Agriculture Sector Council Day Break Seminar

The Senegal Local Support Fund: Capacity Building for the Maize Value Chain

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Participants

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Andrew Keck: Good morning, everybody. I am Andrew Keck, as previously announced. And it's a great pleasure to be here with you today. I'm in the States on vacation and it's a really nice opportunity. I'm not very often in the States, so it's a nice opportunity to mix that with a little bit of work and be able to interact with you and talk about what we're doing in Senegal. It's also a great pleasure to be the chief of party of this project and to have the opportunity to lead such an important initiative for USAID.

So today we're going to talk about the Senegal Local Support Fund. The angle is that we're looking at this mechanism and the way we're working as fodder for thoughts about USAID forward and ways of increasing the amount of resources that are allocated locally and allocated through local partners. And we're going to focus on the maize value chain as a practical example of what we've been doing, although I have information more broadly about what we're working on.

So without further ado, I want to start with a story about one of our farmers, one of Senegal's farmers with whom we work, a woman named Nimna, and give you a sense – give you a slight little insight as to what we're already doing. Nimna's the head of what they call a jai eu, an economic interest group in English. And that jai eu, since working with us over the past two years, this past farming season was able to get 4.6 million CFA in credit. And the group has come together and planted 80 hectares in maize, which is a vast increase over what they did before.

In doing that she had contract, she and the rest of the members of the jai eu had a contract to sell to a group called Sodefitex. They; ended up selling ten tons to Sodefitex, kept three tons for themselves or sold them in other ways or used for self-consumption, for 1.2 million CFA. That compares to selling 2.3 tons the previous year for 210,000 CFA. So nice job.

The contract price also was up 30-percent. That contract, the core of this was signing that contract with Sodefitex, because that was what allowed the access to credit to happen. That was what ensured that the seed and the fertilizer were there in the jai eu's hands when they needed them, and it also opened the door to ongoing technical outreach, not from us, but from Sodefitex themselves.

So that's a little slice of what we've been doing. Now let's go back and say, "How did we get to that?" Nimna's not an isolated case; she's one of many thousands of farmers who are benefiting from the mechanisms that the Senegal Local Support Fund is able to do. I'm going to call it the SLSF from now on to not get tongue-tied.

So there's the elements that we're going to be going through. I'm going to just keep moving forward. So let me start with some context about the Feed the Future strategy. In Senegal what you see here is that agriculture is seriously underperforming; despite being a very important source of employment and livelihoods for many, its contribution to the GDP is quite weak, and this is not just Senegal looking at itself, but when it looks at comparator countries. So this is a serious dilemma, which means that overall investment is not where it needs to be.

And there are a lot of factors to that, and these are very important to go through a little bit, because Senegal has perhaps different set of circumstances as to what these constraints are compared to some other countries in Africa and certainly different from other continents. One of the key drivers, and these are sort of classic problems that you read about over and over in Senegal, is the – the poor seed quality and the low use of fertilizer means that you have low yields, and here's some examples of those low yields. There is one very important exception to that; the irrigated rice output in Senegal is almost at record world levels; it's extremely high, although they do face a lot of problems with commercialization.

Linked to this is there's a serious problem with access to credit. It's an ongoing phenomenon that the government and private sector farmers talk about constantly, about not being able to get access to credit. And because of the land tenure regime they can't collateralize their land either, and this in turn has a circular effect of having low investment.

The market links themselves are very weak; the classic market transaction is there's a local luma and truckers come in and they just buy the product that's there that day. Sorry, I can't read that in the back; it's a little low. You just sell whatever the price is that day and then the next week they come back, and that

basically defines the nature of the transactions for the most part. It means that consolidation is very formal; it means that when you buy that bag there could be anything inside, and in fact a lot of the consolidators and wholesalers we talked to complained endlessly about not knowing that they're buying. So you end up with low-quality and you end up with low price.

And in this context the small holders are very much price-takers in the classic syndrome that many of us have seen, of they're selling the bulk of their product at the outset of the harvest and then they're getting that rock-bottom price in this kind of context and then it goes up much later, but at that point it's out of their hands and they're probably going to be even buying back when they get to the end of the few months before the next season starts.

So these are all very much in the front of everybody's minds when saying, "What are we going to do?" Now when USAID formulated their strategy they had to come back with a number of limited value chains, and here they are: rice, maize, millet, and fisheries. I'm not going to really discuss the words on the screen; you can just read them yourselves. But the point is is that there's market opportunities in each of these, and this is critical, because what's happening now is it's this very informal and unstructured commercialization that occurs that's holding back the opportunity for farmers to actually make a lot more money and to be more secure.

We as a project work on the first three of these; fisheries is through another mechanism. And we're not the only ones working on rice, maize, and millet; there are four other projects – three other projects, sorry, who work on these value chains as well. But the general argument is that the cereal producers, if you add it all up, they are a huge number of rural households. They – women are well-represented in the value chain, whether it's in the farming itself or in the processing or in the commercialization. And so by focusing on cereals you're really going to reach a huge swath of the population, and that's part of the justification for choosing these value chains.

It's perhaps a little hard to read, but it's simply to point out that there are two focal areas for USAID; it's in the north, along the Senegal River Valley, and then in the south, what they call the Southern Forest Zone, which significantly

doesn't just cover this far eastern and southern zone, but this area just above the Gambia, which as we've been learning, is emerging as a cereals hub and where a lot of excess production is available for commercialization.

So the problems I mentioned earlier, you know, we know what the technical solutions are; better seeds, better access to fertilizer, better soil conservation, get more credit in. And we could take the position that has been tried and has not been very successful in the past, of sort of injecting those needs straight at the farmer level. But we've seen that those experiences, for example, even in maize in Senegal there has been a national maize program, and it really didn't gain much traction. And it's been a similar kind of going around, spinning wheels on these other cereals, particularly millet, for example. So what we're looking at is where is the market opportunity, because the market opportunity we think is what's going to make this stick, it's going to make what we do actually be sustainable and be scalable and be able to reach the quantity of households and farmers that USAID has the ambition to reach through Feed the Future.

We need to ensure that we're going to have the small holders benefiting that; it's not all going to accumulate to a small number of peri-urban businesses. And we have this challenge of how we're going to measure these outcomes. If you're familiar with the Feed the Future indicators, they are very ambitious, they're very specific, and we need to be able to measure accurately. So we take these into consideration in the way we've been working with the SLSF, and I'll come to that more later, but let me speak just a little bit about how as a project we're structured and what we do.

_____, compared to some of the other projects, we're focused downstream, on strengthening the small holder links to the markets. So we're really trying to address how they're going to link up and the opportunities and how that's going to be structured and sustained. At the same time we are the project that's working on the business and policy environment, which is different from some of the other projects which are more at the farmer level.

Just a few facts about the project; it's a $47 million project, we've been operational since May of 2009. So we've actually got two years of

implementation of Feed the Future under our belts. And it's a consortium, which I've listed the partners here; IRG is just one member of the consortium, and everyone brings a lot of knowledge and experience to the challenges we face.

It's also useful to know that this can't be done on a shoestring budget with two or three people; we're actually quite a substantial staff, 35 technical and admin people. We have only three expatriates on the project. To be able to reach the kinds of populations we need to work with we have offices spread around the country.

So the Senegal Local Report Fund was a response when we submitted the proposal to USAID's concern that capacity-building be substantial and resources be spent in-country. So this is a commitment to that, and it – as we've been going along what we're finding is that this is an excellent mechanism for ensuring that entities that already have very clear goals are getting support to actually pursue those goals as opposed to us inventing goals and then finding someone to pursue them. At the same time we're finding that the Senegal Local Support Fund is really doing a great job of helping overcome risk. There's a lot of uncertainty about these cereals if you, again, the slide I had about the arms-lengths transactions; I can't tell you how much suspicion and uncertainty there are, both at the farmers and with final consumers and anybody in between in particular who is trying to get the product to consumers.

The fund itself is about 20-percent of the value of the contract, $8.7 million is allocated. That's not including – beyond that there is a substantial program and training directly and other types of interventions.

So I mentioned on that slide what are our challenges. So what we had to do right away was a maize market study, and what we found was that there – what seemed to be the opportunity was this explosion, if you will, of maize imports that you see happening here. This is since 2000, this line occurred here. Despite the dip it's back up, and in fact it's well above, it's about 120 now. And it's all coming, well, for the most part from here over, this is South America.

And what's driving that? What's driving it is an opportunity – two types of opportunities. The primary one is chicken feed essentially, although there is other animal feeds involved. But there's a number of companies that are very well-established in Senegal, they're very professional, some of them even have ISO9000 certifications or other types of certifications. And then there's another market that's coming on strong, related to bouillon and infant cereal formulas, and there's even one company that has a partnership with WFP and is selling to them. So they're very concerned about quality. And all these companies are extremely concerned about quality, about timeliness, about being able to expand their opportunities in Senegal and in the sub-region. That is a $25 million a year opportunity. Right now that's all going out as buying out of the international market means that they're spending in international currency and there's an opportunity to bring that product home instead.

And in terms of when we think about it as market, we're talking about having to – because it's a year-round business it's not related to the farming cycle; we're talking about 10,000 tons every month has to be supplied. When you get to a certain level you're going to have to be able to store it. When we think about what we're doing we need to think business, we need to think about how the small holder is going to compete with these sophisticated systems that are in place right now. This is a farm in Argentina, this is one of these companies – this is not faceless, these are companies, trading companies that operate facilities like this, that rent boats like that, and that buy from farms like that. So we're talking about in contrast in Senegal a place where the average farm is less than 5 hectares, there is no industry-scale production in maize to speak of; as I said earlier, there's the problem of low average yields; and as I was describing, there's a problem with quality in the supply lines, they're very informal and very inconsistent.

And I can say with confidence that what we're doing is we're actually succeeding, as the little story with Nimna shows, in actually bringing that product back home and getting them to compete, go head to head with these international entities.

Excuse me. So now I'm going to go a little bit more into what are we actually doing with that Senegal Local Support Fund. This is a complicated slide; I'm going to spend a little time on it because it really tells the story and there's going to be some slides supporting it. But if we look at the industrial maize

value chain we can be very specific up at this end about these businesses that are in poultry and other animal feeds and the bouillon and infant cereal opportunities. So here they are. We know that they're basically making phone calls with those traders sitting in Geneva or some such place, and what is happening is they've been willing to sign contracts with these consolidators. I can talk a little bit about these consolidators in a minute.

And since the middleman turns out to be the key piece in this story, it's appropriate they're in the middle of the slide. So these consolidators in return have contractual relationships with these networks of small farmers, and then sometimes you have the larger farm, but when I say larger I still mean a couple dozen hectares or something like that; it's not anything like what I showed in the picture on the previous slide.

These green arrows have turned on all the blue arrows. So thanks to – and the blue arrows, if you can't – I see people trying to look in the back; that's credit, sorry. Financial institutions – there's multiple financial institutions operating in Senegal, many, in fact; and they really don't like lending in agriculture; they've been burned many times. They have lots of un-creditworthy partners in agriculture. But when they see these contracts actually lining up, it just changes things utterly for them. And so that in turn drives the access to the inputs and to the – to any ag inputs into the seeds.

I'm not going to talk – down at the bottom here there's an arrow going from the consolidators down to third-party warehousing. I just mentioned that problem of 10,000 tons every month. Well we're not there yet, but that's an emerging challenge of being able to have stored product in excess of what farmers can generate in a single season.

So let me talk a little bit about what the SLSF does specifically. Well, our story is for this to stick, to get to really sustain this, we need to plug those farmers into the market. So we've seen that the farmers can sell to the market, and there is maize, for example, sold to urban areas. But it's not particularly driven by quality or timeliness, it's not a huge household urban consumption product. That industry, on the other hand, as I was saying, it's very specific, it's very time-oriented, it's very quality-oriented, and they're willing to pay a premium

because right now they have to pay for it to come across the Atlantic Ocean. So what we're doing is helping those consolidators who are really new in the business to be able to meet the – put in place the systems that they need to be able to meet those contractual requirements that the green arrows were conveying.

So for example, we have direct partnerships signed with co-funding with each of those consolidators through which we provide resources that allow them to actually – we co-fund supervisors and field agents. 'Cause this is all new to them, this is a risky thing; they're used to basically just – if they did it at all, they drove out there, they bought what they could get, and they left. It was a very small, narrow, uncertain operating environment, and some of them have told us about being burned severely and losing quite a bit of money in doing that. So they're very interested in this, but to get it going at a certain scale, we're actually participating in the funding of that, training their staff, training their technicians, who in turn go out and train lead farmers and are the conduits of training materials to the farmers that they have in their network.

A critical investment we're helping support to get off the ground, which they seen right away, I'll talk about this more in a minute, is mobile de-husking units. So what happens now – well, I'll come back to that in a minute; I don't want to spoil the fun. And another very interesting area that's coming online this year is the GPS units and the georeference database for farmers. Now this has really taken the consolidators into a modern supply chain system with fine-tuned logistics arrangements to be able to pinpoint where their farmers are, where those mobile de-husking units are, when they plan to drive the truck out there and pick up, and make sure that that truck is as full as possible when it comes back to the warehouse.

And so this is linked to a cloud computing framework that allows them, with us, to put up the information, and the information that they put in that database is simultaneously exploitable and available to them at a field level or their central offices, as well as with us. And USAID has said, "Can we get into that?" so we're trying to figure out how to do that too.

On the other side, to make this happen, to be able to work with these consolidators, to be able to channel resources to them and get them going, we need a substantial team that actually has a lot of knowledge about how this works, to take them out of this old model and into a much more modern model. So you have team leader, just in maize we have three, so they can cover that huge swath of the country that I showed on the map. There are two capital access specialists who work constantly, pushing to set up new arrangements and expand the number of microfinance institutions that are participating, help them understand the opportunity, show them what the contracts look like. Capacity-building specialists who are designing programs that are about a whole range of topics, and then very key, this database DGIS expert.

I think you can boil it down to these people provide – end up providing a huge amount of coaching to this entire group and to a certain extent to the representatives of the different farmer associations that are involved. I'll come back to this in numbers in a little bit.

So a quick example is this post-harvest loss problem, and it's a logistical issue and it's a cost-saving issue and it's a modernization issue. So one of our investments has been in these mobile de-husking units, and so they can bring these right to the field. The consolidators are actually the managers of them; it's not us. And so farmers come, they're actually given bags by the consolidator and the bagging happens right there. Consolidator, in this case Sodefitex, is able to store a certain amount of money, they can check the amount of money, and there is Chocosen using it to make their bouillon right there in the greater Dakar area right there. So that's the consolidator, and that's really a key piece, because that's where the farmers are getting linked in, and I'll come back to the numbers.

We have another key area, which is well upstream, in the seed supply. So speed this up a little bit, you've got the private seed producers, of which there are many, in fact, who are very used to having a pretty small market, even though they have all these potential clients. They sell what they can. But now that you're talking about these companies like Ivisen and Sadema and Chocosen and whatnot, the right variety makes a big difference. The fact that what they actually grow is homogenous makes a big difference. The seeds themselves need to be cleaned, they need to be bagged, they need to be available at the right time through that complicated diagram I showed earlier.

The grower is supposed to be certified, and preferably the seed itself is to be certified. So another major area of USAID intervention in which the SLSF plays a key role is in jumpstarting and modernizing and vastly raising the quality of seed production. So I've listed a number of things here, I'm not going to discuss all of them in detail, but what's important to note is that there's a combination of hard and soft. On the hard side there's rehabilitation of seed labs, rehabilitation of seed processing centers. And on the soft side all the management that's required for those centers to succeed, because they've been invested in before, and then slowly and gradually that investment peters out and there's not reinvestment, so a lot of that is tied to the management structures and the standards for them.

Another one I can point out is that because we came in in mid-season or early season in May 2009, we had to do this right away jumpstarting in maize, and we did this in a few value chains, and we literally just bought the seed and the fertilizer right up front, the foundation seed or breeder seed, and got it in to the hands of the seed growers so that the following season there would be something that would actually correspond to what the market needed.

Now of course in the bigger scheme of Feed the Future what we're really worried about are the farmers. And the main way really that the farmers are benefiting is through the consolidators, because it's they and not the staff of our project who are the source of outreach to the farmers. And literally there are, when you add up the tree value chains, we're at tens of thousands of farmers who are in relationships with some entity who we partner with who's providing that outreach. At the same time, that isn't all there is to it; there are things that those consolidators aren't in a position to do for a variety of reasons, and so we've been performing more directly trainings on creditworthiness, on different farming technologies, and especially on contract. Lots of discussions about what is contracting, what does it look like. There's actually been a number of templates that have been designed by the farmers, sat down the farmers with the financial institutions, with the consolidators, what works, what do we think, what are the key clauses, how will that work.

We've also done some community warehouses, although with the rate we're going with commercialization, these end up being short-term holding pens,

‘cause the product is moving so fast to the end buyer. That will change in the future. And that’s where third-party warehousing comes in, because right now we’re not quite at 30,000 tons, but we’re going to be at this speed. So at that point there needs to be someplace it can be held, and it’s not really going to work in terms of quality for it to be held in 50 different miniature, you know, small-scale warehouses all over the place; it needs to be actually pushed through and commercialized, and at that point stored by somebody who’s got the resources to do that. So we’re working on co-funding with third parties to actually set up and run these and have the financial institutions involved.

The end buyers and the agriculture input entities haven’t really been beneficiaries at this point, although they have – the SLSF has been used to work with government entities to facilitate consultation about how to organize all of this in a more increasingly formal way. But it’s important, and this is the kind of thing that we point out to USAID, that in the future, because this is the bedrock of the opportunity, that maybe they would be good future beneficiaries of perhaps a future program of USAID’s in terms of raising their competitiveness and ability to reach into national and regional markets.

So as we can see, the SLSF – well, there’s one more, the financial institutions. Again, they don’t need our money; they have plenty of money. Their problem is risk and confidence. So that’s the work with the consolidators, finding the end-buyers is addressing that. But at the same time we are doing some interesting things and they respond to a few different concerns. One of those that I’ll mention is the rain index insurance for maize. We’re doing a pilot this year with the National Ag Insurance Company together with the World Bank and Searhead and another regional group called PlaNet Guarantee, to actually test this. Because if this – as this succeeds, not if – as this succeeds we are going to run into the risk of poor rain season. And then you’re going to have all these tiered, multi-tiered contracts, and everybody’s going to take a hit. So this is extremely important.

We also have the leasing program that’s coming on and it’s working extremely well. There’s 14 tractors leased this year. And the way it works, it’s not going to an individual farmer, it goes to a cooperative or to someone who can actually then rent time on that tractor to plow your field.

There are other SLSF interventions. I've talked about maize, but now it's really important that I step back and I say, "Okay, it's not just maize. There's a lot of other things." I mentioned the business in operating environments. The first – I'm not going to read all – discuss all these examples in detail, but there's this new two years Masters program. This is – there's 15 students in it this year, there's going to be a second – it's a two-year program, so there's going to be 30 come next year. And that just needed some startup cash to design the program and get it going, and it's with the University of TS.

There are always questions about what are the small holders getting out of this, what's the financial picture look like for different types of participants. So we're actually working with graduate students to help fund their research, looking at our programs in the field and at other programs like ours, not just in maize, but across the board.

We have made a huge investment on modernizing and improving the agriculture annual survey. I mentioned early on the challenge of measuring. Measurement is – first and foremost, no one believes that the agriculture statistics are true, so that was an area that not just USAID and Feed the Future, but Senegal and everybody around the country would benefit from. So there's been a substantial investment. Sure there's all these consolidators and the big business and the industry, but there's an awful lot of small, direct opportunities that we can reach through grants, and one of those is this group, women's group, who has developed a maize-based infant cereal formula.

Okay, so this is a lot of numbers to look at. Let's look at a few things. This is the – there was a much smaller number here in 2009; I think it was 1,000, but I took the column out to reduce the confusion. But you see those numbers basically skyrocketing. But what you see is that it's not the same as the contracted sales. Why? Because what we know is that the farmers that are participating in these arrangements, they hold back, and that's okay, that's normal for them. They hold back for themselves and they also hold back so that they have something they don't lock in on. When they sign these contracts they actually sign them – they're already signed right now. So the credit's been placed, it's all happening, and they're starting with the inputs right now. And then that's already a huge guarantee for them. It means that they often will go beyond, well beyond what they have to do to meet those requirements with their production and the area

they allocate to it. So again, the contracting isn't the whole story; it's only about a third of what we think actually happens for each individual farmer.

But in any case, you see the contracted sales going up as well, and it actually becomes a more important percentage over time, is what we're expecting. Here's where we are this year, these are all – these are real numbers; these are not projections, these are things that we know we have arrangements in place, that this is already contracted for purchase come November, December, January. We have – that price was negotiated, now 135 CFA per kilo. I was talking earlier about the price curve over the course of the season. Normally in the absence of this kind of arrangement they would end up at the end of the season and maybe they'd be selling for 90. Of course, we were helped by the global jump in maize prices, but the security of knowing this price six months before you even sell has a huge effect.

Because of the arrangements the first year we had a 9-percent interest rate and now we've got financial institutions willing to drop it down to 7.5. So we're really happy to see that the confidence – oh, I didn't mention, in this first year, the year 2010 there was 100-percent repayment of loans. So it was really – they were very happy at the banks.

This is not a small program. We're extensive. You can't really tell on this wall because it's also gray, but the gray areas represent the extent of our work. This is the hub here, but those consolidators are spreading out and they're sort of assuming different areas as their poles or their concentrated. So we're reaching out all the way, despite the logistics of going around essentially the Gambia, they're really going all the way there. And this is extremely important for USAID strategy, that we bring these market opportunities all the way down here.

The opportunity in the north is actually being pulled back a bit. It's not as expansive as it looks, it's just that those are the administrative areas that actually – it's right along the – it's a narrow band around the river itself where it can be irrigated.

Okay, so that's most of it. So if you're going to be thinking about having partnerships, we'd like to distinguish between within the value chain or outside or around, accompanying the value chain. Inside, well, what we've found, if they have to have a demonstrated vested stake in the economics, in the financials of that, you have to have a bottom-line focus, yes, they want to make money. And so if they're willing to go out there and try to make money then we know we've got somebody who's going to invest on their own, and it's not going to be because we're there. We've had some unfortunate experiences with a few groups who have said, "Okay, if you can't pay all our operating costs, you know, for us to be located where those farmers are, we're going to leave." Well, you know, that's not sustainable in any way.

They have to be creditworthy. This is a learn-as-you-go kind of process, so maybe there's ways when you design programs that you can actually put this up front as a vetting process so that you can reach large and actually have criteria and then do a review. Because we end up getting into early negotiations and then we head on over to the bank and they're like, "That guy hasn't paid us for loans for the past three years and there's no way." And of course this comes with the ability to co-invest with us and not rely on us to pull all the weight.

And they really need to be ready - it can't be this arms-length relationship. They need to be the conduit of the technical information, they need to be – in fact, they're the conduits of the actual inputs. There's not a cash flow that actually occurs to the farmers at this point with the credit scheme. The credit is actually on paper and it's the consolidators who pick up the inputs and deliver them to the farmers, and then when they buy then it's pulled back from that purchase and then they repay – the consolidators repay the financial institutions.

So if they're not willing to set up and run that kind of network we're not going to get very far. And we've seen classic cases of that, where the company says, "I showed up at the local market and I was there and nobody sold me anything." Well that's, you know, you're not going to get very far with that.

Let me mention about the consolidator partners. I didn't talk earlier and I can talk more in questions, but there are a variety. You know, I think maybe some people see this as the sort of the evil middleman and that's not the case at all.

Not only are they not evil, they are absolutely essential to making that market link and reaching out to the farmers. But they are a wide variety; one is a parastatal cotton company that is expanding into other crops because of the collapse of cotton, so they have a large logistical framework already in place, but they really didn't have the knowledge.

We have a federation of farmer cooperatives. We have a fertilizer and seed seller who actually doesn't just sell fertilizer and seed; he's got his own zone where he actually works with farmers and was very interested by this model when he came in. And then we have the more standard wholesaler for local industry, who is also involved in farming equipment and things like that.

And oh, on the previous slide where I showed the results, one of the things you may have noticed is that we want to see the consolidators go up and up and up over time, 'cause for us that means more competition, more opportunities and choices for the farmers.

So that's inside, and that's really where we think you need to make some critical investments if you're going to reach the kind of scale that is demanded of strategies like Feed the Future.

Meanwhile, outside the value chain there's things that have to happen as well, but if you're really going to make a distinction you really want to be saying, "Okay, what is their value added in terms of informational or analytic or technical services that's going to help you get those goals within?" And if you don't see that link, if it's not readily apparent, signing up partnerships and using them to implement programs should be pursued with caution.

You know, we have, for example, a farmer federation that's going to help set up a large geo-reference network. They're not a consolidator per se, but they're going to set up a geo-reference network, because people keep getting confused about how many farmers are actually doing irrigated rice and where are they and what's their potential. And that's going to really serve a whole slew of entities that want to buy to have that system in place.

Soil conservation is a key concern in Senegal, besides bringing in the inputs, just soil management. And so we have an extension, the government extension services is a direct partner, because that's part of their function, to provide that service. But they don't do it in abstract; they do it directly linked to farmers who are going to commercialize. I'm not going to get into the others, but they can be read.

So near the end, last slide. Our experience is if you're thinking about large-scale, you're thinking about trying to work particularly in cereals. If you don't have – maybe you do in other countries, but in Senegal you don't – if you don't have this strong middleman function to be able to create the link between the small holders who have limited capacity to be able to meet the expectations of modern industries, then you're going to have a lot of difficulty. And you make them your primary contact with the farmers and you avoid setting up a dependency relationship that's driven by donor dollars and not by the marketplace.

The soft investments in the networks and databases, if you're going to be doing something like this start as early as possible; these are so essential and they'll help all these concerns about measuring our results. We're trying to avoid getting into the situation of creating our own tools for monitoring that the day the project is over they disappear. So we're working with these guys to put in place their own monitoring and tracking systems that provide the kind of data we need, and that we know is real, because we know it was a commercial transaction. And that's similar to the work with the government about being able to actually do annual agricultural surveys or other methods like remote sensing to know how much production is happening.

You can't assume that this can all be done by simply writing grants and handing out the money; there's an awful lot of knowledge and transaction costs that are associated with it, and you really need dedicated people to accompany this kind of transformation, 'cause it is a transformation that is going on. And they have to be able to offer value-added. Our value chain senior manager comes from the private sector. He's been working on projects for a while, but he has many years actually selling things and understands that there are specific issues that come up when you're trying to sell product, and the risks and the business

decisions that businesses have that you won't get if you don't have that kind of background yourself. So they're very important.

It's awfully hard to keep up the momentum and try to keep the pace of change going, and so you need people that really can keep pushing and troubleshooting. And all of this has a lot of transaction costs. We had one financial institution the first year, we have four or five this year. That's required three or four capital access staff to have fairly intimate relationships with the financial institutions to help them understand what the opportunities are, and we moved towards a lot of training with them to help them understand that.

Research bodies and non-profits are great. They are particularly great to assess and learn from the implementation process. But implementation itself of this kind of – the commercialization aspect of this really should be conducted by business-oriented entities. As I said earlier, though, there's an awful lot that you ask yourself as you go, "How is this affecting the household expenditure decision? How is this affecting nutrition in the household? How is this affecting the rise of secondary markets?" or "Did this market move from that location to location?" And that's very valuable information and the businesses aren't the right ones to do that, so you really do want to have those kinds of partners in parallel with you.

And that's it. Thank you very much.

[Applause]

Andrew Keck: And for more info you can reach me by e-mail, and I've also put our COTR in Senegal, Jennifer Hart's name up here and her e-mail address, so you can ask USAID more questions generally about the Feed the Future strategy.

Male: Okay, and with that we'll open it to questions. And as usual, please state your name and organization before asking your question. And we're going to have one question, one answer, and we'll go from in-person to the online audience as well. So with that we're going to start.

Robert Navin: My name is Robert Navin, I'm with USAID. That was one of the best value chain presentations I've witnessed, so congratulations. Great work.

Andrew Keck: Thank you.

Robert Navin: I wish you'd put it also into a deeper context. IRG not only started in 2009; IRG's been in Senegal longer than that.

Andrew Keck: Indeed.

Robert Navin: So as we all – if you could give us a little bit of that history that would be helpful to put it into context.

Andrew Keck: Sure.

Robert Navin: Because all of us in USAID right now are driven by benefit cost analysis, what does it cost to do this, where would be the benefit flows, the gender implications, who benefits, who doesn't, and you've touched on that. But we need to look at this not as something that started in 2009 and immediately you double maize production. You mentioned a lot of it depends on we have a huge rise in the poultry industry in Senegal, huge rise in maize prices, so there are some drivers that make what you're doing now look great, and it is great. But it came from a base that started many, many years ago. So if you'd speak to that a bit I'd appreciate it.

Andrew Keck: Sure. IRG has been working in Senegal since, frankly I'm not sure which year; maybe Phillip knows. Well this program is 2006, but there's also been the Wolenafra program. So the PCO is part of our project is part of our USAID Senegal IQC that started in 2006. And so we were working on the business environment and we were working already on expert value chains. We had a very small staff at that point; we were about five or six technical people and

there was just the office in Dakar and it was a lot more piecemeal, good opportunities in mango, sesame, beesop, a few other value chains. And so we were already there operating this program and so we were familiar with a lot of issues.

But I have to say that it's a whole other kettle of fish working on these cereals. And when you come with these enormous targets, and in fact we started out not just with the cereals, but we were also working in livestock and dairy. But they had to make a choice, and so we're actually phasing out, within the next month we're completely finished in the livestock and dairy, unfortunately. But beyond that, IRG was also operating out in the southern areas of the country I was pointing to on a natural resource management project with communities that included value chain work, but more traditional forest and non-forest products, fonio and gum arabic and there's a whole list, and they could talk about that.

No, it's been since about 2000, maybe 2002, maybe 2002 I would think. So we've been there a while. The other response that I could make is that what's happening in maize – I chose maize because it was the cleanest to tell as a story, but we're having wonderful success in rain-fed rice in the south as well; it's just unbelievable. So we had a very small program last year, but it's going to expand hugely. And what's amazing about it is that when you talk to the farmers, which we did a few months ago going over last year's program, we learned that they will produce an enormous amount of millet and it will take them three hectares to do it in order to get one bag additional rice, because they actually eat rice locally in the south. And so by turning them over to this upland rice, because it doesn't require irrigation, it completely changes the equation on land use, and we really see it going viral as a program. It's not linked to big business at all, but it is a value chain-driven approach. The partners are much more varied; we have about – here we have 4. I think in upland rice we have about 12 or 15, and they're all doing the kinds of things that I was describing, and the banks and the financial institutions are backing it up, so it's really exciting.

Millet, same kind of thing. The hard one really is the irrigated rice, where there's a lot of entrenched behaviors that are taking more time to have evolved.

Mike McGahuey: Mike McGahuey with Natural Resource Management Office at USAID. Thank you very much, Andrew. I would just confirm what Woody says, I'd like to reiterate that. It's a very promising program it sounds like too.

You mentioned lots of things in the value chain, and one thing I found really important were these business partnerships you talked about. And a business partnership of course would mean that you have producers as one of the business partners.

Andrew Keck: Yes.

Mike McGahuey: Could you say a bit more about how you strengthen the business capacity of producers or producer groups to make them better partners?

Andrew Keck: Yeah. One of our indicators is business-to-business partnerships, and if we tried to count every one we would have a great deal of difficulty, because what happens, the way this works is the consolidators actually signed agreements with farmer cooperatives or farmer associations and then their individual members. And those individual members may or may not participate. So you have a huge number, but there's a sort of just between the consolidator and the farmer there's three tiers of relationships, between the individual farmer and the association and then the association with the consolidator. So there's all of that. But we have – the number of – that's why the number of contacts is actually as small as it is, because it doesn't reflect the number of farmers that are actually buying into the whole thing, which is much greater.

The other thing that I didn't point out in this presentation is that these partners have two sets of objectives in our contractual relationships with them, these consolidators. They don't just have these contract farmers who they train on harvesting – on farming and post-harvest and handling, but there's also other farmers who are expected to participate in training, but who are not – we wanted to be cautious that we said, "Okay, let's say you have 1,000 tons that you're going to have contracted, but you're going to reach farmers who can produce through your contract, your deal, you're going to reach a lot more, and

that's them investing in the future." So they're actually investing and building up the capacity of a much larger group.

Now as I said, the consolidators can't do everything. For example, they're not going to do – how do you do bookkeeping and things like that? And so we have some of that, but you realize we're also working with a lot of illiterate people as well, so you have to come up with very simple mechanisms. And that's why I was pointing out that there are certain types of training that you can design and should do outside of the business partnership, and those are still valuable. And we do have those, but it's really focused on at this point we're trying to actually build up the capacity of the financial institutions and see if we can get them to do that as well as ourselves. And then all those non-profit partners that we have, they provide that service as well.

Rob Bertram: Thank you. Rob Bertram, Bureau for Food Security. And, Andrew, like the others, I just want to compliment you on really a terrific presentation that I think made the term "value chain" much more understandable for those of us for whom it's perhaps newer and haven't seen it so well explained. So thank you.

Andrew Keck: Thank you.

Rob Bertram: A couple questions. Source of seed, you have these seed sellers. Do you have a sense of what – where their foundation seed is coming from? And are we talking about hybrids here for maize producers? But I'd be interested in the same question, not on hybrids, but the same question, the source of seed on the upland rice as well. And then it's early days yet, but you've got income growing, production growing; are you seeing any diversification or – you said you're having to pull out of livestock and dairy, but I'm wondering about, you know, you talked about the fact that this is part of a system, and are you seeing legumes coming into it, cowpea or livestock or other crops? I'd just be curious to get your comments on how the whole system may be evolving with this infusion of productivity and income.

Andrew Keck: On the seed – I was a little worried about this question about the seed varieties. I'm not a seed expert, but what I can tell you is that they're hybrids and composites and what is already – we avoided getting into anything that wasn't already registered for commercial use within Senegal. So for example, there's the National Agriculture Research Institute and they do the registry, they recognize a variety as being something that can be used outside of a research plot. So everything we work with is in that context because we want to make sure that we're not saying, you know, "We're going to bring you to the research station and show off something that does really great, but sorry, it's not been approved yet." So everything is already approved.

And there is this challenge of the – unlike a much more standard commercial product, like say for example sesame, where you'll have private companies who are willing to produce or import foundation seed and breeder seed and do that themselves, in the cereal sector that really isn't a big business opportunity, and so it's a dilemma for ISRA, which is the Agriculture Research Institute, who is the only entity authorized to produce foundation seed, to figure out how much do we need. And we can produce a whole bunch of it, but then what happens is the farmers end up holding their production from last year and, "Oh, it's good enough," right? And they just use the seed, and then that's another contributing factor to the declining yields. At the same time, the seed growers don't have a business.

So in setting this up what's interesting is that it's changing the way that happens; the signal is coming now the other way. We know that Ivisen and Chocosen and Sadema have this demands, we know the consolidators know that it corresponds with a certain type of variety, and so they're going to insist the farmer grow that variety. Then we know there's a certain number of growers who are in this registry that are registered with the Ministry of Agriculture, and that sends a signal back to ISRA that, "Okay, I know I can grow x amount of that variety and it's going to go somewhere and it's going to sell." So it's flipping it on its head and we're seeing that happen gradually.

And for upland rice it's Nerica, and our partner is Africa Rice. So we're working with Africa Rice both in the north and in the south.

Another little story about seed that's very, very interesting is that, you know, the big problem in rice is that they produce it like crazy. Great yields, but urban consumers don't want it; they want broken Thai or Vietnamese rice; that's what they want to eat. It goes well with the sauces and the types of dishes they eat. So there's a huge amount of rice coming in, and yet there it is. So just this past year we introduced with Africa Rice and with ISRA with private sector aromatics. You know, it's like, "Why not grow them here? They're actually varieties you can grow here, that's what people want," and then we're working with a couple of processors, we're trying to figure out how to adjust their machines to actually break the rice so that it's actually, you know, don't – 'cause for years people were saying, "Don't eat that rice. Eat this rice." The market doesn't do that. So we're using really the market drive to figure out what seed varieties and how to get it going.

The other question was about the diversification. Well, right away, maize is a diversification, because you're talking about the sort of hub of where it started is in the Southern Peanut Basin, and so it's supplanting – normally you're basically looking at millet, sorghum, cowpea, peanut, some combination of those. So the maize is coming in as a more important crop, so it's supplanting some of those others, but it's creating revenue so they can buy.

So in terms of what's happening in the household with gardens or things like that, that's exactly the kind of thing that we don't have information on in any quantitative way and is something that we're interested in trying to explore and quantify through future studies. But I don't – I couldn't really say.

Now on the other hand, through the work that we've done on reforming the agriculture survey, we've introduced a whole page of questions about other sources of production at the household level, and including a page all about livestock. So we wanted to start to be able to quantify – we have no basis, I can't tell you what's happened because they just did it last year, so we don't have 20 years of household surveys that say "Now the average household has," I don't know, 12 pigs or whatever. Not pigs, not in Senegal.

Female 1: -Church with Church World Service and I'm going to ask a follow-up question on this diversification, which I suspect you may not be able to answer, but I'm

going to ask it anyway, and that is whether and how you are involving small holders who may be growing primarily for household consumption? And then my second question is also about some of the research that you may have been doing, and that is do you know anything about nutrition outcomes? Kind of building on the Feed the Future, you mentioned it briefly and I just wondered if you could talk a little bit more about that, please?

Andrew Keck: For both of those, at this point we as a project – as a project, don't work on trying to get households to diversify for local consumption. This is getting them to participate in these opportunities to commercialize. What we know is it's increasing their food stocks in the products that are the core of calorie consumption, which are cereals in the first place. So that's for us already an essential contribution, because we see them being able to keep and sell at the same time, and sell at 30 to 40-percent more, which in principle gives them resources to make other new decisions about what to invest in.

There are other projects in the portfolio that are explicitly about that, and there's one person here from one of those projects that has nutrition resources and is working in the poorest communities in the most farthest flung areas I would say of the country, and will increasingly come into _____, I think, where they're working on those strategies with those households.

And something I didn't mention is that both other USAID projects, Feed the Future projects in Senegal and other donor projects are tying into what we're doing. So we're creating opportunities for their farmers to participate and creating a link. We don't force it, but we say, "Okay, here's these consolidators," we'll bring them out, "Here's the banks," and you've got farmers that were maybe thinking that they wanted to store the rice or store the maize, well here's another option as well, so.

Bronwyn Irwin: Bronwyn Irwin from ACDI/VOCA. I wanted to ask you a question about how many of these farmers were involved in contract farming prior to this project? And the reason for that question is that you had mentioned that you had 100-percent repayment of the loans. And my understanding is that the loans are to the consolidators who then lend that money to the farmers. And so I was wondering what the repayment rate was from the farmers to the companies.

Initially when small holder farmers, our experience anyways, with ACDI/VOCA Zimbabwe is that when small holder farmers first get engaged with contract framing they don't have 100-percent repayment rate in the beginning, and there is a need to kind of provide that subsidy, as you are doing through your co-funding, to be able to build that up over the years. So I was wondering if you had the same experience.

Andrew Keck: We had first of all I would say a very gifted capital finance team; they're all mobilized through one of our partners, Relief International, and they really understood – so can I get out of that? I always want to go back up because it was a nuance that – there we go, in this very busy slide. This credit here, this solid blue line is not the same as this credit here. This credit here might be for – it's true that it's linked. The farmers are actually getting contracts – I mean getting credit agreements; it's just that they don't touch the money. So it is the farmer who actually has the – and that's been very difficult for the financial institutions, so we have to work up a simplified, standardized loan forms that can be – that are in local languages that they can manage. But the consolidators are what backs it up, and the repayment occurs through the consolidators. And the consolidators actually help mobilize the inputs that the loans are for. The loans are basically for are seasonal loans.

So maybe I was a little off – not off, but unclear about how that works. So the loans are with the farmers, not with the consolidators, but it's linked to the contract with the consolidators.

I couldn't say for sure how many were in a contract relationship before, but I can say that for maize I doubt there were any, because it really wasn't the deal; it was arm's-length. It was I show up at the luma and I buy what you've got, and maybe I set it in the newspaper to show that I was really serious. But there really wasn't contract farming in that area. You know, this kind of experience, the government is trying to figure out how they can maybe apply it to peanut, where this is a big problem as well, where there's all this sort of arrangements that we think we're going to buy and sell this much, but it's not actually pre-set, and so this creates a lot more certainty by doing this.

So I think in maize that it's, you know, it's from zero to all, and that was why we had to spend a lot of time, you know, what is a contract. The other thing you hear, the other story you hear is "How'd you get him to respect that contract? Because, god, I did the contracts and nobody," you know. I've had friends from other countries say that as well, "How did you get them to follow through on that?" And I just think that it's been the way that these relationships have been designed. So far upfront it was very achievable, there was a lot of assistance; it wasn't just signing a contract; it was actually combined with assistance.

You sign a contract with somebody and they actually give you a good seed, a good fertilizer, they show up with that de-husking machine, they bag it all, they give you the bag, bag it, they take it away, you got your loan, everything worked out, you had excess – that creates a different climate of trust between these guys.

Female: *[Inaudible – Voice too far from microphone]*

Andrew Keck: Yes.

Female: How –at what level you invest, whether it's, you know, with producer organizations or with the NGOs, the governmental agencies, the extension agencies? In other words at what level and how they complement each other and also how you make that sort of monitoring and reporting within your project and also with regard to sort of the commercial sector needs, how you make that sustainable?

Andrew Keck: There's different types of databases and data needs, right? So obviously there is a side of the government where you want them to have a capacity to understand what's happening at a macro level. So those are the investments at that level. How sustainable? If we ask the sustainability question about those, if I look at that little slice of it, which is not insignificant, that's a challenge. And one of the things that we're doing, just as an aside, an important one, we're working with, right now, starting this week, there's representatives from the Ministry of Agriculture, the Meteorological Service in the University of Dakar are at Michigan State University, looking at plotting all the – first of all, last year's

agriculture survey was done with GPSs. So you have some 30,000 farmer fields that have all been plotted in real-time as to what is in that field. And so they're working with satellite data right now, particular MODIS data, which is free data, to see how well they can actually estimate the total production from last year using that satellite data compared to what the survey results were. And at the same time they're going to try to do a projection for this year and we'll keep working on that GPS and we'll see how accurate it is.

At the macro level one way to get sustainability is to find ways to combine that sort of field-level data collection with free satellite data and then build the capacity of the government to actually analyze that data. And it may, in fact, if we're successful, supplant doing the agriculture surveys, which are very costly.

The bigger picture is the actual data about what's happening at these farms and about how much is being sold and how much is being produced. And those, again, the sustainability is because it's a private, it's a business opportunity. It's because these companies, or in the case of the farmer's cooperative, were going to participate in the market as a consolidator, by putting those in place with them there's a vested interest, because those farmers that get into that system will help them logistically and help them be able to manage all their outreach programs and whatnot.

So it's very much driven by them and not by, you know, this was a big discussion with our M&E team and with USAID about, you know, how do we avoid having a whole M&E system that the day, you know, you lock the doors on payseyo that it just doesn't go away, and that's really one of the big pieces of the puzzle. And by putting it in a cloud computing framework it also is very transparent, and so we can look at it. But it's also a big capacity-building area for us. This is all new terrain for these kinds of organizations. So we're very optimistic about that, and it's very different from sort of the standard let's go out and collect – let's, for example, set up a computerized system that tells us about what's going on, but people have to voluntarily, farmers have to voluntarily put information into it.

To put it another way, we're not Kenya yet. You know, we're not India. We don't have the kind of size of farmers and the population required and – we have the IT sophistication, but the other conditions aren't there to have those

kinds of people signing up in India and using these market-based information tools on their smart phones.

Jean Waagbo: Thanks so much. Thanks, Andy. I really appreciated the breakdown in the description of the downstream actors and upstream actors, and I'm really, really interested in this group of consolidators. You mentioned that there were four types. I see four names up there.

Andrew Keck: That's right.

Jean Waagbo: I assume there's a one-to-one correspondence.

Andrew Keck: Exactly.

Jean Waagbo: By the way, I'm Jean Waagbo with Lutheran World Relief. I'm sorry. So I'm wondering was it intentional to have a variety of consolidators and are there some comparisons that you can draw or some evidence at this point two years into the program that some types of consolidators might be more sustainable than others? Or did it just happen that there happened to be a variety and four types? Thank you.

Andrew Keck: The limitation, at this point it's an evolutionary process. I mean it's not static by any means, and I would be cautious about how I weigh in on my opinions about them since they might hear me or see the presentation. But they're partners of ours, and they all come with their strengths and weaknesses. And yeah, it is intentional to have variety, but the point is that you have to come to those criteria at the end, they have to have an interest to invest in this, and it's not because we're here. And they came to a, you know, a review of last year's program, they say, "I can do this for you." "No. No, no. Are you doing it already? Are you doing something like this? How are you already working with farmers and working with the market? And if you are doing that in some way and you're interested in going further, then we'll work with you." We're not out there issuing solicitations saying, "We're looking for one this and one that and one this and one that."

So this is a very good example of the type of variety there can be. And there are others and they're interested in working with us, but they're staying out of a structured relationship with us, but their benefitting from us in a big way. I mentioned earlier the amount that's being commercialized outside of those contracts. It's a lot. In fact, it was more than we managed to set up. And how did that happen? We know it was our products because it was the same variety and it was sold to these same firms, but it was by another group of wholesalers over here who were able to go out and buy it. Remember I was talking about a third retained, a third side-selling, and a third contracted? And that third that side-sold went out, and those guys are other entities that we're hoping will be willing to move towards more structured approaches.

So it's really opportunistic, but they have to have a vested interest.

[End of Audio]