a lot of things. But like I said earlier, if we're talking about systemic reforms, you probably need a lot more data to be able to control for or account for compounding influences like changes in the political winds or changes in the weather over time, things like that, or changes in market forces and prices. As long as you can account for those kind of factors there is possibility to suss out the impact of extension. But it can be challenging, both in terms of data and sort of quality of inquiry. So, your evaluation strategy really matters. But we do it all the time. We love to do it and it's something that we love to explore with many of our partners.

*Julie MacCartee:*

Great. Thank you, David. And thank you to all of our participants who are putting some really excellent questions and comments in the chat box. This has been an exciting discussion and luckily we still have a good amount of time to sort through these questions.

All right. So, there were a couple of questions that came in about private service providers, and so I'll ask them both and we can perhaps answer them in combination. So, Padme Singh asked about the presenters' thoughts on considering service providers and agri-entrepreneurs as a target audience of agriculture extension. And then, Kathryn Killilu wanted to know about how does the private sector compare in terms of cost effectiveness of delivery and understanding those business cases? Let's see, I suppose I could throw that to Judy first.

*Judy Payne:*

Okay. Well, I think I would distinguish between third party service providers that are providing digitally enabled extension, ones that would be providing it for private agribusinesses, as well as for public extension service providers – say, if Digital Green does this. So, they would be – I would assume several of these metrics would be relevant for them to be able to prove that their services are worth paying for by the public sector or an agribusiness. So, that would be – I think many of the metrics apply directly.

Another category of private sector folks in extension are those that are, say, sectoral associations for coffee or cocoa. These – or very large plantation operators for pineapple or other large export crops. A very short list of the metrics might be relevant. If they got public funds, they would care about the ones related to equity. But I'd love to hear candidates who might be able to tell us whether these are relevant or not. You can just actually let us know in the chat window and we can later follow up. So, Kristin and David probably have some comments as well.

*Julie MacCartee:*

All right. If Kristin or David would like to chime in on those, please feel free. Let's see... otherwise, I will move on to another question. Let's see... we've gotten so many good ones, so I'm just doing my best to sort through them all. Let's see... all right. For Kristin, Marisa Sterniest asked "Are there targets or guidelines for any of these metrics? Once you get the data, how would you know if you're doing well? For example, is there a recommended pair of public on extensions?"

*Kristin Davis:*

Thanks, Marisa. Very good question, and that's an important one as well. It does depend on the indicators. FAO, for example, has some recommendations of minimum budgets that should be on extension services or a minimum number of extension agent to farmer ratio, things like that. But in general, I think a lot of the things there is going to be no recommendation. Perhaps at national level maybe the organization implementing might have their own targets.

Interestingly, I was on a webinar yesterday with the UNDP Green Commodities Program and they are trying to set up a comparable sort of way to diagnose extension systems that would start with a baseline and give scores over the years. So, there are some related initiatives going on, but David or Judy, I'm not sure if you want to add anything to that.

*David Spielman:*

I can say, I guess, one thing. I mean, I think you can use metrics in so many ways. Cross-country comparability, for instance, gives you the chance to see what those countries that you like to compare yourself to are doing and we think of that in an aspirational sense, saying, "Okay, China does this. We want to be like that." Or "Ethiopia does this. We want to be like that," for instance. But I think more

importantly, for any given country or program these types of indicators are simply good to benchmark changes over time and look at what types of investments, what type of personnel, what type of resources are being channeled into extension over the years, and is it improving or is it not improving, and whether people perceive quality changes in the relevance and usefulness of extension. So, you can use them in so many different ways.

I guess, like I was saying earlier in my presentation part, what you probably don't want to do, though, is get into this sort of competitive race to the top, race to the bottom, because sometimes the context is so specific that if one country is trying to get to where another country is but the systems are really different or the challenges are really different, does that serve anybody's purpose? Or if policymakers try to game the system by throwing money at extension without thinking about quality or administration or incentive and things like that, does that really help things?

So, there are – using extension indicators in different ways is good. Using them cautiously is even better.

*Judy Payne:*

This is Judy. I have one related comment. Actually, it sort of veers us off the topic of goals, although I think that's a great question and that will certainly depend on the topics that Kristin and David made. I was thinking I've read quite a bit about One Acre Fund lately, and it provides extension services, it provides financing, it provides inputs, it provides a package of things. It doesn't worry about distinguishing what its extension type services are doing versus its other services. It's focused primarily on scaling and outcomes. So, it's sort of a counterpoint to the formal effort we're talking about here, and in a way it makes for many organizations that might somewhat like that to look for results. So, maybe the third party service providers could keep that in mind and give us comments on whether any of this is even relevant if you've got some focused goals of your own.

*Julie MacCartee:*

Thank you, Judy. I'd like to ask perhaps to you, Judy, a couple of questions that are really related, I think, to what you all were just discussing about adapting the content of the framework. Nurinjaka Rama Simjatovo asked, "Do we want a measurement that is comparable globally or something that is specific to the needs and contexts of each country?" And Marisa Sterniest asked a related question,

saying, "If these indicators are indicated towards governments or measuring at a higher administration level, can they be adapted to community level interventions from NGOs? And how?"

*Judy Payne:*

Well, good questions. No simple answers. I'm sure Kristin and David could chime in as well. If we get good measures defined, they certainly can be used at a subnational level between communities and with civil society organizations. They'll just have to pick and choose and figure out practical ways that they can use them. Clearly, they won't be able to do as rigorous of data collection as would be possible with an international organization like IFPRI. Coming from the private sector I tend to have a more practical outlook on figuring some is better than nothing at all. And if we have metrics that we have together defined, then all the better. So, try to get – try to use defined metrics and then figure out how well they'll work for you, for your organization, your community.

Kristin and David, do you have more thoughtful comments?

*David Spielman:*

I guess just to say that international comparability has its pros and cons, and it can be useful, for instance, for international development partners, multilateral and bilateral donor agencies in making investment choices and decisions. That's why the Gates Foundation developed their dashboard after all. And that's why I'm sure Feed the Future and many others care about these sort of international comparabilities that we're talking about. But of course, at a government or a country level and at an organizational level they're also important. Some degree of standardization is helpful because, again, you can baseline and benchmark and compare, whether it's between organizations or states or countries or whatever you choose. And I think that's the key to indicators. Commonly accepted indicators make life, I think, a lot more useful or a lot easier than everybody choosing their own indicators.

*Julie MacCartee:*

Thanks, David and Judy. David, let me throw another question out to you from Thomas Caffrey Oswald. "How can the impact of extension services be effectively measured when one farmer may be receiving overlapping extension support – for example, from public extension service as well as from private sector, when coupled with investment and new technology or input?"

*David Spielman:*

That's a great question. Again, it goes back to the response I gave to Mahesh earlier. It depends on your evaluation design and what you're trying to measure. So, those are simply questions that you can ask and we regularly ask them in household – farm household surveys where we ask people, farmers where do they get information about crop X or technology Y. And we allow for multiple responses. It might come from public extension or private extension sources or it might be some combination of both. And I've been in the field where a public extension agent is working with a corporate sales agent at the same time to promote a new cultivar, a new hybrid, a new machine or something like that. So, yeah, people work in tandem. People work in collaborative ways. I think that's perfectly fine, and as long as you're able to account for that and have that information, then you can parse out the effects.

I mean, sometimes there's an art to this; sometimes there's a science to it. It really depends on what the intention of your evaluation is. If you're trying to say, "Okay, my NGO did this and the government didn't," then that's a fairly, I think, narrow assessment approach or evaluation approach. If you're trying to say, "Well, you know, information from these types of sources led to the outcomes we care about," then that might be, I think, a more realistic way of approaching the problem or the question. It really ultimately depends on what your learning objectives and what your evaluation objectives are in this case.

*Julie MacCartee:*

Great. Thank you, David. All right. Let's see. Kristin, I will throw a question to you from Vicki Sigman. "Is the expectation that public sector extension will support – i.e., pay for – data collection? Or otherwise, what role will they play? If the public sector is to support this, then are there clear indications –" oh, I guess "If the public – are there clear indications that the governments will support data collection."

*Kristin Davis:*

Thanks. Hi, Vicki. Thanks for your excellent question. There is some expectation that there will be interest on the side of governments. And actually, this is part of the role of the task force now in the next few months, is to go in to start to talk to potential governments that we think would be interested and to see "Are they interested in collecting extension metrics?" and then invite them to the convening in Uganda in February and sit through and hash through it a little bit more. So, how it's going to be done is yet to be seen. It might be different in every country. But there is the expectation that there's going to be funds. Whether it's coming from

sort of an outside donor or governments in terms of using these data to inform and advocate for their policies for extension, that remains to be seen.

*Julie MacCartee:*

Thank you, Kristin. And we still have some good time for questions but I just wanted to flag a few upcoming events and activities on Agrilinks. First, the Feed the Future learning agenda, the draft agenda for phase two of Feed the Future is currently open for public comments. And you can see the draft learning agenda and a survey link for commenting there next to number one. Number two, if you are a student or you know one who is working in the food security and agriculture space, Agrilinks is currently having a young scholars blog contest by which students can submit their blog post about their work or their insights on global food security, and we're going to pick with a panel of USAID and Agrilinks individuals, we're going to pick the top blog post to publish in the future on Agrilinks. So, do encourage the students in your life to apply.

And lastly, we wanted to announce the October theme month for Agrilinks. Right now, we're in extension month, clearly. But next month is going to be value added food month, which I'm really excited to talk about. We'll probably be having a webinar on orange flesh sweet potato and be talking about all of the entrepreneurial ways that farmers, processors, other actors can add value to food for better incomes and better nutrition. So, keep all of those in mind.

Oh, and I also wanted to point out in the links box to your left you'll see a link to the DLEC community of practice. We definitely encourage everyone on this webinar to join that community of practice. They – there will be a lot of additional ways to discuss this topic through that website and through some webinar and other discussion opportunities that DLEC presents. So, don't hesitate to join that CoP.

All right, so – oops. Got a bit of an enlargement of that links box, but we'll go ahead and bring that back down. So, that was really just telling you all to click on this link. Excellent. Okay. So, back to the questions that have come in. Okay. I will go to a question that came in from Kathy Perry. "In the ten common metrics the quality of public extension is a metric, but the same approach of determining quality is not applied to the private sector. Is it implicitly implied that private sector extension

does not need to be assessed for quality of extension?" And Judy, was that one that you could address?

*Judy Payne:*

Sure, I'll start. Having come from the private sector, the private sector cares a lot about success and it defines what its success means. If it's getting donor money, of course it cares a lot about what donors care about. But, say, a private company that owns a pineapple plantation cares a lot about productivity. It cares a lot about making sure its workers stick with them and, we hope, are treated well. But we can't – these metrics will be decided as *[skip in audio]* or not by the private sector. But maybe some of the others could chime in. But certainly, any service provider cares a lot about showing how effective their services are, so those metrics will be truly relevant.

*David Spielman:*

Yeah, I can quickly add to that. I'd say that we have some experience on the measurement of agricultural research indicators to say what's possible and what's not possible. Measuring both the levels and the type of private investment in agricultural research, for instance, has proven to be very difficult, especially for initiatives like ASTI, which I mentioned earlier. And that's largely because ag research indicators – that is, investment, spending, things like that, personnel, and so on – are proprietary information. They form – for many companies they form the basis of their competitive advantage in very competitive marketplaces.

So, think along the same lines for extension. If you're an agri-service provider of some sort, you're private, you're profit-making, you don't necessarily want to give out information on "Hey, how many people do we have on the ground providing after sales support or providing recommendations to farmers and advice on an ad hoc basis or through our call center or whatever it is?" That might be proprietary information that the company wants to protect, so that becomes very difficult to get.

And so – but that doesn't imply that the quality of private extension is not an important measure, as Judy said. People care about the quality of their products in the private sector as much if not more than they do in the public sector. So, somebody's measuring it; it's just a question of whether it's going to be shared in the public domain or not. Thank you.

*Julie MacCartee:*

Great. Thank you so much. I'd like to toss it back to you, David, for a really interesting question that came in from Savak Amalion. "Looking at the Gates metrics, what if we were to reach 100 percent of households covered by extension, have a very generous public budget, service to females, et cetera, but no essential increase in yield for hectare, no increase in production and trade? Are those the most important and probably the only metrics that matter?"

*David Spielman:*

That's a great question, Savak. I saw it earlier and I had to laugh. It's – yes, it's precisely what one wants to be asking. The proof is in the pudding, as they say. If you measure something but you can't attribute that measurement to some outcome of interest, then maybe the problem isn't your measurement so much as it is your theory of change. So, what you're basically describing here is a situation in which your theory of change doesn't stand up to empirical testing, and that extension has no effect on these outcomes of interest, in which case you'll probably have to go back to the drawing board and say, "Well, extension really has nothing to do with productivity, profitability, incomes, welfare, environmental sustainability, and so on and so forth."

Now, of course, whether that's really the case is the bigger question, and I think that's, again, where we go back to good evaluation design and say, "Okay, we've got some measurements on extension and now we want to go back and make sure that we're able to say that these measurements are somehow correlated" and potentially infer causality about their influence on outcomes. So, yeah, there's a lot of sort of hypothesis testing and all of this, not just measurement. And that's something we have to be very, very, I think, serious about in our work.

*Julie MacCartee:*

Thank you, David. And I would like to throw out another question that came in from Amadu Asaka. "Can we use the same approach to measure quality outcomes, like for instance the functionality of innovations platform, farmers' capacity to mobilize funds from institutions, et cetera?" And that was for David or Kristin?

*David Spielman:*

Kristin, do you want to take a stab at that? Or I can answer it.

*Kristin Davis:*

Yeah, I'll start and you can fill in the gaps. Yeah, thanks for your question. I mean, I think this is an approach that can be applied in other similar institutions. I mean, extension is quite a complex institution, and then when you're getting into innovation platforms and things like that, even more variables and actors and so forth. But I think the general setup of how we're looking at this and applying things based on those different domains as well as the different outcome pillars, I think we could try to apply it to similar activities like innovation platforms and so forth. David?

*David Spielman:*

So, there's been some interesting work on measurement of the functionality of innovation platforms, for instance, by Pamuk at, I believe, Wageningen University in the Netherlands as well as his colleagues. So, yeah, I mean, you can certainly measure those types of outcomes. You can measure things like farmers' capacities to mobilize funds from financial institutions and so on. Those are all indicators that you can look at. Now, whether they're somehow linked to extension depends on how your thinking, your theory of change and how you have to measure it.

One – I would suggest that if you're really interested in these topics and poking around in the data, take a look at those – at the LSMS-integrated surveys on agriculture from the World Bank that I mentioned earlier. I mean, there's an incredible amount of information there that people are really digging through intensively to learn more about exactly the kind of questions you're asking. And the right kind of sort of data analysis and approaches are key to answering the questions you're asking, but they're good ones to explore.

*Julie MacCartee:*

*[Inaudible due to mic feedback].* All right. Let's see. Okay. So, interesting comments came in from Gary Alex that I thought that Kristin could address. So, Gary said, "For an understanding of extension systems it is probably important to start from the farmer level to understand the needs, objectives, preferences, and potential actors. Too often we have gaps in the understanding and perspective and treat the farmer as a blank slate to be worked on. It is hard to think of how this might be reflected in an indicator, but it is important to developing effective extension." Do you have any comments on that, Kristin?

*Kristin Davis:*

Yes. Hi, Gary. My first comment is that we're going to try to rope you into this task force. I don't know if John got in touch with you yet but we'd love your inputs on it. But certainly, for an extension program to be relevant, and as you said, effective and all of these, I mean, it's got to be relevant and useful to the clientele and the extension services need to have that client-oriented approach. So, we do need to have their opinions. It would be interesting to look for some indicators to reflect that. And it's, of course, again going to depend on our ultimate program goals and program objectives. So, if we're trying to empower farmers and have a demand-driven program, that's certainly one that we would like to improve.

*Julie MacCartee:*

Great. And I think, David, you said you had some additional comments?

*David Spielman:*

Sure. So, let me see if I can tackle two comments. One is related to what Gary Alex said and another one from Andrea Bonn on the importance of using data collected from farmers to provide feedback to farmers. So, these – both of these comments have a similar thread or a similar vein, which is that often when we think about metrics and indicators we're really top down in how we think about things. Right? We're thinking of this big system level and we want to measure things so we have international comparability and we can steer our investments in the right way. Well, that's all good and fine, but if we don't really understand sort of what's going on at the grassroots level and if we're not really using this type of information to inform people at the grassroots level, then we're probably falling short of our objectives.

And I couldn't agree more. I mean, I think that's exactly the way we should be thinking about development processes. Development processes, economic and social development do not occur on the basis of what we think about in Washington, D.C. or Seattle or London or Paris or wherever; they happen at the grassroots where people exist. And the more we think about farmers as a diverse set of people that are more than just farmers, the better we are at understanding how to tailor extension services to fit their needs.

One of the things we care about in particular when we're looking at indicators of how well is extension achieving the outcomes that we're focused on is to think not at the average effect size of the average – the magnitude of the average effect, but also to parse it out and think a little bit about how certain subgroups are affected. So, for

instance, thinking about the work in Uganda, Uganda has an inordinately large number of women-headed households because of demographic pressures, pressures associated not just with urbanization but also the HIV/AIDS pandemic that the country has suffered through for decades. So, focusing on that particular subpopulation is really important. Women-headed households or children- and youth-headed households in Uganda are a significant part of the population that we don't think about much. So, focusing on them, getting a better understanding of what extension does and doesn't do for them is a great way to address these issues.

So, yes, I think starting from the bottom up and worrying less about – not worrying less, but maintaining a balance between what we think of at the grassroots and what we think of at this much higher systems level is necessary. Balance is everything. Thank you.

*Julie MacCartee:*

Great. Very interesting answer. Thank you to both of you. Let's see. We do have about up to ten more minutes for questions, but in the meantime we wanted to throw up a few poll questions for all of you to help us better understand your experience on the webinar. So, we'd love to know how likely it is that you would recommend this webinar to a friend or colleague. Did anything surprise you from the content of this webinar? Are you walking away with any new insights? What was not addressed that we could potentially address in the future? We're asking about if you'd like to stay involved in the common metrics initiative so we can continue to reach out to you. And what was the most useful to you work?

So, please do let us know your answers to these questions. They'll help us better shape future webinars and events.

All right. Let's see. We've got just a few more questions that I think we can answer. And a question/comment came in from Suzanne Pullins that I will toss out. Suzanne said, "Farming is a business. How do business advisory services measure impact? What metrics do these business advisory services use? And could these be relevant to farming businesses and other agribusinesses?" And Judy, we thought perhaps you could start on that question?

*Judy Payne:*

Actually, I would ask Suzanne to answer that herself. She's an expert on all of this, so – and I've learned a lot from her and hope to continue. So, I don't have any answer that Suzanne probably wouldn't have herself.

Clearly, farming is a business. It's more than a business: It's a household livelihood. So, measuring business services as part of it, as part of extension, is a big challenge. Both Kristin and David are better students of the definition of *extension* and where business advisory services sit in, so maybe they can comment on where – what metric would tackle that.

*Julie MacCartee:*

Great. Thanks. And Suzanne, if you're still online, we'd love to know your further commentary on your own question. All right. And Judy, let me toss another one out to you from Padme Singh. "How do we ensure that producers are getting fair share and benefit in private sector extension? Does the governor – does the government have a role here?"

*Judy Payne:*

I'd say follow the money. If the government has money in those services being provided or a donor does, then yes, the government has a role in measuring that. And of course, in some countries there are rules about how farmers or those getting services should be served or treated. Clearly, if a private company is providing these services on its own for its own gains and that of its owners, then the government has far less of a role. And given – I came from the private sector; I certainly honor that private businesses have strong reasons to measure their own success. They surely have to protect those that they service through various other laws. But applying these metrics by the government on totally private service providers, I don't think – I mean, we'd have to do that with great caution and maybe do it voluntarily so that the private services providers can have an incentive to do it to show how well they serve their audience.

*Julie MacCartee:*

Thank you, Judy. And Kristin, a question just came in from Ed Connerly that I thought you could *[inaudible due to mic feedback]*. He says, "*[inaudible due to mic feedback]* more about DLEC's intention to be aspirational. Are there tradeoffs between aspirations and the likelihood of measureable outcomes? Does being aspirational lead in the direction of values-based assistance?"

*Kristin Davis:*

Yeah. To that question, I think there's a number of women on the webinar – Gary and Andrea, David and myself, who have been trying to measure extension and struggling with indicators and data and so forth. So, it is a tradeoff. I mean, there's the data we – I did like to have, and we're starting from there, and we're going to try to get it and see how it works. In the end, it might be necessary to come down to what's going to be more feasible and more easy to collect. So, we're going to see about piloting this in one or more countries and take it from there and see what works.

*Julie MacCartee:*

Great. Thank you, Kristin. And David, let me look way back to your presentation for a question that came in fairly early on from Hamadur Raman, who said "It is difficult to measure outcomes in terms of monetary value. Is there any good indicator available for the researchers? Or just a little bit more perspective on measuring monetary value?"

*David Spielman:*

It depends on which outcomes you are interested in. Monetary value can certainly be measured to give you a sense. We've been talking a lot about profitability of farming or on-farm activities. So, if we want to put a monetary value on that, we look at – we would look at the cost and returns to cultivation of a particular crop or commodity or to the whole farm's overall profitability. When you think about simply yield gains – right? – you can translate that into monetary value by multiplying the quantity of production increase multiplied by the price of the crop involved. So, that gives it a monetary value.

Income, of course, is a monetary phenomenon. Welfare can be measured in other ways apart from income in both monetary and non-monetary ways. There are lots of different ways to measure these things and they can be boiled down to monetary measures or non-monetary as well.

What's important, I think, is to get a sense of sort of the rate of – the differences in the rate of change that are attributable to extension, and those levels and trends are what give us a sense of performance and impact. Thank you.

*Julie MacCartee:*

Thank you so much, David. All right. So, we've had a lot of questions come in, some really great discussion. We really, really appreciate all of you who have joined us as attendees, liberally sharing your questions and comments. They're very helpful to the DLEC team who are helping to create these metrics. And of course, joining the DLEC community of practice is one of the best ways to continue to stay informed on this topic. In addition, we'll be sending out an e-mail with the recording of this webinar, the PowerPoint, a few additional resources, the chat box transcript, et cetera, and in that e-mail we'll be sure to communicate any essential follow-up actions from this webinar.

So, I'd like to go ahead and wrap up the webinar and say a sincere thank you to Judy, David, and Kristin for your excellent presentations. Thank you to the Agrilinks team who is always wonderful in supporting and putting on these webinars. And most importantly, thank you to you, the attendees, for continuing to come to Agrilinks webinars, supporting this process, and sharing your perspectives. So, we'll go ahead and wrap up. This has been a great webinar and we hope to see you at future Agrilinks events. Thank you.

*[End of Audio]*