Emergence of Sustainability in a Complex System: Are Lessons From the Health Sector Applicable to Food Security?

January 26, 2012

Q and A Transcript

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Sponsor
United States Agency for International Development

Female: Great, thank you so much, Eric. We're going to open the floor to questions, and please state your name and affiliation before asking your question. And then Sharon, you guys can share this microphone.

Audience: I'm Dan Norell from World Vision. This is a question certainly for Eric, but for the team. In terms of engaging with the system and working toward hopefully a new equilibrium, and I'm trying to make this question both a health and a food security question, what's the role of the project in terms of ownership and trying to work toward a change in that system, and what's a role of the actors in that system, and how do you make sure that it's just not project driven, but it actually – either right from the get-go, the actors own it, that change of system, buy into that and want to change that, or it's some sort of pass over over time?

Male: Should I jump in? Well, I think they won't take it from the start because you come as a project in a resource driven environment. You can have the best kickoff workshops, speak about ownership, sustainability, and everything. I think that by now, nobody is going to believe you. I mean we've been doing development for, what, 60, 70 years. People are only going to believe you if there's some honesty and some consistency of purpose, so I would say we always encourage people to have, you know, I mean kickoff meetings and joint design meetings, and we do this in all our projects. I think the only time you start becoming credible is when you go through this iteration.

And you actually come back and you say, "Remember we said this? We meant it. Now let's follow up." So I think if you're a new project in an area that's been very resource deprived, although that has had a lot of project, and they've been gone, you can't assume that people are going to trust you overnight, and you have to realize that you – I mean I think honesty is important. You are going to be accountable to a donor. You don't have a mandate to do everything, so I think honesty and trying to replace the project as saying, "We want to be part of this, and we're going to stick with it, and we're going to create mechanisms and processes to stick with it," is going to be very important.

I mean we've got examples which really worked. It really takes a little time, but it's visible, and consistency and integrity in it. What we struggle with but we've tried to make the case for it is that your information system, your M&E systems, need to be somewhat tweaked a little bit so that you can actually inform the

actors of the system about something that's important to them. And you need to be accountable for your project. You're going to have a project M&E plan.

Now can you make that project M&E plan fit into this picture, and can you include a few elements that, well, we're not doing that, but we're not doing that. If you want the sustainability, remember that picture at the beginning. We focus about the behavior of that single town. If you want sustainability, you need to allow that individual organization to be in relation with others, and giving a little bit – I mean we don't mind giving a few extra per diems to get collaboration. Why not give a little bit more information and ownership on information? I think that's part of the thing, too.

Audience: One of the things that I've been working on lately is the pastoral system. I don't know if you are very familiar with that in East Africa. Very complicated system. Not going to get a lot of detailed data. And it's such a complex social system, environmental – the ecosystem. There's the donors, the food aid, some of which has had negative effects, and we know from research that when pastoralists are cut off socially that that has quite negative effects. And we've actually been very good at doing that in a number of instances.

The issue is you have all of these changes going on in this very complex system. I don't think you really need perfect data. I think you can get good enough data, but I guess I'd like your ideas about giving something as complex as that, how this can help us figure out where to intervene so as to not harm the system and all the different pieces of the system, and yet knowing the system is transforming and it's changing anyway because of climate change and all of that. Yeah, I don't know if that's too complex of a question.

Male: Can we have a response from   somebody who understood the question?

[Laughter]

No, don't touch the red button. He tried. He tried.

Male:	I can't think of a more complex example than you've actually just raised. The pastoral system in East Africa is an incredibly complex scenario. I think there needs to be a common goal. What is the common goal of the pastoralists, and what is the common goal of probably all the players in there, and that common would probably lead back to something that's obviously sustainable given the complexities of the environment or land issues, population pressure, et cetera. But they're wanting to turn a profit at the end of the day, and so in terms of intervening, how could they improve their productivity. Not just to improve productivity, but how could they improve their productivity to increase profit? And there are opportunities out there. I'm sure – I mean there's a huge market from East Africa just across the corridor and in the Middle East for a lot of their livestock and livestock products.
	And so if the driver is that market, and I'm sure there are lots of more capable market people in the room here to identify that and then to work with that. But – and I think Eric touched on it earlier. It's a multi-level process, and when we were discussing about this presentation, it's not just sitting around the table, and I brought in like this – it has to be under the tree. You've got to be able to sit with those people in those pastorals under the tree, but you've also got to involve the players at a macro level, particularly East Africa because you've got multiple countries involved in that whole pastoral region.
	And to ensure that this process works at all those levels, this process with – this one actually works at all those levels. An incredibly complex system, but I do believe it's possible to bring about change given if there is that common driving force.
Audience:	I think also it seems like a challenge – that a challenge is defining those indicators against what you're going to measure things are moving in a good direction or a bad direction. And do you – and I think defining those indicators – like you could look at a value chain market system. That would be a smaller system – the pastoral system is a much bigger and more complex system. And actually, their one thing is they're not really trying to maximize and come is another issue, that they think differently about that. But that's just another thing.

But you know, how do you get – how do you define in your spider diagram, how do you define what those indicators are? Like which ones are the really key? You know? That's going to make a huge difference in how useful this is.

Male: Yeah, I don't have the answer to which ones it would be.

Female: These are turned on already. Right? I don't know the answer for the pastoral scenario, but I know that within that health scenario that we – it took a lot of, I would have to confess, some trial and error to figure out what are the core indicators that are most telling that you keep in your index because if you can't – if you notice that on one axis, there's very poor results and your score is very low, like that 26 in the district capacity score, if the indicators behind that index aren't valuable and aren't really telling you what's going on, then you have a problem. So it took us some time to figure out what are those indicators that really tell us that something is happening or not.

So that if we go to the district or the ministry of health and we share these data, we can say, "The reason this is low is because we measured this, this, and this, and these are the issues that are occurring at that district management level." So it's very – unless you can have validity behind your index, which is what you're saying, what are those indicators, but we ended up selecting – I mean this is just for health.

Maybe for food security or value change, you'd have more points. You might have an octagon or other indices that you'd need to measure because you have a more complex scenario. But you then – in some of these, there may be 5 or 6 indicators behind the axis, and others might have 10 or 12 depending on how strong a measure you need for that to know what's going on in that area. For enabling environment, we looked at literacy levels, human development index issues to say, "Okay, you're implementing a program in an environment that's super challenging because these scores are very low." You can see our wider environment in Nepal, that was the war years. It was very difficult. Lots of problems.

But so you're saying, "Okay, we were able to shift the system this little bit even in spite of a very difficult environment, but it enables you to tell the story and see where your challenges are.

Male: If I can add something to what Sharon and Owen just said, I mean I think in your question, the first issue is while you can't deal with the whole system, but already, if you start thinking about the groups or the – that I'm going to be dealing with are part of a system and what part of this bigger system do I at least need to involve – I mean you don't want to have a major change that's going to create a total disruption from the other relationships.

So I've already started thinking about the system is already a first step. Then in terms of a measure is yes. You know, you want good measures. However, sometimes, this is a guy I quote often, a quality assurance guy, Devisbel Astretchia. He says, "Well, sometimes, rough measures of the right things can be helpful." And in the case of accounts in Bangladesh, it went over many years. When they started looking at the capacity of the municipal health department, it took them probably two years to have fully fledged and tested capacity assessment tools that they could use for monitoring, but they didn't wait two years to work. First, they got people around the table and said, "Well, how do you guys think you're doing?" And that was their initial measure, and that was very rough, but basically, this guy says, "We're terrible."

And they said, "Well, that's enough to get us stated somewhere." And in terms of creating a social process, you know, it's not the kind of thing you get your PHD with. You know? That's one audience in the system that won't have their needs met, but you can lead a lot of change with rough measure of the writing. And then over time, you learn about it. So I think there's a lot of areas of capacity where we're still learning. In the health sector of measuring capacity, we still don't know what we're doing. Oh, sorry.

Male: Can I try to answer one of the questions that you had raised? This is with regard to the National Redevelopment Board of Government of India. Of course, there is no large transhumance involved in the development in _____. But still, there are pastoral communities which were disorganized later say about 20, 30 years ago, and the National Redevelopment Board recognized three major issues that

needed to be addressed. They knew that the technologies existed, but the packaging and delivery of those technologies in either production, marketing, or assisting, or distribution of their product were not being delivered in the manner in which it was acceptable to the communities. They also knew that services were available. Maternity services or other services were available, but again, they were not accessible.

Accessible in terms of being available on time and at the place where they were needed. And therefore, that packaging also needed to be innovative to services, and the last one was that the stakeholders were all over the place. So you needed to organize them, and they were able to organize them based on the tribal configuration within Gujerad, but what it meant was that they were not doing it. They were facilitating it. They were facilitating the packaging of technologies. They were facilitating the packaging of services, and they were facilitating the organization of groups, but with a particular purpose of getting their milk out from the rural areas to the redevelopment board's plans in Anand, for example.

And this was a process which was perfected over 20 or 30 years. So the consistency of the purpose was known to the dairy farmers within the region so much so that they knew that on the day of the market in the rural areas, there will be refrigerated vans which would be coming to those markets where they can take their milk which would be measured for quality, which would then be stored in those chilling vans, and the vans will then bring them back to the processing plant.

I think something to that effect is being thought out for the development of dirty in Kenya, thought of, but I don't know whether or not it's a value chain they are going to address or the food security issue that they're going to address. But the issue of transhumance would be much larger in the Kenyan context, despite the fact that Kenya is now the leading milk and milk product producer in East Africa, and they are linked through their _____ mechanism to be able to provide these things to East African market. So the objective is there. The organizational capacities, whether they exist or not, in terms of delivery of technologies, in terms of delivery of services, and in terms of organization of communities, which you want to address, that remains to be seen. It will be a long-term process, I think, as Eric say. Thank you.

Female:	We have a question from the webinar from Margie Brand, enterprise development specialist here in Washington, DC. She asks, "How does working to achieve health outcomes differ from trying to achieve any other type of outcomes through value chain development? Are there different strategies, activities, or stakeholders that need to be addressed or included? It would be particularly helpful to hear practical examples at design and implementation levels of what is different because of the health outcomes that we are aiming for.
Male:	I'm not sure if I'm well placed to compare health with value chains approach, so do you want to say something about this?
Male:	I will have a stab at it. I don't know whether or not that will be the correct stab. Value chains will have three major elements, as was the case in the National Redevelopment Board. There will be commodities that you are concentrating on. There will be services that you need to make available in order for those commodities to achieve whatever you want to achieve, and then there will be stakeholders involved, which is farming communities, trader groups, producer groups, women's groups, what have you. Within the commodities, for example, maize in East Africa, we will have to worry about adoption of technology. We will have to worry about productivity increases within that particular crop.
	We have to worry about marketable and market surplus. We'll have to worry about agro-processing of that surplus, not 400 kilometers away, but as close to the production as possible, and then you have to worry about distribution of the final product of that processed marketable surplus within the region. So I would argue that commodity services and stakeholders may be different in case of each one of the commodities such as coffee or maize or beans or whatever have you. But the processes would remain the same. They need to be tweaked, as Eric said earlier on in his presentation, but there are indicators that we can identify, whether or not extension services are available at adequate or inadequate levels.
	Whether or not marketing services are available at adequate or inadequate levels. Transportation services, transport services, not transportation. Transport services, loddy trucks, busses, whatever have you, available or not. With adequacy or inadequacy, these are indicators that we can identify. There is no doubt that this is possible. Basic question is if on the research stations you get 12 tons per hector of maize, why within 20 kilometers of those same research stations the productivity is less than one ton per hector. And there is a

gap somewhere. Either we are lying to the people or we are not able to distribute that technology 20 kilometers away from the research station.

So there is something which is missing, and I would argue that the missing is the packaging and delivery of both the technologies and the services in the manner which is acceptable to the smaller agriculturalist or the small holder pastoralist or whatever. Did I answer the question? I don't know whether or not I answered.

Male: I might try to give it another stab at the question and maybe link it with an earlier question from then about what the role of project. And once again, I'm learning about value chains from my colleagues. I don't claim to understand it. But in health, we also can speak about the production of health, and when we're dealing with health system, a traditional role that we play, at least people that kind of do a lot of community health, is also be a technical translator between cultures. You have the culture of the health professionals, a bunch of doctors who reign over the world and think that they actually produce the health of the people, which is factually wrong, and then you have to involve communities.

And there's a lot of house production that is at a household level. The main producers of health for children are actually mothers, not – with or without medical degree, and usually without. And as we come as projects, it's very important to kind of be part of that process to kind of start discussing what are we going to look at. Okay, you know, and medical professionals, you tend to have a biomedical view of the world, and you know, it's hard to avoid.

But as professionals from projects, you come with some credibility, at least in terms of the technical interventions, and then you kind of have some indicators, and look what's happening. And you can try to translate that and get people to see how these different stakeholders, which are different parts of the process, and you know, care providers do have a – you know, do have a role and an area of expertise, but you need to bring it together. And you know, as it turns out, I'm speaking this afternoon about community case management, which is now a national policy in Arand, which means that we have community members that are treating pneumonia.

And you can look maybe at this as a value chain, and this has made a huge dent. But the project – I've been key in kind of translating all that's happening and getting the professionals, health professionals, saying, "Oh, we have a role in this." And see community members, "Oh, we have a role in this. We need to select the volunteers." So maybe it's not that different, but I'm not sure we're answering – that's answering the question so well, but that's one of the ways I can look at this comparison between health and value chain efforts.

Female: We're going to take one more question from the room, and then Jean is going to close, but feel free to stick around afterwards to continue informal discussion.

Audience: Thank you. My name is Ben Adam. I'm from – I'm working on a USAID project. I'm not a staff of USAID, but working with a consortium. We are working on ICT's information communication technologies for development, and one of the key issues is a stability of ICT projects. So with my background in agriculture, you know, I got attracted to these to come and listen. I like the definition, you know, of sustainability that you have given. I'm interested in that coordinated – you talk about negotiated and coordinated, you know, _____. I'm interested in practical example if probably the Bangladesh one or food security where act is coordinated your activity to ensure sustainability of projects.

And also, the title of, you know, these talk about local updates. I'm interested in that, what you mean by local updates. Thank you.

Male: I had examples from Ghana. I know, I know. That's why I'm giving it. Adam is a very familiar name to me. In the northern sector, there were two major issues that were being addressed. One was how to increase the productivity of small holder horticulturists, for example, who are producing vegetables for the market. By increasing their agricultural season by applying new irrigation technologies – not new as I said earlier. Technologies are available. We have to package them in a new way.

How to go about doing it? Two examples. So this example is drip irrigation systems with treadle pumps on the dug out wells in the northern sector was propagated through an organization named IDE if I'm not mistaken. Yeah? Yeah. And they were the ones who used local groups, farmer groups, in order to bring the technology to them initially as a matter of discussion, then as the matter of demonstration, all within three months' period, and then as a matter of selling it to them. What did the facility – that facilitated the organization of the communities to start with?

The demonstration of the technology that they are going to deliver both treadle pumps and the drip irrigation technology to be delivered to be demonstrated to show that the crop grows four times or five times more than what you are growing, that the agricultural season lasts for more than six or seven months a year rather than only three months a year, that there is the possibility that you might grow more crops, and therefore, be able to sell it. And on the other side, they make sure that when these pumps were manufactured, these particular mechanisms were manufactured, they were manufactured from Komasi's outer market.

Whatever is left as junk in Komasi outer market was then asked to be converted into the pump that they were wanted to distribute, was manufactured in Komasi, was delivered to the farmer groups that were adding _____ in the northern sector. And the money for farmer groups to buy these farms which were produced by Komasi manufacturers was arranged through a local bank. So the money to the manufacturers was arranged by guarantee by ID to the local bank – through the local banks. Also purchased to the farmer groups by the local banks.

If necessary, ID purchased first 100 pumps in order to make sure that there is no loss to the manufacturer, and it could be distributed. So that was the way in which it was done. Second one was strengthening capacities of gerapelambushy district assembly. We worked with let's say 20 members of district assembly, including the planning chiefs, district assembly planning chiefs, and then we devised their plans for development. This was done on a period of six years. So we went and did the service three times in those six years in order to be able to find out whether or not whatever we were proposing to do with their collaboration and transferring skills to them was being done by them properly or not.

When it was done now, gerapelambushy team and in quanta district assembly teams are helping northern sector – other district assemblies to do similar exercises in the region. So there is a sustainability by involving local groups. There is a sustainability by delivering innovative packages of technologies that exist, and of course, of managing finance with _____ to making sure that it is sustained at least for the period of time when people are convinced that this technology will give them more income than what they were getting before. Did I answer the question?

Male: Let me just add one other component I think to that example in that example for the treadle pumps was they found a market in mines that were close to those communities to – the extra production, obviously, you can't just produce and not have a market. But these markets are there in terms of large mining communities. So it was kind of a nice, holistic approach, I thought.

Moderator: I just wanted to make one comment, and I think it speaks to Margie Brand's question about value chains and the kind of work that a lot of us do. That I think what we have found over time, and one of the reasons we're so interested in learning more from you about complex systems, is that technologies are nice, and we've spent as projects, USAID has spent years working on technological fixes to problems that end up being a lot more complex that in which you have enabling environment problems. You have environmental problems. You have social, cultural, lack of trust, lack of social – you know, so the complexity of these systems is such that we've been only focusing on one part of it and not really being able to have, as you're saying, the outcomes that we're looking for.

And I don't even think we're looking at measuring those outcomes. We're just measuring our technical fix, and we don't even know the sustainability of that because we're so project oriented. So I really just want to thank all of you and say I think this, for me, what really gives me so much food for thought about how we can begin to think differently about the kind of complex agricultural value chain projects that we do. So I want to thank all of you very much.

Male: Thank you.

Moderator:	And I also wanted to say that our next breakfast seminar will be Curtis Hundley from DAI who is going to present this Cambodia project, which is an M4P value chain project, a very exciting project, and he's a very exciting and passionate presenter. And he's going to talk about tools for mending weak and fractured value chains. I also – we're going to have an after hours seminar with Jeff Chalmers talking about role in ag finance and looking at some of the innovations. We did a stock taking on the innovations, and that one is February 16th. Anyway, so check Micro Links. Anyway, thank you everybody.

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